

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).

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Overview for Request: cder_mpl2p_wp059

Request ID: cder_mpl2p_wp059

Request Description: In this report we described individuals with evidence of diabetes, or diabetes and obesity, who were dispensed glucagon-like peptide-1 receptor agonists (GLP-1 RA), sodium-glucose cotransporter-2 inhibitors (SGLT-2i), or dipeptidyl peptidase-4 inhibitors (DPP-4i), and evaluated the association between these products and intentional self-harm among the total cohort as well as age and sex subgroups in the Sentinel Distributed Database (SDD).

Sentinel Routine Querying Module: Cohort Identification and Descriptive Analysis (CIDA) module, version 13.0.1, with Propensity Score Analysis module and custom programming.

Data Source: We distributed this package to six Data Partners on September 20, 2024. 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 October 1, 2015 through September 30, 2023.

Please see Appendix A for a list of dates of available data for each Data Partner.

Study Design: We identified individuals with incident use of GLP-1 RA (exposure), SGLT-2i (comparator), or DPP-4i (comparator) and evaluated the occurrence of intentional self-harm during exposure episodes, among a cohort who were at least 18 years of age and had evidence of diabetes prior to the index date. We then conducted a Propensity Score Analysis (PSA) comparing the GLP-1 RA users to either SGLT-2i users or DPP-4i users using inverse probability of treatment weighting (IPTW) to adjust for confounding. We evaluated the occurrence of intentional self-harm[i] during exposure episodes among these cohorts and estimated hazards ratios and 95% confidence intervals of the risk of intentional self-harm in patients dispensed GLP-1 RAs compared to patients dispensed SGLT-2is or DPP-4is.

This study used a retrospective active comparator new-user cohort design. This is a Type 2 analysis using the Propensity Score Analysis module in the Query Request Package (QRP) documentation.

Exposures: We defined the exposure of interest, GLP-1 RA, and the comparators of interest, SGLT-2i or DPP-4i, using National Drug Codes (NDCs). Only the first qualifying dispensing of GLP-1 RA, SGLT-2i or DPP-4i (index dispensing) in any care setting was included; cohort re-entry was not allowed. We defined new use of these products as the first observed dispensing with no prior use of GLP-1 RA, SGLT-2i or DPP-4i in the 183 days prior to the index date.

Please see Appendix BA for a list of generic and brand names used to define the exposure and comparator medical products.

Please see Appendix BB for a list of generic and brand names of medical products used to define the washout criteria.

Outcome of Interest: We defined the outcome of interest as intentional self-harm¹ using International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) diagnosis codes.

Please see Appendix BC for a list of the diagnosis codes used to define the outcomes.

Cohort Eligibility Criteria: We required patients included in the cohorts to be enrolled in health plans with both medical and drug coverage for at least 183 days prior to the index exposure, during which gaps in coverage of up to 45 days were allowed and treated as continuous enrollment. The following age groups were included in the cohort: 18-24, 25-44, 45-64, 65-79, and ≥80 years. We required evidence of type 2 diabetes, defined as at least one diagnosis code in any care setting and one dispensing for an oral antidiabetic agent, in the 183 days prior to and including the index date.

We excluded episodes with evidence of other diabetes (i.e., type 1, gestational, or secondary diabetes) or pregnancy. We additionally excluded index episodes with both the exposure and comparator dispensed on the same day. Inclusion and exclusion criteria were defined using ICD-10-CM codes and NDCs.

Please see Appendix BD for a list of generic and brand names of medical products used to define inclusions and exclusion criteria.

Please see Appendix BE for a list of diagnosis codes used to define inclusion criteria.

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Follow-up: We determined follow-up time based on the length of the exposure episodes. Specifically, we created exposure episodes using number of days of product supplied per dispensing in outpatient pharmacy dispensing data. We bridged together exposure episodes less than 30 days apart and added 30 days at the end of each exposure episode to create continuous treatment episodes. Follow-up began on the day after exposure initiation and continued until the first occurrence of any of the following: outcome occurrence, death, Data Partner end date, disenrollment hospitalization, initiation of the other comparator (e.g., initiation of DPP-4i for the GLP-1 RA versus SGLT-2i comparison analysis), and initiation of the other product in the comparison (i.e., initiation of SGLT-2i in the GLP-1 RA cohort). Censoring criteria were defined using NDCs and ICD-10-CM codes.

Baseline Covariates: We assessed the following demographic characteristics on the index date: age, sex, race, ethnicity, and calendar year of index date.

We assessed the following medical characteristics in the 183 days prior to and including the index date: combined comorbidity score^{[ii],[iii]}, Adapted Diabetes Complications Severity Index^[iv], psychiatric drug dispensings, other psychiatric event (i.e., ADHD [Attention-deficit/hyperactivity disorder], Akathisia, Anxiety, Behavioral Disorder, Bipolar Disorder, Cerebral degenerations usually manifested in childhood, Conduct Disorder, Delirium, Depression, Electroconvulsive Therapy, Hallucination, Obsessive-Compulsive Disorder, Other Cerebral degenerations Other mental disorders, Other Psychological Disorders, Persistent mental disorders due to conditions classified elsewhere, Personality disorders, Pervasive developmental disorders, Post-traumatic stress disorder, Psychotherapy, Psychotic Conditions, Schizophrenia, Sleep disorder, Substance abuse, Suicidal behavior, Transcranial magnetic stimulation, and Vagus nerve stimulation), Obesity diagnosis, Weight reduction surgeries, Weight reduction procedures, Lifestyle intervention, Cardiovascular Disease, Cognitive impairment (Alzheimer's Disease and Related Disorders, Senile Dementia), Traumatic brain injury, Traumatic brain injury and nonpsychotic disorders due to brain damage), Migraine, Epilepsy, Chronic Pain, Anti-diabetic agents (i.e., Insulin, Metformin, Alpha-Glucosidase Inhibitors, Thiazolidinediones, Meglitinides [Nateglinide, Repaglinide], Amylin analogue [Pramlintide], Sulfonylureas, Bile acid sequestrants [Colesevelam], Other weight loss agents (Benzphetamine, Combination naltrexone and bupropion, Diethylpropion, Lorcaserin, Phentermine, Phentermine-Topiramate, Phendimetrazine, Orlistat, Setmelanotide), and Other agents (Analgesic opiates, Antipsychotics, Anxiolytics/hypnotics, Lithium and other mood stabilizers, Antidepressants).

We assessed the following healthcare utilization metrics in the 183 days prior to and including the index date: number of ambulatory encounters, inpatient encounters, non-acute institutional stays, number of emergency department visits, number of dispensings, number of unique generic names dispensed, and number of unique class names dispensed.

We assessed the following characteristics in the 183 days prior to and excluding the index date: weight reduction surgeries and procedures, and lifestyle interventions.

Finally, we assessed prior self-harm in any care setting at any point in the patient's history.

Please see Appendix BF for a list of ICD-9-CM and ICD-10-CM diagnosis and procedure codes used to define baseline covariates. Please see Appendix BG for a list of generic and brand names used to define covariates.

Propensity Score Estimation: We fit a logistic regression model to estimate the propensity score (PS) based on the potential confounders outlined in Appendix CA. After PS estimation and exclusion (i.e., trimming) of patients in non-overlapping regions of the PS distributions, the PS was used to create an average treatment effect stabilized (ATES) weight for each patient.

We applied three weight truncation percentile thresholds to deal with potential extreme inverse probability of treatment weights: 0% (no truncation), 1.0%, and 2.5%. Truncation was operationalized symmetrically, in that weights smaller than the weight at the specified percentile of the weight distribution were re-assigned the value of the weight at the specified percentile of the weight distribution, while weights larger than the weight at the 100- specified percentile of the weight distribution were re-assigned the value of the weight at the 100- specified percentile of the weight distribution.

Subgroup analyses for effect estimation included (1) male and female sex and (2) age categories. Subgroups were formed out of the post-trimming overall population to ensure only those patients contributing to the overall analysis contributed to a subgroup analysis.

Please see Appendix CB for specifications defining parameters in this request and Appendix CC for a design diagram of cohort defining criteria.

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Limitations: As with all observational studies, this evaluation was limited in its ability to control for all sources of potential bias. Algorithms used to define exposures, outcomes, inclusion and exclusion criteria, and covariates are imperfect and may be misclassified. Therefore, data should be interpreted with this limitation in mind.

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 Sentinel's routine querying modules, please refer to the documentation (<https://dev.sentinel-system.org/projects/SENTINEL/repos/sentinel-routine-querying-tool-documentation/browse>).

[i] Hedegaard H, Schoenbaum M, Claassen C, Crosby A, Holland K, Proescholdbell S. Issues in Developing a Surveillance Case Definition for Nonfatal Suicide Attempt and Intentional Self-harm Using International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Coded Data. *Natl Health Stat Report*. 2018;(108):1-19.

[ii] 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

[iii] 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

[iv] 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.

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Figure 11at Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

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Figure 13av Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Appendix A Dates of Available Data for Each Data Partner (DP) as of Request Distribution Date (September 20, 2024)

Appendix B Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect, Stabilized (ATES)

Appendix C Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Sex, Weight: Average Treatment Effect, Stabilized (ATES)

Appendix D Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Age Group, Weight: Average Treatment Effect, Stabilized (ATES)

Appendix E Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect, Stabilized (ATES)

Appendix F Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Sex, Weight: Average Treatment Effect, Stabilized (ATES)

Appendix G Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Age Group, Weight: Average Treatment Effect, Stabilized (ATES)

Appendix H Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect, Stabilized (ATES)

Appendix I Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Sex, Weight: Average Treatment Effect, Stabilized (ATES)

Appendix J Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Age Group, Weight: Average Treatment Effect, Stabilized (ATES)

Appendix K Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect, Stabilized (ATES)

Appendix L Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Sex, Weight: Average Treatment Effect, Stabilized (ATES)

Appendix M Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Age Group, Weight: Average Treatment Effect, Stabilized (ATES)

Appendix N Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect, Stabilized (ATES)

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Appendix O Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Sex, Weight: Average Treatment Effect, Stabilized (ATES)

Appendix P Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Age Group, Weight: Average Treatment Effect, Stabilized (ATES)

Appendix Q Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect, Stabilized (ATES)

Appendix R Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Sex, Weight: Average Treatment Effect, Stabilized (ATES)

Appendix S Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Age Group, Weight: Average Treatment Effect, Stabilized (ATES)

Appendix BA List of Generic and Brand Names of Medical Products Used to Define Exposures and Comparators in this Request

Appendix BB List of Generic and Brand Names of Medical Products Used to Define Exposure Incidence Criteria in this Request

Appendix BC List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Appendix BD List of Generic and Brand Names of Medical Products Used to Define Inclusion Criteria in this Request

Appendix BE List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Appendix BF List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Appendix BG List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Appendix CA Specifications Defining Parameters for Covariates in this Request

Appendix CB Specifications Defining Parameters in this Request

Appendix CC Design Diagram for This Request

**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.

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

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.

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

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 Unadjusted Characteristics of GLP-1RA or SGLT-2i Users in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	1,150,899	100.0%	1,066,974	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years) [*]	60.8	10.5	63.7	10.2	-2.976	-0.288
Age						
18-24 years	*****	*****	*****	*****	0.245	0.039
25-44 years	140,753	12.2%	90,390	8.5%	3.758	0.124
45-64 years	486,443	42.3%	405,399	38.0%	4.271	0.087
65-79 years	*****	*****	*****	*****	-4.369	-0.088
≥ 80 years	44,377	3.9%	82,805	7.8%	-3.905	-0.168
Sex [*]						
Female	*****	*****	*****	*****	11.924	0.240
Male	*****	*****	*****	*****	-11.924	-0.240
Race ³						
American Indian or Alaska Native	8,428	0.7%	5,850	0.5%	0.184	0.023
Asian	16,737	1.5%	37,238	3.5%	-2.036	-0.131
Black or African American	110,993	9.6%	97,967	9.2%	0.462	0.016
Multi-racial	5,669	0.5%	4,404	0.4%	0.080	0.012
Native Hawaiian or Other Pacific Islander	3,103	0.3%	3,747	0.4%	-0.082	-0.015
Unknown	420,636	36.5%	377,125	35.3%	1.203	0.025
White	585,333	50.9%	540,643	50.7%	0.188	0.004
Hispanic origin						
Yes	51,869	4.5%	62,725	5.9%	-1.372	-0.062
No	660,416	57.4%	626,081	58.7%	-1.296	-0.026

Table 1a. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unknown	438,614	38.1%	378,168	35.4%	2.668	0.055
Year*						
2015	17,166	1.5%	18,202	1.7%	-0.214	-0.017
2016	83,261	7.2%	82,206	7.7%	-0.470	-0.018
2017	101,092	8.8%	101,215	9.5%	-0.702	-0.024
2018	119,870	10.4%	97,225	9.1%	1.303	0.044
2019	148,045	12.9%	135,622	12.7%	0.153	0.005
2020	161,306	14.0%	162,700	15.2%	-1.233	-0.035
2021	158,943	13.8%	162,942	15.3%	-1.461	-0.041
2022	195,576	17.0%	190,906	17.9%	-0.899	-0.024
2023	165,640	14.4%	115,956	10.9%	3.524	0.106
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI)*, ⁴	1.3	1.6	1.5	1.7	-0.154	-0.092
Combined comorbidity score* ⁵	1.6	2.1	1.8	2.4	-0.205	-0.091
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	543,624	47.2%	363,799	34.1%	13.138	0.270
Weight Reduction Surgery or Procedure*	665	0.1%	595	0.1%	0.002	0.001
Lifestyle intervention*	211,480	18.4%	172,509	16.2%	2.207	0.058
Cardiovascular Disease*	201,950	17.5%	244,368	22.9%	-5.356	-0.134
Cognitive Impairment*	20,857	1.8%	24,821	2.3%	-0.514	-0.036

Table 1a. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Traumatic Brain Injury*	2,437	0.2%	1,826	0.2%	0.041	0.009
Migraine*	44,365	3.9%	28,534	2.7%	1.181	0.066
Epilepsy*	13,362	1.2%	11,926	1.1%	0.043	0.004
Chronic Pain*	241,671	21.0%	183,122	17.2%	3.836	0.098
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	8,580	0.7%	5,536	0.5%	0.227	0.029
Psychiatric History Overall*	717,100	62.3%	570,961	53.5%	8.796	0.179
Psychiatric Drug Dispensings	535,754	46.6%	397,530	37.3%	9.293	0.189
Intentional Self-Harm Encounter	1,059	0.1%	739	0.1%	0.023	0.008
Any Other Psychiatric Event	581,918	50.6%	460,473	43.2%	7.405	0.149
Attention-Deficit/Hyperactivity Disorder	13,520	1.2%	6,842	0.6%	0.533	0.056
Akathisia	1,089	0.1%	775	0.1%	0.022	0.008
Anxiety	192,858	16.8%	137,068	12.8%	3.911	0.110
Behavioral Disorder	44,887	3.9%	31,535	3.0%	0.945	0.052
Bipolar Disorder	45,618	4.0%	28,954	2.7%	1.250	0.070
Cerebral Degenerations usually Manifested in Childhood	9,318	0.8%	10,823	1.0%	-0.205	-0.022
Conduct Disorder	958	0.1%	669	0.1%	0.021	0.008
Delirium	12,625	1.1%	13,497	1.3%	-0.168	-0.016
Depression	208,992	18.2%	143,796	13.5%	4.682	0.129
Electroconvulsive Therapy	184	0.0%	121	0.0%	0.005	0.004

Table 1a. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Hallucination	1,935	0.2%	1,736	0.2%	0.005	0.001
Obsessive-Compulsive Disorder	2,181	0.2%	1,406	0.1%	0.058	0.014
Other Cerebral Degenerations	14,161	1.2%	15,646	1.5%	-0.236	-0.020
Other Mental Disorders	8,498	0.7%	7,023	0.7%	0.080	0.010
Other Psychological Disorders	96,819	8.4%	91,284	8.6%	-0.143	-0.005
Persistent Mental Disorders due to Conditions Classified Elsewhere	14,411	1.3%	16,799	1.6%	-0.322	-0.027
Personality Disorders	4,821	0.4%	2,393	0.2%	0.195	0.034
Pervasive Developmental Disorders	1,920	0.2%	1,352	0.1%	0.040	0.010
Post-Traumatic Stress Disorder	21,646	1.9%	12,022	1.1%	0.754	0.062
Psychotherapy	65,009	5.6%	38,704	3.6%	2.021	0.096
Psychotic Conditions	3,844	0.3%	3,413	0.3%	0.014	0.002
Schizophrenia	18,380	1.6%	15,325	1.4%	0.161	0.013
Sleep Disorder	298,156	25.9%	217,828	20.4%	5.491	0.130
Substance Abuse	48,355	4.2%	43,171	4.0%	0.155	0.008
Suicidal Behavior	5,326	0.5%	4,097	0.4%	0.079	0.012
Transcranial Magnetic Stimulation	246	0.0%	129	0.0%	0.009	0.007
Vagus Nerve Stimulation	944	0.1%	586	0.1%	0.027	0.010
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	8,780	0.8%	0	0.0%	NaN	NaN
dulaglutide	382,786	33.3%	0	0.0%	NaN	NaN
exenatide	83,612	7.3%	0	0.0%	NaN	NaN

Table 1a. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
liraglutide	234,031	20.3%	0	0.0%	NaN	NaN
lixisenatide	15,852	1.4%	0	0.0%	NaN	NaN
semaglutide	398,508	34.6%	0	0.0%	NaN	NaN
tirzepatide	28,189	2.4%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	1,150,897	100.0%	1,066,973	100.0%	-0.000	-0.001
insulin*	388,991	33.8%	229,111	21.5%	12.326	0.278
metformin*	1,016,513	88.3%	954,766	89.5%	-1.160	-0.037
alpha-glucosidase inhibitors*	4,614	0.4%	4,322	0.4%	-0.004	-0.001
thiazolidinediones*	94,513	8.2%	87,383	8.2%	0.022	0.001
meglitinides*	12,549	1.1%	11,010	1.0%	0.058	0.006
amylin analogue*	154	0.0%	77	0.0%	0.006	0.006
sulfonylureas*	423,180	36.8%	417,931	39.2%	-2.400	-0.049
bile acid sequestrants*	4,314	0.4%	3,623	0.3%	0.035	0.006
Other Weight Loss Agents*	3,708	0.3%	1,121	0.1%	0.217	0.047
benzphetamine	*****	*****	*****	*****	0.000	0.001
Combination naltrexone and bupropion	418	0.0%	150	0.0%	0.022	0.014
diethylpropion	84	0.0%	27	0.0%	0.005	0.007
lorcaserin	179	0.0%	65	0.0%	0.009	0.009
phentermine	2,795	0.2%	817	0.1%	0.166	0.042
phentermine-topiramate	190	0.0%	46	0.0%	0.012	0.012
phendimetrazine	63	0.0%	16	0.0%	0.004	0.007
orlistat	67	0.0%	24	0.0%	0.004	0.006
setmelanotide	0	0.0%	0	0.0%	NaN	NaN

Table 1a. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Other Agents						
Analgesic Opiates*	288,231	25.0%	225,992	21.2%	3.863	0.092
Antipsychotics	77,304	6.7%	55,557	5.2%	1.510	0.064
Anxiolytics/Hypnotics	220,375	19.1%	163,327	15.3%	3.841	0.102
Lithium & Other Mood Stabilizers	67,436	5.9%	47,046	4.4%	1.450	0.066
Antidepressants	441,348	38.3%	309,253	29.0%	9.364	0.199
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	10.9	10.5	10.1	9.5	0.828	0.083
encounters*	0.4	1.0	0.3	1.0	0.009	0.009
Mean number of inpatient hospital encounters*	0.1	0.4	0.1	0.5	-0.038	-0.088
Mean number of non-acute institutional encounters*	0.0	0.2	0.0	0.2	-0.005	-0.027
Mean number of other ambulatory encounters*	3.9	11.6	3.7	10.6	0.212	0.019
Mean number of filled prescriptions*	26.2	19.8	23.8	17.8	2.391	0.127
Mean number of generics dispensed*	11.0	5.1	10.3	4.8	0.701	0.141
Mean number of unique drug classes dispensed*	9.8	4.6	8.5	4.4	1.271	0.283

Table 1a. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	SGLT-2 Inhibitors	

* Covariate included in the propensity score logistic regression model.

¹ Covariates in blue show a standardized difference greater than 0.1.

² Value represents standard deviation where no % follows the value.

³ Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴ 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.

⁵ 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1b. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Patient Characteristics ^{1,2}	Medical Product		Covariate Balance			
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weighted patients	1,693,481	N/A	1,177,087	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Age (years)*	60.6	10.3	62.1	10.8	-1.521	-0.144
Age						
18-24 years	4,771	0.3%	4,647	0.4%	-0.113	-0.019
25-44 years	158,692	9.4%	123,900	10.5%	-1.155	-0.040
45-64 years	854,456	50.5%	485,452	41.2%	9.214	0.206
65-79 years	608,946	36.0%	492,285	41.8%	-5.864	-0.141
≥ 80 years	66,616	3.9%	70,803	6.0%	-2.081	-0.097
Sex*						
Female	844,383	49.9%	605,342	51.4%	-1.566	-0.031
Male	849,098	50.1%	571,745	48.6%	1.566	0.031
Race ⁴						
American Indian or Alaska Native	10,041	0.6%	6,901	0.6%	0.007	0.001
Asian	22,705	1.3%	32,860	2.8%	-1.451	-0.103
Black or African American	145,848	8.6%	119,310	10.1%	-1.524	-0.054
Multi-racial	8,012	0.5%	5,078	0.4%	0.042	0.006
Native Hawaiian or Other Pacific Islander	3,471	0.2%	3,365	0.3%	-0.081	-0.016
Unknown	783,833	46.3%	422,422	35.9%	10.398	0.367
White	719,573	42.5%	587,151	49.9%	-7.391	-0.196
Hispanic origin						

Table 1b. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Yes	60,073	3.5%	69,564	5.9%	-2.363	-0.116
No	787,715	46.5%	682,440	58.0%	-11.462	-0.460
Unknown	845,693	49.9%	425,084	36.1%	13.825	0.707
Year*						
2015	34,417	2.0%	19,799	1.7%	0.350	0.026
2016	134,276	7.9%	93,390	7.9%	-0.005	-0.000
2017	182,117	10.8%	111,519	9.5%	1.280	0.043
2018	162,466	9.6%	121,068	10.3%	-0.692	-0.023
2019	195,172	11.5%	152,212	12.9%	-1.406	-0.043
2020	225,561	13.3%	170,499	14.5%	-1.165	-0.034
2021	217,969	12.9%	169,037	14.4%	-1.490	-0.044
2022	327,011	19.3%	198,540	16.9%	2.443	0.064
2023	214,492	12.7%	141,024	12.0%	0.685	0.021
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	1.8	2.0	1.5	1.7	0.269	0.142
Combined comorbidity score ^{*,6}	2.4	3.0	1.9	2.4	0.507	0.189
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	830,179	49.0%	505,035	42.9%	6.117	0.124
Weight Reduction Surgery or Procedure*	3,131	0.2%	1,107	0.1%	0.091	0.024
Lifestyle intervention*	321,780	19.0%	199,821	17.0%	2.025	0.053
Cardiovascular Disease*	420,301	24.8%	254,906	21.7%	3.163	0.077

Table 1b. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Cognitive Impairment*	60,404	3.6%	27,241	2.3%	1.253	0.074
Traumatic Brain Injury*	2,934	0.2%	2,875	0.2%	-0.071	-0.016
Migraine*	97,042	5.7%	47,649	4.0%	1.682	0.078
Epilepsy*	30,422	1.8%	15,878	1.3%	0.447	0.036
Chronic Pain*	522,232	30.8%	257,242	21.9%	8.984	0.206
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	15,926	0.9%	9,675	0.8%	0.118	0.013
Psychiatric History Overall*	1,169,016	69.0%	723,376	61.5%	7.576	0.160
Psychiatric Drug Dispensings	884,024	52.2%	545,978	46.4%	5.818	0.117
Intentional Self-Harm Encounter	4,573	0.3%	1,250	0.1%	0.164	0.038
Any Other Psychiatric Event	991,732	58.6%	587,846	49.9%	8.621	0.174
Attention-Deficit/Hyperactivity Disorder	44,919	2.7%	11,162	0.9%	1.704	0.129
Akathisia	1,692	0.1%	1,193	0.1%	-0.001	-0.000
Anxiety	370,517	21.9%	198,686	16.9%	5.000	0.127
Behavioral Disorder	104,732	6.2%	45,488	3.9%	2.320	0.106
Bipolar Disorder	104,904	6.2%	52,208	4.4%	1.759	0.078
Cerebral Degenerations usually Manifested in Childhood	21,361	1.3%	12,544	1.1%	0.196	0.018
Conduct Disorder	947	0.1%	993	0.1%	-0.028	-0.011
Delirium	53,826	3.2%	16,773	1.4%	1.753	0.117
Depression	386,997	22.9%	207,205	17.6%	5.249	0.131
Electroconvulsive Therapy	416	0.0%	224	0.0%	0.005	0.004

Table 1b. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Hallucination	5,793	0.3%	2,585	0.2%	0.123	0.023
Obsessive-Compulsive Disorder	7,208	0.4%	2,130	0.2%	0.245	0.044
Other Cerebral Degenerations	23,311	1.4%	17,352	1.5%	-0.098	-0.008
Other Mental Disorders	20,799	1.2%	9,566	0.8%	0.416	0.041
Other Psychological Disorders	261,870	15.5%	119,985	10.2%	5.270	0.158
Persistent Mental Disorders due to Conditions Classified Elsewhere	35,598	2.1%	18,376	1.6%	0.541	0.040
Personality Disorders	12,815	0.8%	5,300	0.5%	0.306	0.040
Pervasive Developmental Disorders	1,625	0.1%	1,831	0.2%	-0.060	-0.017
Post-Traumatic Stress Disorder	44,272	2.6%	23,061	2.0%	0.655	0.044
Psychotherapy	117,328	6.9%	65,353	5.6%	1.376	0.057
Psychotic Conditions	6,138	0.4%	5,281	0.4%	-0.086	-0.014
Schizophrenia	40,201	2.4%	23,952	2.0%	0.339	0.023
Sleep Disorder	559,416	33.0%	286,953	24.4%	8.655	0.194
Substance Abuse	105,117	6.2%	58,685	5.0%	1.222	0.053
Suicidal Behavior	13,835	0.8%	5,551	0.5%	0.345	0.043
Transcranial Magnetic Stimulation	195	0.0%	368	0.0%	-0.020	-0.014
Vagus Nerve Stimulation	1,542	0.1%	1,214	0.1%	-0.012	-0.004
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	31,666	1.9%	0	0.0%	NaN	NaN
dulaglutide	612,110	36.1%	0	0.0%	NaN	NaN

Table 1b. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
exenatide	131,874	7.8%	0	0.0%	NaN	NaN
liraglutide	326,856	19.3%	0	0.0%	NaN	NaN
lixisenatide	17,580	1.0%	0	0.0%	NaN	NaN
semaglutide	533,375	31.5%	0	0.0%	NaN	NaN
tirzepatide	62,740	3.7%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	1,693,478	100.0%	1,177,086	100.0%	-0.000	-0.001
insulin*	701,077	41.4%	499,904	42.5%	-1.071	-0.022
metformin*	1,518,775	89.7%	1,038,468	88.2%	1.460	0.047
alpha-glucosidase inhibitors*	6,428	0.4%	5,449	0.5%	-0.083	-0.013
thiazolidinediones*	112,598	6.6%	103,917	8.8%	-2.179	-0.082
meglitinides*	17,180	1.0%	14,777	1.3%	-0.241	-0.023
amylin analogue*	315	0.0%	203	0.0%	0.001	0.001
sulfonylureas*	529,612	31.3%	455,163	38.7%	-7.395	-0.157
bile acid sequestrants*	7,381	0.4%	5,237	0.4%	-0.009	-0.001
Other Weight Loss Agents*	4,677	0.3%	3,021	0.3%	0.020	0.004
benzphetamine	3	0.0%	8	0.0%	-0.000	-0.002
Combination naltrexone and bupropion	1,504	0.1%	327	0.0%	0.061	0.025
diethylpropion	106	0.0%	70	0.0%	0.000	0.000
lorcaserin	139	0.0%	225	0.0%	-0.011	-0.009
phentermine	2,756	0.2%	2,138	0.2%	-0.019	-0.005
phentermine-topiramate	181	0.0%	193	0.0%	-0.006	-0.005

Table 1b. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
phendimetrazine	103	0.0%	66	0.0%	0.000	0.001
orlistat	51	0.0%	48	0.0%	-0.001	-0.002
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	712,722	42.1%	322,956	27.4%	14.649	0.312
Antipsychotics	182,964	10.8%	93,514	7.9%	2.860	0.098
Anxiolytics/Hypnotics	452,441	26.7%	245,910	20.9%	5.825	0.137
Lithium & Other Mood Stabilizers	137,817	8.1%	81,276	6.9%	1.233	0.047
Antidepressants	704,264	41.6%	439,600	37.3%	4.240	0.087
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	14.2	13.1	11.6	11.3	2.604	0.213
Mean number of emergency room encounters*	1.0	2.3	0.4	1.2	0.531	0.285
Mean number of inpatient hospital encounters*	0.3	0.8	0.1	0.5	0.189	0.292
Mean number of non-acute institutional encounters*	0.1	0.3	0.0	0.2	0.024	0.088
Mean number of other ambulatory encounters*	5.8	12.8	4.4	12.3	1.438	0.115
Mean number of filled prescriptions*	38.3	32.4	27.9	21.5	10.361	0.376
Mean number of generics dispensed*	15.8	9.4	11.6	5.5	4.190	0.545
Mean number of unique drug classes dispensed*	12.1	6.8	10.2	5.3	1.930	0.316

Table 1b. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	SGLT-2 Inhibitors	

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1c. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	638,550	100.0%	464,779	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	60.4	10.6	63.8	10.4	-3.452	-0.329
Age						
18-24 years	4,048	0.6%	1,710	0.4%	0.266	0.038
25-44 years	83,995	13.2%	40,807	8.8%	4.374	0.140
45-64 years	269,002	42.1%	172,795	37.2%	4.949	0.101
65-79 years	257,663	40.4%	211,064	45.4%	-5.060	-0.102
≥ 80 years	23,842	3.7%	38,403	8.3%	-4.529	-0.192
Sex*						
Female	638,550	100.0%	464,779	100.0%	0.000	NaN
Male	0	0.0%	0	0.0%	NaN	NaN
Race ³						
American Indian or Alaska Native	5,231	0.8%	3,064	0.7%	0.160	0.019
Asian	9,148	1.4%	17,912	3.9%	-2.421	-0.151
Black or African American	75,812	11.9%	56,652	12.2%	-0.316	-0.010
Multi-racial	3,067	0.5%	1,711	0.4%	0.112	0.017
Native Hawaiian or Other Pacific Islander	1,605	0.3%	1,608	0.3%	-0.095	-0.017
Unknown	225,456	35.3%	153,357	33.0%	2.312	0.049
White	318,231	49.8%	230,475	49.6%	0.248	0.005

Table 1c. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Hispanic origin						
Yes	32,346	5.1%	34,118	7.3%	-2.275	-0.094
No	374,685	58.7%	285,377	61.4%	-2.723	-0.056
Unknown	231,519	36.3%	145,284	31.3%	4.998	0.106
Year*						
2015	9,606	1.5%	8,532	1.8%	-0.331	-0.026
2016	47,449	7.4%	38,290	8.2%	-0.808	-0.030
2017	57,166	9.0%	46,830	10.1%	-1.123	-0.038
2018	66,313	10.4%	43,901	9.4%	0.939	0.031
2019	81,339	12.7%	60,093	12.9%	-0.191	-0.006
2020	89,710	14.0%	72,477	15.6%	-1.545	-0.043
2021	85,082	13.3%	68,201	14.7%	-1.350	-0.039
2022	107,833	16.9%	78,774	16.9%	-0.062	-0.002
2023	94,052	14.7%	47,681	10.3%	4.470	0.136
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI)*, ⁴	1.2	1.5	1.3	1.6	-0.158	-0.099
Combined comorbidity score*, ⁵	1.6	2.1	1.8	2.4	-0.207	-0.093
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	315,231	49.4%	168,791	36.3%	13.050	0.266
Weight Reduction Surgery or Procedure*	437	0.1%	306	0.1%	0.003	0.001

Table 1c. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Medical History						
Lifestyle intervention *	130,508	20.4%	82,597	17.8%	2.667	0.068
Cardiovascular Disease *	95,185	14.9%	89,563	19.3%	-4.364	-0.116
Cognitive Impairment *	11,762	1.8%	12,314	2.6%	-0.807	-0.055
Traumatic Brain Injury *	1,302	0.2%	748	0.2%	0.043	0.010
Migraine *	35,179	5.5%	19,355	4.2%	1.345	0.063
Epilepsy *	7,755	1.2%	5,494	1.2%	0.032	0.003
Chronic Pain *	151,753	23.8%	92,833	20.0%	3.792	0.092
Psychiatric History						
Previous Intentional Self-Harm Ever	5,668	0.9%	2,917	0.6%	0.260	0.030
Psychiatric History Overall *	425,407	66.6%	270,647	58.2%	8.389	0.174
Psychiatric Drug Dispensings	348,433	54.6%	213,021	45.8%	8.734	0.175
Intentional Self-Harm Encounter	711	0.1%	386	0.1%	0.028	0.009
Any Other Psychiatric Event	336,682	52.7%	211,101	45.4%	7.306	0.147
Attention-Deficit/Hyperactivity Disorder	7,864	1.2%	2,938	0.6%	0.599	0.062
Akathisia	685	0.1%	375	0.1%	0.027	0.009
Anxiety	134,526	21.1%	80,107	17.2%	3.832	0.097
Behavioral Disorder	27,065	4.2%	14,610	3.1%	1.095	0.058
Bipolar Disorder	31,076	4.9%	16,426	3.5%	1.332	0.066
Cerebral Degenerations usually Manifested in Childhood	5,061	0.8%	4,722	1.0%	-0.223	-0.024

Table 1c. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Conduct Disorder	305	0.0%	174	0.0%	0.010	0.005
Delirium	7,118	1.1%	6,145	1.3%	-0.207	-0.019
Depression	143,772	22.5%	84,234	18.1%	4.392	0.109
Electroconvulsive Therapy	120	0.0%	62	0.0%	0.005	0.004
Hallucination	1,176	0.2%	861	0.2%	-0.001	-0.000
Obsessive-Compulsive Disorder	1,322	0.2%	662	0.1%	0.065	0.015
Other Cerebral Degenerations	7,667	1.2%	7,202	1.5%	-0.349	-0.030
Other Mental Disorders	5,237	0.8%	3,638	0.8%	0.037	0.004
Other Psychological Disorders	50,785	8.0%	35,942	7.7%	0.220	0.008
Persistent Mental Disorders due to Conditions Classified Elsewhere	8,137	1.3%	8,484	1.8%	-0.551	-0.045
Personality Disorders	3,768	0.6%	1,544	0.3%	0.258	0.038
Pervasive Developmental Disorders	555	0.1%	262	0.1%	0.031	0.011
Post-Traumatic Stress Disorder	15,925	2.5%	7,428	1.6%	0.896	0.063
Psychotherapy	43,939	6.9%	21,679	4.7%	2.217	0.095
Psychotic Conditions	2,173	0.3%	1,629	0.4%	-0.010	-0.002
Schizophrenia	9,775	1.5%	6,679	1.4%	0.094	0.008
Sleep Disorder	155,049	24.3%	87,712	18.9%	5.410	0.132
Substance Abuse	23,353	3.7%	14,873	3.2%	0.457	0.025
Suicidal Behavior	3,176	0.5%	1,974	0.4%	0.073	0.011
Transcranial Magnetic Stimulation	148	0.0%	72	0.0%	0.008	0.006
Vagus Nerve Stimulation	624	0.1%	304	0.1%	0.032	0.011

Table 1c. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	4,931	0.8%	0	0.0%	NaN	NaN
dulaglutide	202,947	31.8%	0	0.0%	NaN	NaN
exenatide	46,982	7.4%	0	0.0%	NaN	NaN
liraglutide	138,347	21.7%	0	0.0%	NaN	NaN
lixisenatide	7,931	1.2%	0	0.0%	NaN	NaN
semaglutide	221,174	34.6%	0	0.0%	NaN	NaN
tirzepatide	16,701	2.6%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	638,549	100.0%	464,779	100.0%	-0.000	-0.002
insulin*	209,967	32.9%	105,019	22.6%	10.286	0.231
metformin*	560,183	87.7%	409,760	88.2%	-0.435	-0.013
alpha-glucosidase inhibitors*	2,479	0.4%	1,897	0.4%	-0.020	-0.003
thiazolidinediones*	44,687	7.0%	34,586	7.4%	-0.443	-0.017
meglitinides*	6,744	1.1%	4,973	1.1%	-0.014	-0.001
amylin analogue*	88	0.0%	38	0.0%	0.006	0.005
sulfonylureas*	221,554	34.7%	180,350	38.8%	-4.107	-0.085
bile acid sequestrants*	2,648	0.4%	1,771	0.4%	0.034	0.005
Other Weight Loss Agents*	2,660	0.4%	711	0.2%	0.264	0.049
benzphetamine	*****	*****	*****	*****	0.000	0.001
Combination naltrexone and bupropion	311	0.0%	84	0.0%	0.031	0.017
diethylpropion	57	0.0%	*****	*****	*****	*****
lorcaserin	131	0.0%	43	0.0%	0.011	0.009

Table 1c. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical Product				Covariate Balance		
GLP-1 Receptor Agonists			SGLT-2 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
phentermine	1,988	0.3%	529	0.1%	0.198	0.043
phentermine-topiramate	141	0.0%	25	0.0%	0.017	0.014
phendimetrazine	46	0.0%	*****	*****	*****	*****
orlistat	48	0.0%	*****	*****	*****	*****
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	172,889	27.1%	109,233	23.5%	3.573	0.082
Antipsychotics	49,672	7.8%	29,338	6.3%	1.467	0.057
Anxiolytics/Hypnotics	147,300	23.1%	89,998	19.4%	3.704	0.091
Lithium & Other Mood Stabilizers	43,419	6.8%	24,693	5.3%	1.487	0.062
Antidepressants	296,744	46.5%	174,227	37.5%	8.986	0.183
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	11.4	10.4	10.6	9.6	0.767	0.076
encounters *	0.4	1.1	0.4	1.1	0.004	0.003
Mean number of inpatient hospital encounters *	0.1	0.4	0.1	0.5	-0.037	-0.088
Mean number of non-acute institutional encounters *	0.0	0.2	0.0	0.2	-0.007	-0.037
Mean number of other ambulatory encounters *	4.2	12.5	4.2	12.1	0.048	0.004
Mean number of filled prescriptions *	27.6	20.8	25.7	19.3	1.859	0.093
Mean number of generics dispensed *	11.6	5.4	11.0	5.2	0.582	0.109

Table 1c. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of unique drug classes dispensed*	10.4	4.9	9.2	4.7	1.184	0.247

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1d. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Patient Characteristics ^{1,2}	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weighted patients	751,348	N/A	509,238	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years) [*]	61.1	10.7	61.7	11.0	-0.604	-0.056
Age						
18-24 years	3,244	0.4%	2,692	0.5%	-0.097	-0.014
25-44 years	85,214	11.3%	58,362	11.5%	-0.119	-0.004
45-64 years	330,602	44.0%	207,947	40.8%	3.166	0.070
65-79 years	296,291	39.4%	209,341	41.1%	-1.674	-0.040
≥ 80 years	35,997	4.8%	30,896	6.1%	-1.276	-0.057
Sex [*]						
Female	751,348	100.0%	509,238	100.0%	0.000	NaN
Male	0	0.0%	0	0.0%	NaN	NaN
Race ⁴						
American Indian or Alaska Native	6,023	0.8%	3,489	0.7%	0.117	0.014
Asian	10,949	1.5%	14,937	2.9%	-1.476	-0.101
Black or African American	88,553	11.8%	66,628	13.1%	-1.298	-0.040
Multi-racial	3,120	0.4%	1,995	0.4%	0.024	0.004
Native Hawaiian or Other Pacific Islander	1,776	0.2%	1,383	0.3%	-0.035	-0.007
Unknown	289,851	38.6%	168,862	33.2%	5.418	0.183
White	351,077	46.7%	251,944	49.5%	-2.749	-0.069
Hispanic origin						

Table 1d. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Demographic Characteristics						
Yes	35,729	4.8%	36,700	7.2%	-2.452	-0.109
No	412,506	54.9%	311,334	61.1%	-6.235	-0.235
Unknown	303,113	40.3%	161,204	31.7%	8.687	0.441
Year*						
2015	15,956	2.1%	8,685	1.7%	0.418	0.031
2016	64,163	8.5%	42,371	8.3%	0.219	0.008
2017	78,289	10.4%	50,109	9.8%	0.580	0.019
2018	74,247	9.9%	54,174	10.6%	-0.756	-0.025
2019	95,769	12.7%	66,652	13.1%	-0.342	-0.010
2020	106,013	14.1%	74,709	14.7%	-0.561	-0.016
2021	99,554	13.3%	69,648	13.7%	-0.427	-0.013
2022	125,762	16.7%	82,168	16.1%	0.603	0.017
2023	91,595	12.2%	60,721	11.9%	0.267	0.008
Health Characteristics	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*5}	1.5	1.9	1.4	1.7	0.111	0.063
Combined comorbidity score ^{*6}	2.2	2.7	1.9	2.3	0.270	0.107
Medical History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Obesity [*]	364,758	48.5%	231,914	45.5%	3.006	0.061
Weight Reduction Surgery or Procedure [*]	597	0.1%	584	0.1%	-0.035	-0.011

Table 1d. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Lifestyle intervention*	151,189	20.1%	94,695	18.6%	1.527	0.039
Cardiovascular Disease*	156,815	20.9%	94,360	18.5%	2.341	0.060
Cognitive Impairment*	25,710	3.4%	12,515	2.5%	0.964	0.057
Traumatic Brain Injury*	1,430	0.2%	1,143	0.2%	-0.034	-0.007
Migraine*	53,946	7.2%	30,021	5.9%	1.285	0.052
Epilepsy*	15,093	2.0%	7,613	1.5%	0.514	0.039
Chronic Pain*	217,044	28.9%	128,851	25.3%	3.584	0.081
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	7,154	1.0%	5,224	1.0%	-0.074	-0.007
Psychiatric History Overall*	517,566	68.9%	338,805	66.5%	2.353	0.051
Psychiatric Drug Dispensings	430,256	57.3%	279,650	54.9%	2.349	0.047
Intentional Self-Harm Encounter	1,183	0.2%	692	0.1%	0.021	0.006
Any Other Psychiatric Event	421,509	56.1%	269,425	52.9%	3.193	0.064
Attention-Deficit/Hyperactivity Disorder	15,901	2.1%	5,106	1.0%	1.114	0.090
Akathisia	786	0.1%	580	0.1%	-0.009	-0.003
Anxiety	185,286	24.7%	110,045	21.6%	3.051	0.073
Behavioral Disorder	42,560	5.7%	21,660	4.3%	1.411	0.065
Bipolar Disorder	50,813	6.8%	28,288	5.6%	1.208	0.050
Cerebral Degenerations usually Manifested in Childhood	8,261	1.1%	5,476	1.1%	0.024	0.002
Conduct Disorder	260	0.0%	274	0.1%	-0.019	-0.009

Table 1d. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Delirium	20,848	2.8%	7,371	1.4%	1.327	0.093
Depression	193,831	25.8%	114,280	22.4%	3.356	0.079
Electroconvulsive Therapy	142	0.0%	115	0.0%	-0.004	-0.003
Hallucination	2,619	0.3%	1,322	0.3%	0.089	0.016
Obsessive-Compulsive Disorder	1,539	0.2%	1,031	0.2%	0.002	0.001
Other Cerebral Degenerations	11,650	1.6%	7,593	1.5%	0.059	0.005
Other Mental Disorders	8,819	1.2%	4,893	1.0%	0.213	0.021
Other Psychological Disorders	77,241	10.3%	49,842	9.8%	0.493	0.016
Persistent Mental Disorders due to Conditions Classified Elsewhere	15,869	2.1%	8,582	1.7%	0.427	0.031
Personality Disorders	5,239	0.7%	3,449	0.7%	0.020	0.002
Pervasive Developmental Disorders	470	0.1%	453	0.1%	-0.026	-0.010
Post-Traumatic Stress Disorder	22,348	3.0%	14,022	2.8%	0.221	0.013
Psychotherapy	58,295	7.8%	35,616	7.0%	0.765	0.029
Psychotic Conditions	3,303	0.4%	2,540	0.5%	-0.059	-0.009
Schizophrenia	17,465	2.3%	10,767	2.1%	0.210	0.014
Sleep Disorder	209,311	27.9%	119,315	23.4%	4.428	0.102
Substance Abuse	34,012	4.5%	22,102	4.3%	0.187	0.009
Suicidal Behavior	4,311	0.6%	2,727	0.5%	0.038	0.005
Transcranial Magnetic Stimulation	116	0.0%	100	0.0%	-0.004	-0.003
Vagus Nerve Stimulation	920	0.1%	670	0.1%	-0.009	-0.003

Table 1d. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Index GLP-1RA Product						
albiglutide	7,446	1.0%	0	0.0%	NaN	NaN
dulaglutide	249,003	33.1%	0	0.0%	NaN	NaN
exenatide	57,994	7.7%	0	0.0%	NaN	NaN
liraglutide	169,286	22.5%	0	0.0%	NaN	NaN
lixisenatide	7,753	1.0%	0	0.0%	NaN	NaN
semaglutide	246,868	32.9%	0	0.0%	NaN	NaN
tirzepatide	17,742	2.4%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	751,346	100.0%	509,238	100.0%	-0.000	-0.002
insulin*	283,653	37.8%	223,117	43.8%	-6.061	-0.124
metformin*	657,807	87.6%	443,769	87.1%	0.406	0.012
alpha-glucosidase inhibitors*	3,310	0.4%	2,288	0.4%	-0.009	-0.001
thiazolidinediones*	51,664	6.9%	38,994	7.7%	-0.781	-0.030
meglitinides*	8,253	1.1%	6,334	1.2%	-0.145	-0.014
amylin analogue*	148	0.0%	99	0.0%	0.000	0.000
sulfonylureas*	260,025	34.6%	189,563	37.2%	-2.617	-0.055
bile acid sequestrants*	3,747	0.5%	2,591	0.5%	-0.010	-0.001
Other Weight Loss Agents*	3,104	0.4%	1,589	0.3%	0.101	0.017
benzphetamine	3	0.0%	5	0.0%	-0.001	-0.002
Combination naltrexone and bupropion	785	0.1%	191	0.0%	0.067	0.025
diethylpropion	79	0.0%	46	0.0%	0.001	0.001
lorcaserin	115	0.0%	71	0.0%	0.001	0.001
phentermine	1,983	0.3%	1,143	0.2%	0.039	0.008

Table 1d. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
phentermine-topiramate	149	0.0%	96	0.0%	0.001	0.001
phendimetrazine	80	0.0%	43	0.0%	0.002	0.002
orlistat	37	0.0%	27	0.0%	-0.000	-0.000
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	262,378	34.9%	154,566	30.4%	4.569	0.098
Antipsychotics	82,276	11.0%	48,437	9.5%	1.439	0.048
Anxiolytics/Hypnotics	202,972	27.0%	129,873	25.5%	1.511	0.034
Lithium & Other Mood Stabilizers	65,637	8.7%	41,800	8.2%	0.528	0.019
Antidepressants	363,756	48.4%	234,386	46.0%	2.387	0.048
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	13.2	11.5	12.3	11.3	0.961	0.084
Mean number of emergency room encounters*	0.7	2.0	0.5	1.3	0.239	0.144
Mean number of inpatient hospital encounters*	0.2	0.7	0.1	0.5	0.098	0.172
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of non-acute institutional encounters*	0.0	0.3	0.0	0.2	0.018	0.069
Mean number of other ambulatory encounters*	5.6	14.0	4.8	13.5	0.772	0.056
Mean number of filled prescriptions*	34.8	29.8	30.1	22.3	4.708	0.179
Mean number of generics dispensed*	14.3	8.4	12.5	5.8	1.792	0.247

Table 1d. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of unique drug classes dispensed*	11.7	6.3	11.0	5.5	0.750	0.126

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1e. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	512,310	100.0%	602,177	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	61.3	10.3	63.7	10.1	-2.414	-0.236
Age						
18-24 years	1,999	0.4%	1,287	0.2%	0.176	0.032
25-44 years	56,747	11.1%	49,583	8.2%	2.843	0.096
45-64 years	217,419	42.4%	232,588	38.6%	3.814	0.078
65-79 years	215,610	42.1%	274,317	45.6%	-3.468	-0.070
≥ 80 years	20,535	4.0%	44,402	7.4%	-3.365	-0.146
Sex*						
Female	0	0.0%	0	0.0%	NaN	NaN
Male	512,310	100.0%	602,177	100.0%	0.000	NaN
Race ³						
American Indian or Alaska Native	3,197	0.6%	2,786	0.5%	0.161	0.022
Asian	7,589	1.5%	19,326	3.2%	-1.728	-0.114
Black or African American	35,176	6.9%	41,314	6.9%	0.005	0.000
Multi-racial	2,599	0.5%	2,693	0.4%	0.060	0.009
Native Hawaiian or Other Pacific Islander	1,498	0.3%	2,138	0.4%	-0.063	-0.011
Unknown	195,170	38.1%	223,760	37.2%	0.938	0.019
White	267,081	52.1%	310,160	51.5%	0.626	0.013
Hispanic origin						
Yes	19,519	3.8%	28,606	4.8%	-0.940	-0.046

Table 1e. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	285,718	55.8%	340,696	56.6%	-0.807	-0.016
Unknown	207,073	40.4%	232,875	38.7%	1.747	0.036
Year*						
2015	7,560	1.5%	9,669	1.6%	-0.130	-0.011
2016	35,809	7.0%	43,914	7.3%	-0.303	-0.012
2017	43,924	8.6%	54,382	9.0%	-0.457	-0.016
2018	53,555	10.5%	53,323	8.9%	1.599	0.054
2019	66,703	13.0%	75,529	12.5%	0.477	0.014
2020	71,596	14.0%	90,219	15.0%	-1.007	-0.029
2021	73,850	14.4%	94,740	15.7%	-1.318	-0.037
2022	87,736	17.1%	112,129	18.6%	-1.495	-0.039
2023	71,577	14.0%	68,272	11.3%	2.634	0.079
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	1.5	1.7	1.6	1.7	-0.086	-0.050
Combined comorbidity score ^{*,5}	1.6	2.2	1.8	2.4	-0.205	-0.089
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	228,356	44.6%	195,000	32.4%	12.191	0.253
Weight Reduction Surgery or Procedure*	228	0.0%	289	0.0%	-0.003	-0.002
Lifestyle intervention*	80,958	15.8%	89,909	14.9%	0.872	0.024
Cardiovascular Disease*	106,761	20.8%	154,799	25.7%	-4.867	-0.115

Table 1e. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cognitive Impairment*	9,095	1.8%	12,506	2.1%	-0.302	-0.022
Traumatic Brain Injury*	1,135	0.2%	1,078	0.2%	0.043	0.010
Migraine*	9,177	1.8%	9,175	1.5%	0.268	0.021
Epilepsy*	5,602	1.1%	6,432	1.1%	0.025	0.002
Chronic Pain*	89,893	17.5%	90,275	15.0%	2.555	0.069
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	2,912	0.6%	2,618	0.4%	0.134	0.019
Psychiatric History Overall*	291,655	56.9%	300,296	49.9%	7.061	0.142
Psychiatric Drug Dispensings	187,284	36.6%	184,492	30.6%	5.919	0.126
Intentional Self-Harm Encounter	348	0.1%	353	0.1%	0.009	0.004
Any Other Psychiatric Event	245,200	47.9%	249,357	41.4%	6.452	0.130
Attention-Deficit/Hyperactivity Disorder	5,652	1.1%	3,903	0.6%	0.455	0.049
Akathisia	404	0.1%	400	0.1%	0.012	0.005
Anxiety	58,305	11.4%	56,951	9.5%	1.923	0.063
Behavioral Disorder	17,817	3.5%	16,921	2.8%	0.668	0.038
Bipolar Disorder	14,530	2.8%	12,526	2.1%	0.756	0.049
Cerebral Degenerations usually Manifested in Childhood	4,257	0.8%	6,098	1.0%	-0.182	-0.019
Conduct Disorder	652	0.1%	495	0.1%	0.045	0.014
Delirium	5,507	1.1%	7,350	1.2%	-0.146	-0.014
Depression	65,199	12.7%	59,554	9.9%	2.837	0.090

Table 1e. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Electroconvulsive Therapy	64	0.0%	59	0.0%	0.003	0.003
Hallucination	759	0.1%	874	0.1%	0.003	0.001
Obsessive-Compulsive Disorder	859	0.2%	744	0.1%	0.044	0.012
Other Cerebral Degenerations	6,493	1.3%	8,444	1.4%	-0.135	-0.012
Other Mental Disorders	3,260	0.6%	3,384	0.6%	0.074	0.010
Other Psychological Disorders	46,029	9.0%	55,337	9.2%	-0.205	-0.007
Persistent Mental Disorders due to Conditions Classified Elsewhere	6,274	1.2%	8,314	1.4%	-0.156	-0.014
Personality Disorders	1,050	0.2%	848	0.1%	0.064	0.015
Pervasive Developmental Disorders	1,365	0.3%	1,090	0.2%	0.085	0.018
Post-Traumatic Stress Disorder	5,713	1.1%	4,591	0.8%	0.353	0.037
Psychotherapy	21,056	4.1%	17,023	2.8%	1.283	0.070
Psychotic Conditions	1,671	0.3%	1,784	0.3%	0.030	0.005
Schizophrenia	8,601	1.7%	8,644	1.4%	0.243	0.020
Sleep Disorder	143,080	27.9%	130,108	21.6%	6.322	0.147
Substance Abuse	24,997	4.9%	28,295	4.7%	0.180	0.008
Suicidal Behavior	2,150	0.4%	2,122	0.4%	0.067	0.011
Transcranial Magnetic Stimulation	98	0.0%	57	0.0%	0.010	0.008
Vagus Nerve Stimulation	319	0.1%	282	0.0%	0.015	0.007

Table 1e. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	3,849	0.8%	0	0.0%	NaN	NaN
dulaglutide	179,828	35.1%	0	0.0%	NaN	NaN
exenatide	36,630	7.1%	0	0.0%	NaN	NaN
liraglutide	95,678	18.7%	0	0.0%	NaN	NaN
lixisenatide	7,917	1.5%	0	0.0%	NaN	NaN
semaglutide	177,316	34.6%	0	0.0%	NaN	NaN
tirzepatide	11,488	2.2%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	512,309	100.0%	602,176	100.0%	-0.000	-0.000
insulin*	179,003	34.9%	124,082	20.6%	14.335	0.324
metformin*	456,298	89.1%	544,990	90.5%	-1.437	-0.047
alpha-glucosidase inhibitors*	2,134	0.4%	2,425	0.4%	0.014	0.002
thiazolidinediones*	49,822	9.7%	52,792	8.8%	0.958	0.033
meglitinides*	5,805	1.1%	6,037	1.0%	0.131	0.013
amylin analogue*	66	0.0%	39	0.0%	0.006	0.007
sulfonylureas*	201,609	39.4%	237,574	39.5%	-0.100	-0.002
bile acid sequestrants*	1,665	0.3%	1,852	0.3%	0.017	0.003
Other Weight Loss Agents*	1,048	0.2%	409	0.1%	0.137	0.037
benzphetamine	*****	*****	*****	*****	0.000	0.000
bupropion	107	0.0%	66	0.0%	0.010	0.008
diethylpropion	27	0.0%	*****	*****	*****	*****
lorcaserin	48	0.0%	22	0.0%	0.006	0.007
phentermine	807	0.2%	288	0.0%	0.110	0.034
phentermine-topiramate	49	0.0%	21	0.0%	0.006	0.008

Table 1e. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
phendimetrazine	17	0.0%	*****	*****	*****	*****
orlistat	19	0.0%	*****	*****	*****	*****
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	115,318	22.5%	116,745	19.4%	3.122	0.077
Antipsychotics	27,616	5.4%	26,214	4.4%	1.037	0.048
Anxiolytics/Hypnotics	73,050	14.3%	73,317	12.2%	2.084	0.062
Lithium & Other Mood Stabilizers	24,001	4.7%	22,352	3.7%	0.973	0.049
Antidepressants	144,570	28.2%	135,012	22.4%	5.799	0.134
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	10.3	10.6	9.6	9.4	0.632	0.063
Mean number of emergency room encounters *	0.3	0.9	0.3	1.0	-0.005	-0.005
Mean number of inpatient hospital encounters *	0.1	0.4	0.1	0.5	-0.036	-0.081
Mean number of non-acute institutional encounters *	0.0	0.2	0.0	0.2	-0.004	-0.022
Mean number of other ambulatory encounters *	3.5	10.3	3.3	9.3	0.191	0.019
Mean number of filled prescriptions *	24.4	18.2	22.3	16.4	2.128	0.123
Mean number of generics dispensed *	10.2	4.6	9.7	4.5	0.510	0.112

Table 1e. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of unique drug classes dispensed*	9.1	4.1	8.0	4.1	1.054	0.257

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1f. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Patient Characteristics ^{1,2}	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weighted patients	1,092,225	N/A	659,772	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	59.5	9.6	62.5	10.5	-2.950	-0.293
Age						
18-24 years	1,586	0.1%	1,823	0.3%	-0.131	-0.028
25-44 years	65,271	6.0%	62,707	9.5%	-3.528	-0.134
45-64 years	661,309	60.5%	273,820	41.5%	19.045	0.441
65-79 years	333,747	30.6%	282,097	42.8%	-12.200	-0.299
≥ 80 years	30,311	2.8%	39,324	6.0%	-3.185	-0.157
Sex*						
Female	0	0.0%	0	0.0%	NaN	NaN
Male	1,092,225	100.0%	659,772	100.0%	0.000	NaN
Race ⁴						
American Indian or Alaska Native	3,976	0.4%	3,329	0.5%	-0.140	-0.021
Asian	13,126	1.2%	17,986	2.7%	-1.524	-0.110
Black or African American	66,075	6.0%	48,342	7.3%	-1.277	-0.052
Multi-racial	6,000	0.5%	3,103	0.5%	0.079	0.011
Native Hawaiian or Other Pacific Islander	1,673	0.2%	2,057	0.3%	-0.159	-0.033
Unknown	611,435	56.0%	249,937	37.9%	18.098	0.664

Table 1f. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
White	389,940	35.7%	335,018	50.8%	-15.076	-0.427
Hispanic origin						
Yes	25,064	2.3%	31,637	4.8%	-2.500	-0.139
No	401,203	36.7%	367,828	55.8%	-19.018	-0.817
Unknown	665,957	61.0%	260,307	39.5%	21.519	1.117
Year*						
2015	16,697	1.5%	10,900	1.7%	-0.123	-0.010
2016	75,869	6.9%	49,320	7.5%	-0.529	-0.020
2017	123,567	11.3%	60,258	9.1%	2.180	0.072
2018	114,950	10.5%	65,420	9.9%	0.609	0.020
2019	93,780	8.6%	84,751	12.8%	-4.259	-0.138
2020	151,856	13.9%	95,148	14.4%	-0.518	-0.015
2021	135,461	12.4%	98,589	14.9%	-2.541	-0.074
2022	194,836	17.8%	116,132	17.6%	0.237	0.006
2023	185,209	17.0%	79,254	12.0%	4.945	0.144
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	2.3	2.2	1.7	1.8	0.584	0.287
Combined comorbidity score ^{*,6}	2.7	3.1	1.9	2.4	0.793	0.285

Table 1f. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Obesity*	517,547	47.4%	262,592	39.8%	7.584	0.157
Weight Reduction Surgery or Procedure*	3,790	0.3%	403	0.1%	0.286	0.063
Lifestyle intervention*	226,965	20.8%	99,220	15.0%	5.741	0.152
Cardiovascular Disease*	329,205	30.1%	164,268	24.9%	5.243	0.120
Cognitive Impairment*	33,386	3.1%	14,400	2.2%	0.874	0.054
Traumatic Brain Injury*	1,690	0.2%	1,741	0.3%	-0.109	-0.024
Migraine*	34,820	3.2%	12,643	1.9%	1.272	0.080
Epilepsy*	15,174	1.4%	7,818	1.2%	0.204	0.018
Chronic Pain*	385,155	35.3%	118,920	18.0%	17.239	0.394
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	13,490	1.2%	4,147	0.6%	0.607	0.062
Psychiatric History Overall*	747,918	68.5%	368,392	55.8%	12.640	0.265
Psychiatric Drug Dispensings	578,072	52.9%	244,541	37.1%	15.862	0.324
Intentional Self-Harm Encounter	6,497	0.6%	509	0.1%	0.518	0.088
Any Other Psychiatric Event	643,248	58.9%	306,743	46.5%	12.401	0.256
Attention-Deficit/Hyperactivity Disorder	12,637	1.2%	5,658	0.9%	0.299	0.030
Akathisia	1,159	0.1%	606	0.1%	0.014	0.004
Anxiety	207,919	19.0%	77,721	11.8%	7.256	0.200
Behavioral Disorder	55,724	5.1%	22,545	3.4%	1.685	0.083

Table 1f. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Bipolar Disorder	27,653	2.5%	21,310	3.2%	-0.698	-0.041
Cerebral Degenerations usually Manifested in Childhood	18,124	1.7%	6,847	1.0%	0.622	0.053
Conduct Disorder	708	0.1%	730	0.1%	-0.046	-0.015
Delirium	32,955	3.0%	9,035	1.4%	1.648	0.111
Depression	209,619	19.2%	80,822	12.2%	6.942	0.192
Electroconvulsive Therapy	464	0.0%	106	0.0%	0.026	0.015
Hallucination	3,153	0.3%	1,176	0.2%	0.110	0.023
Obsessive-Compulsive Disorder	902	0.1%	1,037	0.2%	-0.075	-0.021
Other Cerebral Degenerations	12,726	1.2%	9,700	1.5%	-0.305	-0.027
Other Mental Disorders	17,446	1.6%	4,250	0.6%	0.953	0.089
Other Psychological Disorders	181,199	16.6%	69,299	10.5%	6.086	0.178
Persistent Mental Disorders due to Conditions Classified Elsewhere	23,741	2.2%	9,490	1.4%	0.735	0.055
Personality Disorders	1,737	0.2%	1,199	0.2%	-0.023	-0.005
Pervasive Developmental Disorders	1,127	0.1%	1,448	0.2%	-0.116	-0.029
Post-Traumatic Stress Disorder	8,049	0.7%	7,341	1.1%	-0.376	-0.039
Psychotherapy	52,344	4.8%	26,384	4.0%	0.794	0.038

Table 1f. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Psychiatric History						
Psychotic Conditions	2,580	0.2%	2,636	0.4%	-0.163	-0.029
Schizophrenia	17,439	1.6%	13,086	2.0%	-0.387	-0.029
Sleep Disorder	443,795	40.6%	165,947	25.2%	15.480	0.339
Substance Abuse	95,213	8.7%	37,143	5.6%	3.088	0.119
Suicidal Behavior	15,381	1.4%	2,699	0.4%	0.999	0.104
Transcranial Magnetic Stimulation	84	0.0%	76	0.0%	-0.004	-0.004
Vagus Nerve Stimulation	451	0.0%	383	0.1%	-0.017	-0.007
Medical Product Use	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	39,761	3.6%	0	0.0%	NaN	NaN
dulaglutide	361,701	33.1%	0	0.0%	NaN	NaN
exenatide	82,042	7.5%	0	0.0%	NaN	NaN
liraglutide	162,471	14.9%	0	0.0%	NaN	NaN
lixisenatide	11,789	1.1%	0	0.0%	NaN	NaN
semaglutide	364,884	33.4%	0	0.0%	NaN	NaN
tirzepatide	93,283	8.5%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	1,092,223	100.0%	659,771	100.0%	0.000	0.001
insulin*	522,835	47.9%	267,704	40.6%	7.294	0.146
metformin*	1,008,346	92.3%	590,225	89.5%	2.861	0.100

Table 1f. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
alpha-glucosidase inhibitors*	2,605	0.2%	3,248	0.5%	-0.254	-0.042
thiazolidinediones*	61,638	5.6%	65,326	9.9%	-4.258	-0.159
meglitinides*	10,071	0.9%	8,351	1.3%	-0.344	-0.033
amylin analogue*	58	0.0%	88	0.0%	-0.008	-0.008
sulfonylureas*	278,142	25.5%	263,701	40.0%	-14.503	-0.316
bile acid sequestrants*	3,733	0.3%	2,453	0.4%	-0.030	-0.005
Other Weight Loss Agents*	755	0.1%	1,252	0.2%	-0.121	-0.033
benzphetamine	1	0.0%	1	0.0%	-0.000	-0.001
bupropion	83	0.0%	100	0.0%	-0.008	-0.007
diethylpropion	18	0.0%	10	0.0%	0.000	0.000
lorcaserin	28	0.0%	207	0.0%	-0.029	-0.022
phentermine	589	0.1%	874	0.1%	-0.079	-0.026
phentermine-topiramate	29	0.0%	49	0.0%	-0.005	-0.007
phendimetrazine	12	0.0%	3	0.0%	0.001	0.002
orlistat	14	0.0%	24	0.0%	-0.002	-0.005
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	546,434	50.0%	158,903	24.1%	25.945	0.561
Antipsychotics	68,719	6.3%	40,940	6.2%	0.086	0.004
Anxiolytics/Hypnotics	296,379	27.1%	103,975	15.8%	11.376	0.276
Lithium & Other Mood Stabilizers	62,493	5.7%	35,580	5.4%	0.329	0.014
Antidepressants	391,101	35.8%	183,613	27.8%	7.978	0.170

Table 1f. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of ambulatory encounters*	15.8	13.5	10.8	11.1	4.938	0.400
Mean number of emergency room encounters*	1.0	2.6	0.4	1.1	0.646	0.325
Mean number of inpatient hospital encounters*	0.4	0.9	0.1	0.5	0.282	0.387
Mean number of non-acute institutional encounters*	0.1	0.3	0.0	0.2	0.033	0.114
Mean number of other ambulatory encounters*	5.6	10.9	3.9	10.9	1.718	0.158
Mean number of filled prescriptions*	43.2	35.7	25.5	21.1	17.659	0.603
Mean number of generics dispensed*	17.7	9.9	10.7	5.0	7.017	0.894
Mean number of unique drug classes dispensed*	12.6	7.4	9.2	4.8	3.392	0.543

Table 1f. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	SGLT-2 Inhibitors	

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1g. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	6,047	100.0%	2,997	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	21.9	2.0	22.1	2.0	-0.258	-0.128
Age						
18-24 years	6,047	100.0%	2,997	100.0%	0.000	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	4,048	66.9%	1,710	57.1%	9.885	0.205
Male	1,999	33.1%	1,287	42.9%	-9.885	-0.205
Race ³						
American Indian or Alaska Native	81	1.3%	34	1.1%	0.205	0.019
Asian	126	2.1%	83	2.8%	-0.686	-0.045
Black or African American	904	14.9%	362	12.1%	2.871	0.084
Multi-racial	46	0.8%	22	0.7%	0.027	0.003
Native Hawaiian or Other Pacific Islander	22	0.4%	13	0.4%	-0.070	-0.011
Unknown	3,492	57.7%	1,797	60.0%	-2.212	-0.045
White	1,376	22.8%	686	22.9%	-0.134	-0.003
Hispanic origin						
Yes	795	13.1%	610	20.4%	-7.207	-0.194

Table 1g. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	2,370	39.2%	1,132	37.8%	1.422	0.029
Unknown	2,882	47.7%	1,255	41.9%	5.785	0.117
Year*						
2015	86	1.4%	52	1.7%	-0.313	-0.025
2016	434	7.2%	264	8.8%	-1.632	-0.060
2017	589	9.7%	424	14.1%	-4.407	-0.136
2018	737	12.2%	466	15.5%	-3.361	-0.097
2019	1,079	17.8%	556	18.6%	-0.708	-0.018
2020	1,467	24.3%	770	25.7%	-1.432	-0.033
2021	487	8.1%	213	7.1%	0.946	0.036
2022	673	11.1%	160	5.3%	5.791	0.212
2023	495	8.2%	92	3.1%	5.116	0.223
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	0.2	0.6	0.2	0.6	0.007	0.012
Combined comorbidity score ^{*,5}	1.1	1.1	1.0	1.2	0.107	0.093
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	3,223	53.3%	1,260	42.0%	11.257	0.227
Weight Reduction Surgery or Procedure*	*****	*****	0	0.0%	NaN	NaN
Lifestyle intervention*	1,781	29.5%	803	26.8%	2.659	0.059
Cardiovascular Disease*	53	0.9%	29	1.0%	-0.091	-0.010

Table 1g. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cognitive Impairment*	14	0.2%	*****	*****	*****	*****
Traumatic Brain Injury*	12	0.2%	*****	*****	*****	*****
Migraine*	293	4.8%	126	4.2%	0.641	0.031
Epilepsy*	115	1.9%	65	2.2%	-0.267	-0.019
Chronic Pain*	381	6.3%	136	4.5%	1.763	0.078
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	189	3.1%	73	2.4%	0.690	0.042
Psychiatric History Overall*	3,413	56.4%	1,500	50.1%	6.391	0.128
Psychiatric Drug Dispensings	2,566	42.4%	1,143	38.1%	4.296	0.088
Intentional Self-Harm Encounter	55	0.9%	17	0.6%	0.342	0.040
Any Other Psychiatric Event	3,000	49.6%	1,292	43.1%	6.502	0.131
Attention-Deficit/Hyperactivity Disorder	475	7.9%	190	6.3%	1.515	0.059
Akathisia	*****	*****	*****	*****	0.033	0.015
Anxiety	1,276	21.1%	505	16.9%	4.251	0.109
Behavioral Disorder	589	9.7%	209	7.0%	2.767	0.100
Bipolar Disorder	506	8.4%	223	7.4%	0.927	0.034
Cerebral Degenerations usually Manifested in Childhood	12	0.2%	*****	*****	*****	*****
Conduct Disorder	*****	*****	17	0.6%	*****	*****
Delirium	45	0.7%	16	0.5%	0.210	0.026
Depression	1,364	22.6%	509	17.0%	5.573	0.140
Electroconvulsive Therapy	*****	*****	*****	*****	-0.000	-0.000

Table 1g. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Hallucination	19	0.3%	*****	*****	*****	*****
Obsessive-Compulsive Disorder	54	0.9%	*****	*****	*****	*****
Other Cerebral Degenerations	13	0.2%	*****	*****	*****	*****
Other Mental Disorders	109	1.8%	43	1.4%	0.368	0.029
Other Psychological Disorders	567	9.4%	255	8.5%	0.868	0.030
Persistent Mental Disorders due to Conditions Classified Elsewhere	*****	*****	*****	*****	-0.017	-0.007
Personality Disorders	108	1.8%	38	1.3%	0.518	0.042
Pervasive Developmental Disorders	349	5.8%	148	4.9%	0.833	0.037
Post-Traumatic Stress Disorder	282	4.7%	94	3.1%	1.527	0.079
Psychotherapy	873	14.4%	309	10.3%	4.127	0.126
Psychotic Conditions	68	1.1%	36	1.2%	-0.077	-0.007
Schizophrenia	173	2.9%	93	3.1%	-0.242	-0.014
Sleep Disorder	792	13.1%	278	9.3%	3.821	0.121
Substance Abuse	144	2.4%	67	2.2%	0.146	0.010
Suicidal Behavior	62	1.0%	33	1.1%	-0.076	-0.007
Transcranial Magnetic Stimulation	*****	*****	*****	*****	-0.017	-0.007
Vagus Nerve Stimulation	*****	*****	*****	*****	-0.000	-0.000

Table 1g. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	80	1.3%	0	0.0%	NaN	NaN
dulaglutide	1,688	27.9%	0	0.0%	NaN	NaN
exenatide	667	11.0%	0	0.0%	NaN	NaN
liraglutide	1,813	30.0%	0	0.0%	NaN	NaN
lixisenatide	43	0.7%	0	0.0%	NaN	NaN
semaglutide	1,630	27.0%	0	0.0%	NaN	NaN
tirzepatide	129	2.1%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	6,047	100.0%	2,997	100.0%	0.000	NaN
insulin*	2,109	34.9%	702	23.4%	11.453	0.254
metformin*	5,818	96.2%	2,869	95.7%	0.484	0.025
alpha-glucosidase inhibitors*	*****	*****	*****	*****	-0.101	-0.026
thiazolidinediones*	198	3.3%	146	4.9%	-1.597	-0.081
meglitinides*	13	0.2%	*****	*****	*****	*****
amylin analogue*	*****	*****	0	0.0%	NaN	NaN
sulfonylureas*	1,005	16.6%	615	20.5%	-3.901	-0.100
bile acid sequestrants*	*****	*****	*****	*****	-0.050	-0.018
Other Weight Loss Agents*	*****	*****	*****	*****	0.496	0.089
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	*****	*****	0	0.0%	NaN	NaN
diethylpropion	*****	*****	0	0.0%	NaN	NaN

Table 1g. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
lorcaserin	*****	*****	0	0.0%	NaN	NaN
phentermine	*****	*****	*****	*****	0.231	0.054
phentermine-topiramate	*****	*****	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	*****	*****	0	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	711	11.8%	302	10.1%	1.681	0.054
Antipsychotics	841	13.9%	405	13.5%	0.394	0.011
Anxiolytics/Hypnotics	939	15.5%	408	13.6%	1.915	0.054
Lithium & Other Mood Stabilizers	570	9.4%	275	9.2%	0.250	0.009
Antidepressants	2,084	34.5%	863	28.8%	5.668	0.122
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	9.4	11.8	8.2	10.5	1.291	0.115
Mean number of emergency room encounters*	0.6	1.5	0.6	1.2	0.083	0.061
Mean number of inpatient hospital encounters*	0.1	0.3	0.1	0.3	0.004	0.012
Mean number of non-acute institutional encounters*	0.0	0.1	0.0	0.2	0.000	0.000
Mean number of other ambulatory encounters*	6.5	21.3	6.6	22.2	-0.064	-0.003

Table 1g. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of filled prescriptions*	17.6	15.6	15.9	14.5	1.713	0.114
Mean number of generics dispensed*	7.9	4.7	7.3	4.3	0.639	0.142
Mean number of unique drug classes dispensed*	7.0	4.3	5.8	3.9	1.175	0.288

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1h. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Patient Characteristics ^{1,2}	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weighted patients	6,004	N/A	3,511	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years) [*]	22.0	2.1	21.9	2.0	0.083	0.041
Age						
18-24 years	6,004	100.0%	3,511	100.0%	0.000	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex [*]						
Female	3,887	64.7%	2,295	65.4%	-0.653	-0.014
Male	2,118	35.3%	1,215	34.6%	0.653	0.014
Race ⁴						
American Indian or Alaska Native	91	1.5%	43	1.2%	0.303	0.026
Asian	126	2.1%	63	1.8%	0.307	0.022
Black or African American	884	14.7%	445	12.7%	2.034	0.062
Multi-racial	43	0.7%	20	0.6%	0.164	0.021
Native Hawaiian or Other Pacific Islander	20	0.3%	12	0.4%	-0.022	-0.004
Unknown	3,451	57.5%	2,167	61.7%	-4.234	-0.105
White	1,389	23.1%	761	21.7%	1.448	0.037

Table 1h. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Hispanic origin						
No	2,383	39.7%	1,257	35.8%	3.876	0.101
Unknown	2,833	47.2%	1,519	43.3%	3.915	0.132
Year*						
2015	86	1.4%	52	1.5%	-0.057	-0.005
2016	459	7.6%	279	8.0%	-0.315	-0.012
2017	756	12.6%	384	10.9%	1.660	0.052
2018	764	12.7%	478	13.6%	-0.884	-0.026
2019	1,063	17.7%	695	19.8%	-2.103	-0.055
2020	1,443	24.0%	845	24.1%	-0.043	-0.001
2021	442	7.4%	222	6.3%	1.033	0.043
2022	609	10.1%	326	9.3%	0.852	0.031
2023	383	6.4%	229	6.5%	-0.142	-0.006
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications						
Severity Index(aDCSI) ^{*5}	0.2	0.7	0.2	0.7	0.025	0.039
Combined comorbidity score ^{*6}	1.2	1.2	1.3	1.3	-0.111	-0.090
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	3,041	50.6%	1,755	50.0%	0.656	0.013
Weight Reduction Surgery or Procedure*	0	0.0%	0	0.0%	NaN	NaN

Table 1h. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Medical History						
Lifestyle intervention *	1,787	29.8%	1,138	32.4%	-2.667	-0.059
Cardiovascular Disease *	58	1.0%	27	0.8%	0.191	0.021
Cognitive Impairment *	7	0.1%	2	0.1%	0.053	0.018
Traumatic Brain Injury *	8	0.1%	4	0.1%	0.021	0.006
Migraine *	310	5.2%	203	5.8%	-0.616	-0.027
Epilepsy *	113	1.9%	78	2.2%	-0.328	-0.023
Chronic Pain *	330	5.5%	153	4.4%	1.137	0.052
Psychiatric History						
Previous Intentional Self-Harm Ever	190	3.2%	168	4.8%	-1.614	-0.083
Psychiatric History Overall *	3,417	56.9%	1,893	53.9%	2.996	0.061
Psychiatric Drug Dispensings	2,566	42.7%	1,495	42.6%	0.152	0.003
Intentional Self-Harm Encounter	45	0.7%	47	1.3%	-0.584	-0.059
Any Other Psychiatric Event	3,028	50.4%	1,680	47.9%	2.555	0.052
Attention-Deficit/Hyperactivity Disorder	430	7.2%	226	6.4%	0.716	0.029
Akathisia	5	0.1%	1	0.0%	0.056	0.024
Anxiety	1,350	22.5%	706	20.1%	2.367	0.059
Behavioral Disorder	596	9.9%	356	10.1%	-0.220	-0.007
Bipolar Disorder	524	8.7%	319	9.1%	-0.361	-0.013
Cerebral Degenerations usually Manifested in Childhood	14	0.2%	6	0.2%	0.068	0.015

Table 1h. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Conduct Disorder	61	1.0%	33	1.0%	0.062	0.006
Delirium	50	0.8%	21	0.6%	0.245	0.029
Depression	1,290	21.5%	722	20.6%	0.903	0.022
Electroconvulsive Therapy	1	0.0%	1	0.0%	-0.002	-0.001
Hallucination	17	0.3%	6	0.2%	0.108	0.023
Obsessive-Compulsive Disorder	47	0.8%	9	0.3%	0.526	0.073
Other Cerebral Degenerations	11	0.2%	9	0.3%	-0.069	-0.015
Other Mental Disorders	83	1.4%	51	1.4%	-0.057	-0.005
Other Psychological Disorders	558	9.3%	318	9.0%	0.254	0.009
Persistent Mental Disorders due to Conditions Classified Elsewhere	1	0.0%	0	0.0%	0.011	0.008
Personality Disorders	91	1.5%	41	1.2%	0.355	0.031
Pervasive Developmental Disorders	340	5.7%	158	4.5%	1.161	0.054
Post-Traumatic Stress Disorder	249	4.1%	137	3.9%	0.236	0.012
Psychotherapy	808	13.5%	469	13.4%	0.080	0.002
Psychotic Conditions	86	1.4%	79	2.3%	-0.815	-0.062
Schizophrenia	160	2.7%	160	4.5%	-1.887	-0.104
Sleep Disorder	734	12.2%	339	9.7%	2.564	0.083

Table 1h. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Substance Abuse	159	2.6%	116	3.3%	-0.650	-0.039
Suicidal Behavior	59	1.0%	85	2.4%	-1.442	-0.113
Transcranial Magnetic Stimulation	2	0.0%	7	0.2%	-0.156	-0.046
Vagus Nerve Stimulation	4	0.1%	1	0.0%	0.044	0.022

Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	100	1.7%	0	0.0%	NaN	NaN
dulaglutide	1,675	27.9%	0	0.0%	NaN	NaN
exenatide	705	11.7%	0	0.0%	NaN	NaN
liraglutide	1,833	30.5%	0	0.0%	NaN	NaN
lixisenatide	43	0.7%	0	0.0%	NaN	NaN
semaglutide	1,559	26.0%	0	0.0%	NaN	NaN
tirzepatide	93	1.5%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	6,004	100.0%	3,511	100.0%	0.000	NaN
insulin*	2,146	35.7%	1,775	50.6%	-14.824	-0.306
metformin*	5,744	95.7%	3,322	94.6%	1.042	0.049
alpha-glucosidase inhibitors*	4	0.1%	3	0.1%	-0.006	-0.002
thiazolidinediones*	229	3.8%	158	4.5%	-0.681	-0.034
meglitinides*	21	0.3%	8	0.2%	0.118	0.022
amylin analogue*	0	0.0%	0	0.0%	NaN	NaN

Table 1h. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
sulfonylureas*	1,090	18.2%	664	18.9%	-0.759	-0.020
bile acid sequestrants*	1	0.0%	0	0.0%	0.002	0.002
Other Weight Loss Agents*	6	0.1%	0	0.0%	0.084	0.036
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	2	0.0%	0	0.0%	NaN	NaN
diethylpropion	0	0.0%	0	0.0%	NaN	NaN
lorcaserin	1	0.0%	0	0.0%	NaN	NaN
phentermine	3	0.0%	0	0.0%	0.034	0.019
phentermine-topiramate	1	0.0%	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	0	0.0%	0	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	919	15.3%	466	13.3%	2.032	0.058
Antipsychotics	804	13.4%	570	16.2%	-2.854	-0.083
Anxiolytics/Hypnotics	1,026	17.1%	577	16.4%	0.670	0.018
Lithium & Other Mood Stabilizers	582	9.7%	373	10.6%	-0.951	-0.032
Antidepressants	2,091	34.8%	1,187	33.8%	1.019	0.022
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	10.1	13.2	9.8	12.5	0.263	0.020

Table 1h. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of emergency room encounters*	0.7	1.8	0.7	1.3	0.055	0.035
Mean number of inpatient hospital encounters*	0.1	0.3	0.1	0.3	0.013	0.040
Mean number of non-acute institutional encounters*	0.0	0.2	0.0	0.2	-0.002	-0.013
Mean number of other ambulatory encounters*	7.6	24.1	7.6	24.2	-0.042	-0.002
Mean number of filled prescriptions*	18.6	17.3	18.4	16.9	0.219	0.013
Mean number of generics dispensed*	8.5	5.7	8.5	4.9	0.054	0.010
Mean number of unique drug classes dispensed*	7.1	4.6	7.3	4.7	-0.168	-0.036

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1i. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	140,742	100.0%	90,390	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	38.4	4.9	38.8	4.8	-0.331	-0.068
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	140,742	100.0%	90,390	100.0%	0.000	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	83,995	59.7%	40,807	45.1%	14.535	0.294
Male	56,747	40.3%	49,583	54.9%	-14.535	-0.294
Race ³						
American Indian or Alaska Native	1,611	1.1%	805	0.9%	0.254	0.025
Asian	2,159	1.5%	2,938	3.3%	-1.716	-0.112
Black or African American	14,650	10.4%	8,565	9.5%	0.934	0.031
Multi-racial	1,308	0.9%	874	1.0%	-0.038	-0.004
Native Hawaiian or Other Pacific Islander	491	0.3%	366	0.4%	-0.056	-0.009
Unknown	84,431	60.0%	55,145	61.0%	-1.018	-0.021
White	36,092	25.6%	21,697	24.0%	1.640	0.038

Table 1i. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Hispanic origin						
Yes	11,300	8.0%	10,129	11.2%	-3.177	-0.108
No	49,018	34.8%	30,604	33.9%	0.971	0.020
Unknown	80,424	57.1%	49,657	54.9%	2.206	0.044
Year*						
2015	2,237	1.6%	2,032	2.2%	-0.659	-0.048
2016	11,575	8.2%	10,476	11.6%	-3.366	-0.113
2017	14,320	10.2%	12,611	14.0%	-3.777	-0.116
2018	16,451	11.7%	11,573	12.8%	-1.115	-0.034
2019	20,630	14.7%	14,181	15.7%	-1.031	-0.029
2020	24,930	17.7%	18,147	20.1%	-2.363	-0.060
2021	15,075	10.7%	8,718	9.6%	1.066	0.035
2022	20,166	14.3%	8,509	9.4%	4.915	0.152
2023	15,358	10.9%	4,143	4.6%	6.329	0.238
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*4}						
	0.5	1.0	0.5	1.0	0.007	0.008
Combined comorbidity score ^{*5}						
	1.0	1.4	0.9	1.4	0.096	0.068

Table 1i. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Obesity*	74,553	53.0%	36,512	40.4%	12.578	0.254
Weight Reduction Surgery or Procedure*	105	0.1%	48	0.1%	0.022	0.009
Lifestyle intervention*	37,223	26.4%	21,123	23.4%	3.079	0.071
Cardiovascular Disease*	5,768	4.1%	4,335	4.8%	-0.698	-0.034
Cognitive Impairment*	238	0.2%	147	0.2%	0.006	0.002
Traumatic Brain Injury*	326	0.2%	164	0.2%	0.050	0.011
Migraine*	9,354	6.6%	4,163	4.6%	2.041	0.089
Epilepsy*	2,220	1.6%	1,334	1.5%	0.102	0.008
Chronic Pain*	21,153	15.0%	10,570	11.7%	3.336	0.098
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	2,160	1.5%	1,042	1.2%	0.382	0.033
Psychiatric History Overall*	87,095	61.9%	47,415	52.5%	9.427	0.191
Psychiatric Drug Dispensings	66,632	47.3%	34,736	38.4%	8.914	0.181
Intentional Self-Harm Encounter	337	0.2%	175	0.2%	0.046	0.010
Any Other Psychiatric Event	73,386	52.1%	39,391	43.6%	8.563	0.172
Attention-Deficit/Hyperactivity Disorder	4,456	3.2%	1,873	2.1%	1.094	0.069
Akathisia	110	0.1%	57	0.1%	0.015	0.006
Anxiety	30,692	21.8%	14,385	15.9%	5.893	0.151
Behavioral Disorder	8,852	6.3%	4,240	4.7%	1.599	0.070
Bipolar Disorder	10,103	7.2%	5,183	5.7%	1.444	0.059

Table 1i. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cerebral Degenerations usually Manifested in Childhood	406	0.3%	*****	*****	*****	*****
Conduct Disorder	389	0.3%	217	0.2%	0.036	0.007
Delirium	768	0.5%	445	0.5%	0.053	0.007
Depression	26,974	19.2%	12,904	14.3%	4.890	0.131
Electroconvulsive Therapy	46	0.0%	*****	*****	*****	*****
Hallucination	322	0.2%	*****	*****	*****	*****
Obsessive-Compulsive Disorder	642	0.5%	286	0.3%	0.140	0.023
Other Cerebral Degenerations	303	0.2%	*****	*****	*****	*****
Other Mental Disorders	1,425	1.0%	822	0.9%	0.103	0.011
Other Psychological Disorders	15,132	10.8%	9,441	10.4%	0.307	0.010
Persistent Mental Disorders due to Conditions Classified Elsewhere	*****	*****	*****	*****	0.007	0.003
Personality Disorders	1,599	1.1%	637	0.7%	0.431	0.045
Pervasive Developmental Disorders	1,027	0.7%	679	0.8%	-0.021	-0.003
Post-Traumatic Stress Disorder	5,666	4.0%	2,487	2.8%	1.274	0.070
Psychotherapy	14,576	10.4%	6,687	7.4%	2.959	0.104
Psychotic Conditions	802	0.6%	586	0.6%	-0.078	-0.010
Schizophrenia	4,751	3.4%	3,211	3.6%	-0.177	-0.010
Sleep Disorder	29,683	21.1%	14,060	15.6%	5.536	0.143
Substance Abuse	6,962	4.9%	4,563	5.0%	-0.101	-0.005

Table 1i. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Psychiatric History	Number/ Mean	Percent/ Standard Deviation²	Number/ Mean	Percent/ Standard Deviation²	Absolute Difference	Standardized Difference
Suicidal Behavior	862	0.6%	463	0.5%	0.100	0.013
Transcranial Magnetic Stimulation	*****	*****	*****	*****	0.009	0.007
Vagus Nerve Stimulation	79	0.1%	*****	*****	*****	*****

	Number/ Mean	Percent/ Standard Deviation²	Number/ Mean	Percent/ Standard Deviation²	Absolute Difference	Standardized Difference
Medical Product Use						
Index GLP-1RA Product						
albiglutide	1,807	1.3%	0	0.0%	NaN	NaN
dulaglutide	41,128	29.2%	0	0.0%	NaN	NaN
exenatide	13,166	9.4%	0	0.0%	NaN	NaN
liraglutide	35,496	25.2%	0	0.0%	NaN	NaN
lixisenatide	1,104	0.8%	0	0.0%	NaN	NaN
semaglutide	44,226	31.4%	0	0.0%	NaN	NaN
tirzepatide	4,012	2.9%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	140,742	100.0%	90,390	100.0%	0.000	NaN
insulin*	41,545	29.5%	19,210	21.3%	8.266	0.191
metformin*	131,517	93.4%	85,243	94.3%	-0.860	-0.036
alpha-glucosidase inhibitors*	*****	*****	*****	*****	0.024	0.005
thiazolidinediones*	7,118	5.1%	4,865	5.4%	-0.325	-0.015
meglitinides*	491	0.3%	*****	*****	*****	*****
amylin analogue*	*****	*****	*****	*****	0.004	0.005
sulfonylureas*	37,050	26.3%	26,345	29.1%	-2.821	-0.063
bile acid sequestrants*	271	0.2%	*****	*****	*****	*****

Table 1i. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Other Weight Loss Agents*	887	0.6%	*****	*****	*****	*****
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
Combination naltrexone and bupropion	*****	*****	*****	*****	0.047	0.020
diethylpropion	*****	*****	*****	*****	0.006	0.007
lorcaserin	56	0.0%	*****	*****	*****	*****
phentermine	659	0.5%	*****	*****	*****	*****
phentermine-topiramate	48	0.0%	*****	*****	*****	*****
phendimetrazine	*****	*****	*****	*****	0.003	0.004
orlistat	*****	*****	*****	*****	0.004	0.005
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	30,835	21.9%	17,704	19.6%	2.323	0.057
Antipsychotics	16,265	11.6%	9,196	10.2%	1.383	0.044
Anxiolytics/Hypnotics	29,024	20.6%	14,951	16.5%	4.082	0.105
Lithium & Other Mood Stabilizers	13,095	9.3%	7,018	7.8%	1.540	0.055
Antidepressants	54,414	38.7%	26,959	29.8%	8.837	0.187
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	9.3	10.7	7.9	9.6	1.408	0.139
Mean number of emergency room encounters*	0.5	1.4	0.5	1.3	0.048	0.036
Mean number of inpatient hospital encounters*	0.1	0.3	0.1	0.4	-0.004	-0.011

Table 1i. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of non-acute institutional encounters*	0.0	0.1	0.0	0.1	0.000	0.001
Mean number of other ambulatory encounters*	4.1	13.4	3.7	12.9	0.404	0.031
Mean number of filled prescriptions*	23.6	19.8	20.9	18.1	2.717	0.143
Mean number of generics dispensed*	9.7	5.3	8.7	5.0	0.995	0.193
Mean number of unique drug classes dispensed*	8.7	4.7	7.1	4.4	1.577	0.344

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1j. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Patient Characteristics^{1,2}	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Weighted patients	226,115	N/A	107,715	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Age (years) [*]	38.6	5.8	38.8	4.8	-0.174	-0.033
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	226,115	100.0%	107,715	100.0%	0.000	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex [*]						
Female	146,399	64.7%	62,981	58.5%	6.275	0.130
Male	79,716	35.3%	44,734	41.5%	-6.275	-0.130
Race ⁴						
American Indian or Alaska Native	1,657	0.7%	881	0.8%	-0.085	-0.010
Asian	2,528	1.1%	2,467	2.3%	-1.173	-0.091
Black or African American	15,309	6.8%	10,433	9.7%	-2.915	-0.111
Multi-racial	1,943	0.9%	1,098	1.0%	-0.160	-0.017
Native Hawaiian or Other Pacific Islander	556	0.2%	348	0.3%	-0.077	-0.014
Unknown	161,572	71.5%	67,385	62.6%	8.897	0.279
White	42,550	18.8%	25,102	23.3%	-4.487	-0.132
Hispanic origin						

Table 1j. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Yes	13,114	5.8%	11,009	10.2%	-4.420	-0.172
No	53,781	23.8%	33,861	31.4%	-7.651	-0.277
Unknown	159,219	70.4%	62,845	58.3%	12.072	0.545
Year*						
2015	3,191	1.4%	1,978	1.8%	-0.425	-0.033
2016	48,394	21.4%	10,192	9.5%	11.940	0.339
2017	25,578	11.3%	12,593	11.7%	-0.379	-0.012
2018	21,432	9.5%	12,831	11.9%	-2.433	-0.078
2019	26,501	11.7%	15,943	14.8%	-3.081	-0.091
2020	32,231	14.3%	20,567	19.1%	-4.839	-0.133
2021	33,152	14.7%	12,018	11.2%	3.505	0.107
2022	22,286	9.9%	12,908	12.0%	-2.127	-0.069
2023	13,351	5.9%	8,687	8.1%	-2.160	-0.086
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	0.5	1.1	0.6	1.1	-0.096	-0.086
Combined comorbidity score ^{*,6}	1.1	1.6	1.2	1.6	-0.132	-0.083
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	139,552	61.7%	54,424	50.5%	11.192	0.236
Weight Reduction Surgery or Procedure*	112	0.0%	426	0.4%	-0.346	-0.074
Lifestyle intervention*	67,054	29.7%	27,542	25.6%	4.086	0.091

Table 1j. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Cardiovascular Disease*	12,709	5.6%	5,478	5.1%	0.535	0.024
Cognitive Impairment*	312	0.1%	171	0.2%	-0.021	-0.005
Traumatic Brain Injury*	360	0.2%	260	0.2%	-0.082	-0.018
Migraine*	60,280	26.7%	9,519	8.8%	17.821	0.514
Epilepsy*	3,048	1.3%	1,807	1.7%	-0.330	-0.027
Chronic Pain*	57,169	25.3%	19,130	17.8%	7.524	0.183
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	2,463	1.1%	1,602	1.5%	-0.398	-0.035
Psychiatric History Overall*	163,461	72.3%	67,554	62.7%	9.575	0.208
Psychiatric Drug Dispensings	137,468	60.8%	54,486	50.6%	10.212	0.210
Intentional Self-Harm Encounter	489	0.2%	265	0.2%	-0.030	-0.006
Any Other Psychiatric Event	147,685	65.3%	56,920	52.8%	12.471	0.260
Attention-Deficit/Hyperactivity Disorder	25,092	11.1%	3,660	3.4%	7.699	0.305
Akathisia	522	0.2%	109	0.1%	0.130	0.031
Anxiety	91,948	40.7%	25,387	23.6%	17.096	0.388
Behavioral Disorder	40,779	18.0%	7,443	6.9%	11.125	0.347
Bipolar Disorder	33,887	15.0%	9,556	8.9%	6.115	0.191
Cerebral Degenerations usually Manifested in Childhood	481	0.2%	333	0.3%	-0.097	-0.019
Conduct Disorder	380	0.2%	230	0.2%	-0.046	-0.010

Table 1j. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Delirium	995	0.4%	765	0.7%	-0.271	-0.036
Depression	61,194	27.1%	22,313	20.7%	6.348	0.149
Electroconvulsive Therapy	43	0.0%	37	0.0%	-0.015	-0.009
Hallucination	444	0.2%	339	0.3%	-0.119	-0.023
Obsessive-Compulsive Disorder	866	0.4%	424	0.4%	-0.011	-0.002
Other Cerebral Degenerations	412	0.2%	237	0.2%	-0.038	-0.008
Other Mental Disorders	1,931	0.9%	1,124	1.0%	-0.189	-0.019
Other Psychological Disorders	43,922	19.4%	13,369	12.4%	7.013	0.193
Persistent Mental Disorders due to Conditions Classified Elsewhere	133	0.1%	62	0.1%	0.001	0.001
Personality Disorders	3,495	1.5%	1,352	1.3%	0.290	0.025
Pervasive Developmental Disorders	1,005	0.4%	650	0.6%	-0.159	-0.022
Post-Traumatic Stress Disorder	9,548	4.2%	5,025	4.7%	-0.442	-0.021
Psychotherapy	37,146	16.4%	12,034	11.2%	5.256	0.153
Psychotic Conditions	871	0.4%	797	0.7%	-0.355	-0.047
Schizophrenia	5,555	2.5%	3,950	3.7%	-1.210	-0.072
Sleep Disorder	90,439	40.0%	22,309	20.7%	19.286	0.439
Substance Abuse	14,092	6.2%	6,878	6.4%	-0.153	-0.006
Suicidal Behavior	1,369	0.6%	778	0.7%	-0.116	-0.014

Table 1j. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Transcranial Magnetic Stimulation	34	0.0%	15	0.0%	0.001	0.001
Vagus Nerve Stimulation	218	0.1%	88	0.1%	0.015	0.005
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	3,144	1.4%	0	0.0%	NaN	NaN
dulaglutide	57,923	25.6%	0	0.0%	NaN	NaN
exenatide	20,376	9.0%	0	0.0%	NaN	NaN
liraglutide	75,728	33.5%	0	0.0%	NaN	NaN
lixisenatide	2,335	1.0%	0	0.0%	NaN	NaN
semaglutide	67,260	29.7%	0	0.0%	NaN	NaN
tirzepatide	3,696	1.6%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	226,115	100.0%	107,715	100.0%	0.000	NaN
insulin*	59,993	26.5%	50,313	46.7%	-20.177	-0.430
metformin*	215,537	95.3%	100,518	93.3%	2.004	0.086
alpha-glucosidase inhibitors*	334	0.1%	269	0.2%	-0.102	-0.023
thiazolidinediones*	8,217	3.6%	6,236	5.8%	-2.155	-0.101
meglitinides*	890	0.4%	444	0.4%	-0.019	-0.003
amylin analogue*	12	0.0%	14	0.0%	-0.008	-0.008
sulfonylureas*	50,634	22.4%	29,843	27.7%	-5.313	-0.123
bile acid sequestrants*	1,001	0.4%	386	0.4%	0.084	0.013
Other Weight Loss Agents*	1,223	0.5%	476	0.4%	0.099	0.014

Table 1j. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
bupropion	103	0.0%	61	0.1%	-0.011	-0.005
diethylpropion	10	0.0%	3	0.0%	0.002	0.002
lorcaserin	44	0.0%	12	0.0%	0.008	0.007
phentermine	979	0.4%	396	0.4%	0.065	0.010
phentermine-topiramate	89	0.0%	4	0.0%	0.035	0.023
phendimetrazine	7	0.0%	3	0.0%	0.000	0.001
orlistat	9	0.0%	4	0.0%	0.000	0.001
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	109,179	48.3%	29,466	27.4%	20.930	0.449
Antipsychotics	43,660	19.3%	15,535	14.4%	4.886	0.133
Anxiolytics/Hypnotics	96,002	42.5%	27,986	26.0%	16.475	0.362
Lithium & Other Mood Stabilizers	47,339	20.9%	13,152	12.2%	8.726	0.240
Antidepressants	120,857	53.4%	44,063	40.9%	12.542	0.258
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	14.3	13.2	10.3	11.9	3.924	0.312
Mean number of emergency room encounters*	1.0	2.3	0.8	2.5	0.180	0.075
Mean number of inpatient hospital encounters*	0.2	0.6	0.1	0.4	0.102	0.204
Mean number of non-acute institutional encounters*	0.0	0.1	0.0	0.1	-0.001	-0.010

Table 1j. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of other ambulatory encounters*	5.9	13.4	5.0	16.4	0.937	0.063
Mean number of filled prescriptions*	35.7	28.3	26.4	21.8	9.252	0.366
Mean number of generics dispensed*	16.7	10.9	11.0	6.4	5.622	0.631
Mean number of unique drug classes dispensed*	12.6	7.8	9.7	6.1	2.905	0.418

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1k. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	486,421	100.0%	405,383	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	55.8	5.4	56.2	5.4	-0.431	-0.080
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	486,421	100.0%	405,383	100.0%	0.000	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	269,002	55.3%	172,795	42.6%	12.677	0.256
Male	217,419	44.7%	232,588	57.4%	-12.677	-0.256
Race ³						
American Indian or Alaska Native	3,893	0.8%	2,469	0.6%	0.191	0.023
Asian	5,679	1.2%	12,323	3.0%	-1.872	-0.131
Black or African American	48,292	9.9%	36,156	8.9%	1.009	0.035
Multi-racial	3,834	0.8%	2,950	0.7%	0.060	0.007
Native Hawaiian or Other Pacific Islander	1,111	0.2%	1,077	0.3%	-0.037	-0.008
Unknown	265,996	54.7%	232,962	57.5%	-2.783	-0.056
White	157,616	32.4%	117,446	29.0%	3.432	0.074
Hispanic origin						
Yes	27,051	5.6%	32,223	7.9%	-2.388	-0.095

Table 1k. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	188,241	38.7%	147,470	36.4%	2.321	0.048
Unknown	271,129	55.7%	225,690	55.7%	0.066	0.001
Year*						
2015	8,087	1.7%	8,789	2.2%	-0.506	-0.037
2016	38,466	7.9%	40,324	9.9%	-2.039	-0.072
2017	47,806	9.8%	49,960	12.3%	-2.496	-0.080
2018	55,219	11.4%	46,798	11.5%	-0.192	-0.006
2019	67,334	13.8%	61,158	15.1%	-1.244	-0.035
2020	73,750	15.2%	72,118	17.8%	-2.628	-0.071
2021	60,114	12.4%	49,146	12.1%	0.235	0.007
2022	76,348	15.7%	51,002	12.6%	3.115	0.089
2023	59,297	12.2%	26,088	6.4%	5.755	0.199
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	1.0	1.4	1.0	1.4	0.043	0.030
Combined comorbidity score ^{*,5}	1.3	1.8	1.2	1.9	0.088	0.047
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	230,855	47.5%	139,857	34.5%	12.960	0.266
Weight Reduction Surgery or Procedure*	288	0.1%	219	0.1%	0.005	0.002
Lifestyle intervention*	108,852	22.4%	84,650	20.9%	1.497	0.036
Cardiovascular Disease*	62,799	12.9%	59,106	14.6%	-1.670	-0.049

Table 1k. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cognitive Impairment*	3,027	0.6%	2,462	0.6%	0.015	0.002
Traumatic Brain Injury*	1,071	0.2%	734	0.2%	0.039	0.009
Migraine*	22,437	4.6%	13,175	3.3%	1.363	0.070
Epilepsy*	6,299	1.3%	5,080	1.3%	0.042	0.004
Chronic Pain*	109,085	22.4%	70,968	17.5%	4.920	0.123
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	4,764	1.0%	3,077	0.8%	0.220	0.024
Psychiatric History Overall*	315,269	64.8%	222,581	54.9%	9.908	0.203
Psychiatric Drug Dispensings	243,558	50.1%	163,301	40.3%	9.788	0.198
Intentional Self-Harm Encounter	521	0.1%	367	0.1%	0.017	0.005
Any Other Psychiatric Event	255,634	52.6%	177,501	43.8%	8.768	0.176
Attention-Deficit/Hyperactivity Disorder	6,464	1.3%	3,348	0.8%	0.503	0.049
Akathisia	475	0.1%	299	0.1%	0.024	0.008
Anxiety	89,482	18.4%	56,032	13.8%	4.574	0.125
Behavioral Disorder	21,137	4.3%	13,528	3.3%	1.008	0.052
Bipolar Disorder	24,892	5.1%	15,477	3.8%	1.300	0.063
Cerebral Degenerations usually Manifested in Childhood	2,628	0.5%	2,286	0.6%	-0.024	-0.003
Conduct Disorder	392	0.1%	309	0.1%	0.004	0.002
Delirium	4,182	0.9%	3,261	0.8%	0.055	0.006
Depression	93,779	19.3%	57,911	14.3%	4.994	0.134

Table 1k. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Electroconvulsive Therapy	96	0.0%	59	0.0%	0.005	0.004
Hallucination	755	0.2%	542	0.1%	0.022	0.006
Obsessive-Compulsive Disorder	1,046	0.2%	651	0.2%	0.054	0.013
Other Cerebral Degenerations	2,341	0.5%	1,835	0.5%	0.029	0.004
Other Mental Disorders	3,613	0.7%	2,649	0.7%	0.089	0.011
Other Psychological Disorders	51,506	10.6%	43,610	10.8%	-0.169	-0.005
Persistent Mental Disorders due to Conditions Classified Elsewhere	1,725	0.4%	1,433	0.4%	0.001	0.000
Personality Disorders	2,551	0.5%	1,280	0.3%	0.209	0.032
Pervasive Developmental Disorders	454	0.1%	430	0.1%	-0.013	-0.004
Post-Traumatic Stress Disorder	12,731	2.6%	6,998	1.7%	0.891	0.061
Psychotherapy	34,301	7.1%	19,809	4.9%	2.165	0.091
Psychotic Conditions	1,837	0.4%	1,566	0.4%	-0.009	-0.001
Schizophrenia	10,633	2.2%	9,093	2.2%	-0.057	-0.004
Sleep Disorder	128,286	26.4%	79,160	19.5%	6.846	0.163
Substance Abuse	26,070	5.4%	21,309	5.3%	0.103	0.005
Suicidal Behavior	2,507	0.5%	1,714	0.4%	0.093	0.014
Transcranial Magnetic Stimulation	115	0.0%	53	0.0%	0.011	0.008
Vagus Nerve Stimulation	338	0.1%	207	0.1%	0.018	0.008

Table 1k. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	5,548	1.1%	0	0.0%	NaN	NaN
dulaglutide	156,000	32.1%	0	0.0%	NaN	NaN
exenatide	39,695	8.2%	0	0.0%	NaN	NaN
liraglutide	106,274	21.8%	0	0.0%	NaN	NaN
lixisenatide	5,113	1.1%	0	0.0%	NaN	NaN
semaglutide	161,407	33.2%	0	0.0%	NaN	NaN
tirzepatide	12,918	2.7%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	486,419	100.0%	405,383	100.0%	-0.000	-0.003
insulin*	167,960	34.5%	94,345	23.3%	11.257	0.250
metformin*	443,274	91.1%	375,995	92.8%	-1.621	-0.060
alpha-glucosidase inhibitors*	1,609	0.3%	1,374	0.3%	-0.008	-0.001
thiazolidinediones*	33,662	6.9%	28,239	7.0%	-0.046	-0.002
meglitinides*	3,147	0.6%	2,430	0.6%	0.048	0.006
amylin analogue*	66	0.0%	40	0.0%	0.004	0.003
sulfonylureas*	161,979	33.3%	145,613	35.9%	-2.620	-0.055
bile acid sequestrants*	1,607	0.3%	1,161	0.3%	0.044	0.008
Other Weight Loss Agents*	2,225	0.5%	700	0.2%	0.285	0.051
benzphetamine	*****	*****	*****	*****	-0.000	-0.000
bupropion	264	0.1%	111	0.0%	0.027	0.013
diethylpropion	44	0.0%	*****	*****	*****	*****
lorcaserin	110	0.0%	47	0.0%	0.011	0.008
phentermine	1,654	0.3%	481	0.1%	0.221	0.046

Table 1k. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
phentermine-topiramate	125	0.0%	35	0.0%	0.017	0.013
phendimetrazine	45	0.0%	*****	*****	*****	*****
orlistat	45	0.0%	*****	*****	*****	*****
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	135,608	27.9%	97,035	23.9%	3.942	0.090
Antipsychotics	42,689	8.8%	29,531	7.3%	1.491	0.055
Anxiolytics/Hypnotics	106,213	21.8%	70,831	17.5%	4.363	0.110
Lithium & Other Mood Stabilizers	35,348	7.3%	23,587	5.8%	1.449	0.059
Antidepressants	201,349	41.4%	127,830	31.5%	9.861	0.206
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	10.2	10.5	8.8	9.2	1.414	0.144
Mean number of emergency room encounters*	0.4	1.1	0.4	1.1	0.022	0.020
Mean number of inpatient hospital encounters*	0.1	0.4	0.1	0.4	-0.011	-0.028
Mean number of non-acute institutional encounters*	0.0	0.1	0.0	0.1	0.001	0.004
Mean number of other ambulatory encounters*	4.4	13.9	3.9	13.1	0.480	0.036

Table 1k. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of filled prescriptions [*]	29.1	21.2	26.0	19.6	3.149	0.154
Mean number of generics dispensed [*]	11.3	5.3	10.2	5.1	1.100	0.211
Mean number of unique drug classes dispensed [*]	10.0	4.8	8.4	4.6	1.636	0.350

^{*}Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1I. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	700,840	N/A	447,081	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	55.6	5.4	55.9	5.4	-0.324	-0.060
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	700,840	100.0%	447,081	100.0%	0.000	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	324,603	46.3%	229,040	51.2%	-4.914	-0.099
Male	376,236	53.7%	218,041	48.8%	4.914	0.099
Race ⁴						
American Indian or Alaska Native	3,881	0.6%	2,721	0.6%	-0.055	-0.007
Asian	6,064	0.9%	10,699	2.4%	-1.528	-0.123
Black or African American	51,037	7.3%	41,502	9.3%	-2.001	-0.076
Multi-racial	5,557	0.8%	3,247	0.7%	0.067	0.008
Native Hawaiian or Other Pacific Islander	1,106	0.2%	1,046	0.2%	-0.076	-0.017
Unknown	463,819	66.2%	258,917	57.9%	8.268	0.278
White	169,377	24.2%	128,949	28.8%	-4.675	-0.136
Hispanic origin						

Table 1I. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Yes	27,965	4.0%	33,972	7.6%	-3.609	-0.164
No	188,453	26.9%	157,984	35.3%	-8.447	-0.337
Unknown	484,422	69.1%	255,124	57.1%	12.056	0.611
Year*						
2015	15,175	2.2%	8,493	1.9%	0.266	0.019
2016	59,359	8.5%	40,876	9.1%	-0.673	-0.024
2017	94,703	13.5%	50,073	11.2%	2.313	0.071
2018	79,773	11.4%	52,273	11.7%	-0.310	-0.010
2019	80,460	11.5%	65,222	14.6%	-3.108	-0.094
2020	91,325	13.0%	73,527	16.4%	-3.415	-0.099
2021	82,449	11.8%	52,914	11.8%	-0.071	-0.002
2022	104,636	14.9%	62,680	14.0%	0.910	0.026
2023	92,958	13.3%	41,022	9.2%	4.088	0.132
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	1.4	1.8	1.1	1.5	0.269	0.162
Combined comorbidity score ^{*,6}	1.8	2.4	1.4	2.0	0.353	0.160
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	336,011	47.9%	191,334	42.8%	5.148	0.107

Table 1I. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weight Reduction Surgery or Procedure*	1,922	0.3%	338	0.1%	0.199	0.048
Lifestyle intervention*	164,053	23.4%	95,640	21.4%	2.016	0.049
Cardiovascular Disease*	129,395	18.5%	66,557	14.9%	3.576	0.097
Cognitive Impairment*	13,887	2.0%	3,015	0.7%	1.307	0.115
Traumatic Brain Injury*	1,152	0.2%	1,117	0.2%	-0.085	-0.019
Migraine*	33,356	4.8%	20,758	4.6%	0.116	0.005
Epilepsy*	9,041	1.3%	6,272	1.4%	-0.113	-0.010
Chronic Pain*	215,599	30.8%	100,046	22.4%	8.385	0.193
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	6,415	0.9%	4,226	0.9%	-0.030	-0.003
Psychiatric History Overall*	471,757	67.3%	282,053	63.1%	4.225	0.090
Psychiatric Drug Dispensings	379,546	54.2%	221,611	49.6%	4.587	0.093
Intentional Self-Harm Encounter	2,176	0.3%	470	0.1%	0.205	0.045
Any Other Psychiatric Event	384,445	54.9%	226,805	50.7%	4.125	0.085
Attention-Deficit/Hyperactivity Disorder	24,324	3.5%	4,992	1.1%	2.354	0.158
Akathisia	504	0.1%	382	0.1%	-0.013	-0.005
Anxiety	153,341	21.9%	79,563	17.8%	4.083	0.103
Behavioral Disorder	45,613	6.5%	18,427	4.1%	2.387	0.106
Bipolar Disorder	50,296	7.2%	24,074	5.4%	1.792	0.074
Cerebral Degenerations usually Manifested in Childhood	3,626	0.5%	3,201	0.7%	-0.199	-0.025

Table 1I. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Conduct Disorder	385	0.1%	427	0.1%	-0.041	-0.015
Delirium	16,653	2.4%	4,527	1.0%	1.364	0.106
Depression	153,967	22.0%	81,523	18.2%	3.734	0.094
Electroconvulsive Therapy	130	0.0%	82	0.0%	0.000	0.000
Hallucination	2,010	0.3%	684	0.2%	0.134	0.028
Obsessive-Compulsive Disorder	1,128	0.2%	883	0.2%	-0.037	-0.009
Other Cerebral Degenerations	2,852	0.4%	2,286	0.5%	-0.104	-0.015
Other Mental Disorders	4,821	0.7%	3,479	0.8%	-0.090	-0.011
Other Psychological Disorders	87,977	12.6%	54,129	12.1%	0.446	0.014
Persistent Mental Disorders due to Conditions Classified Elsewhere	2,202	0.3%	1,764	0.4%	-0.080	-0.014
Personality Disorders	3,438	0.5%	2,289	0.5%	-0.021	-0.003
Pervasive Developmental Disorders	466	0.1%	416	0.1%	-0.027	-0.009
Post-Traumatic Stress Disorder	20,667	2.9%	11,266	2.5%	0.429	0.026
Psychotherapy	52,714	7.5%	30,246	6.8%	0.756	0.029
Psychotic Conditions	2,127	0.3%	1,951	0.4%	-0.133	-0.022
Schizophrenia	19,872	2.8%	11,213	2.5%	0.327	0.020

Table 1I. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Sleep Disorder	227,030	32.4%	106,566	23.8%	8.558	0.193
Substance Abuse	40,637	5.8%	26,781	6.0%	-0.192	-0.008
Suicidal Behavior	4,616	0.7%	2,147	0.5%	0.178	0.024
Transcranial Magnetic Stimulation	94	0.0%	285	0.1%	-0.050	-0.026
Vagus Nerve Stimulation	406	0.1%	563	0.1%	-0.068	-0.022

Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	23,367	3.3%	0	0.0%	NaN	NaN
dulaglutide	228,046	32.5%	0	0.0%	NaN	NaN
exenatide	63,262	9.0%	0	0.0%	NaN	NaN
liraglutide	141,205	20.1%	0	0.0%	NaN	NaN
lixisenatide	6,020	0.9%	0	0.0%	NaN	NaN
semaglutide	216,182	30.8%	0	0.0%	NaN	NaN
tirzepatide	40,014	5.7%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	700,837	100.0%	447,081	100.0%	-0.000	-0.003
insulin*	296,679	42.3%	195,714	43.8%	-1.444	-0.029
metformin*	650,545	92.8%	407,937	91.2%	1.579	0.058
alpha-glucosidase inhibitors*	2,422	0.3%	1,638	0.4%	-0.021	-0.003
thiazolidinediones*	40,563	5.8%	34,003	7.6%	-1.818	-0.073
meglitinides*	4,257	0.6%	3,317	0.7%	-0.135	-0.016
amylin analogue*	74	0.0%	74	0.0%	-0.006	-0.005

Table 11. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
sulfonylureas*	198,697	28.4%	157,725	35.3%	-6.928	-0.150
bile acid sequestrants*	2,523	0.4%	1,598	0.4%	0.002	0.000
Other Weight Loss Agents*	2,934	0.4%	1,940	0.4%	-0.015	-0.002
benzphetamine	1	0.0%	2	0.0%	-0.000	-0.002
Combination naltrexone and bupropion	1,218	0.2%	224	0.1%	0.124	0.037
diethylpropion	73	0.0%	38	0.0%	0.002	0.002
lorcaserin	94	0.0%	91	0.0%	-0.007	-0.005
phentermine	1,479	0.2%	1,356	0.3%	-0.092	-0.018
phentermine-topiramate	81	0.0%	181	0.0%	-0.029	-0.018
phendimetrazine	72	0.0%	56	0.0%	-0.002	-0.002
orlistat	34	0.0%	30	0.0%	-0.002	-0.002
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	293,671	41.9%	133,446	29.8%	12.054	0.256
Antipsychotics	77,413	11.0%	43,570	9.7%	1.300	0.043
Anxiolytics/Hypnotics	187,489	26.8%	104,214	23.3%	3.442	0.080
Lithium & Other Mood Stabilizers	61,124	8.7%	36,239	8.1%	0.616	0.022
Antidepressants	297,272	42.4%	179,579	40.2%	2.250	0.046
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	12.6	11.8	10.7	11.6	1.870	0.160

Table 11. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of emergency room encounters*	0.9	2.1	0.5	1.2	0.410	0.236
Mean number of inpatient hospital encounters*	0.3	0.7	0.1	0.5	0.144	0.250
Mean number of non-acute institutional encounters*	0.0	0.2	0.0	0.2	0.005	0.026
Mean number of other ambulatory encounters*	4.8	12.3	4.8	14.7	0.063	0.005
Mean number of filled prescriptions*	38.8	32.3	30.7	23.1	8.107	0.289
Mean number of generics dispensed*	15.1	8.9	11.8	5.9	3.334	0.441
Mean number of unique drug classes dispensed*	11.6	6.7	10.3	5.6	1.339	0.217

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1m. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	473,273	100.0%	485,381	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	70.9	3.8	71.5	4.0	-0.574	-0.146
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	473,273	100.0%	485,381	100.0%	0.000	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	257,663	54.4%	211,064	43.5%	10.959	0.221
Male	215,610	45.6%	274,317	56.5%	-10.959	-0.221
Race ³						
American Indian or Alaska Native	2,565	0.5%	2,208	0.5%	0.087	0.012
Asian	7,708	1.6%	17,975	3.7%	-2.075	-0.129
Black or African American	43,763	9.2%	46,386	9.6%	-0.310	-0.011
Multi-racial	466	0.1%	530	0.1%	-0.011	-0.003
Native Hawaiian or Other Pacific Islander	1,354	0.3%	1,919	0.4%	-0.109	-0.019
Unknown	62,222	13.1%	77,368	15.9%	-2.792	-0.079
White	355,195	75.1%	338,995	69.8%	5.210	0.117
Hispanic origin						
Yes	11,471	2.4%	17,301	3.6%	-1.141	-0.067

Table 1m. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
No	383,206	81.0%	378,513	78.0%	2.987	0.074
Unknown	78,596	16.6%	89,567	18.5%	-1.846	-0.049
Year*						
2015	6,342	1.3%	6,774	1.4%	-0.056	-0.005
2016	30,647	6.5%	28,643	5.9%	0.574	0.024
2017	35,491	7.5%	34,801	7.2%	0.329	0.013
2018	43,552	9.2%	34,700	7.1%	2.053	0.075
2019	53,617	11.3%	53,217	11.0%	0.365	0.012
2020	55,652	11.8%	62,906	13.0%	-1.201	-0.037
2021	75,334	15.9%	89,050	18.3%	-2.429	-0.064
2022	89,465	18.9%	107,186	22.1%	-3.179	-0.079
2023	83,173	17.6%	68,104	14.0%	3.543	0.097
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	1.8	1.8	1.9	1.9	-0.099	-0.054
Combined comorbidity score ^{*,5}	2.0	2.4	2.2	2.6	-0.205	-0.082
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	221,116	46.7%	167,235	34.5%	12.266	0.252
Weight Reduction Surgery or Procedure*	232	0.0%	259	0.1%	-0.004	-0.002
Lifestyle intervention*	58,705	12.4%	56,714	11.7%	0.720	0.022
Cardiovascular Disease*	116,218	24.6%	144,176	29.7%	-5.147	-0.116
Cognitive Impairment*	11,691	2.5%	12,819	2.6%	-0.171	-0.011

Table 1m. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Traumatic Brain Injury*	923	0.2%	747	0.2%	0.041	0.010
Migraine*	11,571	2.4%	9,791	2.0%	0.428	0.029
Epilepsy*	4,216	0.9%	4,509	0.9%	-0.038	-0.004
Chronic Pain*	102,219	21.6%	86,670	17.9%	3.742	0.094
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	1,357	0.3%	1,185	0.2%	0.043	0.008
Psychiatric History Overall*	285,448	60.3%	255,644	52.7%	7.645	0.155
Psychiatric Drug Dispensings	205,473	43.4%	170,515	35.1%	8.285	0.170
Intentional Self-Harm Encounter	133	0.0%	151	0.0%	-0.003	-0.002
Any Other Psychiatric Event	228,898	48.4%	206,440	42.5%	5.833	0.117
Attention-Deficit/Hyperactivity Disorder	2,080	0.4%	1,372	0.3%	0.157	0.026
Akathisia	466	0.1%	371	0.1%	0.022	0.007
Anxiety	65,982	13.9%	56,744	11.7%	2.251	0.067
Behavioral Disorder	13,030	2.8%	11,477	2.4%	0.389	0.025
Bipolar Disorder	9,483	2.0%	7,257	1.5%	0.509	0.039
Cerebral Degenerations usually Manifested in Childhood	5,194	1.1%	6,077	1.3%	-0.155	-0.014
Conduct Disorder	107	0.0%	113	0.0%	-0.001	-0.000
Delirium	6,008	1.3%	6,882	1.4%	-0.148	-0.013
Depression	79,904	16.9%	62,481	12.9%	4.011	0.113
Electroconvulsive Therapy	*****	*****	34	0.0%	*****	*****
Hallucination	643	0.1%	675	0.1%	-0.003	-0.001
Obsessive-Compulsive Disorder	410	0.1%	420	0.1%	0.000	0.000

Table 1m. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Psychiatric History	Number/ Mean	Percent/ Standard Deviation²	Number/ Mean	Percent/ Standard Deviation²	Absolute Difference	Standardized Difference
Other Cerebral Degenerations	8,350	1.8%	8,630	1.8%	-0.014	-0.001
Other Mental Disorders	2,892	0.6%	2,775	0.6%	0.039	0.005
Other Psychological Disorders	27,725	5.9%	34,442	7.1%	-1.238	-0.050
Persistent Mental Disorders due to Conditions Classified Elsewhere	8,042	1.7%	8,588	1.8%	-0.070	-0.005
Personality Disorders	527	0.1%	398	0.1%	0.029	0.009
Pervasive Developmental Disorders	*****	*****	*****	*****	0.000	0.000
Post-Traumatic Stress Disorder	2,877	0.6%	2,321	0.5%	0.130	0.018
Psychotherapy	14,256	3.0%	10,542	2.2%	0.840	0.053
Psychotic Conditions	923	0.2%	960	0.2%	-0.003	-0.001
Schizophrenia	2,657	0.6%	2,710	0.6%	0.003	0.000
Sleep Disorder	129,592	27.4%	107,823	22.2%	5.168	0.120
Substance Abuse	14,307	3.0%	15,636	3.2%	-0.198	-0.011
Suicidal Behavior	1,732	0.4%	1,612	0.3%	0.034	0.006
Transcranial Magnetic Stimulation	88	0.0%	54	0.0%	0.007	0.006
Vagus Nerve Stimulation	490	0.1%	297	0.1%	0.042	0.015
Medical Product Use	Number/ Mean	Percent/ Standard Deviation²	Number/ Mean	Percent/ Standard Deviation²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	1,245	0.3%	0	0.0%	NaN	NaN
dulaglutide	165,725	35.0%	0	0.0%	NaN	NaN
exenatide	27,683	5.8%	0	0.0%	NaN	NaN
liraglutide	83,836	17.7%	0	0.0%	NaN	NaN
lixisenatide	8,423	1.8%	0	0.0%	NaN	NaN
semaglutide	175,983	37.2%	0	0.0%	NaN	NaN
tirzepatide	10,490	2.2%	0	0.0%	NaN	NaN

Table 1m. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Any Anti-Diabetic Agents	473,273	100.0%	485,380	100.0%	0.000	0.002
insulin*	160,398	33.9%	100,255	20.7%	13.236	0.301
metformin*	403,913	85.3%	426,156	87.8%	-2.454	-0.072
alpha-glucosidase inhibitors*	2,287	0.5%	2,226	0.5%	0.025	0.004
thiazolidinediones*	48,672	10.3%	46,094	9.5%	0.788	0.026
meglitinides*	7,364	1.6%	6,332	1.3%	0.251	0.021
amylin analogue*	69	0.0%	*****	*****	*****	*****
sulfonylureas*	200,077	42.3%	206,280	42.5%	-0.223	-0.005
bile acid sequestrants*	2,216	0.5%	1,932	0.4%	0.070	0.011
Other Weight Loss Agents*	554	0.1%	189	0.0%	0.078	0.028
benzphetamine	*****	*****	*****	*****	0.000	0.002
Combination naltrexone and bupropion	39	0.0%	*****	*****	*****	*****
diethylpropion	26	0.0%	*****	*****	*****	*****
lorcaserin	*****	*****	*****	*****	0.000	0.000
phentermine	456	0.1%	155	0.0%	0.064	0.025
phentermine-topiramate	*****	*****	*****	*****	0.001	0.003
phendimetrazine	*****	*****	*****	*****	0.001	0.004
orlistat	*****	*****	*****	*****	0.001	0.002
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	111,862	23.6%	96,628	19.9%	3.728	0.090
Antipsychotics	15,850	3.3%	14,104	2.9%	0.443	0.025
Anxiolytics/Hypnotics	77,915	16.5%	66,684	13.7%	2.725	0.076

Table 1m. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Lithium & Other Mood Stabilizers	17,186	3.6%	14,311	2.9%	0.683	0.038
Antidepressants	169,562	35.8%	132,620	27.3%	8.505	0.184
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	11.9	10.4	11.1	9.5	0.812	0.081
Mean number of emergency room encounters*	0.3	0.8	0.3	0.9	-0.028	-0.034
Mean number of inpatient hospital encounters*	0.1	0.4	0.1	0.5	-0.046	-0.107
Mean number of non-acute institutional encounters*	0.0	0.2	0.0	0.2	-0.004	-0.021
Mean number of other ambulatory encounters*	3.1	7.2	3.2	7.2	-0.049	-0.007
Mean number of filled prescriptions*	23.9	16.6	22.3	15.3	1.569	0.098
Mean number of generics dispensed*	11.0	4.6	10.5	4.5	0.547	0.120
Mean number of unique drug classes dispensed*	9.9	4.2	8.7	4.2	1.142	0.274

Table 1m. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	SGLT-2 Inhibitors	

^{*} Covariate included in the propensity score logistic regression model.

¹ Covariates in blue show a standardized difference greater than 0.1.

² Value represents standard deviation where no % follows the value.

³ Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴ 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.

⁵ 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1n. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	705,182	N/A	530,442	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	71.3	4.0	71.1	4.0	0.205	0.052
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	705,182	100.0%	530,442	100.0%	0.000	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	342,499	48.6%	265,551	50.1%	-1.493	-0.030
Male	362,683	51.4%	264,890	49.9%	1.493	0.030
Race ⁴						
American Indian or Alaska Native	3,752	0.5%	2,491	0.5%	0.062	0.009
Asian	19,074	2.7%	16,807	3.2%	-0.464	-0.028
Black or African American	77,966	11.1%	54,644	10.3%	0.754	0.025
Multi-racial	615	0.1%	566	0.1%	-0.019	-0.006
Native Hawaiian or Other Pacific Islander	1,706	0.2%	1,733	0.3%	-0.085	-0.016
Unknown	96,998	13.8%	83,057	15.7%	-1.903	-0.072
White	505,073	71.6%	371,143	70.0%	1.654	0.041
Hispanic origin						
Yes	22,252	3.2%	19,626	3.7%	-0.544	-0.030

Table 1n. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
No	555,320	78.7%	414,959	78.2%	0.519	0.021
Unknown	127,610	18.1%	95,857	18.1%	0.025	0.001
Year*						
2015	8,927	1.3%	7,777	1.5%	-0.200	-0.017
2016	55,488	7.9%	34,875	6.6%	1.294	0.050
2017	55,157	7.8%	40,481	7.6%	0.190	0.007
2018	56,729	8.0%	46,260	8.7%	-0.676	-0.024
2019	86,586	12.3%	59,984	11.3%	0.970	0.030
2020	84,149	11.9%	65,529	12.4%	-0.421	-0.013
2021	106,345	15.1%	90,029	17.0%	-1.892	-0.052
2022	144,640	20.5%	105,610	19.9%	0.601	0.015
2023	107,163	15.2%	79,895	15.1%	0.135	0.004
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI)* ⁵	2.7	2.4	2.0	1.9	0.707	0.330
Combined comorbidity score* ⁶	3.6	3.7	2.3	2.6	1.352	0.419
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	331,584	47.0%	223,813	42.2%	4.827	0.097
Weight Reduction Surgery or Procedure*	1,039	0.1%	385	0.1%	0.075	0.023
Lifestyle intervention*	93,421	13.2%	64,661	12.2%	1.058	0.032
Cardiovascular Disease*	285,657	40.5%	153,745	29.0%	11.524	0.244

Table 1n. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Cognitive Impairment*	47,308	6.7%	15,815	3.0%	3.727	0.175
Traumatic Brain Injury*	1,139	0.2%	1,060	0.2%	-0.038	-0.009
Migraine*	33,183	4.7%	13,474	2.5%	2.166	0.116
Epilepsy*	24,728	3.5%	5,590	1.1%	2.453	0.165
Chronic Pain*	221,986	31.5%	114,776	21.6%	9.841	0.224
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	10,189	1.4%	1,726	0.3%	1.120	0.120
Psychiatric History Overall*	493,239	69.9%	312,447	58.9%	11.042	0.232
Psychiatric Drug Dispensings	369,384	52.4%	223,476	42.1%	10.251	0.206
Intentional Self-Harm Encounter	999	0.1%	196	0.0%	0.105	0.035
Any Other Psychiatric Event	425,657	60.4%	251,421	47.4%	12.963	0.262
Attention-Deficit/Hyperactivity Disorder	3,047	0.4%	1,789	0.3%	0.095	0.015
Akathisia	605	0.1%	578	0.1%	-0.023	-0.007
Anxiety	154,093	21.9%	75,507	14.2%	7.617	0.199
Behavioral Disorder	28,822	4.1%	14,756	2.8%	1.305	0.072
Bipolar Disorder	17,699	2.5%	10,870	2.0%	0.461	0.031
Cerebral Degenerations usually Manifested in Childhood	27,803	3.9%	7,123	1.3%	2.600	0.163
Conduct Disorder	196	0.0%	135	0.0%	0.002	0.001
Delirium	44,871	6.4%	8,587	1.6%	4.744	0.244
Depression	171,476	24.3%	84,780	16.0%	8.334	0.209

Table 1n. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Electroconvulsive Therapy	587	0.1%	56	0.0%	0.073	0.033
Hallucination	2,905	0.4%	855	0.2%	0.251	0.047
Obsessive-Compulsive Disorder	503	0.1%	530	0.1%	-0.028	-0.010
Other Cerebral Degenerations	14,821	2.1%	10,654	2.0%	0.093	0.007
Other Mental Disorders	7,332	1.0%	3,609	0.7%	0.359	0.039
Other Psychological Disorders	75,048	10.6%	38,754	7.3%	3.336	0.117
Persistent Mental Disorders due to Conditions Classified Elsewhere	37,086	5.3%	10,650	2.0%	3.251	0.175
Personality Disorders	909	0.1%	541	0.1%	0.027	0.008
Pervasive Developmental Disorders	96	0.0%	127	0.0%	-0.010	-0.008
Post-Traumatic Stress Disorder	12,590	1.8%	3,358	0.6%	1.152	0.105
Psychotherapy	42,452	6.0%	15,888	3.0%	3.025	0.146
Psychotic Conditions	2,378	0.3%	1,406	0.3%	0.072	0.013
Schizophrenia	13,233	1.9%	3,736	0.7%	1.172	0.104
Sleep Disorder	245,071	34.8%	136,224	25.7%	9.072	0.199
Substance Abuse	38,678	5.5%	18,798	3.5%	1.941	0.094
Suicidal Behavior	12,649	1.8%	1,973	0.4%	1.422	0.138
Transcranial Magnetic Stimulation	63	0.0%	63	0.0%	-0.003	-0.003
Vagus Nerve Stimulation	657	0.1%	410	0.1%	0.016	0.005

Table 1n. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Index GLP-1RA Product						
albiglutide	2,176	0.3%	0	0.0%	NaN	NaN
dulaglutide	275,321	39.0%	0	0.0%	NaN	NaN
exenatide	43,047	6.1%	0	0.0%	NaN	NaN
liraglutide	134,757	19.1%	0	0.0%	NaN	NaN
lixisenatide	13,291	1.9%	0	0.0%	NaN	NaN
semaglutide	223,417	31.7%	0	0.0%	NaN	NaN
tirzepatide	13,596	1.9%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	705,182	100.0%	530,441	100.0%	0.000	0.002
insulin*	333,607	47.3%	220,300	41.5%	5.776	0.116
metformin*	601,381	85.3%	455,512	85.9%	-0.594	-0.017
alpha-glucosidase inhibitors*	3,020	0.4%	3,182	0.6%	-0.172	-0.024
thiazolidinediones*	61,049	8.7%	55,540	10.5%	-1.813	-0.062
meglitinides*	15,954	2.3%	9,231	1.7%	0.522	0.037
amylin analogue*	69	0.0%	102	0.0%	-0.009	-0.008
sulfonylureas*	275,192	39.0%	229,776	43.3%	-4.294	-0.087
bile acid sequestrants*	3,544	0.5%	2,918	0.6%	-0.048	-0.007
Other Weight Loss Agents*	455	0.1%	435	0.1%	-0.017	-0.006
benzphetamine	2	0.0%	8	0.0%	-0.001	-0.004
bupropion	25	0.0%	21	0.0%	-0.000	-0.001
diethylpropion	17	0.0%	5	0.0%	0.002	0.004
lorcaserin	4	0.0%	62	0.0%	-0.011	-0.014

Table 1n. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
phentermine	391	0.1%	318	0.1%	-0.004	-0.002
phentermine-topiramate	7	0.0%	8	0.0%	-0.000	-0.001
phendimetrazine	29	0.0%	9	0.0%	0.002	0.004
orlistat	6	0.0%	5	0.0%	0.000	0.000
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	285,120	40.4%	133,507	25.2%	15.263	0.329
Antipsychotics	52,143	7.4%	20,739	3.9%	3.484	0.151
Anxiolytics/Hypnotics	151,727	21.5%	91,527	17.3%	4.261	0.108
Lithium & Other Mood Stabilizers	49,887	7.1%	21,422	4.0%	3.036	0.133
Antidepressants	312,811	44.4%	179,096	33.8%	10.595	0.218
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	16.4	12.9	12.3	10.6	4.084	0.345
Mean number of emergency room encounters *	0.8	2.0	0.3	0.9	0.494	0.317
Mean number of inpatient hospital encounters *	0.5	0.9	0.1	0.5	0.329	0.439
Mean number of non-acute institutional encounters *	0.1	0.5	0.0	0.2	0.096	0.243
Mean number of other ambulatory encounters *	7.9	13.6	3.8	9.3	4.088	0.352

Table 1n. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of generics dispensed*	16.9	9.9	11.5	4.9	5.424	0.696
Mean number of unique drug classes dispensed*	13.1	7.1	10.0	4.7	3.109	0.517

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1o. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	44,377	100.0%	82,805	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	83.8	3.3	84.2	3.5	-0.444	-0.130
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	44,377	100.0%	82,805	100.0%	0.000	NaN
Sex*						
Female	23,842	53.7%	38,403	46.4%	7.348	0.147
Male	20,535	46.3%	44,402	53.6%	-7.348	-0.147
Race ³						
American Indian or Alaska Native	278	0.6%	334	0.4%	0.223	0.031
Asian	1,065	2.4%	3,919	4.7%	-2.333	-0.126
Black or African American	3,379	7.6%	6,497	7.8%	-0.232	-0.009
Multi-racial	12	0.0%	28	0.0%	-0.007	-0.004
Native Hawaiian or Other Pacific Islander	125	0.3%	371	0.4%	-0.166	-0.028
Unknown	4,485	10.1%	9,845	11.9%	-1.783	-0.057
White	35,033	78.9%	61,811	74.6%	4.298	0.102
Hispanic origin						
Yes	1,248	2.8%	2,461	3.0%	-0.160	-0.010

Table 1o. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	37,568	84.7%	68,354	82.5%	2.108	0.057
Unknown	5,561	12.5%	11,990	14.5%	-1.949	-0.057
Year*						
2015	414	0.9%	554	0.7%	0.264	0.030
2016	2,136	4.8%	2,497	3.0%	1.798	0.093
2017	2,884	6.5%	3,416	4.1%	2.374	0.106
2018	3,909	8.8%	3,687	4.5%	4.356	0.176
2019	5,382	12.1%	6,510	7.9%	4.266	0.143
2020	5,507	12.4%	8,755	10.6%	1.837	0.058
2021	7,922	17.9%	15,814	19.1%	-1.246	-0.032
2022	8,917	20.1%	24,046	29.0%	-8.946	-0.209
2023	7,306	16.5%	17,526	21.2%	-4.702	-0.121
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	2.7	2.1	2.8	2.1	-0.073	-0.035
Combined comorbidity score ^{*,5}	3.4	2.9	3.8	3.2	-0.409	-0.134
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	13,840	31.2%	18,927	22.9%	8.330	0.188
Weight Reduction Surgery or Procedure*	38	0.1%	69	0.1%	0.002	0.001
Lifestyle intervention*	4,905	11.1%	9,216	11.1%	-0.077	-0.002
Cardiovascular Disease*	17,108	38.6%	36,716	44.3%	-5.789	-0.118

Table 1o. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cognitive Impairment*	5,887	13.3%	9,388	11.3%	1.928	0.059
Migraine*	701	1.6%	1,275	1.5%	0.040	0.003
Epilepsy*	507	1.1%	938	1.1%	0.010	0.001
Chronic Pain*	8,808	19.8%	14,764	17.8%	2.018	0.052
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	110	0.2%	158	0.2%	0.057	0.012
Psychiatric History Overall*	25,837	58.2%	43,803	52.9%	5.323	0.107
Psychiatric Drug Dispensings	17,488	39.4%	27,818	33.6%	5.813	0.121
Intentional Self-Harm Encounter	13	0.0%	29	0.0%	-0.006	-0.003
Any Other Psychiatric Event	20,964	47.2%	35,834	43.3%	3.966	0.080
Attention-Deficit/Hyperactivity Disorder	41	0.1%	58	0.1%	0.022	0.008
Akathisia	*****	*****	*****	*****	0.020	0.008
Anxiety	5,399	12.2%	9,392	11.3%	0.824	0.026
Behavioral Disorder	1,274	2.9%	2,077	2.5%	0.363	0.022
Bipolar Disorder	622	1.4%	812	1.0%	0.421	0.039
Cerebral Degenerations usually Manifested in Childhood	1,078	2.4%	2,233	2.7%	-0.268	-0.017
Conduct Disorder	*****	*****	13	0.0%	*****	*****
Delirium	1,622	3.7%	2,891	3.5%	0.164	0.009
Depression	6,950	15.7%	9,983	12.1%	3.605	0.104
Electroconvulsive Therapy	*****	*****	*****	*****	0.003	0.004

Table 1o. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Hallucination	196	0.4%	300	0.4%	0.079	0.013
Obsessive-Compulsive Disorder	29	0.1%	*****	*****	*****	*****
Other Cerebral Degenerations	3,153	7.1%	5,029	6.1%	1.032	0.042
Other Mental Disorders	458	1.0%	733	0.9%	0.147	0.015
Other Psychological Disorders	1,884	4.2%	3,531	4.3%	-0.019	-0.001
Persistent Mental Disorders due to Conditions Classified Elsewhere	4,550	10.3%	6,723	8.1%	2.134	0.074
Personality Disorders	33	0.1%	39	0.0%	0.027	0.011
Pervasive Developmental Disorders	*****	*****	*****	*****	-0.001	-0.001
Post-Traumatic Stress Disorder	82	0.2%	119	0.1%	0.041	0.010
Psychotherapy	989	2.2%	1,355	1.6%	0.592	0.043
Psychotic Conditions	214	0.5%	265	0.3%	0.162	0.026
Schizophrenia	162	0.4%	216	0.3%	0.104	0.019
Sleep Disorder	9,776	22.0%	16,499	19.9%	2.104	0.052
Substance Abuse	867	2.0%	1,593	1.9%	0.030	0.002
Suicidal Behavior	163	0.4%	274	0.3%	0.036	0.006
Transcranial Magnetic Stimulation	*****	*****	*****	*****	0.004	0.004
Vagus Nerve Stimulation	*****	*****	44	0.1%	*****	*****

Table 1o. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	100	0.2%	0	0.0%	NaN	NaN
dulaglutide	18,234	41.1%	0	0.0%	NaN	NaN
exenatide	2,401	5.4%	0	0.0%	NaN	NaN
liraglutide	6,606	14.9%	0	0.0%	NaN	NaN
lixisenatide	1,165	2.6%	0	0.0%	NaN	NaN
semaglutide	15,244	34.4%	0	0.0%	NaN	NaN
tirzepatide	640	1.4%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	44,377	100.0%	82,805	100.0%	0.000	NaN
insulin*	16,958	38.2%	14,589	17.6%	20.595	0.472
metformin*	31,959	72.0%	64,487	77.9%	-5.861	-0.136
alpha-glucosidase inhibitors*	373	0.8%	521	0.6%	0.211	0.025
thiazolidinediones*	4,859	10.9%	8,034	9.7%	1.247	0.041
meglitinides*	1,534	3.5%	1,939	2.3%	1.115	0.066
amylin analogue*	*****	*****	*****	*****	0.008	0.011
sulfonylureas*	23,052	51.9%	39,071	47.2%	4.761	0.095
bile acid sequestrants*	*****	*****	369	0.4%	*****	*****
Other Weight Loss Agents*	*****	*****	*****	*****	0.017	0.017
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	0	0.0%	0	0.0%	NaN	NaN
diethylpropion	0	0.0%	0	0.0%	NaN	NaN
lorcaserin	0	0.0%	0	0.0%	NaN	NaN
phentermine	*****	*****	*****	*****	0.017	0.017

Table 1o. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
phentermine-topiramate	0	0.0%	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	0	0.0%	0	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	9,191	20.7%	14,309	17.3%	3.431	0.088
Antipsychotics	1,643	3.7%	2,316	2.8%	0.905	0.051
Anxiolytics/Hypnotics	6,259	14.1%	10,441	12.6%	1.495	0.044
Lithium & Other Mood Stabilizers	1,221	2.8%	1,854	2.2%	0.512	0.033
Antidepressants	13,905	31.3%	20,967	25.3%	6.013	0.134
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	13.1	11.0	12.8	10.1	0.259	0.025
Mean number of emergency room encounters *	0.4	0.9	0.4	1.0	-0.040	-0.041
Mean number of inpatient hospital encounters *	0.2	0.5	0.3	0.7	-0.097	-0.162
Mean number of non-acute institutional encounters *	0.1	0.3	0.1	0.4	-0.007	-0.021
Mean number of other ambulatory encounters *	5.6	11.4	5.4	10.3	0.213	0.020
Mean number of filled prescriptions *	27.3	20.8	25.0	17.4	2.312	0.121
Mean number of generics dispensed *	11.6	4.6	11.4	4.5	0.256	0.056

Table 1o. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of unique drug classes dispensed*	10.5	4.1	9.7	4.1	0.804	0.194

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1p. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	72,413	N/A	87,813	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	84.2	3.6	84.0	3.4	0.187	0.053
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	72,413	100.0%	87,813	100.0%	0.000	NaN
Sex*						
Female	46,208	63.8%	43,869	50.0%	13.854	0.283
Male	26,206	36.2%	43,945	50.0%	-13.854	-0.283
Race ⁴						
American Indian or Alaska Native	409	0.6%	412	0.5%	0.096	0.013
Asian	2,004	2.8%	3,904	4.4%	-1.678	-0.090
Black or African American	3,866	5.3%	7,146	8.1%	-2.799	-0.112
Multi-racial	17	0.0%	28	0.0%	-0.008	-0.005
Native Hawaiian or Other Pacific Islander	333	0.5%	338	0.4%	0.074	0.012
Unknown	6,238	8.6%	10,321	11.8%	-3.138	-0.137
White	59,546	82.2%	65,665	74.8%	7.453	0.201
Hispanic origin						

Table 1p. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Yes	1,931	2.7%	2,823	3.2%	-0.547	-0.032
No	62,939	86.9%	72,676	82.8%	4.155	0.190
Unknown	7,543	10.4%	12,315	14.0%	-3.608	-0.232
Year*						
2015	455	0.6%	717	0.8%	-0.188	-0.022
2016	3,386	4.7%	3,482	4.0%	0.711	0.035
2017	3,530	4.9%	4,454	5.1%	-0.197	-0.009
2018	4,524	6.2%	5,531	6.3%	-0.051	-0.002
2019	5,933	8.2%	8,265	9.4%	-1.219	-0.043
2020	6,478	8.9%	9,925	11.3%	-2.356	-0.078
2021	10,675	14.7%	16,333	18.6%	-3.858	-0.103
2022	22,184	30.6%	22,318	25.4%	5.220	0.116
2023	15,248	21.1%	16,789	19.1%	1.938	0.048
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	3.8	2.4	2.8	2.1	0.938	0.421
Combined comorbidity score ^{*,6}	5.7	4.3	3.8	3.2	1.980	0.521
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	19,203	26.5%	23,274	26.5%	0.014	0.000
Weight Reduction Surgery or Procedure*	56	0.1%	114	0.1%	-0.053	-0.016

Table 1p. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Lifestyle intervention*	6,692	9.2%	9,783	11.1%	-1.900	-0.063
Cardiovascular Disease*	39,968	55.2%	37,963	43.2%	11.963	0.240
Cognitive Impairment*	10,953	15.1%	11,514	13.1%	2.014	0.058
Traumatic Brain Injury*	116	0.2%	200	0.2%	-0.067	-0.015
Migraine*	1,399	1.9%	1,471	1.7%	0.256	0.019
Epilepsy*	7,478	10.3%	1,110	1.3%	9.063	0.396
Chronic Pain*	28,334	39.1%	16,747	19.1%	20.056	0.453
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	293	0.4%	204	0.2%	0.172	0.030
Psychiatric History Overall*	53,303	73.6%	49,626	56.5%	17.095	0.364
Psychiatric Drug Dispensings	35,101	48.5%	32,942	37.5%	10.960	0.222
Intentional Self-Harm Encounter	176	0.2%	28	0.0%	0.211	0.056
Any Other Psychiatric Event	45,503	62.8%	40,457	46.1%	16.766	0.341
Attention-Deficit/Hyperactivity Disorder	76	0.1%	61	0.1%	0.036	0.012
Akathisia	29	0.0%	72	0.1%	-0.042	-0.017
Anxiety	11,432	15.8%	11,077	12.6%	3.174	0.091
Behavioral Disorder	9,826	13.6%	2,490	2.8%	10.734	0.399
Bipolar Disorder	802	1.1%	1,024	1.2%	-0.059	-0.006
Cerebral Degenerations usually Manifested in Childhood	2,497	3.4%	2,450	2.8%	0.658	0.038

Table 1p. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Conduct Disorder	7	0.0%	13	0.0%	-0.006	-0.006
Delirium	13,726	19.0%	3,332	3.8%	15.161	0.492
Depression	19,291	26.6%	12,009	13.7%	12.964	0.327
Electroconvulsive Therapy	8	0.0%	5	0.0%	0.006	0.006
Hallucination	314	0.4%	329	0.4%	0.059	0.009
Obsessive-Compulsive Disorder	58	0.1%	42	0.0%	0.032	0.013
Other Cerebral Degenerations	5,253	7.3%	5,933	6.8%	0.497	0.019
Other Mental Disorders	846	1.2%	844	1.0%	0.207	0.020
Other Psychological Disorders	3,310	4.6%	4,080	4.6%	-0.074	-0.004
Persistent Mental Disorders due to Conditions Classified Elsewhere	8,152	11.3%	8,375	9.5%	1.721	0.056
Personality Disorders	172	0.2%	53	0.1%	0.177	0.046
Pervasive Developmental Disorders	4	0.0%	8	0.0%	-0.004	-0.005
Post-Traumatic Stress Disorder	80	0.1%	147	0.2%	-0.057	-0.015
Psychotherapy	1,863	2.6%	1,749	2.0%	0.581	0.039
Psychotic Conditions	411	0.6%	386	0.4%	0.128	0.018
Schizophrenia	324	0.4%	340	0.4%	0.060	0.009
Sleep Disorder	27,593	38.1%	18,622	21.2%	16.898	0.376
Substance Abuse	1,856	2.6%	1,668	1.9%	0.663	0.045

Table 1p. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Suicidal Behavior	167	0.2%	299	0.3%	-0.109	-0.020
Transcranial Magnetic Stimulation	4	0.0%	7	0.0%	-0.003	-0.003
Vagus Nerve Stimulation	30	0.0%	48	0.1%	-0.013	-0.006
Medical Product Use	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	89	0.1%	0	0.0%	NaN	NaN
dulaglutide	29,507	40.7%	0	0.0%	NaN	NaN
exenatide	2,329	3.2%	0	0.0%	NaN	NaN
liraglutide	8,255	11.4%	0	0.0%	NaN	NaN
lixisenatide	1,206	1.7%	0	0.0%	NaN	NaN
semaglutide	29,556	40.8%	0	0.0%	NaN	NaN
tirzepatide	1,521	2.1%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	72,413	100.0%	87,813	100.0%	0.000	NaN
insulin*	32,419	44.8%	29,649	33.8%	11.006	0.226
metformin*	57,726	79.7%	66,632	75.9%	3.838	0.092
alpha-glucosidase inhibitors*	572	0.8%	637	0.7%	0.064	0.007
thiazolidinediones*	5,609	7.7%	9,211	10.5%	-2.744	-0.095
meglitinides*	1,978	2.7%	2,798	3.2%	-0.455	-0.027
amylin analogue*	1	0.0%	2	0.0%	-0.000	-0.001
sulfonylureas*	26,657	36.8%	43,361	49.4%	-12.566	-0.256
bile acid sequestrants*	489	0.7%	427	0.5%	0.189	0.025

Table 1p. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Other Weight Loss Agents*	2	0.0%	1	0.0%	0.001	0.002
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	0	0.0%	0	0.0%	NaN	NaN
diethylpropion	0	0.0%	0	0.0%	NaN	NaN
lorcaserin	0	0.0%	0	0.0%	NaN	NaN
phentermine	2	0.0%	1	0.0%	0.001	0.002
phentermine-topiramate	0	0.0%	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	0	0.0%	0	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	26,341	36.4%	17,290	19.7%	16.687	0.377
Antipsychotics	9,829	13.6%	2,971	3.4%	10.190	0.372
Anxiolytics/Hypnotics	11,980	16.5%	12,655	14.4%	2.133	0.059
Lithium & Other Mood Stabilizers	2,835	3.9%	2,490	2.8%	1.079	0.059
Antidepressants	27,496	38.0%	25,154	28.6%	9.326	0.199
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	18.8	13.2	13.2	10.6	5.570	0.467
Mean number of emergency room encounters*	0.7	1.4	0.4	1.0	0.266	0.221

Table 1p. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of inpatient hospital encounters*	0.8	1.3	0.3	0.6	0.526	0.530
Mean number of non-acute institutional encounters*	0.3	0.6	0.1	0.4	0.174	0.334
Mean number of other ambulatory encounters*	11.4	15.4	6.2	12.5	5.212	0.372
Mean number of filled prescriptions*	46.7	35.1	27.0	20.1	19.618	0.685
Mean number of generics dispensed*	19.4	10.2	11.8	4.6	7.571	0.961
Mean number of unique drug classes dispensed*	15.3	7.5	10.3	4.3	4.960	0.811

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1q. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Patient Characteristics ^{1,2}	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weighted patients	1,143,720	N/A	1,104,761	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	61.6	10.3	62.5	10.7	-0.843	-0.080
Age						
18-24 years	4,551	0.4%	4,311	0.4%	0.008	0.001
25-44 years	121,372	10.6%	110,977	10.0%	0.567	0.019
45-64 years	485,921	42.5%	445,472	40.3%	2.163	0.049
65-79 years	478,421	41.8%	474,747	43.0%	-1.143	-0.028
≥ 80 years	53,455	4.7%	69,253	6.3%	-1.595	-0.071
Sex*						
Female	584,591	51.1%	551,639	49.9%	1.180	0.024
Male	559,129	48.9%	553,122	50.1%	-1.180	-0.024
Race ⁴						
American Indian or Alaska Native	8,227	0.7%	6,666	0.6%	0.116	0.014
Asian	18,139	1.6%	32,191	2.9%	-1.328	-0.090
Black or African American	108,159	9.5%	111,891	10.1%	-0.671	-0.023
Multi-racial	5,441	0.5%	4,742	0.4%	0.046	0.007
Native Hawaiian or Other Pacific Islander	3,251	0.3%	3,326	0.3%	-0.017	-0.003
Unknown	425,315	37.2%	386,829	35.0%	2.172	0.073
White	575,188	50.3%	559,116	50.6%	-0.319	-0.008
Hispanic origin						

Table 1q. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Yes	51,619	4.5%	66,865	6.1%	-1.539	-0.072
No	646,617	56.5%	651,709	59.0%	-2.455	-0.092
Unknown	445,485	39.0%	386,187	35.0%	3.994	0.191
Year*						
2015	19,209	1.7%	18,681	1.7%	-0.011	-0.001
2016	89,922	7.9%	87,326	7.9%	-0.042	-0.002
2017	109,223	9.5%	105,301	9.5%	0.018	0.001
2018	116,795	10.2%	112,090	10.1%	0.066	0.002
2019	149,145	13.0%	144,184	13.1%	-0.011	-0.000
2020	165,769	14.5%	162,510	14.7%	-0.216	-0.006
2021	160,428	14.0%	159,597	14.4%	-0.419	-0.012
2022	192,377	16.8%	186,243	16.9%	-0.038	-0.001
2023	140,852	12.3%	128,828	11.7%	0.654	0.020
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	1.5	1.8	1.5	1.7	-0.034	-0.020
Combined comorbidity score ^{*,6}	1.8	2.3	1.9	2.4	-0.033	-0.014
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	495,070	43.3%	455,589	41.2%	2.047	0.042
Weight Reduction Surgery or Procedure*	814	0.1%	833	0.1%	-0.004	-0.002
Lifestyle intervention*	201,829	17.6%	183,808	16.6%	1.009	0.027

Table 1q. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Cardiovascular Disease*	242,417	21.2%	240,572	21.8%	-0.580	-0.014
Cognitive Impairment*	26,369	2.3%	25,786	2.3%	-0.029	-0.002
Traumatic Brain Injury*	2,450	0.2%	2,418	0.2%	-0.005	-0.001
Migraine*	43,132	3.8%	39,295	3.6%	0.214	0.011
Epilepsy*	14,918	1.3%	14,148	1.3%	0.024	0.002
Chronic Pain*	244,288	21.4%	228,304	20.7%	0.694	0.017
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	8,530	0.7%	8,219	0.7%	0.002	0.000
Psychiatric History Overall*	699,289	61.1%	661,135	59.8%	1.298	0.027
Psychiatric Drug Dispensings	512,569	44.8%	490,567	44.4%	0.411	0.008
Intentional Self-Harm Encounter	1,183	0.1%	1,049	0.1%	0.009	0.003
Any Other Psychiatric Event	572,574	50.1%	534,198	48.4%	1.708	0.034
Attention-Deficit/Hyperactivity Disorder	12,008	1.0%	9,590	0.9%	0.182	0.019
Akathisia	1,111	0.1%	1,037	0.1%	0.003	0.001
Anxiety	186,796	16.3%	174,753	15.8%	0.514	0.014
Behavioral Disorder	44,982	3.9%	39,431	3.6%	0.364	0.019
Bipolar Disorder	43,367	3.8%	42,496	3.8%	-0.055	-0.003
Cerebral Degenerations usually Manifested in Childhood	11,370	1.0%	11,344	1.0%	-0.033	-0.003
Conduct Disorder	865	0.1%	860	0.1%	-0.002	-0.001
Delirium	17,544	1.5%	15,012	1.4%	0.175	0.015
Depression	205,375	18.0%	182,809	16.5%	1.409	0.037

Table 1q. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Electroconvulsive Therapy	192	0.0%	194	0.0%	-0.001	-0.001
Hallucination	2,352	0.2%	2,153	0.2%	0.011	0.002
Obsessive-Compulsive Disorder	2,022	0.2%	1,909	0.2%	0.004	0.001
Other Cerebral Degenerations	16,474	1.4%	16,397	1.5%	-0.044	-0.004
Other Mental Disorders	9,189	0.8%	8,591	0.8%	0.026	0.003
Other Psychological Disorders	102,022	8.9%	106,686	9.7%	-0.737	-0.025
Persistent Mental Disorders due to Conditions Classified Elsewhere	18,562	1.6%	17,293	1.6%	0.058	0.005
Personality Disorders	4,538	0.4%	3,918	0.4%	0.042	0.007
Pervasive Developmental Disorders	1,584	0.1%	1,693	0.2%	-0.015	-0.004
Post-Traumatic Stress Disorder	19,869	1.7%	18,359	1.7%	0.075	0.006
Psychotherapy	60,063	5.3%	54,761	5.0%	0.295	0.013
Psychotic Conditions	4,406	0.4%	4,491	0.4%	-0.021	-0.003
Schizophrenia	17,997	1.6%	20,485	1.9%	-0.281	-0.022
Sleep Disorder	294,910	25.8%	257,109	23.3%	2.512	0.059
Substance Abuse	52,327	4.6%	51,813	4.7%	-0.115	-0.005
Suicidal Behavior	5,983	0.5%	5,029	0.5%	0.068	0.010
Transcranial Magnetic Stimulation	192	0.0%	185	0.0%	0.000	0.000
Vagus Nerve Stimulation	992	0.1%	802	0.1%	0.014	0.005

Table 1q. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	10,064	0.9%	0	0.0%	NaN	NaN
dulaglutide	393,828	34.4%	0	0.0%	NaN	NaN
exenatide	86,093	7.5%	0	0.0%	NaN	NaN
liraglutide	235,519	20.6%	0	0.0%	NaN	NaN
lixisenatide	13,530	1.2%	0	0.0%	NaN	NaN
semaglutide	382,733	33.5%	0	0.0%	NaN	NaN
tirzepatide	24,377	2.1%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	1,143,717	100.0%	1,104,760	100.0%	-0.000	-0.001
insulin*	415,326	36.3%	433,509	39.2%	-2.926	-0.061
metformin*	1,012,772	88.6%	976,185	88.4%	0.189	0.006
alpha-glucosidase inhibitors*	4,775	0.4%	4,845	0.4%	-0.021	-0.003
thiazolidinediones*	93,076	8.1%	94,217	8.5%	-0.390	-0.014
meglitinides*	12,692	1.1%	13,267	1.2%	-0.091	-0.009
amylin analogue*	146	0.0%	179	0.0%	-0.003	-0.003
sulfonylureas*	424,338	37.1%	424,765	38.4%	-1.347	-0.028
bile acid sequestrants*	5,156	0.5%	4,682	0.4%	0.027	0.004
Other Weight Loss Agents*	2,805	0.2%	2,094	0.2%	0.056	0.012
benzphetamine	3	0.0%	8	0.0%	-0.000	-0.002
bupropion	329	0.0%	289	0.0%	0.003	0.002
diethylpropion	72	0.0%	41	0.0%	0.003	0.004
lorcaserin	139	0.0%	118	0.0%	0.002	0.001

Table 1q. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
phentermine	2,099	0.2%	1,536	0.1%	0.044	0.011
phentermine-topiramate	141	0.0%	78	0.0%	0.005	0.005
phendimetrazine	59	0.0%	31	0.0%	0.002	0.004
orlistat	51	0.0%	40	0.0%	0.001	0.001
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	308,268	27.0%	285,544	25.8%	1.106	0.025
Antipsychotics	73,571	6.4%	78,839	7.1%	-0.704	-0.028
Anxiolytics/Hypnotics	213,655	18.7%	213,270	19.3%	-0.624	-0.016
Lithium & Other Mood Stabilizers	62,557	5.5%	67,176	6.1%	-0.611	-0.026
Antidepressants	416,863	36.4%	392,264	35.5%	0.941	0.020
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	11.3	10.6	11.1	10.6	0.137	0.013
Mean number of emergency room encounters*	0.4	1.2	0.4	1.1	0.021	0.018
Mean number of inpatient hospital encounters*	0.1	0.5	0.1	0.5	0.007	0.014
Mean number of non-acute institutional encounters*	0.0	0.2	0.0	0.2	0.001	0.004

Table 1q. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of other ambulatory encounters*	4.2	11.8	4.1	11.8	0.048	0.004
Mean number of filled prescriptions*	27.5	21.4	26.8	20.0	0.712	0.034
Mean number of generics dispensed*	11.5	5.7	11.2	5.2	0.275	0.050
Mean number of unique drug classes dispensed*	9.9	4.8	9.7	4.9	0.127	0.026

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1r. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	638,550	100.0%	464,779	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	60.4	10.6	63.8	10.4	-3.452	-0.329
Age						
18-24 years	4,048	0.6%	1,710	0.4%	0.266	0.038
25-44 years	83,995	13.2%	40,807	8.8%	4.374	0.140
45-64 years	269,002	42.1%	172,795	37.2%	4.949	0.101
65-79 years	257,663	40.4%	211,064	45.4%	-5.060	-0.102
≥ 80 years	23,842	3.7%	38,403	8.3%	-4.529	-0.192
Sex*						
Female	638,550	100.0%	464,779	100.0%	0.000	NaN
Male	0	0.0%	0	0.0%	NaN	NaN
Race ³						
American Indian or Alaska Native	5,231	0.8%	3,064	0.7%	0.160	0.019
Asian	9,148	1.4%	17,912	3.9%	-2.421	-0.151
Black or African American	75,812	11.9%	56,652	12.2%	-0.316	-0.010
Multi-racial	3,067	0.5%	1,711	0.4%	0.112	0.017
Native Hawaiian or Other Pacific Islander	1,605	0.3%	1,608	0.3%	-0.095	-0.017
Unknown	225,456	35.3%	153,357	33.0%	2.312	0.049
White	318,231	49.8%	230,475	49.6%	0.248	0.005
Hispanic origin						

Table 1r. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Yes	32,346	5.1%	34,118	7.3%	-2.275	-0.094
No	374,685	58.7%	285,377	61.4%	-2.723	-0.056
Unknown	231,519	36.3%	145,284	31.3%	4.998	0.106
Year*						
2015	9,606	1.5%	8,532	1.8%	-0.331	-0.026
2016	47,449	7.4%	38,290	8.2%	-0.808	-0.030
2017	57,166	9.0%	46,830	10.1%	-1.123	-0.038
2018	66,313	10.4%	43,901	9.4%	0.939	0.031
2019	81,339	12.7%	60,093	12.9%	-0.191	-0.006
2020	89,710	14.0%	72,477	15.6%	-1.545	-0.043
2021	85,082	13.3%	68,201	14.7%	-1.350	-0.039
2022	107,833	16.9%	78,774	16.9%	-0.062	-0.002
2023	94,052	14.7%	47,681	10.3%	4.470	0.136
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	1.2	1.5	1.3	1.6	-0.158	-0.099
Combined comorbidity score ^{*,5}	1.6	2.1	1.8	2.4	-0.207	-0.093
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity [*]	315,231	49.4%	168,791	36.3%	13.050	0.266
Weight Reduction Surgery or Procedure [*]	437	0.1%	306	0.1%	0.003	0.001
Lifestyle intervention [*]	130,508	20.4%	82,597	17.8%	2.667	0.068

Table 1r. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cardiovascular Disease*	95,185	14.9%	89,563	19.3%	-4.364	-0.116
Cognitive Impairment*	11,762	1.8%	12,314	2.6%	-0.807	-0.055
Traumatic Brain Injury*	1,302	0.2%	748	0.2%	0.043	0.010
Migraine*	35,179	5.5%	19,355	4.2%	1.345	0.063
Epilepsy*	7,755	1.2%	5,494	1.2%	0.032	0.003
Chronic Pain*	151,753	23.8%	92,833	20.0%	3.792	0.092
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	5,668	0.9%	2,917	0.6%	0.260	0.030
Psychiatric History Overall*	425,407	66.6%	270,647	58.2%	8.389	0.174
Psychiatric Drug Dispensings	348,433	54.6%	213,021	45.8%	8.734	0.175
Intentional Self-Harm Encounter	711	0.1%	386	0.1%	0.028	0.009
Any Other Psychiatric Event	336,682	52.7%	211,101	45.4%	7.306	0.147
Attention-Deficit/Hyperactivity Disorder	7,864	1.2%	2,938	0.6%	0.599	0.062
Akathisia	685	0.1%	375	0.1%	0.027	0.009
Anxiety	134,526	21.1%	80,107	17.2%	3.832	0.097
Behavioral Disorder	27,065	4.2%	14,610	3.1%	1.095	0.058
Bipolar Disorder	31,076	4.9%	16,426	3.5%	1.332	0.066
Cerebral Degenerations usually Manifested in Childhood	5,061	0.8%	4,722	1.0%	-0.223	-0.024
Conduct Disorder	305	0.0%	174	0.0%	0.010	0.005
Delirium	7,118	1.1%	6,145	1.3%	-0.207	-0.019

Table 1r. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Depression	143,772	22.5%	84,234	18.1%	4.392	0.109
Electroconvulsive Therapy	120	0.0%	62	0.0%	0.005	0.004
Hallucination	1,176	0.2%	861	0.2%	-0.001	-0.000
Obsessive-Compulsive Disorder	1,322	0.2%	662	0.1%	0.065	0.015
Other Cerebral Degenerations	7,667	1.2%	7,202	1.5%	-0.349	-0.030
Other Mental Disorders	5,237	0.8%	3,638	0.8%	0.037	0.004
Other Psychological Disorders	50,785	8.0%	35,942	7.7%	0.220	0.008
Persistent Mental Disorders due to Conditions Classified Elsewhere	8,137	1.3%	8,484	1.8%	-0.551	-0.045
Personality Disorders	3,768	0.6%	1,544	0.3%	0.258	0.038
Pervasive Developmental Disorders	555	0.1%	262	0.1%	0.031	0.011
Post-Traumatic Stress Disorder	15,925	2.5%	7,428	1.6%	0.896	0.063
Psychotherapy	43,939	6.9%	21,679	4.7%	2.217	0.095
Psychotic Conditions	2,173	0.3%	1,629	0.4%	-0.010	-0.002
Schizophrenia	9,775	1.5%	6,679	1.4%	0.094	0.008
Sleep Disorder	155,049	24.3%	87,712	18.9%	5.410	0.132
Substance Abuse	23,353	3.7%	14,873	3.2%	0.457	0.025
Suicidal Behavior	3,176	0.5%	1,974	0.4%	0.073	0.011
Transcranial Magnetic Stimulation	148	0.0%	72	0.0%	0.008	0.006
Vagus Nerve Stimulation	624	0.1%	304	0.1%	0.032	0.011

Table 1r. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	4,931	0.8%	0	0.0%	NaN	NaN
dulaglutide	202,947	31.8%	0	0.0%	NaN	NaN
exenatide	46,982	7.4%	0	0.0%	NaN	NaN
liraglutide	138,347	21.7%	0	0.0%	NaN	NaN
lixisenatide	7,931	1.2%	0	0.0%	NaN	NaN
semaglutide	221,174	34.6%	0	0.0%	NaN	NaN
tirzepatide	16,701	2.6%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	638,549	100.0%	464,779	100.0%	-0.000	-0.002
insulin*	209,967	32.9%	105,019	22.6%	10.286	0.231
metformin*	560,183	87.7%	409,760	88.2%	-0.435	-0.013
alpha-glucosidase inhibitors*	2,479	0.4%	1,897	0.4%	-0.020	-0.003
thiazolidinediones*	44,687	7.0%	34,586	7.4%	-0.443	-0.017
meglitinides*	6,744	1.1%	4,973	1.1%	-0.014	-0.001
amylin analogue*	88	0.0%	38	0.0%	0.006	0.005
sulfonylureas*	221,554	34.7%	180,350	38.8%	-4.107	-0.085
bile acid sequestrants*	2,648	0.4%	1,771	0.4%	0.034	0.005
Other Weight Loss Agents*	2,660	0.4%	711	0.2%	0.264	0.049
benzphetamine	*****	*****	*****	*****	0.000	0.001
Combination naltrexone and bupropion	311	0.0%	84	0.0%	0.031	0.017
diethylpropion	57	0.0%	*****	*****	*****	*****
lorcaserin	131	0.0%	43	0.0%	0.011	0.009
phentermine	1,988	0.3%	529	0.1%	0.198	0.043

Table 1r. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
phentermine-topiramate	141	0.0%	25	0.0%	0.017	0.014
phendimetrazine	46	0.0%	*****	*****	*****	*****
orlistat	48	0.0%	*****	*****	*****	*****
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	172,889	27.1%	109,233	23.5%	3.573	0.082
Antipsychotics	49,672	7.8%	29,338	6.3%	1.467	0.057
Anxiolytics/Hypnotics	147,300	23.1%	89,998	19.4%	3.704	0.091
Lithium & Other Mood Stabilizers	43,419	6.8%	24,693	5.3%	1.487	0.062
Antidepressants	296,744	46.5%	174,227	37.5%	8.986	0.183
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	11.4	10.4	10.6	9.6	0.767	0.076
Mean number of emergency room encounters *	0.4	1.1	0.4	1.1	0.004	0.003
Mean number of inpatient hospital encounters *	0.1	0.4	0.1	0.5	-0.037	-0.088
Mean number of non-acute institutional encounters *	0.0	0.2	0.0	0.2	-0.007	-0.037
Mean number of other ambulatory encounters *	4.2	12.5	4.2	12.1	0.048	0.004
Mean number of filled prescriptions *	27.6	20.8	25.7	19.3	1.859	0.093

Table 1r. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of generics dispensed*	11.6	5.4	11.0	5.2	0.582	0.109
Mean number of unique drug classes dispensed*	10.4	4.9	9.2	4.7	1.184	0.247

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1s. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	636,673	N/A	478,517	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	61.2	10.5	62.2	10.9	-0.921	-0.086
Age						
18-24 years	3,165	0.5%	2,495	0.5%	-0.024	-0.003
25-44 years	73,940	11.6%	51,866	10.8%	0.775	0.026
45-64 years	267,781	42.1%	191,136	39.9%	2.116	0.048
65-79 years	262,231	41.2%	202,702	42.4%	-1.173	-0.028
≥ 80 years	29,555	4.6%	30,319	6.3%	-1.694	-0.076
Sex*						
Female	636,673	100.0%	478,517	100.0%	0.000	NaN
Male	0	0.0%	0	0.0%	NaN	NaN
Race ⁴						
American Indian or Alaska Native	5,148	0.8%	3,371	0.7%	0.104	0.012
Asian	10,079	1.6%	14,644	3.1%	-1.477	-0.099
Black or African American	75,289	11.8%	62,741	13.1%	-1.286	-0.040
Multi-racial	2,858	0.4%	1,878	0.4%	0.057	0.009
Native Hawaiian or Other Pacific Islander	1,688	0.3%	1,364	0.3%	-0.020	-0.004
Unknown	227,681	35.8%	155,025	32.4%	3.364	0.111
White	313,929	49.3%	239,495	50.0%	-0.742	-0.018

Table 1s. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Hispanic origin						
Yes	32,560	5.1%	35,401	7.4%	-2.284	-0.099
No	369,402	58.0%	296,848	62.0%	-4.014	-0.147
Unknown	234,712	36.9%	146,268	30.6%	6.298	0.312
Year*						
2015	10,771	1.7%	8,318	1.7%	-0.047	-0.004
2016	51,358	8.1%	39,691	8.3%	-0.228	-0.008
2017	61,744	9.7%	47,533	9.9%	-0.236	-0.008
2018	65,263	10.3%	50,197	10.5%	-0.240	-0.008
2019	82,116	12.9%	63,370	13.2%	-0.345	-0.010
2020	92,400	14.5%	71,557	15.0%	-0.441	-0.013
2021	86,695	13.6%	65,875	13.8%	-0.150	-0.004
2022	105,663	16.6%	77,082	16.1%	0.487	0.013
2023	80,665	12.7%	54,892	11.5%	1.198	0.037
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*5}						
	1.3	1.6	1.4	1.7	-0.080	-0.048
Combined comorbidity score ^{*6}						
	1.8	2.2	1.9	2.3	-0.088	-0.038
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	291,885	45.8%	210,483	44.0%	1.859	0.038

Table 1s. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Weight Reduction Surgery or Procedure*	509	0.1%	443	0.1%	-0.013	-0.004
Lifestyle intervention*	126,005	19.8%	87,323	18.2%	1.542	0.040
Cardiovascular Disease*	111,626	17.5%	89,038	18.6%	-1.074	-0.028
Cognitive Impairment*	15,026	2.4%	11,983	2.5%	-0.144	-0.009
Traumatic Brain Injury*	1,287	0.2%	1,016	0.2%	-0.010	-0.002
Migraine*	34,741	5.5%	25,445	5.3%	0.139	0.006
Epilepsy*	8,523	1.3%	6,637	1.4%	-0.048	-0.004
Chronic Pain*	152,565	24.0%	115,018	24.0%	-0.073	-0.002
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	5,503	0.9%	4,441	0.9%	-0.064	-0.007
Psychiatric History Overall*	416,275	65.4%	311,480	65.1%	0.290	0.006
Psychiatric Drug Dispensings	337,910	53.1%	254,611	53.2%	-0.134	-0.003
Intentional Self-Harm Encounter	735	0.1%	574	0.1%	-0.004	-0.001
Any Other Psychiatric Event	331,480	52.1%	245,854	51.4%	0.686	0.014
Attention-Deficit/Hyperactivity Disorder	7,075	1.1%	4,330	0.9%	0.206	0.021
Akathisia	688	0.1%	491	0.1%	0.006	0.002
Anxiety	132,301	20.8%	98,363	20.6%	0.224	0.006
Behavioral Disorder	26,853	4.2%	18,643	3.9%	0.322	0.016
Bipolar Disorder	29,804	4.7%	23,722	5.0%	-0.276	-0.013

Table 1s. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cerebral Degenerations usually Manifested in Childhood	6,123	1.0%	4,925	1.0%	-0.068	-0.007
Conduct Disorder	259	0.0%	222	0.0%	-0.006	-0.003
Delirium	9,672	1.5%	6,656	1.4%	0.128	0.011
Depression	143,076	22.5%	102,561	21.4%	1.039	0.025
Electroconvulsive Therapy	121	0.0%	92	0.0%	-0.000	-0.000
Hallucination	1,400	0.2%	1,068	0.2%	-0.003	-0.001
Obsessive-Compulsive Disorder	1,255	0.2%	911	0.2%	0.007	0.002
Other Cerebral Degenerations	8,946	1.4%	7,226	1.5%	-0.105	-0.009
Other Mental Disorders	5,563	0.9%	4,400	0.9%	-0.046	-0.005
Other Psychological Disorders	52,066	8.2%	44,215	9.2%	-1.062	-0.038
Persistent Mental Disorders due to Conditions Classified Elsewhere	10,588	1.7%	8,175	1.7%	-0.045	-0.004
Personality Disorders	3,536	0.6%	2,621	0.5%	0.008	0.001
Pervasive Developmental Disorders	460	0.1%	377	0.1%	-0.007	-0.002
Post-Traumatic Stress Disorder	14,806	2.3%	11,362	2.4%	-0.049	-0.003
Psychotherapy	41,006	6.4%	30,237	6.3%	0.122	0.005
Psychotic Conditions	2,458	0.4%	2,140	0.4%	-0.061	-0.009
Schizophrenia	9,681	1.5%	9,062	1.9%	-0.373	-0.029
Sleep Disorder	152,656	24.0%	106,651	22.3%	1.689	0.040
Substance Abuse	24,348	3.8%	19,362	4.0%	-0.222	-0.011
Suicidal Behavior	3,450	0.5%	2,463	0.5%	0.027	0.004
Transcranial Magnetic Stimulation	115	0.0%	96	0.0%	-0.002	-0.001
Vagus Nerve Stimulation	653	0.1%	432	0.1%	0.012	0.004

Table 1s. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	5,641	0.9%	0	0.0%	NaN	NaN
dulaglutide	209,164	32.9%	0	0.0%	NaN	NaN
exenatide	48,462	7.6%	0	0.0%	NaN	NaN
liraglutide	140,306	22.0%	0	0.0%	NaN	NaN
lixisenatide	7,012	1.1%	0	0.0%	NaN	NaN
semaglutide	212,509	33.4%	0	0.0%	NaN	NaN
tirzepatide	14,639	2.3%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	636,671	100.0%	478,517	100.0%	-0.000	-0.003
insulin*	219,280	34.4%	194,947	40.7%	-6.298	-0.131
metformin*	558,286	87.7%	417,419	87.2%	0.456	0.014
alpha-glucosidase inhibitors*	2,560	0.4%	2,074	0.4%	-0.031	-0.005
thiazolidinediones*	45,242	7.1%	35,864	7.5%	-0.389	-0.015
meglitinides*	6,934	1.1%	5,860	1.2%	-0.136	-0.013
amylin analogue*	83	0.0%	81	0.0%	-0.004	-0.003
sulfonylureas*	227,032	35.7%	178,009	37.2%	-1.541	-0.032
bile acid sequestrants*	3,012	0.5%	2,270	0.5%	-0.001	-0.000
Other Weight Loss Agents*	2,174	0.3%	1,245	0.3%	0.081	0.015
benzphetamine	3	0.0%	5	0.0%	-0.001	-0.002
Combination naltrexone and bupropion	265	0.0%	170	0.0%	0.006	0.003
diethylpropion	55	0.0%	28	0.0%	0.003	0.003
lorcaserin	115	0.0%	65	0.0%	0.004	0.003

Table 1s. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
phentermine	1,606	0.3%	924	0.2%	0.059	0.013
phentermine-topiramate	117	0.0%	33	0.0%	0.012	0.010
phendimetrazine	48	0.0%	23	0.0%	0.003	0.003
orlistat	37	0.0%	25	0.0%	0.001	0.001
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	181,491	28.5%	137,876	28.8%	-0.307	-0.007
Antipsychotics	47,740	7.5%	41,340	8.6%	-1.141	-0.042
Anxiolytics/Hypnotics	144,159	22.6%	114,742	24.0%	-1.336	-0.032
Lithium & Other Mood Stabilizers	40,912	6.4%	34,885	7.3%	-0.864	-0.034
Antidepressants	285,828	44.9%	212,253	44.4%	0.538	0.011
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	11.7	10.4	11.8	10.8	-0.152	-0.014
Mean number of emergency room encounters *	0.5	1.2	0.5	1.2	-0.004	-0.003
Mean number of inpatient hospital encounters *	0.1	0.5	0.1	0.5	-0.003	-0.006
Mean number of non-acute institutional encounters *	0.0	0.2	0.0	0.2	-0.001	-0.006
Mean number of other ambulatory encounters *	4.5	12.8	4.7	13.2	-0.189	-0.015
Mean number of filled prescriptions *	28.8	22.5	29.0	21.3	-0.270	-0.012

Table 1s. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of generics dispensed*	12.0	6.0	12.1	5.5	-0.063	-0.011
Mean number of unique drug classes dispensed*	10.4	5.1	10.6	5.2	-0.122	-0.024

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1t. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	512,310	100.0%	602,177	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	61.3	10.3	63.7	10.1	-2.414	-0.236
Age						
18-24 years	1,999	0.4%	1,287	0.2%	0.176	0.032
25-44 years	56,747	11.1%	49,583	8.2%	2.843	0.096
45-64 years	217,419	42.4%	232,588	38.6%	3.814	0.078
65-79 years	215,610	42.1%	274,317	45.6%	-3.468	-0.070
≥ 80 years	20,535	4.0%	44,402	7.4%	-3.365	-0.146
Sex*						
Female	0	0.0%	0	0.0%	NaN	NaN
Male	512,310	100.0%	602,177	100.0%	0.000	NaN
Race ³						
American Indian or Alaska Native	3,197	0.6%	2,786	0.5%	0.161	0.022
Asian	7,589	1.5%	19,326	3.2%	-1.728	-0.114
Black or African American	35,176	6.9%	41,314	6.9%	0.005	0.000
Multi-racial	2,599	0.5%	2,693	0.4%	0.060	0.009
Native Hawaiian or Other Pacific Islander	1,498	0.3%	2,138	0.4%	-0.063	-0.011
Unknown	195,170	38.1%	223,760	37.2%	0.938	0.019
White	267,081	52.1%	310,160	51.5%	0.626	0.013
Hispanic origin						

Table 1t. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Yes	19,519	3.8%	28,606	4.8%	-0.940	-0.046
No	285,718	55.8%	340,696	56.6%	-0.807	-0.016
Unknown	207,073	40.4%	232,875	38.7%	1.747	0.036
Year*						
2015	7,560	1.5%	9,669	1.6%	-0.130	-0.011
2016	35,809	7.0%	43,914	7.3%	-0.303	-0.012
2017	43,924	8.6%	54,382	9.0%	-0.457	-0.016
2018	53,555	10.5%	53,323	8.9%	1.599	0.054
2019	66,703	13.0%	75,529	12.5%	0.477	0.014
2020	71,596	14.0%	90,219	15.0%	-1.007	-0.029
2021	73,850	14.4%	94,740	15.7%	-1.318	-0.037
2022	87,736	17.1%	112,129	18.6%	-1.495	-0.039
2023	71,577	14.0%	68,272	11.3%	2.634	0.079
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI)*,4	1.5	1.7	1.6	1.7	-0.086	-0.050
Combined comorbidity score*,5	1.6	2.2	1.8	2.4	-0.205	-0.089
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	228,356	44.6%	195,000	32.4%	12.191	0.253
Weight Reduction Surgery or Procedure*	228	0.0%	289	0.0%	-0.003	-0.002
Lifestyle intervention*	80,958	15.8%	89,909	14.9%	0.872	0.024

Table 1t. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cardiovascular Disease*	106,761	20.8%	154,799	25.7%	-4.867	-0.115
Cognitive Impairment*	9,095	1.8%	12,506	2.1%	-0.302	-0.022
Traumatic Brain Injury*	1,135	0.2%	1,078	0.2%	0.043	0.010
Migraine*	9,177	1.8%	9,175	1.5%	0.268	0.021
Epilepsy*	5,602	1.1%	6,432	1.1%	0.025	0.002
Chronic Pain*	89,893	17.5%	90,275	15.0%	2.555	0.069
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	2,912	0.6%	2,618	0.4%	0.134	0.019
Psychiatric History Overall*	291,655	56.9%	300,296	49.9%	7.061	0.142
Psychiatric Drug Dispensings	187,284	36.6%	184,492	30.6%	5.919	0.126
Intentional Self-Harm Encounter	348	0.1%	353	0.1%	0.009	0.004
Any Other Psychiatric Event	245,200	47.9%	249,357	41.4%	6.452	0.130
Attention-Deficit/Hyperactivity Disorder	5,652	1.1%	3,903	0.6%	0.455	0.049
Akathisia	404	0.1%	400	0.1%	0.012	0.005
Anxiety	58,305	11.4%	56,951	9.5%	1.923	0.063
Behavioral Disorder	17,817	3.5%	16,921	2.8%	0.668	0.038
Bipolar Disorder	14,530	2.8%	12,526	2.1%	0.756	0.049
Cerebral Degenerations usually Manifested in Childhood	4,257	0.8%	6,098	1.0%	-0.182	-0.019
Conduct Disorder	652	0.1%	495	0.1%	0.045	0.014
Delirium	5,507	1.1%	7,350	1.2%	-0.146	-0.014

Table 1t. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Depression	65,199	12.7%	59,554	9.9%	2.837	0.090
Electroconvulsive Therapy	64	0.0%	59	0.0%	0.003	0.003
Hallucination	759	0.1%	874	0.1%	0.003	0.001
Obsessive-Compulsive Disorder	859	0.2%	744	0.1%	0.044	0.012
Other Cerebral Degenerations	6,493	1.3%	8,444	1.4%	-0.135	-0.012
Other Mental Disorders	3,260	0.6%	3,384	0.6%	0.074	0.010
Other Psychological Disorders	46,029	9.0%	55,337	9.2%	-0.205	-0.007
Persistent Mental Disorders due to Conditions Classified Elsewhere	6,274	1.2%	8,314	1.4%	-0.156	-0.014
Personality Disorders	1,050	0.2%	848	0.1%	0.064	0.015
Pervasive Developmental Disorders	1,365	0.3%	1,090	0.2%	0.085	0.018
Post-Traumatic Stress Disorder	5,713	1.1%	4,591	0.8%	0.353	0.037
Psychotherapy	21,056	4.1%	17,023	2.8%	1.283	0.070
Psychotic Conditions	1,671	0.3%	1,784	0.3%	0.030	0.005
Schizophrenia	8,601	1.7%	8,644	1.4%	0.243	0.020
Sleep Disorder	143,080	27.9%	130,108	21.6%	6.322	0.147
Substance Abuse	24,997	4.9%	28,295	4.7%	0.180	0.008
Suicidal Behavior	2,150	0.4%	2,122	0.4%	0.067	0.011
Transcranial Magnetic Stimulation	98	0.0%	57	0.0%	0.010	0.008
Vagus Nerve Stimulation	319	0.1%	282	0.0%	0.015	0.007

Table 1t. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	3,849	0.8%	0	0.0%	NaN	NaN
dulaglutide	179,828	35.1%	0	0.0%	NaN	NaN
exenatide	36,630	7.1%	0	0.0%	NaN	NaN
liraglutide	95,678	18.7%	0	0.0%	NaN	NaN
lixisenatide	7,917	1.5%	0	0.0%	NaN	NaN
semaglutide	177,316	34.6%	0	0.0%	NaN	NaN
tirzepatide	11,488	2.2%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	512,309	100.0%	602,176	100.0%	-0.000	-0.000
insulin*	179,003	34.9%	124,082	20.6%	14.335	0.324
metformin*	456,298	89.1%	544,990	90.5%	-1.437	-0.047
alpha-glucosidase inhibitors*	2,134	0.4%	2,425	0.4%	0.014	0.002
thiazolidinediones*	49,822	9.7%	52,792	8.8%	0.958	0.033
meglitinides*	5,805	1.1%	6,037	1.0%	0.131	0.013
amylin analogue*	66	0.0%	39	0.0%	0.006	0.007
sulfonylureas*	201,609	39.4%	237,574	39.5%	-0.100	-0.002
bile acid sequestrants*	1,665	0.3%	1,852	0.3%	0.017	0.003
Other Weight Loss Agents*	1,048	0.2%	409	0.1%	0.137	0.037
benzphetamine	*****	*****	*****	*****	0.000	0.000
Combination naltrexone and bupropion	107	0.0%	66	0.0%	0.010	0.008
diethylpropion	27	0.0%	*****	*****	*****	*****
lorcaserin	48	0.0%	22	0.0%	0.006	0.007
phentermine	807	0.2%	288	0.0%	0.110	0.034

Table 1t. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
phentermine-topiramate	49	0.0%	21	0.0%	0.006	0.008
phendimetrazine	17	0.0%	*****	*****	*****	*****
orlistat	19	0.0%	*****	*****	*****	*****
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	115,318	22.5%	116,745	19.4%	3.122	0.077
Antipsychotics	27,616	5.4%	26,214	4.4%	1.037	0.048
Anxiolytics/Hypnotics	73,050	14.3%	73,317	12.2%	2.084	0.062
Lithium & Other Mood Stabilizers	24,001	4.7%	22,352	3.7%	0.973	0.049
Antidepressants	144,570	28.2%	135,012	22.4%	5.799	0.134
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	10.3	10.6	9.6	9.4	0.632	0.063
Mean number of emergency room encounters *	0.3	0.9	0.3	1.0	-0.005	-0.005
Mean number of inpatient hospital encounters *	0.1	0.4	0.1	0.5	-0.036	-0.081
Mean number of non-acute institutional encounters *	0.0	0.2	0.0	0.2	-0.004	-0.022
Mean number of other ambulatory encounters *	3.5	10.3	3.3	9.3	0.191	0.019
Mean number of filled prescriptions *	24.4	18.2	22.3	16.4	2.128	0.123

Table 1t. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of generics dispensed*	10.2	4.6	9.7	4.5	0.510	0.112
Mean number of unique drug classes dispensed*	9.1	4.1	8.0	4.1	1.054	0.257

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1u. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	510,014	N/A	626,925	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	62.0	10.1	62.7	10.4	-0.699	-0.068
Age						
18-24 years	1,497	0.3%	1,725	0.3%	0.018	0.003
25-44 years	48,620	9.5%	58,646	9.4%	0.179	0.006
45-64 years	219,111	43.0%	255,027	40.7%	2.283	0.052
65-79 years	216,905	42.5%	272,770	43.5%	-0.980	-0.024
≥ 80 years	23,881	4.7%	38,756	6.2%	-1.500	-0.067
Sex*						
Female	0	0.0%	0	0.0%	NaN	NaN
Male	510,014	100.0%	626,925	100.0%	0.000	NaN
Race ⁴						
American Indian or Alaska Native	3,163	0.6%	3,238	0.5%	0.104	0.014
Asian	8,052	1.6%	17,662	2.8%	-1.239	-0.085
Black or African American	35,116	6.9%	46,072	7.3%	-0.464	-0.018
Multi-racial	2,601	0.5%	2,885	0.5%	0.050	0.007
Native Hawaiian or Other Pacific Islander	1,520	0.3%	2,032	0.3%	-0.026	-0.005
Unknown	198,706	39.0%	232,485	37.1%	1.878	0.064
White	260,855	51.1%	322,549	51.4%	-0.303	-0.008
Hispanic origin						
Yes	19,526	3.8%	30,631	4.9%	-1.057	-0.054

Table 1u. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	278,777	54.7%	354,876	56.6%	-1.945	-0.075
Unknown	211,711	41.5%	241,418	38.5%	3.003	0.139
Year *						
2015	8,480	1.7%	10,181	1.6%	0.039	0.003
2016	38,904	7.6%	47,057	7.5%	0.122	0.005
2017	47,785	9.4%	57,346	9.1%	0.222	0.008
2018	51,809	10.2%	61,589	9.8%	0.334	0.011
2019	67,014	13.1%	81,127	12.9%	0.199	0.006
2020	73,318	14.4%	91,413	14.6%	-0.205	-0.006
2021	73,903	14.5%	94,059	15.0%	-0.513	-0.015
2022	87,421	17.1%	109,915	17.5%	-0.392	-0.010
2023	61,380	12.0%	74,237	11.8%	0.193	0.006
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*5}	1.7	1.8	1.7	1.8	0.025	0.014
Combined comorbidity score ^{*6}	1.9	2.4	1.9	2.4	0.023	0.010
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity *	207,936	40.8%	240,325	38.3%	2.437	0.050
Weight Reduction Surgery or Procedure *	314	0.1%	353	0.1%	0.005	0.002
Lifestyle intervention *	78,854	15.5%	93,592	14.9%	0.532	0.015
Cardiovascular Disease *	128,150	25.1%	156,194	24.9%	0.213	0.005

Table 1u. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation²	Number/ Mean	Percent/ Standard Deviation²	Absolute Difference	Standardized Difference
Cognitive Impairment*	11,402	2.2%	13,586	2.2%	0.068	0.005
Traumatic Brain Injury*	1,149	0.2%	1,398	0.2%	0.002	0.000
Migraine*	9,926	1.9%	11,181	1.8%	0.163	0.012
Epilepsy*	6,397	1.3%	7,390	1.2%	0.075	0.007
Chronic Pain*	94,769	18.6%	108,496	17.3%	1.276	0.033
Psychiatric History	Number/ Mean	Percent/ Standard Deviation²	Number/ Mean	Percent/ Standard Deviation²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	3,129	0.6%	3,604	0.6%	0.039	0.005
Psychiatric History Overall*	289,745	56.8%	342,564	54.6%	2.169	0.044
Psychiatric Drug Dispensings	184,697	36.2%	223,641	35.7%	0.541	0.011
Intentional Self-Harm Encounter	459	0.1%	453	0.1%	0.018	0.006
Any Other Psychiatric Event	244,894	48.0%	284,289	45.3%	2.670	0.054
Attention-Deficit/Hyperactivity Disorder	5,032	1.0%	5,183	0.8%	0.160	0.017
Akathisia	439	0.1%	540	0.1%	-0.000	-0.000
Anxiety	58,958	11.6%	69,670	11.1%	0.447	0.014
Behavioral Disorder	18,472	3.6%	20,440	3.3%	0.362	0.020
Bipolar Disorder	14,291	2.8%	17,525	2.8%	0.007	0.000
Cerebral Degenerations usually Manifested in Childhood	5,214	1.0%	6,442	1.0%	-0.005	-0.001
Conduct Disorder	588	0.1%	674	0.1%	0.008	0.002
Delirium	7,874	1.5%	8,344	1.3%	0.213	0.018
Depression	67,175	13.2%	73,464	11.7%	1.453	0.044

Table 1u. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Psychiatric History	Number/ Mean	Percent/ Standard Deviation²	Number/ Mean	Percent/ Standard Deviation²	Absolute Difference	Standardized Difference
Electroconvulsive Therapy	71	0.0%	100	0.0%	-0.002	-0.002
Hallucination	959	0.2%	1,052	0.2%	0.020	0.005
Obsessive-Compulsive Disorder	775	0.2%	971	0.2%	-0.003	-0.001
Other Cerebral Degenerations	7,541	1.5%	9,150	1.5%	0.019	0.002
Other Mental Disorders	3,716	0.7%	3,963	0.6%	0.097	0.012
Other Psychological Disorders	49,664	9.7%	63,153	10.1%	-0.336	-0.011
Persistent Mental Disorders due to Conditions Classified Elsewhere	8,010	1.6%	8,937	1.4%	0.145	0.012
Personality Disorders	1,083	0.2%	1,112	0.2%	0.035	0.008
Pervasive Developmental Disorders	1,078	0.2%	1,385	0.2%	-0.009	-0.002
Post-Traumatic Stress Disorder	5,449	1.1%	6,275	1.0%	0.067	0.007
Psychotherapy	20,203	4.0%	22,924	3.7%	0.305	0.016
Psychotic Conditions	1,948	0.4%	2,326	0.4%	0.011	0.002
Schizophrenia	8,296	1.6%	11,467	1.8%	-0.202	-0.016
Sleep Disorder	141,462	27.7%	151,735	24.2%	3.534	0.081
Substance Abuse	27,503	5.4%	33,503	5.3%	0.049	0.002
Suicidal Behavior	2,555	0.5%	2,489	0.4%	0.104	0.016
Transcranial Magnetic Stimulation	84	0.0%	76	0.0%	0.004	0.004
Vagus Nerve Stimulation	343	0.1%	342	0.1%	0.013	0.005
Medical Product Use	Number/ Mean	Percent/ Standard Deviation²	Number/ Mean	Percent/ Standard Deviation²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	4,387	0.9%	0	0.0%	NaN	NaN

Table 1u. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
dulaglutide	184,072	36.1%	0	0.0%	NaN	NaN
exenatide	37,654	7.4%	0	0.0%	NaN	NaN
liraglutide	96,930	19.0%	0	0.0%	NaN	NaN
lixisenatide	6,508	1.3%	0	0.0%	NaN	NaN
semaglutide	171,781	33.7%	0	0.0%	NaN	NaN
tirzepatide	10,021	2.0%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	510,013	100.0%	626,923	100.0%	-0.000	-0.000
insulin*	196,975	38.6%	237,458	37.9%	0.745	0.015
metformin*	456,411	89.5%	561,388	89.5%	-0.056	-0.002
alpha-glucosidase inhibitors*	2,199	0.4%	2,778	0.4%	-0.012	-0.002
thiazolidinediones*	46,687	9.2%	59,657	9.5%	-0.362	-0.012
meglitinides*	5,784	1.1%	7,380	1.2%	-0.043	-0.004
amylin analogue*	58	0.0%	81	0.0%	-0.002	-0.001
sulfonylureas*	195,930	38.4%	248,133	39.6%	-1.163	-0.024
bile acid sequestrants*	2,179	0.4%	2,321	0.4%	0.057	0.009
Other Weight Loss Agents*	737	0.1%	712	0.1%	0.031	0.009
benzphetamine	1	0.0%	1	0.0%	-0.000	-0.000
Combination naltrexone and bupropion	81	0.0%	100	0.0%	0.000	0.000
diethylpropion	18	0.0%	10	0.0%	0.002	0.004
lorcaserin	28	0.0%	43	0.0%	-0.001	-0.002
phentermine	572	0.1%	510	0.1%	0.031	0.010
phentermine-topiramate	29	0.0%	46	0.0%	-0.002	-0.002

Table 1u. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
phendimetrazine	12	0.0%	3	0.0%	0.002	0.005
orlistat	14	0.0%	14	0.0%	0.000	0.001
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	129,034	25.3%	143,783	22.9%	2.365	0.055
Antipsychotics	26,713	5.2%	35,829	5.7%	-0.477	-0.021
Anxiolytics/Hypnotics	73,460	14.4%	92,124	14.7%	-0.291	-0.008
Lithium & Other Mood Stabilizers	22,510	4.4%	30,783	4.9%	-0.497	-0.024
Antidepressants	140,691	27.6%	167,633	26.7%	0.847	0.019
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	10.9	10.7	10.5	10.4	0.392	0.037
Mean number of emergency room encounters*	0.4	1.2	0.3	1.1	0.039	0.034
Mean number of inpatient hospital encounters*	0.2	0.5	0.1	0.5	0.017	0.034
Mean number of non-acute institutional encounters*	0.0	0.2	0.0	0.2	0.002	0.012
Mean number of other ambulatory encounters*	3.8	10.4	3.7	10.3	0.169	0.016
Mean number of filled prescriptions*	26.1	19.9	24.6	18.4	1.473	0.077
Mean number of generics dispensed*	11.0	5.3	10.4	4.7	0.553	0.110

Table 1u. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of unique drug classes dispensed*	9.2	4.4	8.9	4.4	0.319	0.072

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1v. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	6,047	100.0%	2,997	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	21.9	2.0	22.1	2.0	-0.258	-0.128
Age						
18-24 years	6,047	100.0%	2,997	100.0%	0.000	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	4,048	66.9%	1,710	57.1%	9.885	0.205
Male	1,999	33.1%	1,287	42.9%	-9.885	-0.205
Race ³						
American Indian or Alaska Native	81	1.3%	34	1.1%	0.205	0.019
Asian	126	2.1%	83	2.8%	-0.686	-0.045
Black or African American	904	14.9%	362	12.1%	2.871	0.084
Multi-racial	46	0.8%	22	0.7%	0.027	0.003
Native Hawaiian or Other Pacific Islander	22	0.4%	13	0.4%	-0.070	-0.011
Unknown	3,492	57.7%	1,797	60.0%	-2.212	-0.045
White	1,376	22.8%	686	22.9%	-0.134	-0.003
Hispanic origin						
Yes	795	13.1%	610	20.4%	-7.207	-0.194

Table 1v. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	2,370	39.2%	1,132	37.8%	1.422	0.029
Unknown	2,882	47.7%	1,255	41.9%	5.785	0.117
Year*						
2015	86	1.4%	52	1.7%	-0.313	-0.025
2016	434	7.2%	264	8.8%	-1.632	-0.060
2017	589	9.7%	424	14.1%	-4.407	-0.136
2018	737	12.2%	466	15.5%	-3.361	-0.097
2019	1,079	17.8%	556	18.6%	-0.708	-0.018
2020	1,467	24.3%	770	25.7%	-1.432	-0.033
2021	487	8.1%	213	7.1%	0.946	0.036
2022	673	11.1%	160	5.3%	5.791	0.212
2023	495	8.2%	92	3.1%	5.116	0.223
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	0.2	0.6	0.2	0.6	0.007	0.012
Combined comorbidity score ^{*,5}	1.1	1.1	1.0	1.2	0.107	0.093
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	3,223	53.3%	1,260	42.0%	11.257	0.227
Weight Reduction Surgery or Procedure*	*****	*****	0	0.0%	NaN	NaN
Lifestyle intervention*	1,781	29.5%	803	26.8%	2.659	0.059
Cardiovascular Disease*	53	0.9%	29	1.0%	-0.091	-0.010

Table 1v. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cognitive Impairment*	14	0.2%	*****	*****	*****	*****
Traumatic Brain Injury*	12	0.2%	*****	*****	*****	*****
Migraine*	293	4.8%	126	4.2%	0.641	0.031
Epilepsy*	115	1.9%	65	2.2%	-0.267	-0.019
Chronic Pain*	381	6.3%	136	4.5%	1.763	0.078
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	189	3.1%	73	2.4%	0.690	0.042
Psychiatric History Overall*	3,413	56.4%	1,500	50.1%	6.391	0.128
Psychiatric Drug Dispensings Encounter	2,566	42.4%	1,143	38.1%	4.296	0.088
Encounter	55	0.9%	17	0.6%	0.342	0.040
Any Other Psychiatric Event	3,000	49.6%	1,292	43.1%	6.502	0.131
Attention-Deficit/Hyperactivity Disorder	475	7.9%	190	6.3%	1.515	0.059
Akathisia	*****	*****	*****	*****	0.033	0.015
Anxiety	1,276	21.1%	505	16.9%	4.251	0.109
Behavioral Disorder	589	9.7%	209	7.0%	2.767	0.100
Bipolar Disorder	506	8.4%	223	7.4%	0.927	0.034
Cerebral Degenerations usually Manifested in Childhood	12	0.2%	*****	*****	*****	*****
Conduct Disorder	*****	*****	17	0.6%	*****	*****
Delirium	45	0.7%	16	0.5%	0.210	0.026

Table 1v. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Depression	1,364	22.6%	509	17.0%	5.573	0.140
Electroconvulsive Therapy	*****	*****	*****	*****	-0.000	-0.000
Hallucination	19	0.3%	*****	*****	*****	*****
Obsessive-Compulsive Disorder	54	0.9%	*****	*****	*****	*****
Degenerations	13	0.2%	*****	*****	*****	*****
Other Mental Disorders	109	1.8%	43	1.4%	0.368	0.029
Other Psychological Disorders	567	9.4%	255	8.5%	0.868	0.030
Persistent Mental Disorders due to Conditions Classified Elsewhere	*****	*****	*****	*****	-0.017	-0.007
Personality Disorders	108	1.8%	38	1.3%	0.518	0.042
Pervasive Developmental Disorders	349	5.8%	148	4.9%	0.833	0.037
Post-Traumatic Stress Disorder	282	4.7%	94	3.1%	1.527	0.079
Psychotherapy	873	14.4%	309	10.3%	4.127	0.126
Psychotic Conditions	68	1.1%	36	1.2%	-0.077	-0.007
Schizophrenia	173	2.9%	93	3.1%	-0.242	-0.014
Sleep Disorder	792	13.1%	278	9.3%	3.821	0.121
Substance Abuse	144	2.4%	67	2.2%	0.146	0.010
Suicidal Behavior	62	1.0%	33	1.1%	-0.076	-0.007

Table 1v. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Transcranial Magnetic Stimulation	*****	*****	*****	*****	-0.017	-0.007
Vagus Nerve Stimulation	*****	*****	*****	*****	-0.000	-0.000
Index GLP-1RA Product						
albiglutide	80	1.3%	0	0.0%	NaN	NaN
dulaglutide	1,688	27.9%	0	0.0%	NaN	NaN
exenatide	667	11.0%	0	0.0%	NaN	NaN
liraglutide	1,813	30.0%	0	0.0%	NaN	NaN
lixisenatide	43	0.7%	0	0.0%	NaN	NaN
semaglutide	1,630	27.0%	0	0.0%	NaN	NaN
tirzepatide	129	2.1%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	6,047	100.0%	2,997	100.0%	0.000	NaN
insulin*	2,109	34.9%	702	23.4%	11.453	0.254
metformin*	5,818	96.2%	2,869	95.7%	0.484	0.025
alpha-glucosidase inhibitors*	*****	*****	*****	*****	-0.101	-0.026
thiazolidinediones*	198	3.3%	146	4.9%	-1.597	-0.081
meglitinides*	13	0.2%	*****	*****	*****	*****
amylin analogue*	*****	*****	0	0.0%	NaN	NaN
sulfonylureas*	1,005	16.6%	615	20.5%	-3.901	-0.100
bile acid sequestrants*	*****	*****	*****	*****	-0.050	-0.018
Other Weight Loss Agents*	*****	*****	*****	*****	0.496	0.089
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	*****	*****	0	0.0%	NaN	NaN

Table 1v. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
diethylpropion	*****	*****	0	0.0%	NaN	NaN
lorcaserin	*****	*****	0	0.0%	NaN	NaN
phentermine	*****	*****	*****	*****	0.231	0.054
phentermine-topiramate	*****	*****	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	*****	*****	0	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	711	11.8%	302	10.1%	1.681	0.054
Antipsychotics	841	13.9%	405	13.5%	0.394	0.011
Anxiolytics/Hypnotics	939	15.5%	408	13.6%	1.915	0.054
Stabilizers	570	9.4%	275	9.2%	0.250	0.009
Antidepressants	2,084	34.5%	863	28.8%	5.668	0.122
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	9.4	11.8	8.2	10.5	1.291	0.115
Mean number of emergency room encounters*	0.6	1.5	0.6	1.2	0.083	0.061
Mean number of inpatient hospital encounters*	0.1	0.3	0.1	0.3	0.004	0.012
Mean number of non-acute institutional encounters*	0.0	0.1	0.0	0.2	0.000	0.000
Mean number of other ambulatory encounters*	6.5	21.3	6.6	22.2	-0.064	-0.003

Table 1v. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of filled prescriptions*	17.6	15.6	15.9	14.5	1.713	0.114
Mean number of generics dispensed*	7.9	4.7	7.3	4.3	0.639	0.142
Mean number of unique drug classes dispensed*	7.0	4.3	5.8	3.9	1.175	0.288

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1w. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Patient Characteristics ^{1,2}	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weighted patients	5,745	N/A	3,201	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	22.0	2.0	21.9	2.0	0.039	0.019
Age						
18-24 years	5,745	100.0%	3,201	100.0%	0.000	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	3,678	64.0%	2,044	63.8%	0.186	0.004
Male	2,066	36.0%	1,157	36.2%	-0.186	-0.004
Race ⁴						
American Indian or Alaska Native	76	1.3%	39	1.2%	0.107	0.010
Asian	126	2.2%	62	2.0%	0.237	0.017
Black or African American	857	14.9%	417	13.0%	1.890	0.057
Multi-racial	42	0.7%	20	0.6%	0.112	0.014
Native Hawaiian or Other Pacific Islander	20	0.3%	12	0.4%	-0.041	-0.007
Unknown	3,299	57.4%	1,955	61.1%	-3.653	-0.091
White	1,325	23.1%	695	21.7%	1.349	0.035
Hispanic origin						

Table 1w. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Yes	759	13.2%	661	20.6%	-7.428	-0.213
No	2,275	39.6%	1,178	36.8%	2.803	0.073
Unknown	2,710	47.2%	1,362	42.5%	4.625	0.160
Year*						
2015	86	1.5%	49	1.5%	-0.037	-0.003
2016	459	8.0%	271	8.5%	-0.481	-0.017
2017	680	11.8%	378	11.8%	0.046	0.001
2018	754	13.1%	452	14.1%	-0.982	-0.029
2019	1,037	18.0%	629	19.6%	-1.594	-0.041
2020	1,380	24.0%	806	25.2%	-1.151	-0.028
2021	442	7.7%	216	6.7%	0.957	0.039
2022	523	9.1%	237	7.4%	1.716	0.066
2023	383	6.7%	165	5.1%	1.526	0.068
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*5}	0.2	0.6	0.2	0.7	-0.013	-0.021
Combined comorbidity score ^{*6}	1.1	1.1	1.2	1.2	-0.032	-0.028
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	2,882	50.2%	1,525	47.6%	2.518	0.052
Weight Reduction Surgery or Procedure*	0	0.0%	0	0.0%	NaN	NaN

Table 1w. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Medical History						
Lifestyle intervention*	1,661	28.9%	964	30.1%	-1.193	-0.026
Cardiovascular Disease*	58	1.0%	27	0.8%	0.159	0.017
Cognitive Impairment*	7	0.1%	2	0.1%	0.052	0.017
Traumatic Brain Injury*	8	0.1%	4	0.1%	0.017	0.005
Migraine*	267	4.7%	142	4.4%	0.204	0.010
Epilepsy*	109	1.9%	68	2.1%	-0.219	-0.016
Chronic Pain*	324	5.6%	144	4.5%	1.137	0.052
Psychiatric History						
Previous Intentional Self-Harm Ever	171	3.0%	128	4.0%	-1.039	-0.057
Psychiatric History Overall*	3,191	55.6%	1,670	52.2%	3.368	0.069
Psychiatric Drug Dispensings	2,372	41.3%	1,300	40.6%	0.679	0.014
Intentional Self-Harm Encounter	45	0.8%	23	0.7%	0.047	0.005
Any Other Psychiatric Event	2,804	48.8%	1,468	45.9%	2.945	0.060
Attention-Deficit/Hyperactivity Disorder	421	7.3%	200	6.2%	1.086	0.044
Akathisia	5	0.1%	1	0.0%	0.057	0.023
Anxiety	1,177	20.5%	585	18.3%	2.215	0.057
Behavioral Disorder	553	9.6%	265	8.3%	1.332	0.047
Bipolar Disorder	464	8.1%	269	8.4%	-0.319	-0.012
Cerebral Degenerations usually Manifested in Childhood	14	0.2%	6	0.2%	0.062	0.013
Conduct Disorder	61	1.1%	31	1.0%	0.073	0.007

Table 1w. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Delirium	50	0.9%	21	0.6%	0.226	0.026
Depression	1,221	21.3%	589	18.4%	2.849	0.072
Electroconvulsive Therapy	1	0.0%	1	0.0%	-0.003	-0.002
Hallucination	17	0.3%	6	0.2%	0.104	0.021
Obsessive-Compulsive Disorder	47	0.8%	9	0.3%	0.536	0.072
Other Cerebral Degenerations	11	0.2%	8	0.3%	-0.054	-0.011
Other Mental Disorders	83	1.5%	45	1.4%	0.044	0.004
Other Psychological Disorders	529	9.2%	277	8.6%	0.562	0.020
Persistent Mental Disorders due to Conditions Classified Elsewhere	1	0.0%	0	0.0%	0.011	0.008
Personality Disorders	91	1.6%	41	1.3%	0.311	0.026
Pervasive Developmental Disorders	335	5.8%	150	4.7%	1.126	0.051
Post-Traumatic Stress Disorder	239	4.2%	104	3.3%	0.893	0.047
Psychotherapy	791	13.8%	360	11.2%	2.533	0.077
Psychotic Conditions	72	1.2%	52	1.6%	-0.379	-0.032
Schizophrenia	160	2.8%	120	3.7%	-0.970	-0.056
Sleep Disorder	707	12.3%	307	9.6%	2.707	0.088
Substance Abuse	143	2.5%	85	2.7%	-0.173	-0.011
Suicidal Behavior	56	1.0%	55	1.7%	-0.764	-0.066
Transcranial Magnetic Stimulation	2	0.0%	7	0.2%	-0.173	-0.049
Vagus Nerve Stimulation	4	0.1%	1	0.0%	0.045	0.022

Table 1w. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	86	1.5%	0	0.0%	NaN	NaN
dulaglutide	1,631	28.4%	0	0.0%	NaN	NaN
exenatide	688	12.0%	0	0.0%	NaN	NaN
liraglutide	1,786	31.1%	0	0.0%	NaN	NaN
lixisenatide	42	0.7%	0	0.0%	NaN	NaN
semaglutide	1,422	24.8%	0	0.0%	NaN	NaN
tirzepatide	93	1.6%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	5,745	100.0%	3,201	100.0%	0.000	NaN
insulin*	2,059	35.8%	1,560	48.7%	-12.905	-0.266
metformin*	5,496	95.7%	3,051	95.3%	0.345	0.017
alpha-glucosidase inhibitors*	4	0.1%	3	0.1%	-0.012	-0.004
thiazolidinediones*	215	3.7%	143	4.5%	-0.731	-0.037
meglitinides*	17	0.3%	8	0.2%	0.048	0.009
amylin analogue*	0	0.0%	0	0.0%	NaN	NaN
sulfonylureas*	1,022	17.8%	594	18.5%	-0.764	-0.020
bile acid sequestrants*	1	0.0%	0	0.0%	0.002	0.002
Other Weight Loss Agents*	6	0.1%	0	0.0%	0.087	0.036
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	2	0.0%	0	0.0%	NaN	NaN
diethylpropion	0	0.0%	0	0.0%	NaN	NaN
lorcaserin	1	0.0%	0	0.0%	NaN	NaN

Table 1w. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
phentermine	3	0.0%	0	0.0%	0.035	0.019
phentermine-topiramate	1	0.0%	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	0	0.0%	0	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	718	12.5%	406	12.7%	-0.177	-0.005
Antipsychotics	772	13.4%	504	15.8%	-2.320	-0.068
Anxiolytics/Hypnotics	865	15.1%	495	15.5%	-0.407	-0.011
Lithium & Other Mood Stabilizers	528	9.2%	336	10.5%	-1.314	-0.045
Antidepressants	1,905	33.2%	1,010	31.6%	1.606	0.035
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	9.5	12.7	9.3	12.6	0.253	0.020
Mean number of emergency room encounters*	0.7	1.6	0.6	1.2	0.026	0.018
Mean number of inpatient hospital encounters*	0.1	0.3	0.1	0.3	-0.000	-0.002
Mean number of non-acute institutional encounters*	0.0	0.2	0.0	0.2	-0.001	-0.005
Mean number of other ambulatory encounters*	7.1	22.9	7.5	24.0	-0.421	-0.018
Mean number of filled prescriptions*	17.9	16.6	17.8	16.4	0.097	0.006

Table 1w. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of generics dispensed*	8.1	5.1	8.1	4.7	-0.067	-0.014
Mean number of unique drug classes dispensed*	6.9	4.3	6.9	4.4	-0.053	-0.012

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1x. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	140,742	100.0%	90,390	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	38.4	4.9	38.8	4.8	-0.331	-0.068
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	140,742	100.0%	90,390	100.0%	0.000	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	83,995	59.7%	40,807	45.1%	14.535	0.294
Male	56,747	40.3%	49,583	54.9%	-14.535	-0.294
Race ³						
American Indian or Alaska Native	1,611	1.1%	805	0.9%	0.254	0.025
Asian	2,159	1.5%	2,938	3.3%	-1.716	-0.112
Black or African American	14,650	10.4%	8,565	9.5%	0.934	0.031
Multi-racial	1,308	0.9%	874	1.0%	-0.038	-0.004
Native Hawaiian or Other Pacific Islander	491	0.3%	366	0.4%	-0.056	-0.009
Unknown	84,431	60.0%	55,145	61.0%	-1.018	-0.021
White	36,092	25.6%	21,697	24.0%	1.640	0.038
Hispanic origin						

Table 1x. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Yes	11,300	8.0%	10,129	11.2%	-3.177	-0.108
No	49,018	34.8%	30,604	33.9%	0.971	0.020
Unknown	80,424	57.1%	49,657	54.9%	2.206	0.044
Year*						
2015	2,237	1.6%	2,032	2.2%	-0.659	-0.048
2016	11,575	8.2%	10,476	11.6%	-3.366	-0.113
2017	14,320	10.2%	12,611	14.0%	-3.777	-0.116
2018	16,451	11.7%	11,573	12.8%	-1.115	-0.034
2019	20,630	14.7%	14,181	15.7%	-1.031	-0.029
2020	24,930	17.7%	18,147	20.1%	-2.363	-0.060
2021	15,075	10.7%	8,718	9.6%	1.066	0.035
2022	20,166	14.3%	8,509	9.4%	4.915	0.152
2023	15,358	10.9%	4,143	4.6%	6.329	0.238
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*4}	0.5	1.0	0.5	1.0	0.007	0.008
Combined comorbidity score ^{*,5}	1.0	1.4	0.9	1.4	0.096	0.068
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	74,553	53.0%	36,512	40.4%	12.578	0.254
Weight Reduction Surgery or Procedure*	105	0.1%	48	0.1%	0.022	0.009

Table 1x. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Lifestyle intervention*	37,223	26.4%	21,123	23.4%	3.079	0.071
Cardiovascular Disease*	5,768	4.1%	4,335	4.8%	-0.698	-0.034
Cognitive Impairment*	238	0.2%	147	0.2%	0.006	0.002
Traumatic Brain Injury*	326	0.2%	164	0.2%	0.050	0.011
Migraine*	9,354	6.6%	4,163	4.6%	2.041	0.089
Epilepsy*	2,220	1.6%	1,334	1.5%	0.102	0.008
Chronic Pain*	21,153	15.0%	10,570	11.7%	3.336	0.098
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	2,160	1.5%	1,042	1.2%	0.382	0.033
Psychiatric History Overall*	87,095	61.9%	47,415	52.5%	9.427	0.191
Psychiatric Drug Dispensings	66,632	47.3%	34,736	38.4%	8.914	0.181
Intentional Self-Harm Encounter	337	0.2%	175	0.2%	0.046	0.010
Any Other Psychiatric Event	73,386	52.1%	39,391	43.6%	8.563	0.172
Attention-Deficit/Hyperactivity Disorder	4,456	3.2%	1,873	2.1%	1.094	0.069
Akathisia	110	0.1%	57	0.1%	0.015	0.006
Anxiety	30,692	21.8%	14,385	15.9%	5.893	0.151
Behavioral Disorder	8,852	6.3%	4,240	4.7%	1.599	0.070
Bipolar Disorder	10,103	7.2%	5,183	5.7%	1.444	0.059
Cerebral Degenerations usually Manifested in Childhood	406	0.3%	*****	*****	*****	*****
Conduct Disorder	389	0.3%	217	0.2%	0.036	0.007

Table 1x. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Delirium	768	0.5%	445	0.5%	0.053	0.007
Depression	26,974	19.2%	12,904	14.3%	4.890	0.131
Electroconvulsive Therapy	46	0.0%	*****	*****	*****	*****
Hallucination	322	0.2%	*****	*****	*****	*****
Obsessive-Compulsive Disorder	642	0.5%	286	0.3%	0.140	0.023
Other Cerebral Degenerations	303	0.2%	*****	*****	*****	*****
Other Mental Disorders	1,425	1.0%	822	0.9%	0.103	0.011
Other Psychological Disorders	15,132	10.8%	9,441	10.4%	0.307	0.010
Persistent Mental Disorders due to Conditions Classified Elsewhere	*****	*****	*****	*****	0.007	0.003
Personality Disorders	1,599	1.1%	637	0.7%	0.431	0.045
Pervasive Developmental Disorders	1,027	0.7%	679	0.8%	-0.021	-0.003
Post-Traumatic Stress Disorder	5,666	4.0%	2,487	2.8%	1.274	0.070
Psychotherapy	14,576	10.4%	6,687	7.4%	2.959	0.104
Psychotic Conditions	802	0.6%	586	0.6%	-0.078	-0.010
Schizophrenia	4,751	3.4%	3,211	3.6%	-0.177	-0.010
Sleep Disorder	29,683	21.1%	14,060	15.6%	5.536	0.143
Substance Abuse	6,962	4.9%	4,563	5.0%	-0.101	-0.005
Suicidal Behavior	862	0.6%	463	0.5%	0.100	0.013
Transcranial Magnetic Stimulation	*****	*****	*****	*****	0.009	0.007
Vagus Nerve Stimulation	79	0.1%	*****	*****	*****	*****

Table 1x. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	1,807	1.3%	0	0.0%	NaN	NaN
dulaglutide	41,128	29.2%	0	0.0%	NaN	NaN
exenatide	13,166	9.4%	0	0.0%	NaN	NaN
liraglutide	35,496	25.2%	0	0.0%	NaN	NaN
lixisenatide	1,104	0.8%	0	0.0%	NaN	NaN
semaglutide	44,226	31.4%	0	0.0%	NaN	NaN
tirzepatide	4,012	2.9%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	140,742	100.0%	90,390	100.0%	0.000	NaN
insulin*	41,545	29.5%	19,210	21.3%	8.266	0.191
metformin*	131,517	93.4%	85,243	94.3%	-0.860	-0.036
alpha-glucosidase inhibitors*	*****	*****	*****	*****	0.024	0.005
thiazolidinediones*	7,118	5.1%	4,865	5.4%	-0.325	-0.015
meglitinides*	491	0.3%	*****	*****	*****	*****
amylin analogue*	*****	*****	*****	*****	0.004	0.005
sulfonylureas*	37,050	26.3%	26,345	29.1%	-2.821	-0.063
bile acid sequestrants*	271	0.2%	*****	*****	*****	*****
Other Weight Loss Agents*	887	0.6%	*****	*****	*****	*****
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
Combination naltrexone and bupropion	*****	*****	*****	*****	0.047	0.020
diethylpropion	*****	*****	*****	*****	0.006	0.007
lorcaserin	56	0.0%	*****	*****	*****	*****
phentermine	659	0.5%	*****	*****	*****	*****

Table 1x. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
phentermine-topiramate	48	0.0%	*****	*****	*****	*****
phendimetrazine	*****	*****	*****	*****	0.003	0.004
orlistat	*****	*****	*****	*****	0.004	0.005
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	30,835	21.9%	17,704	19.6%	2.323	0.057
Antipsychotics	16,265	11.6%	9,196	10.2%	1.383	0.044
Anxiolytics/Hypnotics	29,024	20.6%	14,951	16.5%	4.082	0.105
Lithium & Other Mood Stabilizers	13,095	9.3%	7,018	7.8%	1.540	0.055
Antidepressants	54,414	38.7%	26,959	29.8%	8.837	0.187
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	9.3	10.7	7.9	9.6	1.408	0.139
Mean number of emergency room encounters*	0.5	1.4	0.5	1.3	0.048	0.036
Mean number of inpatient hospital encounters*	0.1	0.3	0.1	0.4	-0.004	-0.011
Mean number of non-acute institutional encounters*	0.0	0.1	0.0	0.1	0.000	0.001
Mean number of other ambulatory encounters*	4.1	13.4	3.7	12.9	0.404	0.031
Mean number of filled prescriptions*	23.6	19.8	20.9	18.1	2.717	0.143
Mean number of generics dispensed*	9.7	5.3	8.7	5.0	0.995	0.193
Mean number of unique drug classes dispensed*	8.7	4.7	7.1	4.4	1.577	0.344

Table 1x. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	SGLT-2 Inhibitors	

^{*} Covariate included in the propensity score logistic regression model.

¹ Covariates in blue show a standardized difference greater than 0.1.

² Value represents standard deviation where no % follows the value.

³ Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴ 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.

⁵ 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1y. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	141,144	N/A	93,577	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	38.6	4.8	38.6	4.8	-0.047	-0.010
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	141,144	100.0%	93,577	100.0%	0.000	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	78,103	55.3%	51,062	54.6%	0.768	0.016
Male	63,042	44.7%	42,515	45.4%	-0.768	-0.016
Race ⁴						
American Indian or Alaska Native	1,609	1.1%	860	0.9%	0.221	0.022
Asian	2,202	1.6%	2,437	2.6%	-1.044	-0.074
Black or African American	14,498	10.3%	9,480	10.1%	0.141	0.005
Multi-racial	1,282	0.9%	908	1.0%	-0.062	-0.007
Native Hawaiian or Other Pacific Islander	495	0.4%	346	0.4%	-0.019	-0.003
Unknown	85,573	60.6%	56,390	60.3%	0.367	0.011
White	35,486	25.1%	23,156	24.7%	0.397	0.011

Table 1y. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Hispanic origin						
Yes	11,137	7.9%	10,449	11.2%	-3.276	-0.118
No	48,328	34.2%	32,209	34.4%	-0.180	-0.006
Unknown	81,680	57.9%	50,920	54.4%	3.455	0.144
Year*						
2015	2,636	1.9%	1,856	2.0%	-0.116	-0.008
2016	13,623	9.7%	9,492	10.1%	-0.491	-0.016
2017	16,652	11.8%	11,618	12.4%	-0.617	-0.019
2018	17,190	12.2%	11,936	12.8%	-0.577	-0.018
2019	21,015	14.9%	14,739	15.8%	-0.862	-0.024
2020	25,522	18.1%	18,187	19.4%	-1.353	-0.036
2021	14,476	10.3%	9,183	9.8%	0.443	0.015
2022	17,852	12.6%	10,358	11.1%	1.579	0.051
2023	12,181	8.6%	6,209	6.6%	1.994	0.077
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*5}	0.5	1.1	0.6	1.1	-0.029	-0.027
Combined comorbidity score ^{*6}	1.1	1.5	1.1	1.5	-0.033	-0.022

Table 1y. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	70,861	50.2%	44,240	47.3%	2.928	0.060
Weight Reduction Surgery or Procedure*	110	0.1%	95	0.1%	-0.023	-0.008
Lifestyle intervention*	35,617	25.2%	22,947	24.5%	0.713	0.017
Cardiovascular Disease*	7,124	5.0%	4,833	5.2%	-0.118	-0.005
Cognitive Impairment*	268	0.2%	162	0.2%	0.016	0.004
Traumatic Brain Injury*	328	0.2%	222	0.2%	-0.004	-0.001
Migraine*	9,232	6.5%	5,983	6.4%	0.148	0.006
Epilepsy*	2,343	1.7%	1,492	1.6%	0.066	0.005
Chronic Pain*	22,032	15.6%	14,435	15.4%	0.184	0.005
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	2,149	1.5%	1,444	1.5%	-0.020	-0.002
Psychiatric History Overall*	85,598	60.6%	55,759	59.6%	1.059	0.022
Psychiatric Drug Dispensings	64,448	45.7%	43,508	46.5%	-0.833	-0.017
Intentional Self-Harm Encounter	352	0.2%	236	0.3%	-0.003	-0.001
Any Other Psychiatric Event	72,325	51.2%	46,344	49.5%	1.717	0.035
Attention-Deficit/Hyperactivity Disorder	4,165	3.0%	2,460	2.6%	0.323	0.020
Akathisia	121	0.1%	96	0.1%	-0.017	-0.006
Anxiety	29,523	20.9%	18,961	20.3%	0.655	0.016
Behavioral Disorder	8,736	6.2%	5,496	5.9%	0.316	0.013

Table 1y. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Bipolar Disorder	9,732	6.9%	7,158	7.6%	-0.754	-0.030
Cerebral Degenerations usually Manifested in Childhood	442	0.3%	269	0.3%	0.026	0.005
Conduct Disorder	378	0.3%	228	0.2%	0.024	0.005
Delirium	800	0.6%	566	0.6%	-0.038	-0.005
Depression	26,301	18.6%	16,918	18.1%	0.555	0.015
Electroconvulsive Therapy	43	0.0%	33	0.0%	-0.005	-0.003
Hallucination	355	0.3%	278	0.3%	-0.046	-0.009
Obsessive-Compulsive Disorder	609	0.4%	383	0.4%	0.022	0.003
Other Cerebral Degenerations	316	0.2%	174	0.2%	0.038	0.009
Other Mental Disorders	1,493	1.1%	942	1.0%	0.051	0.005
Other Psychological Disorders	15,934	11.3%	10,976	11.7%	-0.440	-0.014
Persistent Mental Disorders due to Conditions Classified Elsewhere	121	0.1%	57	0.1%	0.024	0.009
Personality Disorders	1,485	1.1%	946	1.0%	0.041	0.004
Pervasive Developmental Disorders	994	0.7%	629	0.7%	0.032	0.004
Post-Traumatic Stress Disorder	5,398	3.8%	3,654	3.9%	-0.081	-0.004
Psychotherapy	13,644	9.7%	9,181	9.8%	-0.144	-0.005
Psychotic Conditions	831	0.6%	675	0.7%	-0.132	-0.016
Schizophrenia	4,799	3.4%	3,573	3.8%	-0.418	-0.023
Sleep Disorder	29,520	20.9%	17,327	18.5%	2.398	0.061
Substance Abuse	7,381	5.2%	5,604	6.0%	-0.759	-0.033

Table 1y. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Psychiatric History						
Suicidal Behavior	892	0.6%	613	0.7%	-0.023	-0.003
Transcranial Magnetic Stimulation	34	0.0%	15	0.0%	0.008	0.006
Vagus Nerve Stimulation	94	0.1%	59	0.1%	0.004	0.002
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	2,080	1.5%	0	0.0%	NaN	NaN
dulaglutide	42,600	30.2%	0	0.0%	NaN	NaN
exenatide	14,105	10.0%	0	0.0%	NaN	NaN
liraglutide	37,390	26.5%	0	0.0%	NaN	NaN
lixisenatide	998	0.7%	0	0.0%	NaN	NaN
semaglutide	41,159	29.2%	0	0.0%	NaN	NaN
tirzepatide	3,327	2.4%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	141,144	100.0%	93,577	100.0%	0.000	NaN
insulin*	45,564	32.3%	37,740	40.3%	-8.048	-0.169
metformin*	132,064	93.6%	87,417	93.4%	0.149	0.006
alpha-glucosidase inhibitors*	327	0.2%	232	0.2%	-0.016	-0.003
thiazolidinediones*	7,371	5.2%	5,362	5.7%	-0.507	-0.022
meglitinides*	524	0.4%	376	0.4%	-0.031	-0.005
amylin analogue*	11	0.0%	7	0.0%	-0.000	-0.000
sulfonylureas*	38,166	27.0%	26,407	28.2%	-1.180	-0.027

Table 1y. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical Product Use	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Covariate Balance	
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
bile acid sequestrants *	332	0.2%	253	0.3%	-0.035	-0.007
Other Weight Loss Agents *	765	0.5%	414	0.4%	0.099	0.014
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
Combination naltrexone and bupropion	102	0.1%	57	0.1%	0.012	0.005
diethylpropion	10	0.0%	3	0.0%	0.004	0.005
lorcaserin	44	0.0%	12	0.0%	0.018	0.012
phentermine	555	0.4%	339	0.4%	0.031	0.005
phentermine-topiramate	56	0.0%	4	0.0%	0.035	0.023
phendimetrazine	7	0.0%	3	0.0%	0.002	0.003
orlistat	9	0.0%	4	0.0%	0.002	0.003
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	34,133	24.2%	22,888	24.5%	-0.275	-0.006
Antipsychotics	15,691	11.1%	11,903	12.7%	-1.603	-0.052
Anxiolytics/Hypnotics	28,386	20.1%	20,545	22.0%	-1.843	-0.046
Lithium & Other Mood Stabilizers	12,481	8.8%	9,487	10.1%	-1.296	-0.046
Antidepressants	51,974	36.8%	34,854	37.2%	-0.423	-0.009
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	9.4	10.5	9.4	11.1	-0.043	-0.004
Mean number of emergency room encounters *	0.6	1.6	0.6	1.6	-0.022	-0.014

Table 1y. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of inpatient hospital encounters*	0.1	0.4	0.1	0.4	-0.002	-0.006
Mean number of non-acute institutional encounters*	0.0	0.1	0.0	0.1	-0.000	-0.001
Mean number of other ambulatory encounters*	4.1	13.4	4.3	14.1	-0.233	-0.017
Mean number of filled prescriptions*	24.4	20.8	24.6	20.4	-0.271	-0.013
Mean number of generics dispensed*	10.1	5.9	10.1	5.5	-0.062	-0.011
Mean number of unique drug classes dispensed*	8.6	4.9	8.7	5.2	-0.126	-0.025

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1z. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	486,421	100.0%	405,383	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years) [*]	55.8	5.4	56.2	5.4	-0.431	-0.080
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	486,421	100.0%	405,383	100.0%	0.000	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex [*]						
Female	269,002	55.3%	172,795	42.6%	12.677	0.256
Male	217,419	44.7%	232,588	57.4%	-12.677	-0.256
Race ³						
American Indian or Alaska Native	3,893	0.8%	2,469	0.6%	0.191	0.023
Asian	5,679	1.2%	12,323	3.0%	-1.872	-0.131
Black or African American	48,292	9.9%	36,156	8.9%	1.009	0.035
Multi-racial	3,834	0.8%	2,950	0.7%	0.060	0.007
Native Hawaiian or Other Pacific Islander	1,111	0.2%	1,077	0.3%	-0.037	-0.008
Unknown	265,996	54.7%	232,962	57.5%	-2.783	-0.056
White	157,616	32.4%	117,446	29.0%	3.432	0.074

Table 1z. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Hispanic origin						
Yes	27,051	5.6%	32,223	7.9%	-2.388	-0.095
No	188,241	38.7%	147,470	36.4%	2.321	0.048
Unknown	271,129	55.7%	225,690	55.7%	0.066	0.001
Year*						
2015	8,087	1.7%	8,789	2.2%	-0.506	-0.037
2016	38,466	7.9%	40,324	9.9%	-2.039	-0.072
2017	47,806	9.8%	49,960	12.3%	-2.496	-0.080
2018	55,219	11.4%	46,798	11.5%	-0.192	-0.006
2019	67,334	13.8%	61,158	15.1%	-1.244	-0.035
2020	73,750	15.2%	72,118	17.8%	-2.628	-0.071
2021	60,114	12.4%	49,146	12.1%	0.235	0.007
2022	76,348	15.7%	51,002	12.6%	3.115	0.089
2023	59,297	12.2%	26,088	6.4%	5.755	0.199
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI)*,4	1.0	1.4	1.0	1.4	0.043	0.030
Combined comorbidity score*,5	1.3	1.8	1.2	1.9	0.088	0.047
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	230,855	47.5%	139,857	34.5%	12.960	0.266

Table 1z. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Weight Reduction Surgery or Procedure*	288	0.1%	219	0.1%	0.005	0.002
Cardiovascular Disease*	62,799	12.9%	59,106	14.6%	-1.670	-0.049
Cognitive Impairment*	3,027	0.6%	2,462	0.6%	0.015	0.002
Traumatic Brain Injury*	1,071	0.2%	734	0.2%	0.039	0.009
Migraine*	22,437	4.6%	13,175	3.3%	1.363	0.070
Epilepsy*	6,299	1.3%	5,080	1.3%	0.042	0.004
Chronic Pain*	109,085	22.4%	70,968	17.5%	4.920	0.123
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	4,764	1.0%	3,077	0.8%	0.220	0.024
Psychiatric History Overall*	315,269	64.8%	222,581	54.9%	9.908	0.203
Psychiatric Drug Dispensings	243,558	50.1%	163,301	40.3%	9.788	0.198
Intentional Self-Harm Encounter	521	0.1%	367	0.1%	0.017	0.005
Any Other Psychiatric Event	255,634	52.6%	177,501	43.8%	8.768	0.176
Attention-Deficit/Hyperactivity	6,464	1.3%	3,348	0.8%	0.503	0.049
Akathisia	475	0.1%	299	0.1%	0.024	0.008
Anxiety	89,482	18.4%	56,032	13.8%	4.574	0.125
Behavioral Disorder	21,137	4.3%	13,528	3.3%	1.008	0.052
Bipolar Disorder	24,892	5.1%	15,477	3.8%	1.300	0.063
Cerebral Degenerations usually Manifested in Childhood	2,628	0.5%	2,286	0.6%	-0.024	-0.003
Conduct Disorder	392	0.1%	309	0.1%	0.004	0.002
Delirium	4,182	0.9%	3,261	0.8%	0.055	0.006
Depression	93,779	19.3%	57,911	14.3%	4.994	0.134

Table 1z. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Electroconvulsive Therapy	96	0.0%	59	0.0%	0.005	0.004
Psychiatric History						
Hallucination	755	0.2%	542	0.1%	0.022	0.006
Obsessive-Compulsive Disorder	1,046	0.2%	651	0.2%	0.054	0.013
Other Cerebral Degenerations	2,341	0.5%	1,835	0.5%	0.029	0.004
Other Mental Disorders	3,613	0.7%	2,649	0.7%	0.089	0.011
Other Psychological Disorders	51,506	10.6%	43,610	10.8%	-0.169	-0.005
Persistent Mental Disorders due to Conditions Classified Elsewhere	1,725	0.4%	1,433	0.4%	0.001	0.000
Personality Disorders	2,551	0.5%	1,280	0.3%	0.209	0.032
Pervasive Developmental Disorders	454	0.1%	430	0.1%	-0.013	-0.004
Post-Traumatic Stress Disorder	12,731	2.6%	6,998	1.7%	0.891	0.061
Psychotherapy	34,301	7.1%	19,809	4.9%	2.165	0.091
Psychotic Conditions	1,837	0.4%	1,566	0.4%	-0.009	-0.001
Schizophrenia	10,633	2.2%	9,093	2.2%	-0.057	-0.004
Sleep Disorder	128,286	26.4%	79,160	19.5%	6.846	0.163
Substance Abuse	26,070	5.4%	21,309	5.3%	0.103	0.005
Suicidal Behavior	2,507	0.5%	1,714	0.4%	0.093	0.014
Transcranial Magnetic Stimulation	115	0.0%	53	0.0%	0.011	0.008
Vagus Nerve Stimulation	338	0.1%	207	0.1%	0.018	0.008
Medical Product Use						
Index GLP-1RA Product						
albiglutide	5,548	1.1%	0	0.0%	NaN	NaN
dulaglutide	156,000	32.1%	0	0.0%	NaN	NaN

Table 1z. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

		Medical Product			Covariate Balance		
		GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference	
exenatide	39,695	8.2%	0	0.0%	NaN	NaN	
liraglutide	106,274	21.8%	0	0.0%	NaN	NaN	
lixisenatide	5,113	1.1%	0	0.0%	NaN	NaN	
semaglutide	161,407	33.2%	0	0.0%	NaN	NaN	
tirzepatide	12,918	2.7%	0	0.0%	NaN	NaN	
Any Anti-Diabetic Agents	486,419	100.0%	405,383	100.0%	-0.000	-0.003	
insulin*	167,960	34.5%	94,345	23.3%	11.257	0.250	
metformin*	443,274	91.1%	375,995	92.8%	-1.621	-0.060	
alpha-glucosidase inhibitors*	1,609	0.3%	1,374	0.3%	-0.008	-0.001	
thiazolidinediones*	33,662	6.9%	28,239	7.0%	-0.046	-0.002	
meglitinides*	3,147	0.6%	2,430	0.6%	0.048	0.006	
amylin analogue*	66	0.0%	40	0.0%	0.004	0.003	
sulfonylureas*	161,979	33.3%	145,613	35.9%	-2.620	-0.055	
bile acid sequestrants*	1,607	0.3%	1,161	0.3%	0.044	0.008	
Other Weight Loss Agents*	2,225	0.5%	700	0.2%	0.285	0.051	
benzphetamine	*****	*****	*****	*****	-0.000	-0.000	
Combination naltrexone and bupropion	264	0.1%	111	0.0%	0.027	0.013	
diethylpropion	44	0.0%	*****	*****	*****	*****	
lorcaserin	110	0.0%	47	0.0%	0.011	0.008	
phentermine	1,654	0.3%	481	0.1%	0.221	0.046	
phentermine-topiramate	125	0.0%	35	0.0%	0.017	0.013	
phendimetrazine	45	0.0%	*****	*****	*****	*****	

Table 1z. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

		Medical Product			Covariate Balance		
		GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
orlistat	45	0.0%	*****	*****	*****	*****	
setmelanotide	0	0.0%	0	0.0%	NaN	NaN	
Other Agents							
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference	
Analgesic Opiates*	135,608	27.9%	97,035	23.9%	3.942	0.090	
Antipsychotics	42,689	8.8%	29,531	7.3%	1.491	0.055	
Anxiolytics/Hypnotics	106,213	21.8%	70,831	17.5%	4.363	0.110	
Lithium & Other Mood Stabilizers	35,348	7.3%	23,587	5.8%	1.449	0.059	
Antidepressants	201,349	41.4%	127,830	31.5%	9.861	0.206	
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference	
Mean number of ambulatory encounters*	10.2	10.5	8.8	9.2	1.414	0.144	
encounters*	0.4	1.1	0.4	1.1	0.022	0.020	
Mean number of inpatient hospital encounters*	0.1	0.4	0.1	0.4	-0.011	-0.028	
Mean number of non-acute institutional encounters*	0.0	0.1	0.0	0.1	0.001	0.004	
Mean number of other ambulatory encounters*	4.4	13.9	3.9	13.1	0.480	0.036	
Mean number of filled prescriptions*	29.1	21.2	26.0	19.6	3.149	0.154	
Mean number of generics dispensed*	11.3	5.3	10.2	5.1	1.100	0.211	
dispensed [†]	10.0	4.8	8.4	4.6	1.636	0.350	

Table 1z. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	SGLT-2 Inhibitors	

* Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1aa. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Patient Characteristics ^{1,2}	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weighted patients	485,828	N/A	417,555	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	56.0	5.4	56.0	5.4	0.021	0.004
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	485,828	100.0%	417,555	100.0%	0.000	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	246,202	50.7%	207,583	49.7%	0.963	0.019
Male	239,627	49.3%	209,971	50.3%	-0.963	-0.019
Race ⁴						
American Indian or Alaska Native	3,761	0.8%	2,649	0.6%	0.140	0.017
Asian	5,921	1.2%	10,570	2.5%	-1.312	-0.098
Black or African American	47,064	9.7%	39,625	9.5%	0.197	0.007
Multi-racial	3,781	0.8%	3,067	0.7%	0.044	0.005
Native Hawaiian or Other Pacific Islander	1,096	0.2%	1,031	0.2%	-0.021	-0.004
Unknown	270,158	55.6%	237,148	56.8%	-1.187	-0.038

Table 1aa. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
White	154,047	31.7%	123,465	29.6%	2.139	0.058
Hispanic origin						
Yes	26,697	5.5%	33,078	7.9%	-2.427	-0.103
No	183,041	37.7%	153,433	36.7%	0.930	0.034
Unknown	276,091	56.8%	231,044	55.3%	1.496	0.070
Year*						
2015	9,500	2.0%	8,238	2.0%	-0.018	-0.001
2016	43,730	9.0%	38,624	9.3%	-0.249	-0.009
2017	53,678	11.0%	47,955	11.5%	-0.436	-0.014
2018	55,521	11.4%	49,750	11.9%	-0.487	-0.015
2019	68,830	14.2%	62,339	14.9%	-0.762	-0.022
2020	76,240	15.7%	70,545	16.9%	-1.202	-0.033
2021	59,752	12.3%	49,453	11.8%	0.456	0.014
2022	70,860	14.6%	55,926	13.4%	1.192	0.035
2023	47,718	9.8%	34,724	8.3%	1.506	0.053
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	1.1	1.5	1.1	1.5	0.011	0.007
Combined comorbidity score ^{*,6}	1.4	1.9	1.4	1.9	0.018	0.009

Table 1aa. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	213,644	44.0%	171,286	41.0%	2.954	0.061
Weight Reduction Surgery or Procedure*	323	0.1%	291	0.1%	-0.003	-0.001
Lifestyle intervention*	104,420	21.5%	88,124	21.1%	0.388	0.010
Cardiovascular Disease*	73,030	15.0%	61,377	14.7%	0.333	0.009
Cognitive Impairment*	3,347	0.7%	2,797	0.7%	0.019	0.002
Traumatic Brain Injury*	1,082	0.2%	927	0.2%	0.001	0.000
Migraine*	21,723	4.5%	17,676	4.2%	0.238	0.012
Epilepsy*	6,792	1.4%	5,530	1.3%	0.074	0.006
Chronic Pain*	109,116	22.5%	88,207	21.1%	1.335	0.033
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	4,665	1.0%	3,903	0.9%	0.026	0.003
Psychiatric History Overall*	307,161	63.2%	256,465	61.4%	1.803	0.038
Psychiatric Drug Dispensings	233,301	48.0%	198,647	47.6%	0.447	0.009
Intentional Self-Harm Encounter	589	0.1%	448	0.1%	0.014	0.004
Any Other Psychiatric Event	250,247	51.5%	204,941	49.1%	2.428	0.050
Attention-Deficit/Hyperactivity Disorder	5,984	1.2%	4,462	1.1%	0.163	0.015
Akathisia	471	0.1%	359	0.1%	0.011	0.004
Anxiety	85,605	17.6%	70,230	16.8%	0.801	0.022
Behavioral Disorder	20,736	4.3%	16,231	3.9%	0.381	0.019

Table 1aa. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Bipolar Disorder	23,567	4.9%	20,356	4.9%	-0.024	-0.001
Cerebral Degenerations usually Manifested in Childhood	2,936	0.6%	2,643	0.6%	-0.028	-0.004
Conduct Disorder	375	0.1%	324	0.1%	-0.001	-0.000
Delirium	4,857	1.0%	3,952	0.9%	0.053	0.005
Depression	90,599	18.6%	72,234	17.3%	1.349	0.036
Electroconvulsive Therapy	100	0.0%	76	0.0%	0.002	0.002
Hallucination	787	0.2%	628	0.2%	0.011	0.003
Obsessive-Compulsive Disorder	996	0.2%	814	0.2%	0.010	0.002
Other Cerebral Degenerations	2,477	0.5%	2,107	0.5%	0.005	0.001
Other Mental Disorders	3,717	0.8%	3,213	0.8%	-0.005	-0.001
Other Psychological Disorders	53,371	11.0%	48,910	11.7%	-0.728	-0.023
Persistent Mental Disorders due to Conditions Classified Elsewhere	1,899	0.4%	1,600	0.4%	0.008	0.001
Personality Disorders	2,404	0.5%	1,812	0.4%	0.061	0.009
Pervasive Developmental Disorders	463	0.1%	409	0.1%	-0.003	-0.001
Post-Traumatic Stress Disorder	11,631	2.4%	9,572	2.3%	0.102	0.007
Psychotherapy	31,610	6.5%	26,072	6.2%	0.262	0.011
Psychotic Conditions	1,944	0.4%	1,803	0.4%	-0.032	-0.005
Schizophrenia	10,435	2.1%	10,206	2.4%	-0.297	-0.020
Sleep Disorder	126,073	26.0%	94,503	22.6%	3.318	0.078

Table 1aa. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Substance Abuse	27,075	5.6%	24,393	5.8%	-0.269	-0.012
Suicidal Behavior	2,714	0.6%	2,015	0.5%	0.076	0.011
Transcranial Magnetic Stimulation	94	0.0%	86	0.0%	-0.001	-0.001
Vagus Nerve Stimulation	353	0.1%	283	0.1%	0.005	0.002

	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Medical Product Use						
Index GLP-1RA Product						
albiglutide	6,420	1.3%	0	0.0%	NaN	NaN
dulaglutide	161,868	33.3%	0	0.0%	NaN	NaN
exenatide	41,773	8.6%	0	0.0%	NaN	NaN
liraglutide	109,585	22.6%	0	0.0%	NaN	NaN
lixisenatide	4,523	0.9%	0	0.0%	NaN	NaN
semaglutide	152,323	31.4%	0	0.0%	NaN	NaN
tirzepatide	10,913	2.2%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	485,825	100.0%	417,555	100.0%	-0.001	-0.004
insulin*	176,972	36.4%	169,264	40.5%	-4.110	-0.085
metformin*	444,515	91.5%	382,426	91.6%	-0.091	-0.003
alpha-glucosidase inhibitors*	1,680	0.3%	1,531	0.4%	-0.021	-0.004
thiazolidinediones*	33,951	7.0%	30,536	7.3%	-0.325	-0.013
meglitinides*	3,242	0.7%	2,936	0.7%	-0.036	-0.004
amylin analogue*	63	0.0%	70	0.0%	-0.004	-0.003
sulfonylureas*	164,251	33.8%	146,218	35.0%	-1.209	-0.026

Table 1aa. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
bile acid sequestrants*	1,866	0.4%	1,472	0.4%	0.032	0.005
Other Weight Loss Agents*	1,738	0.4%	1,213	0.3%	0.067	0.012
benzphetamine	1	0.0%	2	0.0%	-0.000	-0.001
Combination naltrexone and bupropion	222	0.0%	199	0.0%	-0.002	-0.001
diethylpropion	46	0.0%	26	0.0%	0.003	0.004
lorcaserin	94	0.0%	82	0.0%	-0.000	-0.000
phentermine	1,279	0.3%	828	0.2%	0.065	0.014
phentermine-topiramate	81	0.0%	63	0.0%	0.001	0.001
phendimetrazine	45	0.0%	20	0.0%	0.004	0.005
orlistat	34	0.0%	26	0.0%	0.001	0.001
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	143,643	29.6%	118,392	28.4%	1.213	0.027
Antipsychotics	40,080	8.2%	37,874	9.1%	-0.821	-0.030
Anxiolytics/Hypnotics	102,389	21.1%	90,931	21.8%	-0.702	-0.017
Lithium & Other Mood Stabilizers	32,949	6.8%	30,858	7.4%	-0.608	-0.024
Antidepressants	189,989	39.1%	159,849	38.3%	0.824	0.017

Table 1aa. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of ambulatory encounters*	10.3	10.3	10.1	10.6	0.164	0.016
Mean number of emergency room encounters*	0.4	1.2	0.4	1.2	0.008	0.007
Mean number of inpatient hospital encounters*	0.1	0.5	0.1	0.4	0.004	0.010
Mean number of non-acute institutional encounters*	0.0	0.2	0.0	0.2	0.000	0.003
Mean number of generic encounters*	4.3	13.5	4.6	14.5	-0.274	-0.020
Mean number of filled prescriptions*	29.7	22.0	29.5	21.7	0.199	0.009
Mean number of generics dispensed*	11.6	5.8	11.4	5.5	0.205	0.036
Mean number of unique drug classes dispensed*	9.9	4.9	9.8	5.1	0.100	0.020

Table 1aa. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	SGLT-2 Inhibitors	

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1ab. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	473,273	100.0%	485,381	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years) [*]	70.9	3.8	71.5	4.0	-0.574	-0.146
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	473,273	100.0%	485,381	100.0%	0.000	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex [*]						
Female	257,663	54.4%	211,064	43.5%	10.959	0.221
Male	215,610	45.6%	274,317	56.5%	-10.959	-0.221
Race ³						
American Indian or Alaska Native	2,565	0.5%	2,208	0.5%	0.087	0.012
Asian	7,708	1.6%	17,975	3.7%	-2.075	-0.129
Black or African American	43,763	9.2%	46,386	9.6%	-0.310	-0.011
Multi-racial	466	0.1%	530	0.1%	-0.011	-0.003
Native Hawaiian or Other Pacific Islander	1,354	0.3%	1,919	0.4%	-0.109	-0.019
Unknown	62,222	13.1%	77,368	15.9%	-2.792	-0.079
White	355,195	75.1%	338,995	69.8%	5.210	0.117
Hispanic origin						

Table 1ab. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Yes	11,471	2.4%	17,301	3.6%	-1.141	-0.067
No	383,206	81.0%	378,513	78.0%	2.987	0.074
Unknown	78,596	16.6%	89,567	18.5%	-1.846	-0.049
Year*						
2015	6,342	1.3%	6,774	1.4%	-0.056	-0.005
2016	30,647	6.5%	28,643	5.9%	0.574	0.024
2017	35,491	7.5%	34,801	7.2%	0.329	0.013
2018	43,552	9.2%	34,700	7.1%	2.053	0.075
2019	53,617	11.3%	53,217	11.0%	0.365	0.012
2020	55,652	11.8%	62,906	13.0%	-1.201	-0.037
2021	75,334	15.9%	89,050	18.3%	-2.429	-0.064
2022	89,465	18.9%	107,186	22.1%	-3.179	-0.079
2023	83,173	17.6%	68,104	14.0%	3.543	0.097
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI)* ⁴	1.8	1.8	1.9	1.9	-0.099	-0.054
Combined comorbidity score* ⁵	2.0	2.4	2.2	2.6	-0.205	-0.082
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	221,116	46.7%	167,235	34.5%	12.266	0.252
Weight Reduction Surgery or Procedure*	232	0.0%	259	0.1%	-0.004	-0.002

Table 1ab. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Lifestyle intervention*	58,705	12.4%	56,714	11.7%	0.720	0.022
Cardiovascular Disease*	116,218	24.6%	144,176	29.7%	-5.147	-0.116
Cognitive Impairment*	11,691	2.5%	12,819	2.6%	-0.171	-0.011
Traumatic Brain Injury*	923	0.2%	747	0.2%	0.041	0.010
Migraine*	11,571	2.4%	9,791	2.0%	0.428	0.029
Epilepsy*	4,216	0.9%	4,509	0.9%	-0.038	-0.004
Chronic Pain*	102,219	21.6%	86,670	17.9%	3.742	0.094
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	1,357	0.3%	1,185	0.2%	0.043	0.008
Psychiatric History Overall*	285,448	60.3%	255,644	52.7%	7.645	0.155
Psychiatric Drug Dispensings	205,473	43.4%	170,515	35.1%	8.285	0.170
Intentional Self-Harm Encounter	133	0.0%	151	0.0%	-0.003	-0.002
Any Other Psychiatric Event	228,898	48.4%	206,440	42.5%	5.833	0.117
Attention-Deficit/Hyperactivity Disorder	2,080	0.4%	1,372	0.3%	0.157	0.026
Akathisia	466	0.1%	371	0.1%	0.022	0.007
Anxiety	65,982	13.9%	56,744	11.7%	2.251	0.067
Behavioral Disorder	13,030	2.8%	11,477	2.4%	0.389	0.025
Bipolar Disorder	9,483	2.0%	7,257	1.5%	0.509	0.039

Table 1ab. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cerebral Degenerations usually Manifested in Childhood	5,194	1.1%	6,077	1.3%	-0.155	-0.014
Conduct Disorder	107	0.0%	113	0.0%	-0.001	-0.000
Delirium	6,008	1.3%	6,882	1.4%	-0.148	-0.013
Depression	79,904	16.9%	62,481	12.9%	4.011	0.113
Electroconvulsive Therapy	*****	*****	34	0.0%	*****	*****
Hallucination	643	0.1%	675	0.1%	-0.003	-0.001
Obsessive-Compulsive Disorder	410	0.1%	420	0.1%	0.000	0.000
Other Cerebral Degenerations	8,350	1.8%	8,630	1.8%	-0.014	-0.001
Other Mental Disorders	2,892	0.6%	2,775	0.6%	0.039	0.005
Other Psychological Disorders	27,725	5.9%	34,442	7.1%	-1.238	-0.050
Persistent Mental Disorders due to Conditions Classified Elsewhere	8,042	1.7%	8,588	1.8%	-0.070	-0.005
Personality Disorders	527	0.1%	398	0.1%	0.029	0.009
Pervasive Developmental Disorders	*****	*****	*****	*****	0.000	0.000
Post-Traumatic Stress Disorder	2,877	0.6%	2,321	0.5%	0.130	0.018
Psychotherapy	14,256	3.0%	10,542	2.2%	0.840	0.053
Psychotic Conditions	923	0.2%	960	0.2%	-0.003	-0.001
Schizophrenia	2,657	0.6%	2,710	0.6%	0.003	0.000
Sleep Disorder	129,592	27.4%	107,823	22.2%	5.168	0.120
Substance Abuse	14,307	3.0%	15,636	3.2%	-0.198	-0.011
Suicidal Behavior	1,732	0.4%	1,612	0.3%	0.034	0.006
Transcranial Magnetic Stimulation	88	0.0%	54	0.0%	0.007	0.006

Table 1ab. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Psychiatric History						
Vagus Nerve Stimulation	490	0.1%	297	0.1%	0.042	0.015
Medical Product Use	Number/ Mean	Percent/ Standard Deviation²	Number/ Mean	Percent/ Standard Deviation²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	1,245	0.3%	0	0.0%	NaN	NaN
dulaglutide	165,725	35.0%	0	0.0%	NaN	NaN
exenatide	27,683	5.8%	0	0.0%	NaN	NaN
liraglutide	83,836	17.7%	0	0.0%	NaN	NaN
lixisenatide	8,423	1.8%	0	0.0%	NaN	NaN
semaglutide	175,983	37.2%	0	0.0%	NaN	NaN
tirzepatide	10,490	2.2%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	473,273	100.0%	485,380	100.0%	0.000	0.002
insulin*	160,398	33.9%	100,255	20.7%	13.236	0.301
metformin*	403,913	85.3%	426,156	87.8%	-2.454	-0.072
alpha-glucosidase inhibitors*	2,287	0.5%	2,226	0.5%	0.025	0.004
thiazolidinediones*	48,672	10.3%	46,094	9.5%	0.788	0.026
meglitinides*	7,364	1.6%	6,332	1.3%	0.251	0.021
amylin analogue*	69	0.0%	*****	*****	*****	*****
sulfonylureas*	200,077	42.3%	206,280	42.5%	-0.223	-0.005
bile acid sequestrants*	2,216	0.5%	1,932	0.4%	0.070	0.011
Other Weight Loss Agents*	554	0.1%	189	0.0%	0.078	0.028
benzphetamine	*****	*****	*****	*****	0.000	0.002

Table 1ab. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Combination naltrexone and bupropion	39	0.0%	*****	*****	*****	*****
diethylpropion	26	0.0%	*****	*****	*****	*****
lorcaserin	*****	*****	*****	*****	0.000	0.000
phentermine	456	0.1%	155	0.0%	0.064	0.025
phentermine-topiramate	*****	*****	*****	*****	0.001	0.003
phendimetrazine	*****	*****	*****	*****	0.001	0.004
orlistat	*****	*****	*****	*****	0.001	0.002
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	111,862	23.6%	96,628	19.9%	3.728	0.090
Antipsychotics	15,850	3.3%	14,104	2.9%	0.443	0.025
Anxiolytics/Hypnotics	77,915	16.5%	66,684	13.7%	2.725	0.076
Lithium & Other Mood Stabilizers	17,186	3.6%	14,311	2.9%	0.683	0.038
Antidepressants	169,562	35.8%	132,620	27.3%	8.505	0.184
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	11.9	10.4	11.1	9.5	0.812	0.081
encounters*	0.3	0.8	0.3	0.9	-0.028	-0.034
Mean number of inpatient hospital encounters*	0.1	0.4	0.1	0.5	-0.046	-0.107
Mean number of non-acute institutional encounters*	0.0	0.2	0.0	0.2	-0.004	-0.021

Table 1ab. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of other ambulatory encounters*	3.1	7.2	3.2	7.2	-0.049	-0.007
Mean number of filled prescriptions*	23.9	16.6	22.3	15.3	1.569	0.098
Mean number of generics dispensed*	11.0	4.6	10.5	4.5	0.547	0.120
Mean number of unique drug classes dispensed*	9.9	4.2	8.7	4.2	1.142	0.274

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1ac. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Patient Characteristics ^{1,2}	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Covariate Balance	
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weighted patients	472,178	N/A	503,789	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	71.1	3.9	71.2	4.0	-0.050	-0.013
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	472,178	100.0%	503,789	100.0%	0.000	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	238,256	50.5%	247,055	49.0%	1.419	0.028
Male	233,923	49.5%	256,734	51.0%	-1.419	-0.028
Race ⁴						
American Indian or Alaska Native	2,723	0.6%	2,415	0.5%	0.097	0.013
Asian	8,754	1.9%	16,219	3.2%	-1.365	-0.087
Black or African American	43,785	9.3%	51,832	10.3%	-1.016	-0.035
Multi-racial	522	0.1%	546	0.1%	0.002	0.001
Native Hawaiian or Other Pacific Islander	1,460	0.3%	1,702	0.3%	-0.029	-0.005
Unknown	63,823	13.5%	78,405	15.6%	-2.046	-0.078

Table 1ac. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
White	351,111	74.4%	352,671	70.0%	4.356	0.110
Hispanic origin						
Yes	12,586	2.7%	18,589	3.7%	-1.024	-0.059
No	380,305	80.5%	394,830	78.4%	2.171	0.088
Unknown	79,287	16.8%	90,370	17.9%	-1.146	-0.059
Year*						
2015	6,779	1.4%	7,302	1.4%	-0.014	-0.001
2016	31,194	6.6%	32,855	6.5%	0.085	0.003
2017	36,763	7.8%	38,301	7.6%	0.183	0.007
2018	41,195	8.7%	42,568	8.4%	0.275	0.010
2019	54,592	11.6%	57,249	11.4%	0.198	0.006
2020	58,373	12.4%	62,968	12.5%	-0.136	-0.004
2021	78,020	16.5%	86,325	17.1%	-0.612	-0.016
2022	92,544	19.6%	101,413	20.1%	-0.531	-0.013
2023	72,717	15.4%	74,807	14.8%	0.551	0.015
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*5}	2.0	2.0	1.9	1.9	0.049	0.026
Combined comorbidity score ^{*6}	2.3	2.6	2.2	2.6	0.073	0.028

Table 1ac. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	203,435	43.1%	206,347	41.0%	2.125	0.043
Weight Reduction Surgery or Procedure*	322	0.1%	336	0.1%	0.001	0.001
Lifestyle intervention*	57,828	12.2%	60,740	12.1%	0.190	0.006
Cardiovascular Disease*	139,089	29.5%	145,177	28.8%	0.640	0.014
Cognitive Impairment*	14,965	3.2%	14,715	2.9%	0.249	0.014
Traumatic Brain Injury*	945	0.2%	958	0.2%	0.010	0.002
Migraine*	11,932	2.5%	11,866	2.4%	0.172	0.011
Epilepsy*	5,235	1.1%	5,116	1.0%	0.093	0.009
Chronic Pain*	104,794	22.2%	104,386	20.7%	1.473	0.036
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	1,563	0.3%	1,504	0.3%	0.032	0.006
Psychiatric History Overall*	283,266	60.0%	291,026	57.8%	2.224	0.045
Psychiatric Drug Dispensings	200,298	42.4%	205,610	40.8%	1.607	0.033
Intentional Self-Harm Encounter	178	0.0%	183	0.0%	0.001	0.001
Any Other Psychiatric Event	231,372	49.0%	233,504	46.3%	2.651	0.053
Attention-Deficit/Hyperactivity Disorder	1,899	0.4%	1,597	0.3%	0.085	0.014
Akathisia	490	0.1%	498	0.1%	0.005	0.002
Anxiety	67,464	14.3%	68,432	13.6%	0.704	0.020

Table 1ac. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Behavioral Disorder	14,054	3.0%	13,334	2.6%	0.330	0.020
Bipolar Disorder	10,023	2.1%	9,490	1.9%	0.239	0.017
Cerebral Degenerations usually Manifested in Childhood	6,513	1.4%	6,529	1.3%	0.083	0.007
Conduct Disorder	140	0.0%	127	0.0%	0.004	0.003
Delirium	9,276	2.0%	7,788	1.5%	0.419	0.032
Depression	82,003	17.4%	76,326	15.2%	2.217	0.060
Electroconvulsive Therapy	51	0.0%	53	0.0%	0.000	0.000
Hallucination	967	0.2%	804	0.2%	0.045	0.011
Obsessive-Compulsive Disorder	415	0.1%	491	0.1%	-0.010	-0.003
Other Cerebral Degenerations	9,706	2.1%	9,834	2.0%	0.104	0.007
Other Mental Disorders	3,424	0.7%	3,254	0.6%	0.079	0.010
Other Psychological Disorders	31,377	6.6%	36,333	7.2%	-0.567	-0.022
Conditions Classified Elsewhere	10,467	2.2%	9,852	2.0%	0.261	0.018
Personality Disorders	612	0.1%	521	0.1%	0.026	0.008
Pervasive Developmental Disorders	96	0.0%	93	0.0%	0.002	0.001
Post-Traumatic Stress Disorder	3,011	0.6%	3,075	0.6%	0.027	0.003
Psychotherapy	14,588	3.1%	13,787	2.7%	0.353	0.021
Psychotic Conditions	1,362	0.3%	1,230	0.2%	0.044	0.009
Schizophrenia	3,228	0.7%	3,403	0.7%	0.008	0.001

Table 1ac. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Psychiatric History						
Sleep Disorder	130,045	27.5%	124,861	24.8%	2.757	0.063
Substance Abuse	16,822	3.6%	17,197	3.4%	0.149	0.008
Suicidal Behavior	2,116	0.4%	1,865	0.4%	0.078	0.012
Transcranial Magnetic Stimulation	63	0.0%	63	0.0%	0.001	0.001
Vagus Nerve Stimulation	517	0.1%	384	0.1%	0.033	0.011
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	1,406	0.3%	0	0.0%	NaN	NaN
dulaglutide	170,896	36.2%	0	0.0%	NaN	NaN
exenatide	27,821	5.9%	0	0.0%	NaN	NaN
liraglutide	83,045	17.6%	0	0.0%	NaN	NaN
lixisenatide	7,055	1.5%	0	0.0%	NaN	NaN
semaglutide	172,769	36.6%	0	0.0%	NaN	NaN
tirzepatide	9,473	2.0%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	472,178	100.0%	503,788	100.0%	0.000	0.002
insulin*	176,825	37.4%	195,346	38.8%	-1.327	-0.027
metformin*	405,003	85.8%	433,756	86.1%	-0.325	-0.009
alpha-glucosidase inhibitors*	2,353	0.5%	2,587	0.5%	-0.015	-0.002
thiazolidinediones*	46,486	9.8%	50,774	10.1%	-0.233	-0.008

Table 1ac. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
meglitinides*	7,278	1.5%	8,133	1.6%	-0.073	-0.006
amylin analogue*	62	0.0%	94	0.0%	-0.006	-0.004
sulfonylureas*	197,139	41.8%	215,188	42.7%	-0.963	-0.020
bile acid sequestrants*	2,661	0.6%	2,573	0.5%	0.053	0.007
Other Weight Loss Agents*	390	0.1%	343	0.1%	0.015	0.005
benzphetamine	2	0.0%	6	0.0%	-0.001	-0.003
bupropion	25	0.0%	17	0.0%	0.002	0.003
diethylpropion	17	0.0%	5	0.0%	0.003	0.006
lorcaserin	4	0.0%	16	0.0%	-0.002	-0.005
phentermine	326	0.1%	278	0.1%	0.014	0.006
phentermine-topiramate	7	0.0%	8	0.0%	-0.000	-0.000
phendimetrazine	11	0.0%	9	0.0%	0.000	0.001
orlistat	6	0.0%	5	0.0%	0.000	0.001
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	122,001	25.8%	120,167	23.9%	1.985	0.046
Antipsychotics	17,192	3.6%	18,482	3.7%	-0.028	-0.001
Anxiolytics/Hypnotics	77,413	16.4%	82,578	16.4%	0.004	0.000
Lithium & Other Mood Stabilizers	17,045	3.6%	18,836	3.7%	-0.129	-0.007
Antidepressants	163,544	34.6%	163,769	32.5%	2.129	0.045

Table 1ac. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of ambulatory encounters*	12.5	10.7	12.0	10.3	0.525	0.050
Mean number of emergency room encounters*	0.3	1.0	0.3	0.9	0.031	0.032
Mean number of inpatient hospital encounters*	0.2	0.5	0.1	0.5	0.017	0.034
Mean number of non-acute institutional encounters*	0.0	0.2	0.0	0.2	0.005	0.020
Mean number of other ambulatory encounters*	3.7	8.2	3.5	8.4	0.163	0.020
Mean number of filled prescriptions*	25.8	19.3	24.5	16.9	1.317	0.073
Mean number of generics dispensed*	11.8	5.3	11.2	4.7	0.530	0.105
Mean number of unique drug classes dispensed*	10.1	4.5	9.7	4.5	0.333	0.074

Table 1ac. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	SGLT-2 Inhibitors	

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1ad. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	44,377	100.0%	82,805	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years) [*]	83.8	3.3	84.2	3.5	-0.444	-0.130
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	44,377	100.0%	82,805	100.0%	0.000	NaN
Sex [*]						
Female	23,842	53.7%	38,403	46.4%	7.348	0.147
Male	20,535	46.3%	44,402	53.6%	-7.348	-0.147
Race ³						
American Indian or Alaska Native	278	0.6%	334	0.4%	0.223	0.031
Asian	1,065	2.4%	3,919	4.7%	-2.333	-0.126
Black or African American	3,379	7.6%	6,497	7.8%	-0.232	-0.009
Multi-racial	12	0.0%	28	0.0%	-0.007	-0.004
Native Hawaiian or Other Pacific Islander	125	0.3%	371	0.4%	-0.166	-0.028
Unknown	4,485	10.1%	9,845	11.9%	-1.783	-0.057
White	35,033	78.9%	61,811	74.6%	4.298	0.102
Hispanic origin						

Table 1ad. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Yes	1,248	2.8%	2,461	3.0%	-0.160	-0.010
No	37,568	84.7%	68,354	82.5%	2.108	0.057
Unknown	5,561	12.5%	11,990	14.5%	-1.949	-0.057
Year*						
2015	414	0.9%	554	0.7%	0.264	0.030
2016	2,136	4.8%	2,497	3.0%	1.798	0.093
2017	2,884	6.5%	3,416	4.1%	2.374	0.106
2018	3,909	8.8%	3,687	4.5%	4.356	0.176
2019	5,382	12.1%	6,510	7.9%	4.266	0.143
2020	5,507	12.4%	8,755	10.6%	1.837	0.058
2021	7,922	17.9%	15,814	19.1%	-1.246	-0.032
2022	8,917	20.1%	24,046	29.0%	-8.946	-0.209
2023	7,306	16.5%	17,526	21.2%	-4.702	-0.121
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI)*,4	2.7	2.1	2.8	2.1	-0.073	-0.035
Combined comorbidity score*,5	3.4	2.9	3.8	3.2	-0.409	-0.134
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	13,840	31.2%	18,927	22.9%	8.330	0.188
Weight Reduction Surgery or Procedure*	38	0.1%	69	0.1%	0.002	0.001
Lifestyle intervention*	4,905	11.1%	9,216	11.1%	-0.077	-0.002

Table 1ad. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Cardiovascular Disease*	17,108	38.6%	36,716	44.3%	-5.789	-0.118
Cognitive Impairment*	5,887	13.3%	9,388	11.3%	1.928	0.059
Traumatic Brain Injury*	105	0.2%	176	0.2%	0.024	0.005
Migraine*	701	1.6%	1,275	1.5%	0.040	0.003
Epilepsy*	507	1.1%	938	1.1%	0.010	0.001
Chronic Pain*	8,808	19.8%	14,764	17.8%	2.018	0.052
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	110	0.2%	158	0.2%	0.057	0.012
Psychiatric History Overall*	25,837	58.2%	43,803	52.9%	5.323	0.107
Psychiatric Drug Dispensings	17,488	39.4%	27,818	33.6%	5.813	0.121
Intentional Self-Harm Encounter	13	0.0%	29	0.0%	-0.006	-0.003
Any Other Psychiatric Event	20,964	47.2%	35,834	43.3%	3.966	0.080
Attention-Deficit/Hyperactivity Disorder	41	0.1%	58	0.1%	0.022	0.008
Akathisia	*****	*****	*****	*****	0.020	0.008
Anxiety	5,399	12.2%	9,392	11.3%	0.824	0.026
Behavioral Disorder	1,274	2.9%	2,077	2.5%	0.363	0.022
Bipolar Disorder	622	1.4%	812	1.0%	0.421	0.039
Cerebral Degenerations usually Manifested in Childhood	1,078	2.4%	2,233	2.7%	-0.268	-0.017
Conduct Disorder	*****	*****	13	0.0%	*****	*****
Delirium	1,622	3.7%	2,891	3.5%	0.164	0.009
Depression	6,950	15.7%	9,983	12.1%	3.605	0.104

Table 1ad. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Electroconvulsive Therapy	*****	*****	*****	*****	*****	*****
Hallucination	196	0.4%	300	0.4%	0.079	0.013
Obsessive-Compulsive Disorder	29	0.1%	*****	*****	*****	*****
Other Cerebral Degenerations	3,153	7.1%	5,029	6.1%	1.032	0.042
Other Mental Disorders	458	1.0%	733	0.9%	0.147	0.015
Other Psychological Disorders	1,884	4.2%	3,531	4.3%	-0.019	-0.001
Persistent Mental Disorders due to Conditions Classified Elsewhere	4,550	10.3%	6,723	8.1%	2.134	0.074
Personality Disorders	33	0.1%	39	0.0%	0.027	0.011
Pervasive Developmental Disorders	*****	*****	*****	*****	-0.001	-0.001
Post-Traumatic Stress Disorder	82	0.2%	119	0.1%	0.041	0.010
Psychotherapy	989	2.2%	1,355	1.6%	0.592	0.043
Psychotic Conditions	214	0.5%	265	0.3%	0.162	0.026
Schizophrenia	162	0.4%	216	0.3%	0.104	0.019
Sleep Disorder	9,776	22.0%	16,499	19.9%	2.104	0.052
Substance Abuse	867	2.0%	1,593	1.9%	0.030	0.002
Suicidal Behavior	163	0.4%	274	0.3%	0.036	0.006
Transcranial Magnetic Stimulation	*****	*****	*****	*****	0.004	0.004
Vagus Nerve Stimulation	*****	*****	44	0.1%	*****	*****
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	100	0.2%	0	0.0%	NaN	NaN
dulaglutide	18,234	41.1%	0	0.0%	NaN	NaN
exenatide	2,401	5.4%	0	0.0%	NaN	NaN

Table 1ad. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
lixisenatide	1,165	2.6%	0	0.0%	NaN	NaN
semaglutide	15,244	34.4%	0	0.0%	NaN	NaN
tirzepatide	640	1.4%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	44,377	100.0%	82,805	100.0%	0.000	NaN
insulin*	16,958	38.2%	14,589	17.6%	20.595	0.472
metformin*	31,959	72.0%	64,487	77.9%	-5.861	-0.136
alpha-glucosidase inhibitors*	373	0.8%	521	0.6%	0.211	0.025
thiazolidinediones*	4,859	10.9%	8,034	9.7%	1.247	0.041
meglitinides*	1,534	3.5%	1,939	2.3%	1.115	0.066
amylin analogue*	*****	*****	*****	*****	0.008	0.011
sulfonylureas*	23,052	51.9%	39,071	47.2%	4.761	0.095
bile acid sequestrants*	*****	*****	369	0.4%	*****	*****
Other Weight Loss Agents*	*****	*****	*****	*****	0.017	0.017
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	0	0.0%	0	0.0%	NaN	NaN
diethylpropion	0	0.0%	0	0.0%	NaN	NaN
lorcaserin	0	0.0%	0	0.0%	NaN	NaN
phentermine	*****	*****	*****	*****	0.017	0.017
phentermine-topiramate	0	0.0%	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	0	0.0%	0	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN

Other Agents

Table 1ad. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Antipsychotics	1,643	3.7%	2,316	2.8%	0.905	0.051
Anxiolytics/Hypnotics	6,259	14.1%	10,441	12.6%	1.495	0.044
Lithium & Other Mood Stabilizers	1,221	2.8%	1,854	2.2%	0.512	0.033
Antidepressants	13,905	31.3%	20,967	25.3%	6.013	0.134
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	13.1	11.0	12.8	10.1	0.259	0.025
Mean number of emergency room encounters*	0.4	0.9	0.4	1.0	-0.040	-0.041
Mean number of inpatient hospital encounters*	0.2	0.5	0.3	0.7	-0.097	-0.162
Mean number of non-acute institutional encounters*	0.1	0.3	0.1	0.4	-0.007	-0.021
Mean number of other ambulatory encounters*	5.6	11.4	5.4	10.3	0.213	0.020
Mean number of filled prescriptions*	27.3	20.8	25.0	17.4	2.312	0.121
Mean number of generics dispensed*	11.6	4.6	11.4	4.5	0.256	0.056
Mean number of unique drug classes dispensed*	10.5	4.1	9.7	4.1	0.804	0.194

Table 1ad. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	SGLT-2 Inhibitors	

^{*} Covariate included in the propensity score logistic regression model.

¹ Covariates in blue show a standardized difference greater than 0.1.

² Value represents standard deviation where no % follows the value.

³ Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴ 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.

⁵ 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1ae. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	42,198	N/A	85,105	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	84.0	3.5	84.1	3.4	-0.037	-0.011
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	42,198	100.0%	85,105	100.0%	0.000	NaN
Sex*						
Female	21,748	51.5%	41,921	49.3%	2.281	0.046
Male	20,449	48.5%	43,184	50.7%	-2.281	-0.046
Race ⁴						
American Indian or Alaska Native	258	0.6%	389	0.5%	0.154	0.021
Asian	1,143	2.7%	3,802	4.5%	-1.758	-0.095
Black or African American	3,142	7.4%	6,903	8.1%	-0.664	-0.025
Multi-racial	17	0.0%	28	0.0%	0.008	0.004
Native Hawaiian or Other Pacific Islander	152	0.4%	338	0.4%	-0.037	-0.006
Unknown	4,492	10.6%	10,005	11.8%	-1.111	-0.047
White	32,993	78.2%	63,640	74.8%	3.409	0.089
Hispanic origin						

Table 1ae. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Yes	1,317	3.1%	2,705	3.2%	-0.057	-0.003
No	35,354	83.8%	70,452	82.8%	0.999	0.044
Unknown	5,526	13.1%	11,947	14.0%	-0.942	-0.057
Year*						
2015	367	0.9%	676	0.8%	0.075	0.008
2016	1,699	4.0%	3,177	3.7%	0.292	0.015
2017	2,354	5.6%	4,260	5.0%	0.574	0.026
2018	2,972	7.0%	5,079	6.0%	1.075	0.044
2019	4,389	10.4%	7,873	9.3%	1.150	0.039
2020	4,946	11.7%	9,563	11.2%	0.484	0.015
2021	7,643	18.1%	15,923	18.7%	-0.597	-0.015
2022	10,312	24.4%	22,081	25.9%	-1.508	-0.035
2023	7,516	17.8%	16,473	19.4%	-1.546	-0.040
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	3.0	2.2	2.8	2.1	0.148	0.070
Combined comorbidity score ^{*,6}	3.9	3.2	3.7	3.2	0.188	0.059
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	11,911	28.2%	22,187	26.1%	2.155	0.049
Weight Reduction Surgery or Procedure*	49	0.1%	85	0.1%	0.017	0.005

Table 1ae. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Lifestyle intervention*	4,771	11.3%	9,456	11.1%	0.196	0.006
Cardiovascular Disease*	19,013	45.1%	36,815	43.3%	1.800	0.036
Cognitive Impairment*	6,175	14.6%	10,928	12.8%	1.793	0.052
Traumatic Brain Injury*	99	0.2%	190	0.2%	0.013	0.003
Migraine*	783	1.9%	1,397	1.6%	0.215	0.016
Epilepsy*	554	1.3%	1,048	1.2%	0.083	0.007
Chronic Pain*	8,753	20.7%	16,110	18.9%	1.814	0.046
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	112	0.3%	191	0.2%	0.040	0.008
Psychiatric History Overall*	25,028	59.3%	47,508	55.8%	3.489	0.071
Psychiatric Drug Dispensings	16,604	39.3%	31,238	36.7%	2.642	0.054
Intentional Self-Harm Encounter	20	0.0%	28	0.0%	0.014	0.007
Any Other Psychiatric Event	20,760	49.2%	38,667	45.4%	3.763	0.075
Attention-Deficit/Hyperactivity Disorder	51	0.1%	61	0.1%	0.050	0.016
Akathisia	29	0.1%	60	0.1%	-0.002	-0.001
Anxiety	5,626	13.3%	10,442	12.3%	1.063	0.032
Behavioral Disorder	1,515	3.6%	2,310	2.7%	0.874	0.050
Bipolar Disorder	653	1.5%	958	1.1%	0.422	0.037
Cerebral Degenerations usually Manifested in Childhood	1,226	2.9%	2,341	2.8%	0.155	0.009
Conduct Disorder	7	0.0%	13	0.0%	-0.000	-0.000
Delirium	2,266	5.4%	3,105	3.6%	1.721	0.083

Table 1ae. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Depression	7,067	16.7%	11,403	13.4%	3.348	0.094
Electroconvulsive Therapy	8	0.0%	5	0.0%	0.013	0.012
Hallucination	237	0.6%	329	0.4%	0.174	0.025
Obsessive-Compulsive Disorder	36	0.1%	42	0.0%	0.035	0.014
Other Cerebral Degenerations	3,230	7.7%	5,647	6.6%	1.019	0.040
Other Mental Disorders	526	1.2%	812	1.0%	0.293	0.028
Other Psychological Disorders	2,115	5.0%	3,782	4.4%	0.567	0.027
Persistent Mental Disorders due to Conditions Classified Elsewhere	4,812	11.4%	7,898	9.3%	2.124	0.070
Personality Disorders	38	0.1%	50	0.1%	0.032	0.012
Pervasive Developmental Disorders	4	0.0%	8	0.0%	-0.000	-0.000
Post-Traumatic Stress Disorder	79	0.2%	129	0.2%	0.035	0.008
Psychotherapy	985	2.3%	1,651	1.9%	0.393	0.027
Psychotic Conditions	254	0.6%	338	0.4%	0.204	0.029
Schizophrenia	187	0.4%	298	0.4%	0.093	0.015
Sleep Disorder	9,605	22.8%	17,787	20.9%	1.862	0.045
Substance Abuse	991	2.3%	1,632	1.9%	0.430	0.030
Suicidal Behavior	153	0.4%	297	0.3%	0.015	0.003
Transcranial Magnetic Stimulation	4	0.0%	7	0.0%	0.001	0.001
Vagus Nerve Stimulation	30	0.1%	45	0.1%	0.019	0.008

Table 1ae. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Index GLP-1RA Product						
albiglutide	87	0.2%	0	0.0%	NaN	NaN
dulaglutide	17,498	41.5%	0	0.0%	NaN	NaN
exenatide	1,956	4.6%	0	0.0%	NaN	NaN
liraglutide	5,499	13.0%	0	0.0%	NaN	NaN
lixisenatide	917	2.2%	0	0.0%	NaN	NaN
semaglutide	15,563	36.9%	0	0.0%	NaN	NaN
tirzepatide	719	1.7%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	42,198	100.0%	85,105	100.0%	0.000	NaN
insulin*	16,473	39.0%	27,019	31.7%	7.290	0.153
metformin*	31,532	74.7%	64,523	75.8%	-1.092	-0.025
alpha-glucosidase inhibitors*	326	0.8%	621	0.7%	0.044	0.005
thiazolidinediones*	4,327	10.3%	8,634	10.1%	0.108	0.004
meglitinides*	1,309	3.1%	2,434	2.9%	0.241	0.014
amylin analogue*	1	0.0%	2	0.0%	0.001	0.002
sulfonylureas*	20,694	49.0%	41,624	48.9%	0.132	0.003
bile acid sequestrants*	269	0.6%	414	0.5%	0.150	0.020
Other Weight Loss Agents*	2	0.0%	1	0.0%	0.003	0.005
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	0	0.0%	0	0.0%	NaN	NaN
diethylpropion	0	0.0%	0	0.0%	NaN	NaN
lorcaserin	0	0.0%	0	0.0%	NaN	NaN
phentermine	2	0.0%	1	0.0%	0.003	0.005
phentermine-topiramate	0	0.0%	0	0.0%	NaN	NaN

Table 1ae. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	0	0.0%	0	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	9,476	22.5%	16,405	19.3%	3.180	0.078
Antipsychotics	1,716	4.1%	2,737	3.2%	0.851	0.045
Anxiolytics/Hypnotics	6,202	14.7%	11,861	13.9%	0.760	0.022
Lithium & Other Mood Stabilizers	1,192	2.8%	2,240	2.6%	0.192	0.012
Antidepressants	13,059	30.9%	23,899	28.1%	2.866	0.063
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	14.0	11.1	13.1	10.5	0.840	0.078
Mean number of emergency room encounters*	0.5	1.2	0.4	1.0	0.073	0.067
encounters*	0.3	0.7	0.3	0.6	0.032	0.049
encounters*	0.1	0.4	0.1	0.4	0.018	0.046
encounters*	6.7	12.3	5.9	11.7	0.771	0.064
Mean number of filled prescriptions*	29.6	23.3	26.7	19.6	2.940	0.137
Mean number of generics dispensed*	12.7	5.4	11.7	4.5	0.955	0.192
dispensed*	10.9	4.5	10.2	4.3	0.685	0.155

Table 1ae. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	SGLT-2 Inhibitors	

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1af. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	1,095,921	N/A	1,052,754	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	61.6	10.3	62.7	10.6	-1.086	-0.104
Age						
18-24 years	4,517	0.4%	3,984	0.4%	0.034	0.005
25-44 years	117,862	10.8%	103,329	9.8%	0.939	0.032
45-64 years	462,262	42.2%	418,533	39.8%	2.424	0.055
65-79 years	460,695	42.0%	458,954	43.6%	-1.558	-0.038
≥ 80 years	50,585	4.6%	67,954	6.5%	-1.839	-0.082
Sex*						
Female	563,140	51.4%	516,485	49.1%	2.325	0.047
Male	532,781	48.6%	536,269	50.9%	-2.325	-0.047
Race ⁴						
American Indian or Alaska Native	7,999	0.7%	6,366	0.6%	0.125	0.015
Asian	17,444	1.6%	31,603	3.0%	-1.410	-0.095
Black or African American	104,022	9.5%	106,092	10.1%	-0.586	-0.020
Multi-racial	5,107	0.5%	4,435	0.4%	0.045	0.007
Native Hawaiian or Other Pacific Islander	3,158	0.3%	3,266	0.3%	-0.022	-0.004
Unknown	402,845	36.8%	364,302	34.6%	2.154	0.072
White	555,347	50.7%	536,690	51.0%	-0.306	-0.008
Hispanic origin						

Table 1af. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Yes	49,987	4.6%	64,433	6.1%	-1.559	-0.072
No	626,404	57.2%	626,233	59.5%	-2.328	-0.087
Unknown	419,530	38.3%	362,087	34.4%	3.887	0.184
Year*						
2015	18,032	1.6%	17,800	1.7%	-0.045	-0.004
2016	84,964	7.8%	82,964	7.9%	-0.128	-0.005
2017	103,380	9.4%	100,503	9.5%	-0.114	-0.004
2018	111,817	10.2%	105,521	10.0%	0.180	0.006
2019	142,808	13.0%	137,439	13.1%	-0.024	-0.001
2020	159,400	14.5%	156,363	14.9%	-0.308	-0.009
2021	154,018	14.1%	152,741	14.5%	-0.455	-0.013
2022	184,672	16.9%	178,145	16.9%	-0.071	-0.002
2023	136,830	12.5%	121,278	11.5%	0.965	0.030
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	1.5	1.7	1.5	1.7	-0.063	-0.037
Combined comorbidity score ^{*,6}	1.8	2.3	1.9	2.4	-0.074	-0.032
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	473,765	43.2%	422,800	40.2%	3.068	0.063
Weight Reduction Surgery or Procedure*	734	0.1%	734	0.1%	-0.003	-0.001

Table 1af. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Lifestyle intervention*	193,420	17.6%	173,609	16.5%	1.158	0.031
Cardiovascular Disease*	224,754	20.5%	230,551	21.9%	-1.392	-0.035
Cognitive Impairment*	24,095	2.2%	24,624	2.3%	-0.140	-0.009
Traumatic Brain Injury*	2,296	0.2%	2,180	0.2%	0.002	0.001
Migraine*	40,215	3.7%	35,415	3.4%	0.305	0.017
Epilepsy*	13,766	1.3%	13,186	1.3%	0.004	0.000
Chronic Pain*	228,208	20.8%	210,794	20.0%	0.800	0.020
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	7,969	0.7%	7,386	0.7%	0.026	0.003
Psychiatric History Overall*	665,196	60.7%	620,289	58.9%	1.777	0.036
Psychiatric Drug Dispensings	486,961	44.4%	456,104	43.3%	1.109	0.022
Intentional Self-Harm Encounter	1,072	0.1%	934	0.1%	0.009	0.003
Any Other Psychiatric Event	543,036	49.6%	500,252	47.5%	2.032	0.041
Attention-Deficit/Hyperactivity Disorder	11,369	1.0%	8,669	0.8%	0.214	0.022
Akathisia	1,035	0.1%	939	0.1%	0.005	0.002
Anxiety	175,677	16.0%	160,690	15.3%	0.766	0.021
Behavioral Disorder	42,091	3.8%	36,287	3.4%	0.394	0.021
Bipolar Disorder	40,820	3.7%	38,233	3.6%	0.093	0.005
Cerebral Degenerations usually Manifested in Childhood	10,429	1.0%	10,755	1.0%	-0.070	-0.007
Conduct Disorder	827	0.1%	805	0.1%	-0.001	-0.000
Delirium	15,506	1.4%	14,083	1.3%	0.077	0.007
Depression	193,697	17.7%	168,830	16.0%	1.637	0.044

Table 1af. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Electroconvulsive Therapy	169	0.0%	169	0.0%	-0.001	-0.001
Hallucination	2,097	0.2%	1,992	0.2%	0.002	0.000
Other Cerebral Degenerations	15,280	1.4%	15,632	1.5%	-0.091	-0.008
Other Mental Disorders	8,465	0.8%	7,923	0.8%	0.020	0.002
Other Psychological Disorders	95,177	8.7%	99,397	9.4%	-0.757	-0.026
Persistent Mental Disorders due to Conditions Classified Elsewhere	16,933	1.5%	16,558	1.6%	-0.028	-0.002
Personality Disorders	4,225	0.4%	3,446	0.3%	0.058	0.010
Pervasive Developmental Disorders	1,544	0.1%	1,603	0.2%	-0.011	-0.003
Post-Traumatic Stress Disorder	18,785	1.7%	16,416	1.6%	0.155	0.012
Psychotherapy	56,884	5.2%	49,613	4.7%	0.478	0.022
Psychotic Conditions	4,023	0.4%	4,109	0.4%	-0.023	-0.004
Schizophrenia	16,958	1.5%	18,857	1.8%	-0.244	-0.019
Sleep Disorder	278,280	25.4%	239,552	22.8%	2.638	0.062
Substance Abuse	48,497	4.4%	48,092	4.6%	-0.143	-0.007
Suicidal Behavior	5,510	0.5%	4,666	0.4%	0.059	0.009
Transcranial Magnetic Stimulation	188	0.0%	167	0.0%	0.001	0.001
Vagus Nerve Stimulation	917	0.1%	700	0.1%	0.017	0.006
Medical Product Use	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	9,464	0.9%	0	0.0%	NaN	NaN
dulaglutide	376,265	34.3%	0	0.0%	NaN	NaN
exenatide	82,340	7.5%	0	0.0%	NaN	NaN

Table 1af. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
liraglutide	225,302	20.6%	0	0.0%	NaN	NaN
lixisenatide	13,000	1.2%	0	0.0%	NaN	NaN
semaglutide	367,825	33.6%	0	0.0%	NaN	NaN
tirzepatide	23,539	2.1%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	1,095,918	100.0%	1,052,753	100.0%	-0.000	-0.001
insulin*	389,603	35.6%	387,623	36.8%	-1.270	-0.027
metformin*	970,761	88.6%	931,640	88.5%	0.084	0.003
alpha-glucosidase inhibitors*	4,546	0.4%	4,518	0.4%	-0.014	-0.002
thiazolidinediones*	89,591	8.2%	88,713	8.4%	-0.252	-0.009
meglitinides*	12,091	1.1%	12,263	1.2%	-0.062	-0.006
amylin analogue*	137	0.0%	149	0.0%	-0.002	-0.001
sulfonylureas*	407,643	37.2%	404,530	38.4%	-1.230	-0.025
bile acid sequestrants*	4,700	0.4%	4,318	0.4%	0.019	0.003
Other Weight Loss Agents*	2,699	0.2%	1,791	0.2%	0.076	0.017
benzphetamine	3	0.0%	5	0.0%	-0.000	-0.001
Combination naltrexone and bupropion	316	0.0%	244	0.0%	0.006	0.003
diethylpropion	65	0.0%	36	0.0%	0.002	0.004
lorcaserin	138	0.0%	101	0.0%	0.003	0.003
phentermine	2,020	0.2%	1,314	0.1%	0.060	0.015
phentermine-topiramate	132	0.0%	71	0.0%	0.005	0.006
phendimetrazine	53	0.0%	27	0.0%	0.002	0.004
orlistat	50	0.0%	34	0.0%	0.001	0.002
setmelanotide	0	0.0%	0	0.0%	NaN	NaN

Table 1af. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Analgesic Opiates*	284,873	26.0%	263,388	25.0%	0.975	0.022
Antipsychotics	69,131	6.3%	71,631	6.8%	-0.496	-0.020
Anxiolytics/Hypnotics	200,728	18.3%	195,513	18.6%	-0.256	-0.007
Lithium & Other Mood Stabilizers	59,127	5.4%	60,800	5.8%	-0.380	-0.017
Antidepressants	396,791	36.2%	363,379	34.5%	1.689	0.035
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	11.1	10.4	10.9	10.4	0.120	0.012
Mean number of emergency room encounters*	0.4	1.1	0.4	1.1	0.008	0.007
Mean number of inpatient hospital encounters*	0.1	0.5	0.1	0.5	-0.005	-0.011
Mean number of non-acute institutional encounters*	0.0	0.2	0.0	0.2	-0.001	-0.005
Mean number of other ambulatory encounters*	4.1	11.7	4.1	11.7	0.015	0.001
Mean number of filled prescriptions*	26.9	20.8	26.3	19.5	0.602	0.030
Mean number of generics dispensed*	11.3	5.5	11.1	5.1	0.201	0.038
Mean number of unique drug classes dispensed*	9.7	4.7	9.5	4.7	0.206	0.044

Table 1af. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	SGLT-2 Inhibitors	

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1ag. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	638,550	100.0%	464,779	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years) [*]	60.4	10.6	63.8	10.4	-3.452	-0.329
Age						
18-24 years	4,048	0.6%	1,710	0.4%	0.266	0.038
25-44 years	83,995	13.2%	40,807	8.8%	4.374	0.140
45-64 years	269,002	42.1%	172,795	37.2%	4.949	0.101
65-79 years	257,663	40.4%	211,064	45.4%	-5.060	-0.102
≥ 80 years	23,842	3.7%	38,403	8.3%	-4.529	-0.192
Sex [*]						
Female	638,550	100.0%	464,779	100.0%	0.000	NaN
Male	0	0.0%	0	0.0%	NaN	NaN
Race ³						
American Indian or Alaska Native	5,231	0.8%	3,064	0.7%	0.160	0.019
Asian	9,148	1.4%	17,912	3.9%	-2.421	-0.151
Black or African American	75,812	11.9%	56,652	12.2%	-0.316	-0.010
Multi-racial	3,067	0.5%	1,711	0.4%	0.112	0.017
Native Hawaiian or Other Pacific Islander	1,605	0.3%	1,608	0.3%	-0.095	-0.017
Unknown	225,456	35.3%	153,357	33.0%	2.312	0.049
White	318,231	49.8%	230,475	49.6%	0.248	0.005
Hispanic origin						
Yes	32,346	5.1%	34,118	7.3%	-2.275	-0.094

Table 1ag. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	374,685	58.7%	285,377	61.4%	-2.723	-0.056
Unknown	231,519	36.3%	145,284	31.3%	4.998	0.106
Year*						
2015	9,606	1.5%	8,532	1.8%	-0.331	-0.026
2016	47,449	7.4%	38,290	8.2%	-0.808	-0.030
2017	57,166	9.0%	46,830	10.1%	-1.123	-0.038
2018	66,313	10.4%	43,901	9.4%	0.939	0.031
2019	81,339	12.7%	60,093	12.9%	-0.191	-0.006
2020	89,710	14.0%	72,477	15.6%	-1.545	-0.043
2021	85,082	13.3%	68,201	14.7%	-1.350	-0.039
2022	107,833	16.9%	78,774	16.9%	-0.062	-0.002
2023	94,052	14.7%	47,681	10.3%	4.470	0.136
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI)*,4	1.2	1.5	1.3	1.6	-0.158	-0.099
Combined comorbidity score*,5	1.6	2.1	1.8	2.4	-0.207	-0.093
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	315,231	49.4%	168,791	36.3%	13.050	0.266
Weight Reduction Surgery or Procedure*	437	0.1%	306	0.1%	0.003	0.001
Lifestyle intervention*	130,508	20.4%	82,597	17.8%	2.667	0.068
Cardiovascular Disease*	95,185	14.9%	89,563	19.3%	-4.364	-0.116
Cognitive Impairment*	11,762	1.8%	12,314	2.6%	-0.807	-0.055
Traumatic Brain Injury*	1,302	0.2%	748	0.2%	0.043	0.010
Migraine*	35,179	5.5%	19,355	4.2%	1.345	0.063

Table 1ag. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Epilepsy*	7,755	1.2%	5,494	1.2%	0.032	0.003
Chronic Pain*	151,753	23.8%	92,833	20.0%	3.792	0.092
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	5,668	0.9%	2,917	0.6%	0.260	0.030
Psychiatric History Overall*	425,407	66.6%	270,647	58.2%	8.389	0.174
Psychiatric Drug Dispensings	348,433	54.6%	213,021	45.8%	8.734	0.175
Intentional Self-Harm Encounter	711	0.1%	386	0.1%	0.028	0.009
Any Other Psychiatric Event	336,682	52.7%	211,101	45.4%	7.306	0.147
Attention-Deficit/Hyperactivity Disorder	7,864	1.2%	2,938	0.6%	0.599	0.062
Akathisia	685	0.1%	375	0.1%	0.027	0.009
Anxiety	134,526	21.1%	80,107	17.2%	3.832	0.097
Behavioral Disorder	27,065	4.2%	14,610	3.1%	1.095	0.058
Bipolar Disorder	31,076	4.9%	16,426	3.5%	1.332	0.066
Cerebral Degenerations usually Manifested in Childhood	5,061	0.8%	4,722	1.0%	-0.223	-0.024
Conduct Disorder	305	0.0%	174	0.0%	0.010	0.005
Delirium	7,118	1.1%	6,145	1.3%	-0.207	-0.019
Depression	143,772	22.5%	84,234	18.1%	4.392	0.109
Electroconvulsive Therapy	120	0.0%	62	0.0%	0.005	0.004
Hallucination	1,176	0.2%	861	0.2%	-0.001	-0.000
Obsessive-Compulsive Disorder	1,322	0.2%	662	0.1%	0.065	0.015
Other Cerebral Degenerations	7,667	1.2%	7,202	1.5%	-0.349	-0.030
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Other Mental Disorders	5,237	0.8%	3,638	0.8%	0.037	0.004

Table 1ag. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Other Psychological Disorders	50,785	8.0%	35,942	7.7%	0.220	0.008
Persistent Mental Disorders due to Conditions Classified Elsewhere	8,137	1.3%	8,484	1.8%	-0.551	-0.045
Personality Disorders	3,768	0.6%	1,544	0.3%	0.258	0.038
Pervasive Developmental Disorders	555	0.1%	262	0.1%	0.031	0.011
Post-Traumatic Stress Disorder	15,925	2.5%	7,428	1.6%	0.896	0.063
Psychotherapy	43,939	6.9%	21,679	4.7%	2.217	0.095
Psychotic Conditions	2,173	0.3%	1,629	0.4%	-0.010	-0.002
Schizophrenia	9,775	1.5%	6,679	1.4%	0.094	0.008
Sleep Disorder	155,049	24.3%	87,712	18.9%	5.410	0.132
Substance Abuse	23,353	3.7%	14,873	3.2%	0.457	0.025
Suicidal Behavior	3,176	0.5%	1,974	0.4%	0.073	0.011
Transcranial Magnetic Stimulation	148	0.0%	72	0.0%	0.008	0.006
Vagus Nerve Stimulation	624	0.1%	304	0.1%	0.032	0.011
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	4,931	0.8%	0	0.0%	NaN	NaN
dulaglutide	202,947	31.8%	0	0.0%	NaN	NaN
exenatide	46,982	7.4%	0	0.0%	NaN	NaN
liraglutide	138,347	21.7%	0	0.0%	NaN	NaN
lixisenatide	7,931	1.2%	0	0.0%	NaN	NaN
semaglutide	221,174	34.6%	0	0.0%	NaN	NaN
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
tirzepatide	16,701	2.6%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	638,549	100.0%	464,779	100.0%	-0.000	-0.002
insulin*	209,967	32.9%	105,019	22.6%	10.286	0.231

Table 1ag. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
metformin*	560,183	87.7%	409,760	88.2%	-0.435	-0.013
alpha-glucosidase inhibitors*	2,479	0.4%	1,897	0.4%	-0.020	-0.003
thiazolidinediones*	44,687	7.0%	34,586	7.4%	-0.443	-0.017
meglitinides*	6,744	1.1%	4,973	1.1%	-0.014	-0.001
amylin analogue*	88	0.0%	38	0.0%	0.006	0.005
sulfonylureas*	221,554	34.7%	180,350	38.8%	-4.107	-0.085
bile acid sequestrants*	2,648	0.4%	1,771	0.4%	0.034	0.005
Other Weight Loss Agents*	2,660	0.4%	711	0.2%	0.264	0.049
benzphetamine	*****	*****	*****	*****	0.000	0.001
Combination naltrexone and bupropion	311	0.0%	84	0.0%	0.031	0.017
diethylpropion	57	0.0%	*****	*****	*****	*****
lorcaserin	131	0.0%	43	0.0%	0.011	0.009
phentermine	1,988	0.3%	529	0.1%	0.198	0.043
phentermine-topiramate	141	0.0%	25	0.0%	0.017	0.014
phendimetrazine	46	0.0%	*****	*****	*****	*****
orlistat	48	0.0%	*****	*****	*****	*****
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	172,889	27.1%	109,233	23.5%	3.573	0.082
Antipsychotics	49,672	7.8%	29,338	6.3%	1.467	0.057
Anxiolytics/Hypnotics	147,300	23.1%	89,998	19.4%	3.704	0.091
Lithium & Other Mood Stabilizers	43,419	6.8%	24,693	5.3%	1.487	0.062
Antidepressants	296,744	46.5%	174,227	37.5%	8.986	0.183
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation²	Number/ Mean	Percent/ Standard Deviation²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	11.4	10.4	10.6	9.6	0.767	0.076

Table 1ag. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Mean number of emergency room encounters*	0.4	1.1	0.4	1.1	0.004	0.003
Mean number of inpatient hospital encounters*	0.1	0.4	0.1	0.5	-0.037	-0.088
Mean number of non-acute institutional encounters*	0.0	0.2	0.0	0.2	-0.007	-0.037
Mean number of other ambulatory encounters*	4.2	12.5	4.2	12.1	0.048	0.004
Mean number of filled prescriptions*	27.6	20.8	25.7	19.3	1.859	0.093
Mean number of generics dispensed*	11.6	5.4	11.0	5.2	0.582	0.109
Mean number of unique drug classes dispensed*	10.4	4.9	9.2	4.7	1.184	0.247

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1ah. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	617,647	N/A	455,414	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	61.2	10.5	62.4	10.8	-1.221	-0.115
Age						
18-24 years	3,153	0.5%	2,301	0.5%	0.005	0.001
25-44 years	72,517	11.7%	48,060	10.6%	1.188	0.040
45-64 years	258,721	41.9%	179,109	39.3%	2.559	0.058
65-79 years	255,101	41.3%	196,084	43.1%	-1.754	-0.043
≥ 80 years	28,154	4.6%	29,860	6.6%	-1.998	-0.089
Sex*						
Female	617,647	100.0%	455,414	100.0%	0.000	NaN
Male	0	0.0%	0	0.0%	NaN	NaN
Race ⁴						
American Indian or Alaska Native	5,040	0.8%	3,226	0.7%	0.108	0.012
Asian	9,780	1.6%	14,414	3.2%	-1.582	-0.105
Black or African American	73,080	11.8%	59,545	13.1%	-1.243	-0.039
Multi-racial	2,758	0.4%	1,743	0.4%	0.064	0.010
Native Hawaiian or Other Pacific Islander	1,651	0.3%	1,345	0.3%	-0.028	-0.005
Unknown	219,521	35.5%	145,870	32.0%	3.511	0.116
White	305,816	49.5%	229,270	50.3%	-0.830	-0.021
Hispanic origin						

Table 1ah. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Yes	31,802	5.1%	34,186	7.5%	-2.358	-0.102
No	360,704	58.4%	284,688	62.5%	-4.112	-0.150
Unknown	225,141	36.5%	136,539	30.0%	6.470	0.318
Year*						
2015	10,291	1.7%	7,943	1.7%	-0.078	-0.006
2016	49,266	8.0%	37,751	8.3%	-0.313	-0.011
2017	59,329	9.6%	45,469	10.0%	-0.379	-0.013
2018	63,280	10.2%	47,312	10.4%	-0.143	-0.005
2019	79,661	12.9%	60,370	13.3%	-0.358	-0.011
2020	89,843	14.5%	68,841	15.1%	-0.570	-0.016
2021	84,165	13.6%	62,931	13.8%	-0.192	-0.006
2022	102,707	16.6%	73,511	16.1%	0.487	0.013
2023	79,104	12.8%	51,287	11.3%	1.546	0.048
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Severity Index(aDCSI) ^{*,5}	1.3	1.6	1.4	1.7	-0.100	-0.061
Combined comorbidity score ^{*,6}	1.8	2.2	1.9	2.3	-0.118	-0.052
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	282,821	45.8%	195,225	42.9%	2.922	0.060
Weight Reduction Surgery or Procedure*	476	0.1%	390	0.1%	-0.009	-0.003
Lifestyle intervention*	122,305	19.8%	82,397	18.1%	1.709	0.044
Cardiovascular Disease*	105,201	17.0%	85,050	18.7%	-1.643	-0.044

Table 1ah. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Cognitive Impairment*	13,891	2.2%	11,527	2.5%	-0.282	-0.019
Traumatic Brain Injury*	1,228	0.2%	921	0.2%	-0.003	-0.001
Migraine*	32,995	5.3%	23,096	5.1%	0.271	0.012
Epilepsy*	8,001	1.3%	6,147	1.3%	-0.054	-0.005
Chronic Pain*	145,112	23.5%	106,254	23.3%	0.163	0.004
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	5,247	0.8%	3,979	0.9%	-0.024	-0.003
Psychiatric History Overall*	401,786	65.1%	292,205	64.2%	0.888	0.019
Psychiatric Drug Dispensings	325,887	52.8%	237,567	52.2%	0.597	0.012
Intentional Self-Harm Encounter	693	0.1%	513	0.1%	-0.000	-0.000
Any Other Psychiatric Event	318,990	51.6%	229,830	50.5%	1.180	0.024
Attention-Deficit/Hyperactivity Disorder	6,794	1.1%	3,867	0.8%	0.251	0.026
Akathisia	656	0.1%	446	0.1%	0.008	0.003
Anxiety	126,490	20.5%	90,945	20.0%	0.510	0.013
Behavioral Disorder	25,589	4.1%	17,081	3.8%	0.392	0.020
Bipolar Disorder	28,467	4.6%	21,410	4.7%	-0.092	-0.004
Cerebral Degenerations usually Manifested in Childhood	5,695	0.9%	4,636	1.0%	-0.096	-0.010
Conduct Disorder	255	0.0%	210	0.0%	-0.005	-0.002
Delirium	8,712	1.4%	6,270	1.4%	0.034	0.003
Depression	137,103	22.2%	95,226	20.9%	1.288	0.031
Electroconvulsive Therapy	110	0.0%	80	0.0%	0.000	0.000
Hallucination	1,277	0.2%	984	0.2%	-0.009	-0.002

Table 1ah. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical Product				Covariate Balance		
GLP-1 Receptor Agonists			SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Obsessive-Compulsive Disorder	1,193	0.2%	827	0.2%	0.012	0.003
Other Cerebral Degenerations	8,407	1.4%	6,920	1.5%	-0.158	-0.013
Other Mental Disorders	5,236	0.8%	4,069	0.9%	-0.046	-0.005
Other Psychological Disorders	49,481	8.0%	40,809	9.0%	-0.950	-0.034
Persistent Mental Disorders due to Conditions Classified Elsewhere	9,809	1.6%	7,880	1.7%	-0.142	-0.011
Personality Disorders	3,359	0.5%	2,283	0.5%	0.043	0.006
Pervasive Developmental Disorders	446	0.1%	347	0.1%	-0.004	-0.002
Post-Traumatic Stress Disorder	14,168	2.3%	10,182	2.2%	0.058	0.004
Psychotherapy	39,393	6.4%	27,448	6.0%	0.351	0.015
Psychotic Conditions	2,269	0.4%	1,947	0.4%	-0.060	-0.010
Schizophrenia	9,219	1.5%	8,291	1.8%	-0.328	-0.026
Sleep Disorder	146,125	23.7%	98,759	21.7%	1.973	0.047
Substance Abuse	22,984	3.7%	17,729	3.9%	-0.172	-0.009
Suicidal Behavior	3,260	0.5%	2,284	0.5%	0.026	0.004
Transcranial Magnetic Stimulation	112	0.0%	87	0.0%	-0.001	-0.001
Vagus Nerve Stimulation	618	0.1%	376	0.1%	0.018	0.006
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	5,384	0.9%	0	0.0%	NaN	NaN
dulaglutide	202,278	32.7%	0	0.0%	NaN	NaN
exenatide	46,976	7.6%	0	0.0%	NaN	NaN

Table 1ah. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
liraglutide	135,971	22.0%	0	0.0%	NaN	NaN
lixisenatide	6,802	1.1%	0	0.0%	NaN	NaN
semaglutide	206,802	33.5%	0	0.0%	NaN	NaN
tirzepatide	14,278	2.3%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	617,645	100.0%	455,414	100.0%	-0.000	-0.003
insulin*	209,554	33.9%	174,559	38.3%	-4.402	-0.092
metformin*	541,933	87.7%	397,724	87.3%	0.409	0.012
alpha-glucosidase inhibitors*	2,463	0.4%	1,940	0.4%	-0.027	-0.004
thiazolidinediones*	43,860	7.1%	33,893	7.4%	-0.341	-0.013
meglitinides*	6,684	1.1%	5,417	1.2%	-0.107	-0.010
amylin analogue*	79	0.0%	70	0.0%	-0.003	-0.002
sulfonylureas*	220,213	35.7%	169,849	37.3%	-1.642	-0.034
bile acid sequestrants*	2,821	0.5%	2,086	0.5%	-0.001	-0.000
Other Weight Loss Agents*	2,105	0.3%	1,066	0.2%	0.107	0.020
benzphetamine	3	0.0%	4	0.0%	-0.001	-0.002
Combination naltrexone and bupropion	258	0.0%	138	0.0%	0.011	0.006
diethylpropion	49	0.0%	24	0.0%	0.003	0.003
lorcaserin	114	0.0%	58	0.0%	0.006	0.004
phentermine	1,555	0.3%	794	0.2%	0.077	0.017
phentermine-topiramate	111	0.0%	29	0.0%	0.012	0.011
phendimetrazine	43	0.0%	20	0.0%	0.003	0.003
orlistat	37	0.0%	23	0.0%	0.001	0.001
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	171,357	27.7%	127,213	27.9%	-0.190	-0.004

Table 1ah. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

		Medical Product			Covariate Balance		
		GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
		Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Antipsychotics		45,467	7.4%	37,574	8.3%	-0.889	-0.033
Medical Product Use		Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Anxiolytics/Hypnotics		137,640	22.3%	105,600	23.2%	-0.903	-0.022
Lithium & Other Mood Stabilizers		39,163	6.3%	31,617	6.9%	-0.602	-0.024
Antidepressants		275,932	44.7%	197,543	43.4%	1.298	0.026
Health Service Utilization Intensity Metrics		Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*		11.5	10.3	11.6	10.5	-0.115	-0.011
Mean number of emergency room encounters*		0.4	1.2	0.4	1.2	-0.013	-0.011
Mean number of inpatient hospital encounters*		0.1	0.4	0.1	0.5	-0.012	-0.026
Health Service Utilization Intensity Metrics		Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of non-acute institutional encounters*		0.0	0.2	0.0	0.2	-0.003	-0.014
Mean number of other ambulatory encounters*		4.4	12.7	4.6	13.1	-0.215	-0.017
Mean number of filled prescriptions*		28.2	21.9	28.5	20.9	-0.290	-0.014
Mean number of generics dispensed*		11.8	5.8	11.9	5.4	-0.087	-0.015
Mean number of unique drug classes dispensed*		10.3	5.0	10.3	5.1	-0.015	-0.003

Table 1ah. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	SGLT-2 Inhibitors	

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1ai. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	512,310	100.0%	602,177	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years) [*]	61.3	10.3	63.7	10.1	-2.414	-0.236
Age						
18-24 years	1,999	0.4%	1,287	0.2%	0.176	0.032
25-44 years	56,747	11.1%	49,583	8.2%	2.843	0.096
45-64 years	217,419	42.4%	232,588	38.6%	3.814	0.078
65-79 years	215,610	42.1%	274,317	45.6%	-3.468	-0.070
≥ 80 years	20,535	4.0%	44,402	7.4%	-3.365	-0.146
Sex [*]						
Female	0	0.0%	0	0.0%	NaN	NaN
Male	512,310	100.0%	602,177	100.0%	0.000	NaN
Race ³						
American Indian or Alaska Native	3,197	0.6%	2,786	0.5%	0.161	0.022
Asian	7,589	1.5%	19,326	3.2%	-1.728	-0.114
Black or African American	35,176	6.9%	41,314	6.9%	0.005	0.000
Multi-racial	2,599	0.5%	2,693	0.4%	0.060	0.009
Native Hawaiian or Other Pacific Islander	1,498	0.3%	2,138	0.4%	-0.063	-0.011
Unknown	195,170	38.1%	223,760	37.2%	0.938	0.019
White	267,081	52.1%	310,160	51.5%	0.626	0.013
Hispanic origin						

Table 1ai. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Yes	19,519	3.8%	28,606	4.8%	-0.940	-0.046
No	285,718	55.8%	340,696	56.6%	-0.807	-0.016
Unknown	207,073	40.4%	232,875	38.7%	1.747	0.036
Year*						
2015	7,560	1.5%	9,669	1.6%	-0.130	-0.011
2016	35,809	7.0%	43,914	7.3%	-0.303	-0.012
2017	43,924	8.6%	54,382	9.0%	-0.457	-0.016
2018	53,555	10.5%	53,323	8.9%	1.599	0.054
2019	66,703	13.0%	75,529	12.5%	0.477	0.014
2020	71,596	14.0%	90,219	15.0%	-1.007	-0.029
2021	73,850	14.4%	94,740	15.7%	-1.318	-0.037
2022	87,736	17.1%	112,129	18.6%	-1.495	-0.039
2023	71,577	14.0%	68,272	11.3%	2.634	0.079
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	1.5	1.7	1.6	1.7	-0.086	-0.050
Combined comorbidity score ^{*,5}	1.6	2.2	1.8	2.4	-0.205	-0.089
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	228,356	44.6%	195,000	32.4%	12.191	0.253
Procedure*	228	0.0%	289	0.0%	-0.003	-0.002
Lifestyle intervention*	80,958	15.8%	89,909	14.9%	0.872	0.024
Cardiovascular Disease*	106,761	20.8%	154,799	25.7%	-4.867	-0.115

Table 1ai. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Cognitive Impairment*	9,095	1.8%	12,506	2.1%	-0.302	-0.022
Traumatic Brain Injury*	1,135	0.2%	1,078	0.2%	0.043	0.010
Migraine*	9,177	1.8%	9,175	1.5%	0.268	0.021
Epilepsy*	5,602	1.1%	6,432	1.1%	0.025	0.002
Chronic Pain*	89,893	17.5%	90,275	15.0%	2.555	0.069
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	2,912	0.6%	2,618	0.4%	0.134	0.019
Psychiatric History Overall*	291,655	56.9%	300,296	49.9%	7.061	0.142
Psychiatric Drug Dispensings	187,284	36.6%	184,492	30.6%	5.919	0.126
Intentional Self-Harm Encounter	348	0.1%	353	0.1%	0.009	0.004
Any Other Psychiatric Event	245,200	47.9%	249,357	41.4%	6.452	0.130
Attention-Deficit/Hyperactivity Disorder	5,652	1.1%	3,903	0.6%	0.455	0.049
Akathisia	404	0.1%	400	0.1%	0.012	0.005
Anxiety	58,305	11.4%	56,951	9.5%	1.923	0.063
Behavioral Disorder	17,817	3.5%	16,921	2.8%	0.668	0.038
Bipolar Disorder	14,530	2.8%	12,526	2.1%	0.756	0.049
Cerebral Degenerations usually Manifested in Childhood	4,257	0.8%	6,098	1.0%	-0.182	-0.019
Conduct Disorder	652	0.1%	495	0.1%	0.045	0.014
Delirium	5,507	1.1%	7,350	1.2%	-0.146	-0.014
Depression	65,199	12.7%	59,554	9.9%	2.837	0.090
Electroconvulsive Therapy	64	0.0%	59	0.0%	0.003	0.003
Hallucination	759	0.1%	874	0.1%	0.003	0.001

Table 1ai. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Obsessive-Compulsive Disorder	859	0.2%	744	0.1%	0.044	0.012
Other Cerebral Degenerations	6,493	1.3%	8,444	1.4%	-0.135	-0.012
Other Mental Disorders	3,260	0.6%	3,384	0.6%	0.074	0.010
Other Psychological Disorders	46,029	9.0%	55,337	9.2%	-0.205	-0.007
Persistent Mental Disorders due to Conditions Classified Elsewhere	6,274	1.2%	8,314	1.4%	-0.156	-0.014
Personality Disorders	1,050	0.2%	848	0.1%	0.064	0.015
Pervasive Developmental Disorders	1,365	0.3%	1,090	0.2%	0.085	0.018
Post-Traumatic Stress Disorder	5,713	1.1%	4,591	0.8%	0.353	0.037
Psychotherapy	21,056	4.1%	17,023	2.8%	1.283	0.070
Psychotic Conditions	1,671	0.3%	1,784	0.3%	0.030	0.005
Schizophrenia	8,601	1.7%	8,644	1.4%	0.243	0.020
Sleep Disorder	143,080	27.9%	130,108	21.6%	6.322	0.147
Substance Abuse	24,997	4.9%	28,295	4.7%	0.180	0.008
Suicidal Behavior	2,150	0.4%	2,122	0.4%	0.067	0.011
Transcranial Magnetic Stimulation	98	0.0%	57	0.0%	0.010	0.008
Vagus Nerve Stimulation	319	0.1%	282	0.0%	0.015	0.007
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	3,849	0.8%	0	0.0%	NaN	NaN
dulaglutide	179,828	35.1%	0	0.0%	NaN	NaN
exenatide	36,630	7.1%	0	0.0%	NaN	NaN

Table 1ai. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
liraglutide	95,678	18.7%	0	0.0%	NaN	NaN
lixisenatide	7,917	1.5%	0	0.0%	NaN	NaN
semaglutide	177,316	34.6%	0	0.0%	NaN	NaN
tirzepatide	11,488	2.2%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	512,309	100.0%	602,176	100.0%	-0.000	-0.000
insulin*	179,003	34.9%	124,082	20.6%	14.335	0.324
metformin*	456,298	89.1%	544,990	90.5%	-1.437	-0.047
alpha-glucosidase inhibitors*	2,134	0.4%	2,425	0.4%	0.014	0.002
thiazolidinediones*	49,822	9.7%	52,792	8.8%	0.958	0.033
meglitinides*	5,805	1.1%	6,037	1.0%	0.131	0.013
amylin analogue*	66	0.0%	39	0.0%	0.006	0.007
sulfonylureas*	201,609	39.4%	237,574	39.5%	-0.100	-0.002
bile acid sequestrants*	1,665	0.3%	1,852	0.3%	0.017	0.003
Other Weight Loss Agents*	1,048	0.2%	409	0.1%	0.137	0.037
benzphetamine	*****	*****	*****	*****	0.000	0.000
bupropion	107	0.0%	66	0.0%	0.010	0.008
diethylpropion	27	0.0%	*****	*****	*****	*****
lorcaserin	48	0.0%	22	0.0%	0.006	0.007
phentermine	807	0.2%	288	0.0%	0.110	0.034
phentermine-topiramate	49	0.0%	21	0.0%	0.006	0.008
phendimetrazine	17	0.0%	*****	*****	*****	*****
orlistat	19	0.0%	*****	*****	*****	*****
setmelanotide	0	0.0%	0	0.0%	NaN	NaN

Table 1ai. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Other Agents						
Analgesic Opiates *	115,318	22.5%	116,745	19.4%	3.122	0.077
Antipsychotics	27,616	5.4%	26,214	4.4%	1.037	0.048
Anxiolytics/Hypnotics	73,050	14.3%	73,317	12.2%	2.084	0.062
Lithium & Other Mood Stabilizers	24,001	4.7%	22,352	3.7%	0.973	0.049
Antidepressants	144,570	28.2%	135,012	22.4%	5.799	0.134
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	10.3	10.6	9.6	9.4	0.632	0.063
Mean number of emergency room encounters *	0.3	0.9	0.3	1.0	-0.005	-0.005
Mean number of inpatient hospital encounters *	0.1	0.4	0.1	0.5	-0.036	-0.081
Mean number of non-acute institutional encounters *	0.0	0.2	0.0	0.2	-0.004	-0.022
Mean number of other ambulatory encounters *	3.5	10.3	3.3	9.3	0.191	0.019
Mean number of filled prescriptions *	24.4	18.2	22.3	16.4	2.128	0.123
Mean number of generics dispensed *	10.2	4.6	9.7	4.5	0.510	0.112
Mean number of unique drug classes dispensed *	9.1	4.1	8.0	4.1	1.054	0.257

Table 1ai. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	SGLT-2 Inhibitors	

^{*} Covariate included in the propensity score logistic regression model.

¹ Covariates in blue show a standardized difference greater than 0.1.

² Value represents standard deviation where no % follows the value.

³ Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴ 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.

⁵ 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1aj. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Patient Characteristics ^{1,2}	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weighted patients	481,509	N/A	600,622	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	62.0	10.1	62.9	10.4	-0.870	-0.085
Age						
18-24 years	1,475	0.3%	1,614	0.3%	0.038	0.007
25-44 years	46,667	9.7%	55,204	9.2%	0.501	0.018
45-64 years	204,676	42.5%	241,439	40.2%	2.309	0.053
65-79 years	206,270	42.8%	264,351	44.0%	-1.175	-0.028
≥ 80 years	22,421	4.7%	38,014	6.3%	-1.673	-0.075
Sex*						
Female	0	0.0%	0	0.0%	NaN	NaN
Male	481,509	100.0%	600,622	100.0%	0.000	NaN
Race ⁴						
American Indian or Alaska Native	3,041	0.6%	3,096	0.5%	0.116	0.015
Asian	7,635	1.6%	17,295	2.9%	-1.294	-0.088
Black or African American	33,304	6.9%	44,137	7.3%	-0.432	-0.017
Multi-racial	2,370	0.5%	2,731	0.5%	0.037	0.006
Native Hawaiian or Other Pacific Islander	1,463	0.3%	1,982	0.3%	-0.026	-0.005
Unknown	184,559	38.3%	220,350	36.7%	1.642	0.055
White	249,137	51.7%	311,031	51.8%	-0.044	-0.001
Hispanic origin						

Table 1aj. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Yes	18,657	3.9%	29,598	4.9%	-1.053	-0.053
No	267,279	55.5%	342,740	57.1%	-1.556	-0.059
Unknown	195,574	40.6%	228,284	38.0%	2.609	0.120
Year*						
2015	7,818	1.6%	9,732	1.6%	0.003	0.000
2016	36,097	7.5%	44,951	7.5%	0.013	0.000
2017	44,385	9.2%	54,891	9.1%	0.079	0.003
2018	48,818	10.1%	58,254	9.7%	0.440	0.015
2019	63,185	13.1%	77,672	12.9%	0.190	0.006
2020	69,512	14.4%	88,280	14.7%	-0.262	-0.008
2021	70,048	14.5%	90,640	15.1%	-0.543	-0.015
2022	82,699	17.2%	105,667	17.6%	-0.418	-0.011
2023	58,946	12.2%	70,535	11.7%	0.498	0.016
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	1.6	1.8	1.6	1.8	-0.008	-0.004
Combined comorbidity score ^{*,6}	1.8	2.3	1.8	2.4	-0.028	-0.012
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	196,104	40.7%	224,959	37.5%	3.273	0.068
Weight Reduction Surgery or Procedure*	265	0.1%	316	0.1%	0.002	0.001
Lifestyle intervention [^]	74,307	15.4%	89,332	14.9%	0.559	0.016

Table 1aj. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Cardiovascular Disease*	116,769	24.3%	150,079	25.0%	-0.737	-0.018
Cognitive Impairment*	10,303	2.1%	12,925	2.2%	-0.012	-0.001
Traumatic Brain Injury*	1,063	0.2%	1,264	0.2%	0.010	0.002
Migraine*	8,969	1.9%	10,372	1.7%	0.136	0.010
Epilepsy*	5,806	1.2%	6,980	1.2%	0.044	0.004
Chronic Pain*	86,557	18.0%	101,350	16.9%	1.102	0.029
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	2,838	0.6%	3,295	0.5%	0.041	0.005
Psychiatric History Overall*	270,572	56.2%	324,014	53.9%	2.246	0.045
Psychiatric Drug Dispensings	171,728	35.7%	209,609	34.9%	0.766	0.016
Intentional Self-Harm Encounter	390	0.1%	410	0.1%	0.013	0.005
Any Other Psychiatric Event	228,226	47.4%	268,628	44.7%	2.673	0.054
Disorder	4,693	1.0%	4,789	0.8%	0.177	0.019
Akathisia	394	0.1%	485	0.1%	0.001	0.000
Anxiety	54,145	11.2%	64,798	10.8%	0.457	0.015
Behavioral Disorder	16,914	3.5%	19,026	3.2%	0.345	0.019
Bipolar Disorder	13,200	2.7%	15,962	2.7%	0.084	0.005
Cerebral Degenerations usually Manifested in Childhood	4,711	1.0%	6,166	1.0%	-0.048	-0.005
Conduct Disorder	552	0.1%	620	0.1%	0.011	0.003
Delirium	6,815	1.4%	7,806	1.3%	0.116	0.010

Table 1aj. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Depression	61,842	12.8%	68,583	11.4%	1.425	0.044
Electroconvulsive Therapy	61	0.0%	87	0.0%	-0.002	-0.002
Hallucination	832	0.2%	983	0.2%	0.009	0.002
Obsessive-Compulsive Disorder	726	0.2%	895	0.1%	0.002	0.000
Other Cerebral Degenerations	6,889	1.4%	8,701	1.4%	-0.018	-0.002
Other Mental Disorders	3,345	0.7%	3,707	0.6%	0.077	0.010
Other Psychological Disorders	45,383	9.4%	59,548	9.9%	-0.489	-0.017
Persistent Mental Disorders due to Conditions Classified Elsewhere	7,194	1.5%	8,531	1.4%	0.074	0.006
Personality Disorders	984	0.2%	1,049	0.2%	0.030	0.007
Pervasive Developmental Disorders	1,055	0.2%	1,316	0.2%	0.000	0.000
Post-Traumatic Stress Disorder	5,093	1.1%	5,753	1.0%	0.100	0.010
Psychotherapy	18,775	3.9%	21,047	3.5%	0.395	0.021
Psychotic Conditions	1,762	0.4%	2,149	0.4%	0.008	0.001
Schizophrenia	7,742	1.6%	10,634	1.8%	-0.163	-0.013
Sleep Disorder	131,459	27.3%	142,697	23.8%	3.543	0.082
Substance Abuse	25,012	5.2%	31,401	5.2%	-0.034	-0.002
Suicidal Behavior	2,275	0.5%	2,337	0.4%	0.083	0.013
Transcranial Magnetic Stimulation	80	0.0%	73	0.0%	0.004	0.004
Vagus Nerve Stimulation	310	0.1%	311	0.1%	0.013	0.005

Table 1aj. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product				Covariate Balance		
GLP-1 Receptor Agonists			SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
albiglutide	4,068	0.8%	0	0.0%	NaN	NaN
dulaglutide	173,389	36.0%	0	0.0%	NaN	NaN
exenatide	35,420	7.4%	0	0.0%	NaN	NaN
liraglutide	91,178	18.9%	0	0.0%	NaN	NaN
lixisenatide	6,198	1.3%	0	0.0%	NaN	NaN
semaglutide	162,651	33.8%	0	0.0%	NaN	NaN
tirzepatide	9,574	2.0%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	481,508	100.0%	600,621	100.0%	-0.000	-0.000
insulin*	180,830	37.6%	213,617	35.6%	1.989	0.041
metformin*	430,888	89.5%	538,462	89.7%	-0.164	-0.005
alpha-glucosidase inhibitors*	2,071	0.4%	2,605	0.4%	-0.004	-0.001
thiazolidinediones*	44,597	9.3%	56,096	9.3%	-0.078	-0.003
meglitinides*	5,425	1.1%	6,852	1.1%	-0.014	-0.001
amylin analogue*	57	0.0%	70	0.0%	0.000	0.000
sulfonylureas*	186,179	38.7%	236,827	39.4%	-0.765	-0.016
bile acid sequestrants*	1,923	0.4%	2,156	0.4%	0.040	0.007
Other Weight Loss Agents*	717	0.1%	628	0.1%	0.044	0.013
benzphetamine	1	0.0%	1	0.0%	-0.000	-0.000
Combination naltrexone and bupropion	76	0.0%	94	0.0%	0.000	0.000
diethylpropion	18	0.0%	10	0.0%	0.002	0.004
lorcaserin	28	0.0%	36	0.0%	-0.000	-0.000

Table 1aj. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
phentermine	557	0.1%	446	0.1%	0.041	0.013
phentermine-topiramate	29	0.0%	41	0.0%	-0.001	-0.001
phendimetrazine	12	0.0%	3	0.0%	0.002	0.005
orlistat	14	0.0%	10	0.0%	0.001	0.003
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	116,176	24.1%	133,895	22.3%	1.835	0.044
Antipsychotics	24,746	5.1%	32,945	5.5%	-0.346	-0.016
Anxiolytics/Hypnotics	67,567	14.0%	85,473	14.2%	-0.198	-0.006
Lithium & Other Mood Stabilizers	21,000	4.4%	28,178	4.7%	-0.330	-0.016
Antidepressants	131,132	27.2%	156,713	26.1%	1.142	0.026
Health Service Utilization Intensity Metrics						
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	10.6	10.5	10.3	10.2	0.295	0.028
Mean number of emergency room encounters *	0.4	1.1	0.3	1.1	0.020	0.019
Mean number of inpatient hospital encounters *	0.1	0.5	0.1	0.5	0.003	0.005
Mean number of non-acute institutional encounters *	0.0	0.2	0.0	0.2	0.001	0.003

Table 1aj. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of other ambulatory encounters*	3.7	10.4	3.6	10.2	0.120	0.012
Mean number of filled prescriptions*	25.4	19.3	24.2	17.9	1.181	0.063
Mean number of generics dispensed*	10.7	5.1	10.3	4.6	0.391	0.080
Mean number of unique drug classes dispensed*	9.1	4.3	8.8	4.3	0.333	0.077

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1ak. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	6,047	100.0%	2,997	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years) [*]	21.9	2.0	22.1	2.0	-0.258	-0.128
Age						
18-24 years	6,047	100.0%	2,997	100.0%	0.000	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex [*]						
Female	4,048	66.9%	1,710	57.1%	9.885	0.205
Male	1,999	33.1%	1,287	42.9%	-9.885	-0.205
Race ³						
American Indian or Alaska Native	81	1.3%	34	1.1%	0.205	0.019
Asian	126	2.1%	83	2.8%	-0.686	-0.045
Black or African American	904	14.9%	362	12.1%	2.871	0.084
Multi-racial	46	0.8%	22	0.7%	0.027	0.003
Native Hawaiian or Other Pacific Islander	22	0.4%	13	0.4%	-0.070	-0.011
Unknown	3,492	57.7%	1,797	60.0%	-2.212	-0.045
White	1,376	22.8%	686	22.9%	-0.134	-0.003
Hispanic origin						

Table 1ak. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Yes	795	13.1%	610	20.4%		
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
No	2,370	39.2%	1,132	37.8%	1.422	0.029
Unknown	2,882	47.7%	1,255	41.9%	5.785	0.117
Year*						
2015	86	1.4%	52	1.7%	-0.313	-0.025
2016	434	7.2%	264	8.8%	-1.632	-0.060
2017	589	9.7%	424	14.1%	-4.407	-0.136
2018	737	12.2%	466	15.5%	-3.361	-0.097
2019	1,079	17.8%	556	18.6%	-0.708	-0.018
2020	1,467	24.3%	770	25.7%	-1.432	-0.033
2021	487	8.1%	213	7.1%	0.946	0.036
2022	673	11.1%	160	5.3%	5.791	0.212
2023	495	8.2%	92	3.1%	5.116	0.223
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI)* ⁴	0.2	0.6	0.2	0.6	0.007	0.012
Combined comorbidity score* ⁵	1.1	1.1	1.0	1.2	0.107	0.093
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	3,223	53.3%	1,260	42.0%	11.257	0.227
Weight Reduction Surgery or Procedure*	*****	*****	0	0.0%	NaN	NaN
Lifestyle intervention*	1,781	29.5%	803	26.8%	2.659	0.059

Table 1ak. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cardiovascular Disease*	53	0.9%	29	1.0%	-0.091	-0.010
Cognitive Impairment*	14	0.2%	*****	*****	*****	*****
Traumatic Brain Injury*	12	0.2%	*****	*****	*****	*****
Migraine*	293	4.8%	126	4.2%	0.641	0.031
Epilepsy*	115	1.9%	65	2.2%	-0.267	-0.019
Chronic Pain*	381	6.3%	136	4.5%	1.763	0.078
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	189	3.1%	73	2.4%	0.690	0.042
Psychiatric History Overall*	3,413	56.4%	1,500	50.1%	6.391	0.128
Psychiatric Drug Dispensings	2,566	42.4%	1,143	38.1%	4.296	0.088
Intentional Self-Harm Encounter	55	0.9%	17	0.6%	0.342	0.040
Any Other Psychiatric Event	3,000	49.6%	1,292	43.1%	6.502	0.131
Attention-Deficit/Hyperactivity Disorder	475	7.9%	190	6.3%	1.515	0.059
Akathisia	*****	*****	*****	*****	0.033	0.015
Anxiety	1,276	21.1%	505	16.9%	4.251	0.109
Behavioral Disorder	589	9.7%	209	7.0%	2.767	0.100
Bipolar Disorder	506	8.4%	223	7.4%	0.927	0.034
Cerebral Degenerations usually Manifested in Childhood	12	0.2%	*****	*****	*****	*****
Conduct Disorder	*****	*****	17	0.6%	*****	*****
Delirium	45	0.7%	16	0.5%	0.210	0.026

Table 1ak. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Depression	1,364	22.6%	509	17.0%	5.573	0.140
Electroconvulsive Therapy	*****	*****	*****	*****	-0.000	-0.000
Hallucination	19	0.3%	*****	*****	*****	*****
Obsessive-Compulsive Disorder	54	0.9%	*****	*****	*****	*****
Other Cerebral Degenerations	13	0.2%	*****	*****	*****	*****
Other Mental Disorders	109	1.8%	43	1.4%	0.368	0.029
Other Psychological Disorders	567	9.4%	255	8.5%	0.868	0.030
Persistent Mental Disorders due to Conditions Classified Elsewhere	*****	*****	*****	*****	-0.017	-0.007
Personality Disorders	108	1.8%	38	1.3%	0.518	0.042
Pervasive Developmental Disorders	349	5.8%	148	4.9%	0.833	0.037
Post-Traumatic Stress Disorder	282	4.7%	94	3.1%	1.527	0.079
Psychotherapy	873	14.4%	309	10.3%	4.127	0.126
Psychotic Conditions	68	1.1%	36	1.2%	-0.077	-0.007
Schizophrenia	173	2.9%	93	3.1%	-0.242	-0.014
Sleep Disorder	792	13.1%	278	9.3%	3.821	0.121
Substance Abuse	144	2.4%	67	2.2%	0.146	0.010
Suicidal Behavior	62	1.0%	33	1.1%	-0.076	-0.007

Table 1ak. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Psychiatric History						
Transcranial Magnetic Stimulation	*****	*****	*****	*****	-0.017	-0.007
Vagus Nerve Stimulation	*****	*****	*****	*****	-0.000	-0.000
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	80	1.3%	0	0.0%	NaN	NaN
dulaglutide	1,688	27.9%	0	0.0%	NaN	NaN
exenatide	667	11.0%	0	0.0%	NaN	NaN
liraglutide	1,813	30.0%	0	0.0%	NaN	NaN
lixisenatide	43	0.7%	0	0.0%	NaN	NaN
semaglutide	1,630	27.0%	0	0.0%	NaN	NaN
tirzepatide	129	2.1%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	6,047	100.0%	2,997	100.0%	0.000	NaN
insulin*	2,109	34.9%	702	23.4%	11.453	0.254
metformin*	5,818	96.2%	2,869	95.7%	0.484	0.025
alpha-glucosidase inhibitors*	*****	*****	*****	*****	-0.101	-0.026
thiazolidinediones*	198	3.3%	146	4.9%	-1.597	-0.081
meglitinides*	13	0.2%	*****	*****	*****	*****
amylin analogue*	*****	*****	0	0.0%	NaN	NaN
sulfonylureas*	1,005	16.6%	615	20.5%	-3.901	-0.100
bile acid sequestrants*	*****	*****	*****	*****	-0.050	-0.018
Other Weight Loss Agents*	*****	*****	*****	*****	0.496	0.089
benzphetamine	0	0.0%	0	0.0%	NaN	NaN

Table 1ak. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
bupropion	*****	*****	0	0.0%	NaN	NaN
diethylpropion	*****	*****	0	0.0%	NaN	NaN
lorcaserin	*****	*****	0	0.0%	NaN	NaN
phentermine	*****	*****	*****	*****	0.231	0.054
phentermine-topiramate	*****	*****	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	*****	*****	0	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	711	11.8%	302	10.1%	1.681	0.054
Antipsychotics	841	13.9%	405	13.5%	0.394	0.011
Anxiolytics/Hypnotics	939	15.5%	408	13.6%	1.915	0.054
Lithium & Other Mood Stabilizers	570	9.4%	275	9.2%	0.250	0.009
Antidepressants	2,084	34.5%	863	28.8%	5.668	0.122
Health Service Utilization Intensity Metrics		Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *		11.8	8.2	10.5	1.291	0.115
Mean number of emergency room encounters *		1.5	0.6	1.2	0.083	0.061
Health Service Utilization Intensity Metrics		Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of inpatient hospital encounters *		0.3	0.1	0.3	0.004	0.012
Mean number of non-acute institutional encounters *		0.1	0.0	0.2	0.000	0.000

Table 1ak. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of other ambulatory encounters*	6.5	21.3	6.6	22.2	-0.064	-0.003
Mean number of filled prescriptions*	17.6	15.6	15.9	14.5	1.713	0.114
Mean number of generics dispensed*	7.9	4.7	7.3	4.3	0.639	0.142
Mean number of unique drug classes dispensed*	7.0	4.3	5.8	3.9	1.175	0.288

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1a. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	5,615	N/A	2,882	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	21.9	2.0	21.9	2.0	0.003	0.001
Age						
18-24 years	5,615	100.0%	2,882	100.0%	0.000	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	3,609	64.3%	1,814	62.9%	1.337	0.028
Male	2,006	35.7%	1,068	37.1%	-1.337	-0.028
Race ⁴						
American Indian or Alaska Native	74	1.3%	34	1.2%	0.127	0.011
Asian	124	2.2%	61	2.1%	0.103	0.007
Black or African American	844	15.0%	395	13.7%	1.323	0.039
Multi-racial	39	0.7%	20	0.7%	0.022	0.003
Native Hawaiian or Other Pacific Islander	20	0.4%	12	0.4%	-0.080	-0.013
Unknown	3,216	57.3%	1,707	59.2%	-1.950	-0.048
White	1,297	23.1%	653	22.7%	0.453	0.012
Hispanic origin						

Table 1a. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Yes	750	13.4%	618	21.5%	-8.092	-0.229
No	2,238	39.9%	1,113	38.6%	1.266	0.032
Unknown	2,626	46.8%	1,151	39.9%	6.826	0.235
Year*						
2015	86	1.5%	45	1.6%	-0.031	-0.003
2016	444	7.9%	247	8.6%	-0.654	-0.024
2017	631	11.2%	359	12.4%	-1.202	-0.037
2018	735	13.1%	409	14.2%	-1.115	-0.033
2019	1,019	18.1%	570	19.8%	-1.624	-0.042
2020	1,371	24.4%	754	26.2%	-1.753	-0.042
2021	437	7.8%	192	6.7%	1.105	0.045
2022	516	9.2%	185	6.4%	2.765	0.109
2023	376	6.7%	121	4.2%	2.509	0.116
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	0.2	0.6	0.2	0.6	-0.016	-0.026
Combined comorbidity score ^{*,6}	1.1	1.1	1.1	1.2	-0.006	-0.005
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	2,829	50.4%	1,331	46.2%	4.212	0.087
Weight Reduction Surgery or Procedure*	0	0.0%	0	0.0%	NaN	NaN

Table 1a. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Lifestyle intervention *	1,617	28.8%	828	28.7%	0.051	0.001
Cardiovascular Disease*	54	1.0%	27	0.9%	0.020	0.002
Cognitive Impairment*	7	0.1%	2	0.1%	0.047	0.015
Traumatic Brain Injury *	8	0.1%	4	0.1%	0.007	0.002
Migraine *	257	4.6%	127	4.4%	0.187	0.009
Epilepsy *	107	1.9%	61	2.1%	-0.206	-0.015
Chronic Pain *	316	5.6%	133	4.6%	1.015	0.046
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	166	3.0%	105	3.7%	-0.691	-0.039
Psychiatric History Overall*	3,096	55.1%	1,508	52.3%	2.797	0.057
Psychiatric Drug Dispensings	2,290	40.8%	1,169	40.6%	0.214	0.004
Intentional Self-Harm Encounter	45	0.8%	21	0.7%	0.064	0.007
Any Other Psychiatric Event	2,718	48.4%	1,319	45.8%	2.632	0.054
Attention-Deficit/Hyperactivity Disorder	408	7.3%	185	6.4%	0.840	0.033
Akathisia	5	0.1%	1	0.0%	0.056	0.022
Anxiety	1,125	20.0%	513	17.8%	2.247	0.058
Behavioral Disorder	530	9.4%	239	8.3%	1.149	0.041
Bipolar Disorder	441	7.9%	245	8.5%	-0.627	-0.023
Cerebral Degenerations usually Manifested in Childhood	12	0.2%	6	0.2%	0.014	0.003
Conduct Disorder	54	1.0%	27	0.9%	0.014	0.001
Delirium	46	0.8%	19	0.6%	0.180	0.021

Table 1a. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Depression	1,196	21.3%	527	18.3%	3.000	0.076
Electroconvulsive Therapy	1	0.0%	1	0.0%	-0.006	-0.003
Hallucination Disorder	17	0.3%	6	0.2%	0.090	0.018
Other Cerebral Degenerations	47	0.8%	9	0.3%	0.523	0.069
Other Mental Disorders	11	0.2%	7	0.2%	-0.035	-0.008
Other Psychological Disorders	83	1.5%	41	1.4%	0.077	0.007
Persistent Mental Disorders due to Conditions Classified Elsewhere	517	9.2%	252	8.7%	0.475	0.017
Personality Disorders	1	0.0%	0	0.0%	0.010	0.007
Pervasive Developmental Disorders	89	1.6%	39	1.4%	0.224	0.019
Post-Traumatic Stress Disorder	330	5.9%	137	4.8%	1.106	0.050
Psychotherapy	232	4.1%	97	3.4%	0.764	0.040
Psychotic Conditions	768	13.7%	320	11.1%	2.598	0.079
Schizophrenia	68	1.2%	46	1.6%	-0.378	-0.032
Sleep Disorder	160	2.8%	109	3.8%	-0.929	-0.053
Substance Abuse	695	12.4%	281	9.7%	2.638	0.085
Suicidal Behavior	134	2.4%	73	2.5%	-0.154	-0.010
Transcranial Magnetic Stimulation	53	1.0%	42	1.5%	-0.520	-0.048
Vagus Nerve Stimulation	2	0.0%	6	0.2%	-0.157	-0.046
	4	0.1%	1	0.0%	0.044	0.021

Table 1a. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Index GLP-1RA Product						
albiglutide	84	1.5%	0	0.0%	NaN	NaN
dulaglutide	1,603	28.6%	0	0.0%	NaN	NaN
exenatide	675	12.0%	0	0.0%	NaN	NaN
liraglutide	1,739	31.0%	0	0.0%	NaN	NaN
lixisenatide	36	0.6%	0	0.0%	NaN	NaN
semaglutide	1,390	24.8%	0	0.0%	NaN	NaN
tirzepatide	93	1.7%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	5,615	100.0%	2,882	100.0%	0.000	NaN
insulin*	1,988	35.4%	1,281	44.4%	-9.039	-0.188
metformin*	5,381	95.8%	2,752	95.5%	0.361	0.018
alpha-glucosidase inhibitors*	4	0.1%	3	0.1%	-0.022	-0.008
thiazolidinediones*	210	3.7%	128	4.5%	-0.711	-0.036
meglitinides*	15	0.3%	8	0.3%	-0.011	-0.002
amylin analogue*	0	0.0%	0	0.0%	NaN	NaN
sulfonylureas*	983	17.5%	542	18.8%	-1.297	-0.034
bile acid sequestrants*	1	0.0%	0	0.0%	0.001	0.000
Other Weight Loss Agents*	6	0.1%	0	0.0%	0.088	0.036
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	2	0.0%	0	0.0%	NaN	NaN
diethylpropion	0	0.0%	0	0.0%	NaN	NaN
lorcaserin	1	0.0%	0	0.0%	NaN	NaN

Table 1a. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical Product				Covariate Balance		
GLP-1 Receptor Agonists			SGLT-2 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
phentermine	3	0.1%	0	0.0%	0.034	0.019
phentermine-topiramate	1	0.0%	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	0	0.0%	0	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	670	11.9%	352	12.2%	-0.292	-0.009
Antipsychotics	745	13.3%	450	15.6%	-2.353	-0.069
Anxiolytics/Hypnotics	827	14.7%	445	15.5%	-0.730	-0.021
Lithium & Other Mood Stabilizers	502	8.9%	305	10.6%	-1.633	-0.056
Antidepressants	1,841	32.8%	901	31.2%	1.535	0.033
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	9.3	12.1	9.2	13.1	0.077	0.006
Mean number of emergency room encounters*	0.6	1.6	0.6	1.2	0.012	0.008
Mean number of inpatient hospital encounters*	0.1	0.3	0.1	0.3	-0.002	-0.006
Mean number of non-acute institutional encounters*	0.0	0.2	0.0	0.2	-0.002	-0.009

Table 1a. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of other ambulatory encounters [*]	6.8	22.1	7.6	24.2	-0.747	-0.032
Mean number of filled prescriptions [*]	17.6	16.0	17.7	16.3	-0.137	-0.008
Mean number of generics dispensed [*]	7.9	4.9	8.0	4.6	-0.065	-0.014
Mean number of unique drug classes dispensed [*]	6.8	4.2	6.7	4.3	0.069	0.016

^{*}Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1am. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Patient Characteristics ¹	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	140,742	100.0%	90,390	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years) [*]	38.4	4.9	38.8	4.8	-0.331	-0.068
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	140,742	100.0%	90,390	100.0%	0.000	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex [*]						
Female	83,995	59.7%	40,807	45.1%	14.535	0.294
Male	56,747	40.3%	49,583	54.9%	-14.535	-0.294
Race ³						
American Indian or Alaska Native	1,611	1.1%	805	0.9%	0.254	0.025
Asian	2,159	1.5%	2,938	3.3%	-1.716	-0.112
Black or African American	14,650	10.4%	8,565	9.5%	0.934	0.031
Multi-racial	1,308	0.9%	874	1.0%	-0.038	-0.004
Native Hawaiian or Other Pacific Islander	491	0.3%	366	0.4%	-0.056	-0.009
Unknown	84,431	60.0%	55,145	61.0%	-1.018	-0.021
White	36,092	25.6%	21,697	24.0%	1.640	0.038
Hispanic origin						

Table 1am. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Yes	11,300	8.0%	10,129	11.2%	-3.177	-0.108
No	49,018	34.8%	30,604	33.9%	0.971	0.020
Unknown	80,424	57.1%	49,657	54.9%	2.206	0.044
Year*						
2015	2,237	1.6%	2,032	2.2%	-0.659	-0.048
2016	11,575	8.2%	10,476	11.6%	-3.366	-0.113
2017	14,320	10.2%	12,611	14.0%	-3.777	-0.116
2018	16,451	11.7%	11,573	12.8%	-1.115	-0.034
2019	20,630	14.7%	14,181	15.7%	-1.031	-0.029
2020	24,930	17.7%	18,147	20.1%	-2.363	-0.060
2021	15,075	10.7%	8,718	9.6%	1.066	0.035
2022	20,166	14.3%	8,509	9.4%	4.915	0.152
2023	15,358	10.9%	4,143	4.6%	6.329	0.238
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI)*, ⁴	0.5	1.0	0.5	1.0	0.007	0.008
Combined comorbidity score*, ⁵	1.0	1.4	0.9	1.4	0.096	0.068
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	74,553	53.0%	36,512	40.4%	12.578	0.254
Weight Reduction Surgery or Procedure*	105	0.1%	48	0.1%	0.022	0.009

Table 1am. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Lifestyle intervention*	37,223	26.4%	21,123	23.4%	3.079	0.071
Medical History						
Cardiovascular Disease*	5,768	4.1%	4,335	4.8%	-0.698	-0.034
Cognitive Impairment*	238	0.2%	147	0.2%	0.006	0.002
Traumatic Brain Injury*	326	0.2%	164	0.2%	0.050	0.011
Migraine*	9,354	6.6%	4,163	4.6%	2.041	0.089
Epilepsy*	2,220	1.6%	1,334	1.5%	0.102	0.008
Chronic Pain*	21,153	15.0%	10,570	11.7%	3.336	0.098
Psychiatric History						
Previous Intentional Self-Harm Ever	2,160	1.5%	1,042	1.2%	0.382	0.033
Psychiatric History Overall*	87,095	61.9%	47,415	52.5%	9.427	0.191
Psychiatric Drug Dispensings	66,632	47.3%	34,736	38.4%	8.914	0.181
Intentional Self-Harm Encounter	337	0.2%	175	0.2%	0.046	0.010
Any Other Psychiatric Event	73,386	52.1%	39,391	43.6%	8.563	0.172
Attention-Deficit/Hyperactivity Disorder	4,456	3.2%	1,873	2.1%	1.094	0.069
Akathisia	110	0.1%	57	0.1%	0.015	0.006
Anxiety	30,692	21.8%	14,385	15.9%	5.893	0.151
Behavioral Disorder	8,852	6.3%	4,240	4.7%	1.599	0.070
Bipolar Disorder	10,103	7.2%	5,183	5.7%	1.444	0.059
Cerebral Degenerations usually Manifested in Childhood	406	0.3%	*****	*****	*****	*****
Conduct Disorder	389	0.3%	217	0.2%	0.036	0.007

Table 1am. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Delirium	768	0.5%	445	0.5%	0.053	0.007
Depression	26,974	19.2%	12,904	14.3%	4.890	0.131
Electroconvulsive Therapy	46	0.0%	*****	*****	*****	*****
Hallucination	322	0.2%	*****	*****	*****	*****
Obsessive-Compulsive Disorder	642	0.5%	286	0.3%	0.140	0.023
Other Cerebral Degenerations	303	0.2%	*****	*****	*****	*****
Other Mental Disorders	1,425	1.0%	822	0.9%	0.103	0.011
Other Psychological Disorders	15,132	10.8%	9,441	10.4%	0.307	0.010
Persistent Mental Disorders due to Conditions Classified Elsewhere	*****	*****	*****	*****	0.007	0.003
Personality Disorders	1,599	1.1%	637	0.7%	0.431	0.045
Disorders	1,027	0.7%	679	0.8%	-0.021	-0.003
Post-Traumatic Stress Disorder	5,666	4.0%	2,487	2.8%	1.274	0.070
Psychotherapy	14,576	10.4%	6,687	7.4%	2.959	0.104
Psychotic Conditions	802	0.6%	586	0.6%	-0.078	-0.010
Schizophrenia	4,751	3.4%	3,211	3.6%	-0.177	-0.010
Sleep Disorder	29,683	21.1%	14,060	15.6%	5.536	0.143
Substance Abuse	6,962	4.9%	4,563	5.0%	-0.101	-0.005
Suicidal Behavior	862	0.6%	463	0.5%	0.100	0.013
Transcranial Magnetic Stimulation	*****	*****	*****	*****	0.009	0.007
Vagus Nerve Stimulation	79	0.1%	*****	*****	*****	*****

Table 1am. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	1,807	1.3%	0	0.0%	NaN	NaN
dulaglutide	41,128	29.2%	0	0.0%	NaN	NaN
exenatide	13,166	9.4%	0	0.0%	NaN	NaN
liraglutide	35,496	25.2%	0	0.0%	NaN	NaN
lixisenatide	1,104	0.8%	0	0.0%	NaN	NaN
semaglutide	44,226	31.4%	0	0.0%	NaN	NaN
tirzepatide	4,012	2.9%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents						
insulin*	41,545	29.5%	19,210	21.3%	8.266	0.191
metformin*	131,517	93.4%	85,243	94.3%	-0.860	-0.036
alpha-glucosidase inhibitors*	*****	*****	*****	*****	0.024	0.005
thiazolidinediones*	7,118	5.1%	4,865	5.4%	-0.325	-0.015
meglitinides*	491	0.3%	*****	*****	*****	*****
amylin analogue*	*****	*****	*****	*****	0.004	0.005
sulfonylureas*	37,050	26.3%	26,345	29.1%	-2.821	-0.063
bile acid sequestrants*	271	0.2%	*****	*****	*****	*****
Other Weight Loss Agents*						
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	*****	*****	*****	*****	0.047	0.020
diethylpropion	*****	*****	*****	*****	0.006	0.007
lorcaserin	56	0.0%	*****	*****	*****	*****
phentermine	659	0.5%	*****	*****	*****	*****

Table 1am. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
phentermine-topiramate	48	0.0%	*****	*****	*****	*****
phendimetrazine	*****	*****	*****	*****	0.003	0.004
orlistat	*****	*****	*****	*****	0.004	0.005
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	30,835	21.9%	17,704	19.6%	2.323	0.057
Antipsychotics	16,265	11.6%	9,196	10.2%	1.383	0.044
Anxiolytics/Hypnotics	29,024	20.6%	14,951	16.5%	4.082	0.105
Lithium & Other Mood Stabilizers	13,095	9.3%	7,018	7.8%	1.540	0.055
Antidepressants	54,414	38.7%	26,959	29.8%	8.837	0.187
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	9.3	10.7	7.9	9.6	1.408	0.139
Mean number of emergency room encounters *	0.5	1.4	0.5	1.3	0.048	0.036
Mean number of inpatient hospital encounters *	0.1	0.3	0.1	0.4	-0.004	-0.011
Mean number of non-acute institutional encounters *	0.0	0.1	0.0	0.1	0.000	0.001
Mean number of other ambulatory encounters *	4.1	13.4	3.7	12.9	0.404	0.031

Table 1am. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of filled prescriptions*	23.6	19.8	20.9	18.1	2.717	0.143
Mean number of generics dispensed*	9.7	5.3	8.7	5.0	0.995	0.193
Mean number of unique drug classes dispensed*	8.7	4.7	7.1	4.4	1.577	0.344

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1an. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Patient Characteristics ^{1,2}	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weighted patients	135,717	N/A	86,912	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	38.6	4.8	38.6	4.8	-0.063	-0.013
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	135,717	100.0%	86,912	100.0%	0.000	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	75,554	55.7%	46,318	53.3%	2.378	0.048
Male	60,163	44.3%	40,595	46.7%	-2.378	-0.048
Race ⁴						
American Indian or Alaska Native	1,582	1.2%	829	1.0%	0.211	0.021
Asian	2,142	1.6%	2,386	2.7%	-1.166	-0.081
Black or African American	14,210	10.5%	8,962	10.3%	0.159	0.005
Multi-racial	1,214	0.9%	809	0.9%	-0.037	-0.004
Native Hawaiian or Other Pacific Islander	485	0.4%	340	0.4%	-0.034	-0.006
Unknown	81,372	60.0%	51,593	59.4%	0.595	0.017
White	34,712	25.6%	21,993	25.3%	0.272	0.007
Hispanic origin						

Table 1an. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Yes	10,908	8.0%	10,022	11.5%	-3.494	-0.124
No	47,575	35.1%	30,868	35.5%	-0.461	-0.015
Unknown	77,233	56.9%	46,022	53.0%	3.955	0.164
Year*						
2015	2,485	1.8%	1,730	2.0%	-0.160	-0.012
2016	12,832	9.5%	9,011	10.4%	-0.914	-0.031
2017	15,666	11.5%	11,048	12.7%	-1.168	-0.036
2018	16,433	12.1%	11,202	12.9%	-0.780	-0.024
2019	20,312	15.0%	13,844	15.9%	-0.962	-0.027
2020	24,727	18.2%	17,166	19.8%	-1.532	-0.040
2021	14,022	10.3%	8,328	9.6%	0.749	0.026
2022	17,305	12.8%	9,218	10.6%	2.144	0.069
2023	11,937	8.8%	5,364	6.2%	2.623	0.102
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	0.5	1.0	0.5	1.1	-0.031	-0.030
Combined comorbidity score ^{*,6}	1.0	1.4	1.1	1.5	-0.021	-0.014
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	67,920	50.0%	39,964	46.0%	4.063	0.084

Table 1an. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Medical History						
Weight Reduction Surgery or Procedure*	103	0.1%	73	0.1%	-0.008	-0.003
Lifestyle intervention*	34,307	25.3%	20,969	24.1%	1.152	0.027
Cardiovascular Disease*	6,507	4.8%	4,449	5.1%	-0.325	-0.015
Cognitive Impairment*	248	0.2%	155	0.2%	0.005	0.001
Traumatic Brain Injury*	310	0.2%	194	0.2%	0.005	0.001
Migraine*	8,663	6.4%	5,195	6.0%	0.406	0.017
Epilepsy*	2,228	1.6%	1,387	1.6%	0.046	0.004
Chronic Pain*	20,554	15.1%	12,696	14.6%	0.537	0.015
Psychiatric History						
Previous Intentional Self-Harm Ever	2,059	1.5%	1,296	1.5%	0.026	0.002
Psychiatric History Overall*	81,976	60.4%	50,839	58.5%	1.907	0.040
Psychiatric Drug Dispensings	61,725	45.5%	39,320	45.2%	0.240	0.005
Intentional Self-Harm Encounter	332	0.2%	210	0.2%	0.002	0.000
Any Other Psychiatric Event	69,182	51.0%	42,147	48.5%	2.482	0.051
Attention-Deficit/Hyperactivity Disorder	3,957	2.9%	2,150	2.5%	0.442	0.027
Akathisia	111	0.1%	76	0.1%	-0.006	-0.002
Anxiety	28,111	20.7%	16,837	19.4%	1.340	0.034
Behavioral Disorder	8,329	6.1%	4,882	5.6%	0.520	0.022
Bipolar Disorder	9,326	6.9%	6,367	7.3%	-0.455	-0.018

Table 1an. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Cerebral Degenerations usually Manifested in Childhood	422	0.3%	239	0.3%	0.036	0.007
Conduct Disorder	371	0.3%	220	0.3%	0.020	0.004
Delirium	762	0.6%	504	0.6%	-0.018	-0.002
Depression	25,102	18.5%	15,079	17.3%	1.147	0.030
Electroconvulsive Therapy	43	0.0%	28	0.0%	-0.001	-0.001
Hallucination	338	0.2%	252	0.3%	-0.041	-0.008
Obsessive-Compulsive Disorder	578	0.4%	333	0.4%	0.043	0.007
Other Cerebral Degenerations	302	0.2%	159	0.2%	0.039	0.009
Other Mental Disorders	1,393	1.0%	865	1.0%	0.031	0.003
Other Psychological Disorders	15,001	11.1%	10,004	11.5%	-0.457	-0.015
Conditions Classified Elsewhere	104	0.1%	54	0.1%	0.015	0.006
Personality Disorders	1,427	1.1%	835	1.0%	0.090	0.009
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Pervasive Developmental Disorders	981	0.7%	613	0.7%	0.017	0.002
Post-Traumatic Stress Disorder	5,166	3.8%	3,231	3.7%	0.089	0.005
Psychotherapy	13,126	9.7%	8,093	9.3%	0.360	0.012
Psychotic Conditions	806	0.6%	628	0.7%	-0.129	-0.016
Schizophrenia	4,669	3.4%	3,325	3.8%	-0.386	-0.021
Sleep Disorder	28,006	20.6%	15,502	17.8%	2.799	0.072

Table 1an. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Psychiatric History						
Substance Abuse	6,987	5.1%	5,067	5.8%	-0.683	-0.030
Suicidal Behavior	853	0.6%	544	0.6%	0.003	0.000
Transcranial Magnetic Stimulation	32	0.0%	15	0.0%	0.006	0.004
Vagus Nerve Stimulation	84	0.1%	49	0.1%	0.005	0.002
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Medical Product Use						
Index GLP-1RA Product						
albiglutide	1,984	1.5%	0	0.0%	NaN	NaN
dulaglutide	40,848	30.1%	0	0.0%	NaN	NaN
exenatide	13,538	10.0%	0	0.0%	NaN	NaN
liraglutide	35,820	26.4%	0	0.0%	NaN	NaN
lixisenatide	945	0.7%	0	0.0%	NaN	NaN
semaglutide	39,756	29.3%	0	0.0%	NaN	NaN
tirzepatide	3,222	2.4%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	135,717	100.0%	86,912	100.0%	0.000	NaN
insulin*	42,830	31.6%	32,367	37.2%	-5.683	-0.121
metformin*	127,006	93.6%	81,312	93.6%	0.026	0.001
alpha-glucosidase inhibitors*	319	0.2%	205	0.2%	-0.001	-0.000
thiazolidinediones*	7,117	5.2%	4,890	5.6%	-0.383	-0.017
meglitinides*	491	0.4%	339	0.4%	-0.028	-0.005
amylin analogue*	9	0.0%	6	0.0%	0.000	0.000
sulfonylureas*	36,679	27.0%	24,590	28.3%	-1.266	-0.028

Table 1an. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
bile acid sequestrants *	299	0.2%	201	0.2%	-0.011	-0.002
Other Weight Loss Agents *	714	0.5%	338	0.4%	0.137	0.020
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
Combination naltrexone and bupropion	93	0.1%	45	0.1%	0.017	0.007
diethylpropion	10	0.0%	3	0.0%	0.004	0.005
lorcaserin	44	0.0%	12	0.0%	0.019	0.012
phentermine	523	0.4%	274	0.3%	0.070	0.012
phentermine-topiramate	45	0.0%	4	0.0%	0.028	0.020
phendimetrazine	7	0.0%	3	0.0%	0.002	0.003
orlistat	9	0.0%	4	0.0%	0.002	0.003
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	31,488	23.2%	20,519	23.6%	-0.407	-0.010
Antipsychotics	15,113	11.1%	10,748	12.4%	-1.231	-0.041
Anxiolytics/Hypnotics	26,832	19.8%	18,248	21.0%	-1.225	-0.031
Lithium & Other Mood Stabilizers	11,989	8.8%	8,449	9.7%	-0.887	-0.032
Antidepressants	49,873	36.7%	31,337	36.1%	0.693	0.015
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	9.2	10.4	9.2	11.0	0.073	0.007
encounters *	0.6	1.5	0.6	1.5	-0.026	-0.017

Table 1an. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of inpatient hospital encounters*	0.1	0.4	0.1	0.4	-0.006	-0.016
Mean number of non-acute institutional encounters*	0.0	0.1	0.0	0.1	-0.000	-0.000
Mean number of other ambulatory encounters*	4.1	13.4	4.3	14.1	-0.205	-0.015
Mean number of filled prescriptions*	23.9	20.4	24.1	19.9	-0.117	-0.006
Mean number of generics dispensed*	9.9	5.7	9.9	5.4	-0.020	-0.004
Mean number of unique drug classes dispensed*	8.5	4.8	8.4	5.0	0.074	0.015

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1ao. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Patient Characteristics ¹	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	486,421	100.0%	405,383	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	55.8	5.4	56.2	5.4	-0.431	-0.080
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	486,421	100.0%	405,383	100.0%	0.000	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	269,002	55.3%	172,795	42.6%	12.677	0.256
Male	217,419	44.7%	232,588	57.4%	-12.677	-0.256
Race ³						
American Indian or Alaska Native	3,893	0.8%	2,469	0.6%	0.191	0.023
Asian	5,679	1.2%	12,323	3.0%	-1.872	-0.131
Black or African American	48,292	9.9%	36,156	8.9%	1.009	0.035
Multi-racial	3,834	0.8%	2,950	0.7%	0.060	0.007
Native Hawaiian or Other Pacific Islander	1,111	0.2%	1,077	0.3%	-0.037	-0.008
Unknown	265,996	54.7%	232,962	57.5%	-2.783	-0.056
White	157,616	32.4%	117,446	29.0%	3.432	0.074
Hispanic origin						

Table 1ao. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Yes	27,051	5.6%	32,223	7.9%	-2.388	-0.095
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
No	188,241	38.7%	147,470	36.4%	2.321	0.048
Unknown	271,129	55.7%	225,690	55.7%	0.066	0.001
Year*						
2015	8,087	1.7%	8,789	2.2%	-0.506	-0.037
2016	38,466	7.9%	40,324	9.9%	-2.039	-0.072
2017	47,806	9.8%	49,960	12.3%	-2.496	-0.080
2018	55,219	11.4%	46,798	11.5%	-0.192	-0.006
2019	67,334	13.8%	61,158	15.1%	-1.244	-0.035
2020	73,750	15.2%	72,118	17.8%	-2.628	-0.071
2021	60,114	12.4%	49,146	12.1%	0.235	0.007
2022	76,348	15.7%	51,002	12.6%	3.115	0.089
2023	59,297	12.2%	26,088	6.4%	5.755	0.199
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI)*, ⁴	1.0	1.4	1.0	1.4	0.043	0.030
Combined comorbidity score* ⁵	1.3	1.8	1.2	1.9	0.088	0.047
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	230,855	47.5%	139,857	34.5%	12.960	0.266
Weight Reduction Surgery or Procedure*	288	0.1%	219	0.1%	0.005	0.002

Table 1ao. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Lifestyle intervention*	108,852	22.4%	84,650	20.9%	1.497	0.036
Medical History						
Cardiovascular Disease*	62,799	12.9%	59,106	14.6%	-1.670	-0.049
Cognitive Impairment*	3,027	0.6%	2,462	0.6%	0.015	0.002
Traumatic Brain Injury*	1,071	0.2%	734	0.2%	0.039	0.009
Migraine*	22,437	4.6%	13,175	3.3%	1.363	0.070
Epilepsy*	6,299	1.3%	5,080	1.3%	0.042	0.004
Chronic Pain*	109,085	22.4%	70,968	17.5%	4.920	0.123
Psychiatric History						
Previous Intentional Self-Harm Ever	4,764	1.0%	3,077	0.8%	0.220	0.024
Psychiatric History Overall*	315,269	64.8%	222,581	54.9%	9.908	0.203
Psychiatric Drug Dispensings	243,558	50.1%	163,301	40.3%	9.788	0.198
Intentional Self-Harm Encounter	521	0.1%	367	0.1%	0.017	0.005
Any Other Psychiatric Event	255,634	52.6%	177,501	43.8%	8.768	0.176
Attention-Deficit/Hyperactivity Disorder	6,464	1.3%	3,348	0.8%	0.503	0.049
Akathisia	475	0.1%	299	0.1%	0.024	0.008
Anxiety	89,482	18.4%	56,032	13.8%	4.574	0.125
Behavioral Disorder	21,137	4.3%	13,528	3.3%	1.008	0.052
Bipolar Disorder	24,892	5.1%	15,477	3.8%	1.300	0.063

Table 1ao. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cerebral Degenerations usually Manifested in Childhood	2,628	0.5%	2,286	0.6%	-0.024	-0.003
Conduct Disorder	392	0.1%	309	0.1%	0.004	0.002
Delirium	4,182	0.9%	3,261	0.8%	0.055	0.006
Depression	93,779	19.3%	57,911	14.3%	4.994	0.134
Electroconvulsive Therapy	96	0.0%	59	0.0%	0.005	0.004
Hallucination	755	0.2%	542	0.1%	0.022	0.006
Obsessive-Compulsive Disorder	1,046	0.2%	651	0.2%	0.054	0.013
Other Cerebral Degenerations	2,341	0.5%	1,835	0.5%	0.029	0.004
Other Mental Disorders	3,613	0.7%	2,649	0.7%	0.089	0.011
Other Psychological Disorders	51,506	10.6%	43,610	10.8%	-0.169	-0.005
Persistent Mental Disorders due to Conditions Classified Elsewhere	1,725	0.4%	1,433	0.4%	0.001	0.000
Personality Disorders	2,551	0.5%	1,280	0.3%	0.209	0.032
Pervasive Developmental Disorders	454	0.1%	430	0.1%	-0.013	-0.004
Post-Traumatic Stress Disorder	12,731	2.6%	6,998	1.7%	0.891	0.061

Table 1ao. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Psychotherapy	34,301	7.1%	19,809	4.9%	2.165	0.091
Psychotic Conditions	1,837	0.4%	1,566	0.4%	-0.009	-0.001
Schizophrenia	10,633	2.2%	9,093	2.2%	-0.057	-0.004
Sleep Disorder	128,286	26.4%	79,160	19.5%	6.846	0.163
Substance Abuse	26,070	5.4%	21,309	5.3%	0.103	0.005
Suicidal Behavior	2,507	0.5%	1,714	0.4%	0.093	0.014
Transcranial Magnetic Stimulation	115	0.0%	53	0.0%	0.011	0.008
Vagus Nerve Stimulation	338	0.1%	207	0.1%	0.018	0.008
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	5,548	1.1%	0	0.0%	NaN	NaN
dulaglutide	156,000	32.1%	0	0.0%	NaN	NaN
exenatide	39,695	8.2%	0	0.0%	NaN	NaN
liraglutide	106,274	21.8%	0	0.0%	NaN	NaN
lixisenatide	5,113	1.1%	0	0.0%	NaN	NaN
semaglutide	161,407	33.2%	0	0.0%	NaN	NaN
tirzepatide	12,918	2.7%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	486,419	100.0%	405,383	100.0%	-0.000	-0.003
insulin*	167,960	34.5%	94,345	23.3%	11.257	0.250
metformin*	443,274	91.1%	375,995	92.8%	-1.621	-0.060
alpha-glucosidase inhibitors*	1,609	0.3%	1,374	0.3%	-0.008	-0.001

Table 1ao. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
thiazolidinediones*	33,662	6.9%	28,239	7.0%	-0.046	-0.002
meglitinides*	3,147	0.6%	2,430	0.6%	0.048	0.006
amylin analogue*	66	0.0%	40	0.0%	0.004	0.003
sulfonylureas*	161,979	33.3%	145,613	35.9%	-2.620	-0.055
bile acid sequestrants*	1,607	0.3%	1,161	0.3%	0.044	0.008
Other Weight Loss Agents*	2,225	0.5%	700	0.2%	0.285	0.051
benzphetamine	*****	*****	*****	*****	-0.000	-0.000
bupropion	264	0.1%	111	0.0%	0.027	0.013
diethylpropion	44	0.0%	*****	*****	*****	*****
lorcaserin	110	0.0%	47	0.0%	0.011	0.008
phentermine	1,654	0.3%	481	0.1%	0.221	0.046
phentermine-topiramate	125	0.0%	35	0.0%	0.017	0.013
phendimetrazine	45	0.0%	*****	*****	*****	*****
orlistat	45	0.0%	*****	*****	*****	*****
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	135,608	27.9%	97,035	23.9%	3.942	0.090
Antipsychotics	42,689	8.8%	29,531	7.3%	1.491	0.055
Anxiolytics/Hypnotics	106,213	21.8%	70,831	17.5%	4.363	0.110
Lithium & Other Mood Stabilizers	35,348	7.3%	23,587	5.8%	1.449	0.059
Antidepressants	201,349	41.4%	127,830	31.5%	9.861	0.206

Table 1a0. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
encounters*	10.2	10.5	8.8	9.2	1.414	0.144
Mean number of emergency room encounters*	0.4	1.1	0.4	1.1	0.022	0.020
Mean number of inpatient hospital encounters*	0.1	0.4	0.1	0.4	-0.011	-0.028
Mean number of non-acute institutional encounters*	0.0	0.1	0.0	0.1	0.001	0.004
Mean number of other ambulatory encounters*	4.4	13.9	3.9	13.1	0.480	0.036
Mean number of filled prescriptions [^]	29.1	21.2	26.0	19.6	3.149	0.154
Mean number of generics dispensed*	11.3	5.3	10.2	5.1	1.100	0.211
Mean number of unique drug classes dispensed*	10.0	4.8	8.4	4.6	1.636	0.350

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1ap. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	467,595	N/A	397,538	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	56.0	5.4	56.0	5.4	-0.018	-0.003
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	467,595	100.0%	397,538	100.0%	0.000	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	238,488	51.0%	193,986	48.8%	2.207	0.044
Male	229,106	49.0%	203,553	51.2%	-2.207	-0.044
Race ⁴						
American Indian or Alaska Native	3,731	0.8%	2,567	0.6%	0.152	0.018
Asian	5,823	1.2%	10,441	2.6%	-1.381	-0.102
Black or African American	46,102	9.9%	38,115	9.6%	0.272	0.010
Multi-racial	3,575	0.8%	2,889	0.7%	0.038	0.005
Native Hawaiian or Other Pacific Islander	1,082	0.2%	1,012	0.3%	-0.023	-0.005
Unknown	256,177	54.8%	223,261	56.2%	-1.375	-0.043
White	151,105	32.3%	119,253	30.0%	2.318	0.062

Table 1ap. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Hispanic origin						
Yes	26,264	5.6%	32,253	8.1%	-2.496	-0.104
No	180,979	38.7%	149,187	37.5%	1.177	0.043
Unknown	260,352	55.7%	216,099	54.4%	1.320	0.061
Year*						
2015	8,937	1.9%	7,943	2.0%	-0.087	-0.006
2016	41,493	8.9%	37,174	9.4%	-0.477	-0.017
2017	51,016	10.9%	46,286	11.6%	-0.733	-0.023
2018	53,453	11.4%	47,486	11.9%	-0.514	-0.016
2019	66,229	14.2%	59,836	15.1%	-0.888	-0.025
2020	73,844	15.8%	68,196	17.2%	-1.362	-0.038
2021	57,588	12.3%	46,871	11.8%	0.526	0.016
2022	68,452	14.6%	52,196	13.1%	1.509	0.045
2023	46,584	10.0%	31,551	7.9%	2.026	0.072
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Index(aDCSI) ^{*,5}	1.1	1.5	1.1	1.5	0.007	0.005
Combined comorbidity score ^{*,6}	1.4	1.9	1.3	1.9	0.019	0.010
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	205,436	43.9%	158,942	40.0%	3.953	0.082
Weight Reduction Surgery or Procedure*	304	0.1%	259	0.1%	-0.000	-0.000

Table 1ap. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Lifestyle intervention *	100,348	21.5%	83,390	21.0%	0.484	0.012
Cardiovascular Disease *	68,582	14.7%	58,426	14.7%	-0.030	-0.001
Cognitive Impairment *	3,189	0.7%	2,651	0.7%	0.015	0.002
Traumatic Brain Injury *	1,037	0.2%	844	0.2%	0.009	0.002
Migraine *	20,575	4.4%	16,067	4.0%	0.358	0.018
Epilepsy *	6,496	1.4%	5,263	1.3%	0.065	0.006
Chronic Pain *	103,272	22.1%	81,636	20.5%	1.550	0.039
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	4,516	1.0%	3,634	0.9%	0.052	0.005
Psychiatric History Overall *	294,847	63.1%	240,790	60.6%	2.486	0.053
Psychiatric Drug Dispensings	223,971	47.9%	185,223	46.6%	1.306	0.027
Intentional Self-Harm Encounter	546	0.1%	415	0.1%	0.012	0.004
Any Other Psychiatric Event	239,898	51.3%	192,058	48.3%	2.993	0.062
Attention-Deficit/Hyperactivity Disorder	5,702	1.2%	4,058	1.0%	0.199	0.019
Akathisia	454	0.1%	340	0.1%	0.012	0.004
Anxiety	81,868	17.5%	64,930	16.3%	1.175	0.032
Behavioral Disorder	19,820	4.2%	15,089	3.8%	0.443	0.023
Bipolar Disorder	22,751	4.9%	18,767	4.7%	0.145	0.007
Cerebral Degenerations usually Manifested in Childhood	2,761	0.6%	2,483	0.6%	-0.034	-0.004
Conduct Disorder	365	0.1%	312	0.1%	-0.000	-0.000
Delirium	4,521	1.0%	3,691	0.9%	0.038	0.004
Depression	86,916	18.6%	67,180	16.9%	1.689	0.045
Electroconvulsive Therapy	90	0.0%	70	0.0%	0.002	0.001

Table 1ap. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Hallucination	746	0.2%	598	0.2%	0.009	0.002
Obsessive-Compulsive Disorder	967	0.2%	748	0.2%	0.019	0.004
Other Cerebral Degenerations	2,353	0.5%	1,989	0.5%	0.003	0.000
Other Mental Disorders	3,537	0.8%	2,976	0.7%	0.008	0.001
Other Psychological Disorders	50,899	10.9%	45,987	11.6%	-0.683	-0.022
Persistent Mental Disorders due to Conditions Classified Elsewhere	1,819	0.4%	1,516	0.4%	0.008	0.001
Personality Disorders	2,309	0.5%	1,649	0.4%	0.079	0.012
Pervasive Developmental Disorders	452	0.1%	403	0.1%	-0.005	-0.001
Post-Traumatic Stress Disorder	11,275	2.4%	8,794	2.2%	0.199	0.013
Psychotherapy	30,478	6.5%	24,068	6.1%	0.464	0.019
Psychotic Conditions	1,856	0.4%	1,716	0.4%	-0.035	-0.005
Schizophrenia	10,169	2.2%	9,714	2.4%	-0.269	-0.018
Sleep Disorder	120,057	25.7%	87,785	22.1%	3.593	0.085
Substance Abuse	25,797	5.5%	23,009	5.8%	-0.271	-0.012
Suicidal Behavior	2,550	0.5%	1,901	0.5%	0.067	0.009
Transcranial Magnetic Stimulation	92	0.0%	73	0.0%	0.001	0.001
Vagus Nerve Stimulation	329	0.1%	246	0.1%	0.009	0.003
Medical Product Use	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	6,059	1.3%	0	0.0%	NaN	NaN
dulaglutide	155,373	33.2%	0	0.0%	NaN	NaN

Table 1ap. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
exenatide	40,238	8.6%	0	0.0%	NaN	NaN
liraglutide	105,447	22.6%	0	0.0%	NaN	NaN
lixisenatide	4,352	0.9%	0	0.0%	NaN	NaN
semaglutide	146,730	31.4%	0	0.0%	NaN	NaN
tirzepatide	10,557	2.3%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	467,592	100.0%	397,538	100.0%	-0.001	-0.004
insulin*	167,391	35.8%	152,073	38.3%	-2.455	-0.052
metformin*	427,796	91.5%	364,794	91.8%	-0.275	-0.010
alpha-glucosidase inhibitors*	1,600	0.3%	1,431	0.4%	-0.018	-0.003
thiazolidinediones*	32,722	7.0%	28,614	7.2%	-0.200	-0.008
meglitinides*	3,093	0.7%	2,721	0.7%	-0.023	-0.003
amylin analogue*	61	0.0%	59	0.0%	-0.002	-0.002
sulfonylureas*	158,500	33.9%	139,077	35.0%	-1.088	-0.023
bile acid sequestrants*	1,699	0.4%	1,377	0.3%	0.017	0.003
Other Weight Loss Agents*	1,676	0.4%	1,042	0.3%	0.096	0.017
benzphetamine	1	0.0%	2	0.0%	-0.000	-0.001
bupropion	211	0.0%	168	0.0%	0.003	0.001
diethylpropion	38	0.0%	23	0.0%	0.002	0.003
lorcaserin	92	0.0%	71	0.0%	0.002	0.001

Table 1ap. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
phentermine	1,233	0.3%	711	0.2%	0.085	0.018
phentermine-topiramate	81	0.0%	57	0.0%	0.003	0.002
phendimetrazine	40	0.0%	16	0.0%	0.005	0.006
orlistat	34	0.0%	22	0.0%	0.002	0.002
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	134,618	28.8%	110,089	27.7%	1.097	0.025
Antipsychotics	38,737	8.3%	35,143	8.8%	-0.556	-0.020
Anxiolytics/Hypnotics	97,600	20.9%	83,877	21.1%	-0.226	-0.006
Lithium & Other Mood Stabilizers	31,807	6.8%	28,450	7.2%	-0.354	-0.014
Antidepressants	182,883	39.1%	148,594	37.4%	1.733	0.037
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	10.2	10.2	9.9	10.4	0.245	0.024
Mean number of emergency room encounters *	0.4	1.2	0.4	1.2	0.001	0.001
Mean number of inpatient hospital encounters *	0.1	0.4	0.1	0.4	-0.002	-0.004
Mean number of non-acute institutional encounters *	0.0	0.2	0.0	0.2	0.000	0.003
Mean number of other ambulatory encounters *	4.3	13.6	4.6	14.5	-0.235	-0.017
Mean number of filled prescriptions *	29.3	21.7	29.0	21.3	0.302	0.014

Table 1ap. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of generics dispensed*	11.4	5.7	11.2	5.4	0.211	0.038
Mean number of unique drug classes dispensed*	9.8	4.8	9.6	5.0	0.245	0.050

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1a. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	473,273	100.0%	485,381	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	70.9	3.8	71.5	4.0	-0.574	-0.146
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	473,273	100.0%	485,381	100.0%	0.000	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	257,663	54.4%	211,064	43.5%	10.959	0.221
Male	215,610	45.6%	274,317	56.5%	-10.959	-0.221
Race ³						
American Indian or Alaska Native	2,565	0.5%	2,208	0.5%	0.087	0.012
Asian	7,708	1.6%	17,975	3.7%	-2.075	-0.129
Black or African American	43,763	9.2%	46,386	9.6%	-0.310	-0.011
Multi-racial	466	0.1%	530	0.1%	-0.011	-0.003
Native Hawaiian or Other Pacific Islander	1,354	0.3%	1,919	0.4%	-0.109	-0.019
Unknown	62,222	13.1%	77,368	15.9%	-2.792	-0.079
White	355,195	75.1%	338,995	69.8%	5.210	0.117
Hispanic origin						
Yes	11,471	2.4%	17,301	3.6%	-1.141	-0.067
No	383,206	81.0%	378,513	78.0%	2.987	0.074
Unknown	78,596	16.6%	89,567	18.5%	-1.846	-0.049
Year*						
2015	6,342	1.3%	6,774	1.4%	-0.056	-0.005
2016	30,647	6.5%	28,643	5.9%	0.574	0.024

Table 1a. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
2017	35,491	7.5%	34,801	7.2%	0.329	0.013
2018	43,552	9.2%	34,700	7.1%	2.053	0.075
2019	53,617	11.3%	53,217	11.0%	0.365	0.012
2020	55,652	11.8%	62,906	13.0%	-1.201	-0.037
2021	75,334	15.9%	89,050	18.3%	-2.429	-0.064
2022	89,465	18.9%	107,186	22.1%	-3.179	-0.079
2023	83,173	17.6%	68,104	14.0%	3.543	0.097
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	1.8	1.8	1.9	1.9	-0.099	-0.054
Combined comorbidity score ^{*,5}	2.0	2.4	2.2	2.6	-0.205	-0.082
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity [*]	221,116	46.7%	167,235	34.5%	12.266	0.252
Weight Reduction Surgery or Procedure [*]	232	0.0%	259	0.1%	-0.004	-0.002
Lifestyle intervention [*]	58,705	12.4%	56,714	11.7%	0.720	0.022
Cardiovascular Disease [*]	116,218	24.6%	144,176	29.7%	-5.147	-0.116
Cognitive Impairment [*]	11,691	2.5%	12,819	2.6%	-0.171	-0.011
Traumatic Brain Injury [*]	923	0.2%	747	0.2%	0.041	0.010
Migraine [*]	11,571	2.4%	9,791	2.0%	0.428	0.029
Epilepsy [*]	4,216	0.9%	4,509	0.9%	-0.038	-0.004
Chronic Pain [*]	102,219	21.6%	86,670	17.9%	3.742	0.094
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	1,357	0.3%	1,185	0.2%	0.043	0.008

Table 1a. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Psychiatric History Overall*	285,448	60.3%	255,644	52.7%	7.645	0.155
Psychiatric Drug Dispensings	205,473	43.4%	170,515	35.1%	8.285	0.170
Intentional Self-Harm Encounter	133	0.0%	151	0.0%	-0.003	-0.002
Any Other Psychiatric Event	228,898	48.4%	206,440	42.5%	5.833	0.117
Attention-Deficit/Hyperactivity Disorder	2,080	0.4%	1,372	0.3%	0.157	0.026
Akathisia	466	0.1%	371	0.1%	0.022	0.007
Anxiety	65,982	13.9%	56,744	11.7%	2.251	0.067
Behavioral Disorder	13,030	2.8%	11,477	2.4%	0.389	0.025
Bipolar Disorder	9,483	2.0%	7,257	1.5%	0.509	0.039
Cerebral Degenerations usually Manifested in Childhood	5,194	1.1%	6,077	1.3%	-0.155	-0.014
Conduct Disorder	107	0.0%	113	0.0%	-0.001	-0.000
Delirium	6,008	1.3%	6,882	1.4%	-0.148	-0.013
Depression	79,904	16.9%	62,481	12.9%	4.011	0.113
Electroconvulsive Therapy	*****	*****	34	0.0%	*****	*****
Hallucination	643	0.1%	675	0.1%	-0.003	-0.001
Obsessive-Compulsive Disorder	410	0.1%	420	0.1%	0.000	0.000
Other Cerebral Degenerations	8,350	1.8%	8,630	1.8%	-0.014	-0.001
Other Mental Disorders	2,892	0.6%	2,775	0.6%	0.039	0.005
Other Psychological Disorders	27,725	5.9%	34,442	7.1%	-1.238	-0.050
Persistent Mental Disorders due to Conditions Classified Elsewhere	8,042	1.7%	8,588	1.8%	-0.070	-0.005
Personality Disorders	527	0.1%	398	0.1%	0.029	0.009
Pervasive Developmental Disorders	*****	*****	*****	*****	0.000	0.000

Table 1a. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Post-Traumatic Stress Disorder	2,877	0.6%	2,321	0.5%	0.130	0.018
Psychotherapy	14,256	3.0%	10,542	2.2%	0.840	0.053
Psychiatric History	Number/ Mean	Percent/ Standard Deviation²	Number/ Mean	Percent/ Standard Deviation²	Absolute Difference	Standardized Difference
Psychotic Conditions	923	0.2%	960	0.2%	-0.003	-0.001
Schizophrenia	2,657	0.6%	2,710	0.6%	0.003	0.000
Sleep Disorder	129,592	27.4%	107,823	22.2%	5.168	0.120
Substance Abuse	14,307	3.0%	15,636	3.2%	-0.198	-0.011
Suicidal Behavior	1,732	0.4%	1,612	0.3%	0.034	0.006
Transcranial Magnetic Stimulation	88	0.0%	54	0.0%	0.007	0.006
Vagus Nerve Stimulation	490	0.1%	297	0.1%	0.042	0.015
Medical Product Use	Number/ Mean	Percent/ Standard Deviation²	Number/ Mean	Percent/ Standard Deviation²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	1,245	0.3%	0	0.0%	NaN	NaN
dulaglutide	165,725	35.0%	0	0.0%	NaN	NaN
exenatide	27,683	5.8%	0	0.0%	NaN	NaN
liraglutide	83,836	17.7%	0	0.0%	NaN	NaN
lixisenatide	8,423	1.8%	0	0.0%	NaN	NaN
semaglutide	175,983	37.2%	0	0.0%	NaN	NaN
tirzepatide	10,490	2.2%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	473,273	100.0%	485,380	100.0%	0.000	0.002
insulin*	160,398	33.9%	100,255	20.7%	13.236	0.301
metformin*	403,913	85.3%	426,156	87.8%	-2.454	-0.072
alpha-glucosidase inhibitors*	2,287	0.5%	2,226	0.5%	0.025	0.004
thiazolidinediones*	48,672	10.3%	46,094	9.5%	0.788	0.026
meglitinides*	7,364	1.6%	6,332	1.3%	0.251	0.021
amylin analogue*	69	0.0%	*****	*****	*****	*****
sulfonylureas*	200,077	42.3%	206,280	42.5%	-0.223	-0.005

Table 1a. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
bile acid sequestrants*	2,216	0.5%	1,932	0.4%	0.070	0.011
Other Weight Loss Agents*	554	0.1%	189	0.0%	0.078	0.028
benzphetamine	*****	*****	*****	*****	0.000	0.002
Combination naltrexone and bupropion	39	0.0%	*****	*****	*****	*****
diethylpropion	26	0.0%	*****	*****	*****	*****
lorcaserin	*****	*****	*****	*****	0.000	0.000
phentermine	456	0.1%	155	0.0%	0.064	0.025
phentermine-topiramate	*****	*****	*****	*****	0.001	0.003
phendimetrazine	*****	*****	*****	*****	0.001	0.004
orlistat	*****	*****	*****	*****	0.001	0.002
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	111,862	23.6%	96,628	19.9%	3.728	0.090
Antipsychotics	15,850	3.3%	14,104	2.9%	0.443	0.025
Anxiolytics/Hypnotics	77,915	16.5%	66,684	13.7%	2.725	0.076
Lithium & Other Mood Stabilizers	17,186	3.6%	14,311	2.9%	0.683	0.038
Antidepressants	169,562	35.8%	132,620	27.3%	8.505	0.184
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	11.9	10.4	11.1	9.5	0.812	0.081
Mean number of emergency room encounters*	0.3	0.8	0.3	0.9	-0.028	-0.034
Mean number of inpatient hospital encounters*	0.1	0.4	0.1	0.5	-0.046	-0.107
Mean number of non-acute institutional encounters*	0.0	0.2	0.0	0.2	-0.004	-0.021

Table 1a. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of other ambulatory encounters*	3.1	7.2	3.2	7.2	-0.049	-0.007
Mean number of filled prescriptions*	23.9	16.6	22.3	15.3	1.569	0.098
Mean number of generics dispensed*	11.0	4.6	10.5	4.5	0.547	0.120
Mean number of unique drug classes dispensed*	9.9	4.2	8.7	4.2	1.142	0.274

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1ar. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	448,984	N/A	481,478	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years) [*]	71.1	3.9	71.2	4.0	-0.103	-0.026
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	448,984	100.0%	481,478	100.0%	0.000	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex [*]						
Female	227,506	50.7%	232,520	48.3%	2.378	0.048
Male	221,478	49.3%	248,958	51.7%	-2.378	-0.048
Race ⁴						
American Indian or Alaska Native	2,566	0.6%	2,312	0.5%	0.091	0.013
Asian	8,163	1.8%	15,779	3.3%	-1.459	-0.093
Black or African American	41,449	9.2%	49,139	10.2%	-0.974	-0.033
Multi-racial	466	0.1%	519	0.1%	-0.004	-0.001
Native Hawaiian or Other Pacific Islander	1,393	0.3%	1,664	0.3%	-0.035	-0.006
Unknown	60,205	13.4%	74,987	15.6%	-2.165	-0.083
White	334,741	74.6%	337,079	70.0%	4.546	0.115

Table 1ar. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Hispanic origin						
Yes	11,705	2.6%	17,721	3.7%	-1.074	-0.062
No	362,533	80.7%	377,424	78.4%	2.356	0.096
Unknown	74,747	16.6%	86,333	17.9%	-1.283	-0.066
Year*						
2015	6,385	1.4%	6,943	1.4%	-0.020	-0.002
2016	29,460	6.6%	31,057	6.5%	0.111	0.005
2017	34,619	7.7%	36,451	7.6%	0.140	0.005
2018	39,170	8.7%	39,791	8.3%	0.460	0.017
2019	51,651	11.5%	54,567	11.3%	0.171	0.005
2020	55,205	12.3%	60,531	12.6%	-0.276	-0.008
2021	74,407	16.6%	83,129	17.3%	-0.693	-0.019
2022	87,957	19.6%	98,120	20.4%	-0.789	-0.020
2023	70,130	15.6%	70,890	14.7%	0.896	0.025
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications						
Severity Index(aDCSI) ^{*,5}	1.9	1.9	1.9	1.9	0.011	0.006
Combined comorbidity score ^{*,6}	2.2	2.6	2.2	2.6	0.007	0.003
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	193,384	43.1%	192,781	40.0%	3.032	0.062
Procedure*	277	0.1%	303	0.1%	-0.001	-0.001

Table 1ar. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Lifestyle intervention*	54,834	12.2%	57,637	12.0%	0.242	0.007
Cardiovascular Disease*	127,469	28.4%	138,646	28.8%	-0.405	-0.009
Medical History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Cognitive Impairment*	13,326	3.0%	13,798	2.9%	0.102	0.006
Traumatic Brain Injury*	866	0.2%	879	0.2%	0.010	0.002
Migraine*	11,001	2.5%	10,969	2.3%	0.172	0.011
Epilepsy*	4,689	1.0%	4,784	1.0%	0.051	0.005
Chronic Pain*	97,179	21.6%	97,252	20.2%	1.446	0.036
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	1,398	0.3%	1,389	0.3%	0.023	0.004
Psychiatric History Overall*	266,604	59.4%	274,313	57.0%	2.406	0.049
Psychiatric Drug Dispensings	188,204	41.9%	192,188	39.9%	2.001	0.041
Intentional Self-Harm Encounter	151	0.0%	173	0.0%	-0.002	-0.001
Any Other Psychiatric Event	216,793	48.3%	220,046	45.7%	2.583	0.052
Attention-Deficit/Hyperactivity Disorder	1,808	0.4%	1,519	0.3%	0.087	0.015
Akathisia	451	0.1%	445	0.1%	0.008	0.003
Anxiety	62,465	13.9%	63,630	13.2%	0.697	0.020
Behavioral Disorder	12,886	2.9%	12,478	2.6%	0.278	0.017
Bipolar Disorder	9,174	2.0%	8,696	1.8%	0.237	0.017
Cerebral Degenerations usually Manifested in Childhood	5,871	1.3%	6,147	1.3%	0.031	0.003
Conduct Disorder	122	0.0%	122	0.0%	0.002	0.001

Table 1ar. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
	Number/	Percent/	Number/	Percent/	Absolute	Standardized
Psychiatric History	Mean	Standard Deviation ³	Mean	Standard Deviation ³	Difference	Difference
Delirium	7,900	1.8%	7,269	1.5%	0.250	0.020
Depression	76,143	17.0%	71,000	14.7%	2.213	0.061
Electroconvulsive Therapy	39	0.0%	47	0.0%	-0.001	-0.001
Hallucination	813	0.2%	748	0.2%	0.026	0.006
Obsessive-Compulsive Disorder	384	0.1%	467	0.1%	-0.011	-0.004
Other Cerebral Degenerations	8,860	2.0%	9,250	1.9%	0.052	0.004
Other Mental Disorders	3,057	0.7%	3,025	0.6%	0.053	0.007
Other Psychological Disorders	28,817	6.4%	34,540	7.2%	-0.755	-0.030
Persistent Mental Disorders due to Conditions Classified Elsewhere	9,293	2.1%	9,263	1.9%	0.146	0.010
Personality Disorders	552	0.1%	483	0.1%	0.023	0.007
Pervasive Developmental Disorders	89	0.0%	86	0.0%	0.002	0.001
Post-Traumatic Stress Disorder	2,735	0.6%	2,836	0.6%	0.020	0.003
Psychotherapy	13,403	3.0%	12,691	2.6%	0.349	0.021
Psychotic Conditions	1,150	0.3%	1,116	0.2%	0.024	0.005
Schizophrenia	2,857	0.6%	3,134	0.7%	-0.015	-0.002
Sleep Disorder	121,604	27.1%	117,189	24.3%	2.745	0.063
Substance Abuse	15,243	3.4%	16,159	3.4%	0.039	0.002
Suicidal Behavior	1,904	0.4%	1,757	0.4%	0.059	0.009
Transcranial Magnetic Stimulation	63	0.0%	63	0.0%	0.001	0.001

Table 1ar. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
	Number/	Percent/	Number/	Percent/	Absolute	Standardized
Medical Product Use	Mean	Standard Deviation ³	Mean	Standard Deviation ³	Difference	Difference
Vagus Nerve Stimulation	475	0.1%	346	0.1%	0.034	0.011
Index GLP-1RA Product						
albiglutide	1,287	0.3%	0	0.0%	NaN	NaN
dulaglutide	161,953	36.1%	0	0.0%	NaN	NaN
exenatide	26,337	5.9%	0	0.0%	NaN	NaN
liraglutide	78,818	17.6%	0	0.0%	NaN	NaN
lixisenatide	6,763	1.5%	0	0.0%	NaN	NaN
semaglutide	164,971	36.7%	0	0.0%	NaN	NaN
tirzepatide	9,083	2.0%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	448,984	100.0%	481,477	100.0%	0.000	0.002
insulin*	163,890	36.5%	174,910	36.3%	0.175	0.004
metformin*	385,311	85.8%	415,638	86.3%	-0.507	-0.015
alpha-glucosidase inhibitors*	2,223	0.5%	2,384	0.5%	-0.000	-0.000
thiazolidinediones*	44,557	9.9%	47,858	9.9%	-0.016	-0.001
meglitinides*	6,864	1.5%	7,408	1.5%	-0.010	-0.001
amylin analogue*	59	0.0%	74	0.0%	-0.002	-0.002
sulfonylureas*	188,197	41.9%	204,622	42.5%	-0.583	-0.012
bile acid sequestrants*	2,413	0.5%	2,362	0.5%	0.047	0.007
Other Weight Loss Agents*	382	0.1%	303	0.1%	0.022	0.008
benzphetamine	2	0.0%	4	0.0%	-0.000	-0.001
bupropion	25	0.0%	15	0.0%	0.003	0.004
diethylpropion	17	0.0%	5	0.0%	0.003	0.006

Table 1ar. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Medical Product				Covariate Balance		
GLP-1 Receptor Agonists			SGLT-2 Inhibitors			
lorcaserin	4	0.0%	13	0.0%	-0.002	-0.004
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
phentermine	318	0.1%	247	0.1%	0.019	0.008
phentermine-topiramate	7	0.0%	8	0.0%	-0.000	-0.000
phendimetrazine	8	0.0%	8	0.0%	0.000	0.001
orlistat	6	0.0%	5	0.0%	0.000	0.001
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	111,474	24.8%	111,231	23.1%	1.726	0.040
Antipsychotics	15,583	3.5%	16,995	3.5%	-0.059	-0.003
Anxiolytics/Hypnotics	71,962	16.0%	76,510	15.9%	0.137	0.004
Lithium & Other Mood Stabilizers	15,786	3.5%	17,297	3.6%	-0.077	-0.004
Antidepressants	153,858	34.3%	152,650	31.7%	2.564	0.055
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	12.3	10.5	11.8	10.1	0.426	0.041
Mean number of emergency room encounters *	0.3	0.9	0.3	0.9	0.011	0.013
Mean number of inpatient hospital encounters *	0.1	0.5	0.1	0.5	0.001	0.002
Mean number of non-acute institutional encounters *	0.0	0.2	0.0	0.2	0.002	0.008

Table 1ar. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of other ambulatory encounters*	3.5	7.8	3.4	8.1	0.056	0.007
Mean number of filled prescriptions*	25.1	18.4	24.1	16.5	0.936	0.054
Mean number of generics dispensed*	11.5	5.1	11.1	4.7	0.377	0.077
Mean number of unique drug classes dispensed*	9.9	4.4	9.6	4.4	0.347	0.079

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1as. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	44,377	100.0%	82,805	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	83.8	3.3	84.2	3.5	-0.444	-0.130
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	44,377	100.0%	82,805	100.0%	0.000	NaN
Sex*						
Female	23,842	53.7%	38,403	46.4%	7.348	0.147
Male	20,535	46.3%	44,402	53.6%	-7.348	-0.147
Race ³						
American Indian or Alaska Native	278	0.6%	334	0.4%	0.223	0.031
Asian	1,065	2.4%	3,919	4.7%	-2.333	-0.126
Black or African American	3,379	7.6%	6,497	7.8%	-0.232	-0.009
Multi-racial	12	0.0%	28	0.0%	-0.007	-0.004
Native Hawaiian or Other Pacific Islander	125	0.3%	371	0.4%	-0.166	-0.028
Unknown	4,485	10.1%	9,845	11.9%	-1.783	-0.057
White	35,033	78.9%	61,811	74.6%	4.298	0.102
Hispanic origin						

Table 1as. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Yes	1,248	2.8%	2,461	3.0%	-0.160	-0.010
No	37,568	84.7%	68,354	82.5%	2.108	0.057
Unknown	5,561	12.5%	11,990	14.5%	-1.949	-0.057
Year*						
2015	414	0.9%	554	0.7%	0.264	0.030
2016	2,136	4.8%	2,497	3.0%	1.798	0.093
2017	2,884	6.5%	3,416	4.1%	2.374	0.106
2018	3,909	8.8%	3,687	4.5%	4.356	0.176
2019	5,382	12.1%	6,510	7.9%	4.266	0.143
2020	5,507	12.4%	8,755	10.6%	1.837	0.058
2021	7,922	17.9%	15,814	19.1%	-1.246	-0.032
2022	8,917	20.1%	24,046	29.0%	-8.946	-0.209
2023	7,306	16.5%	17,526	21.2%	-4.702	-0.121
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	2.7	2.1	2.8	2.1	-0.073	-0.035
Combined comorbidity score ^{*,5}	3.4	2.9	3.8	3.2	-0.409	-0.134
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	13,840	31.2%	18,927	22.9%	8.330	0.188
Weight Reduction Surgery or Procedure*	38	0.1%	69	0.1%	0.002	0.001
Lifestyle intervention*	4,905	11.1%	9,216	11.1%	-0.077	-0.002

Table 1as. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cardiovascular Disease*	17,108	38.6%	36,716	44.3%	-5.789	-0.118
Cognitive Impairment*	5,887	13.3%	9,388	11.3%	1.928	0.059
Traumatic Brain Injury*	105	0.2%	176	0.2%	0.024	0.005
Migraine*	701	1.6%	1,275	1.5%	0.040	0.003
Epilepsy*	507	1.1%	938	1.1%	0.010	0.001
Chronic Pain*	8,808	19.8%	14,764	17.8%	2.018	0.052
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	110	0.2%	158	0.2%	0.057	0.012
Psychiatric History Overall*	25,837	58.2%	43,803	52.9%	5.323	0.107
Psychiatric Drug Dispensings	17,488	39.4%	27,818	33.6%	5.813	0.121
Intentional Self-Harm Encounter	13	0.0%	29	0.0%	-0.006	-0.003
Any Other Psychiatric Event	20,964	47.2%	35,834	43.3%	3.966	0.080
Attention-Deficit/Hyperactivity Disorder	41	0.1%	58	0.1%	0.022	0.008
Akathisia	*****	*****	*****	*****	0.020	0.008
Anxiety	5,399	12.2%	9,392	11.3%	0.824	0.026
Behavioral Disorder	1,274	2.9%	2,077	2.5%	0.363	0.022
Bipolar Disorder	622	1.4%	812	1.0%	0.421	0.039
Cerebral Degenerations usually Manifested in Childhood	1,078	2.4%	2,233	2.7%	-0.268	-0.017
Conduct Disorder	*****	*****	13	0.0%	*****	*****

Table 1as. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Delirium	1,622	3.7%	2,891	3.5%	0.164	0.009
Depression	6,950	15.7%	9,983	12.1%	3.605	0.104
Electroconvulsive Therapy	*****	*****	*****	*****	0.003	0.004
Hallucination	196	0.4%	300	0.4%	0.079	0.013
Obsessive-Compulsive Disorder	29	0.1%	*****	*****	*****	*****
Other Cerebral Degenerations	3,153	7.1%	5,029	6.1%	1.032	0.042
Other Mental Disorders	458	1.0%	733	0.9%	0.147	0.015
Other Psychological Disorders	1,884	4.2%	3,531	4.3%	-0.019	-0.001
Persistent Mental Disorders due to Conditions Classified Elsewhere	4,550	10.3%	6,723	8.1%	2.134	0.074
Personality Disorders	33	0.1%	39	0.0%	0.027	0.011
Pervasive Developmental Disorders	*****	*****	*****	*****	-0.001	-0.001
Post-Traumatic Stress Disorder	82	0.2%	119	0.1%	0.041	0.010
Psychotherapy	989	2.2%	1,355	1.6%	0.592	0.043
Psychotic Conditions	214	0.5%	265	0.3%	0.162	0.026
Schizophrenia	162	0.4%	216	0.3%	0.104	0.019
Sleep Disorder	9,776	22.0%	16,499	19.9%	2.104	0.052
Substance Abuse	867	2.0%	1,593	1.9%	0.030	0.002
Suicidal Behavior	163	0.4%	274	0.3%	0.036	0.006
Transcranial Magnetic Stimulation	*****	*****	*****	*****	0.004	0.004
Vagus Nerve Stimulation	*****	*****	44	0.1%	*****	*****

Table 1as. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	100	0.2%	0	0.0%	NaN	NaN
dulaglutide	18,234	41.1%	0	0.0%	NaN	NaN
exenatide	2,401	5.4%	0	0.0%	NaN	NaN
liraglutide	6,606	14.9%	0	0.0%	NaN	NaN
lixisenatide	1,165	2.6%	0	0.0%	NaN	NaN
semaglutide	15,244	34.4%	0	0.0%	NaN	NaN
tirzepatide	640	1.4%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	44,377	100.0%	82,805	100.0%	0.000	NaN
insulin*	16,958	38.2%	14,589	17.6%	20.595	0.472
metformin*	31,959	72.0%	64,487	77.9%	-5.861	-0.136
alpha-glucosidase inhibitors*	373	0.8%	521	0.6%	0.211	0.025
thiazolidinediones*	4,859	10.9%	8,034	9.7%	1.247	0.041
meglitinides*	1,534	3.5%	1,939	2.3%	1.115	0.066
amylin analogue*	*****	*****	*****	*****	0.008	0.011
sulfonylureas*	23,052	51.9%	39,071	47.2%	4.761	0.095
bile acid sequestrants*	*****	*****	369	0.4%	*****	*****
Other Weight Loss Agents*	*****	*****	*****	*****	0.017	0.017
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	0	0.0%	0	0.0%	NaN	NaN
diethylpropion	0	0.0%	0	0.0%	NaN	NaN
lorcaserin	0	0.0%	0	0.0%	NaN	NaN
phentermine	*****	*****	*****	*****	0.017	0.017

Table 1as. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
phentermine-topiramate	0	0.0%	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	0	0.0%	0	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	9,191	20.7%	14,309	17.3%	3.431	0.088
Antipsychotics	1,643	3.7%	2,316	2.8%	0.905	0.051
Anxiolytics/Hypnotics	6,259	14.1%	10,441	12.6%	1.495	0.044
Lithium & Other Mood Stabilizers	1,221	2.8%	1,854	2.2%	0.512	0.033
Antidepressants	13,905	31.3%	20,967	25.3%	6.013	0.134
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	13.1	11.0	12.8	10.1	0.259	0.025
Mean number of emergency room encounters*	0.4	0.9	0.4	1.0	-0.040	-0.041
Mean number of inpatient hospital encounters*	0.2	0.5	0.3	0.7	-0.097	-0.162
Mean number of non-acute institutional encounters*	0.1	0.3	0.1	0.4	-0.007	-0.021
Mean number of other ambulatory encounters*	5.6	11.4	5.4	10.3	0.213	0.020
Mean number of filled prescriptions*	27.3	20.8	25.0	17.4	2.312	0.121

Table 1as. Aggregated Unadjusted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of generics dispensed*	11.6	4.6	11.4	4.5	0.256	0.056
Mean number of unique drug classes dispensed*	10.5	4.1	9.7	4.1	0.804	0.194

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1at. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	39,303	N/A	82,575	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	84.0	3.5	84.1	3.4	-0.087	-0.025
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	39,303	100.0%	82,575	100.0%	0.000	NaN
Sex*						
Female	20,214	51.4%	40,318	48.8%	2.606	0.052
Male	19,089	48.6%	42,257	51.2%	-2.606	-0.052
Race ⁴						
American Indian or Alaska Native	242	0.6%	367	0.4%	0.172	0.024
Asian	1,050	2.7%	3,713	4.5%	-1.824	-0.099
Black or African American	2,943	7.5%	6,684	8.1%	-0.606	-0.023
Multi-racial	16	0.0%	28	0.0%	0.008	0.004
Native Hawaiian or Other Pacific Islander	132	0.3%	338	0.4%	-0.073	-0.012
Unknown	4,112	10.5%	9,723	11.8%	-1.312	-0.055
White	30,806	78.4%	61,723	74.7%	3.634	0.095

Table 1at. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Hispanic origin						
Yes	1,201	3.1%	2,593	3.1%	-0.085	-0.005
No	33,129	84.3%	68,345	82.8%	1.523	0.067
Unknown	4,973	12.7%	11,637	14.1%	-1.439	-0.088
Year*						
2015	340	0.9%	648	0.8%	0.081	0.009
2016	1,603	4.1%	3,007	3.6%	0.438	0.023
2017	2,207	5.6%	4,035	4.9%	0.730	0.033
2018	2,790	7.1%	4,729	5.7%	1.371	0.056
2019	4,127	10.5%	7,515	9.1%	1.401	0.047
2020	4,633	11.8%	9,253	11.2%	0.582	0.018
2021	7,151	18.2%	15,507	18.8%	-0.584	-0.015
2022	9,454	24.1%	21,732	26.3%	-2.264	-0.052
2023	6,997	17.8%	16,148	19.6%	-1.754	-0.045
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	2.9	2.1	2.8	2.1	0.084	0.040
Combined comorbidity score ^{*,6}	3.8	3.1	3.7	3.2	0.061	0.020

Table 1at. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	11,082	28.2%	21,136	25.6%	2.600	0.059
Weight Reduction Surgery or Procedure*	44	0.1%	79	0.1%	0.017	0.005
Lifestyle intervention*	4,396	11.2%	9,156	11.1%	0.098	0.003
Cardiovascular Disease*	17,173	43.7%	35,712	43.2%	0.445	0.009
Cognitive Impairment*	5,561	14.1%	10,366	12.6%	1.594	0.047
Traumatic Brain Injury*	91	0.2%	182	0.2%	0.010	0.002
Migraine*	689	1.8%	1,333	1.6%	0.140	0.011
Epilepsy*	500	1.3%	982	1.2%	0.082	0.007
Chronic Pain*	7,960	20.3%	15,447	18.7%	1.547	0.039
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	105	0.3%	179	0.2%	0.051	0.010
Psychiatric History Overall*	22,985	58.5%	45,671	55.3%	3.173	0.064
Psychiatric Drug Dispensings	15,214	38.7%	29,851	36.2%	2.559	0.053
Intentional Self-Harm Encounter	16	0.0%	28	0.0%	0.006	0.003
Any Other Psychiatric Event	19,008	48.4%	37,174	45.0%	3.345	0.067
Attention-Deficit/Hyperactivity Disorder	44	0.1%	61	0.1%	0.039	0.013
Akathisia	28	0.1%	55	0.1%	0.005	0.002
Anxiety	5,059	12.9%	9,952	12.1%	0.820	0.025
Behavioral Disorder	1,306	3.3%	2,199	2.7%	0.659	0.039

Table 1at. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Bipolar Disorder	594	1.5%	906	1.1%	0.412	0.036
Cerebral Degenerations usually Manifested in Childhood	1,096	2.8%	2,265	2.7%	0.046	0.003
Conduct Disorder	7	0.0%	13	0.0%	0.001	0.000
Delirium	1,919	4.9%	2,953	3.6%	1.307	0.065
Depression	6,398	16.3%	10,859	13.1%	3.129	0.088
Electroconvulsive Therapy	5	0.0%	5	0.0%	0.007	0.007
Hallucination	203	0.5%	322	0.4%	0.126	0.019
Obsessive-Compulsive Disorder	32	0.1%	42	0.1%	0.031	0.012
Other Cerebral Degenerations	2,924	7.4%	5,412	6.6%	0.885	0.035
Other Mental Disorders	461	1.2%	776	0.9%	0.234	0.023
Other Psychological Disorders	1,879	4.8%	3,635	4.4%	0.379	0.018
Persistent Mental Disorders due to Conditions Classified Elsewhere	4,327	11.0%	7,485	9.1%	1.945	0.065
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Personality Disorders	30	0.1%	46	0.1%	0.021	0.008
Pervasive Developmental Disorders	4	0.0%	8	0.0%	-0.000	-0.000

Table 1at. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Post-Traumatic Stress Disorder	71	0.2%	125	0.2%	0.031	0.008
Psychotherapy	896	2.3%	1,556	1.9%	0.396	0.028
Psychotic Conditions	220	0.6%	309	0.4%	0.187	0.027
Schizophrenia	167	0.4%	271	0.3%	0.096	0.016
Sleep Disorder	8,768	22.3%	17,070	20.7%	1.637	0.040
Substance Abuse	891	2.3%	1,576	1.9%	0.358	0.025
Suicidal Behavior	145	0.4%	290	0.4%	0.018	0.003
Transcranial Magnetic Stimulation	4	0.0%	7	0.0%	0.001	0.001
Vagus Nerve Stimulation	29	0.1%	42	0.1%	0.023	0.009
Medical Product Use	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	81	0.2%	0	0.0%	NaN	NaN
dulaglutide	16,266	41.4%	0	0.0%	NaN	NaN
exenatide	1,855	4.7%	0	0.0%	NaN	NaN
liraglutide	5,161	13.1%	0	0.0%	NaN	NaN
lixisenatide	849	2.2%	0	0.0%	NaN	NaN
semaglutide	14,459	36.8%	0	0.0%	NaN	NaN
tirzepatide	660	1.7%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	39,303	100.0%	82,575	100.0%	0.000	NaN

Table 1at. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
insulin*	15,053	38.3%	24,607	29.8%	8.500	0.180
metformin*	29,299	74.5%	62,771	76.0%	-1.469	-0.034
alpha-glucosidase inhibitors*	305	0.8%	586	0.7%	0.066	0.008
thiazolidinediones*	4,053	10.3%	8,279	10.0%	0.287	0.009
meglitinides*	1,223	3.1%	2,294	2.8%	0.335	0.020
amylin analogue*	1	0.0%	2	0.0%	0.001	0.002
sulfonylureas*	19,413	49.4%	40,147	48.6%	0.775	0.016
bile acid sequestrants*	240	0.6%	403	0.5%	0.122	0.016
Other Weight Loss Agents*	2	0.0%	1	0.0%	0.003	0.006
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	0	0.0%	0	0.0%	NaN	NaN
diethylpropion	0	0.0%	0	0.0%	NaN	NaN
lorcaserin	0	0.0%	0	0.0%	NaN	NaN
phentermine	2	0.0%	1	0.0%	0.003	0.006
phentermine-topiramate	0	0.0%	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	0	0.0%	0	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	8,465	21.5%	15,613	18.9%	2.629	0.066
Antipsychotics	1,533	3.9%	2,588	3.1%	0.765	0.042
Anxiolytics/Hypnotics	5,588	14.2%	11,297	13.7%	0.537	0.016

Table 1at. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Lithium & Other Mood Stabilizers	1,074	2.7%	2,102	2.5%	0.188	0.012
Antidepressants	11,986	30.5%	22,795	27.6%	2.891	0.064
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	13.6	11.0	13.1	10.4	0.582	0.055
Mean number of emergency room encounters*	0.5	1.1	0.4	1.0	0.040	0.038
Mean number of inpatient hospital encounters*	0.3	0.6	0.3	0.6	0.003	0.004
Mean number of non-acute institutional encounters*	0.1	0.4	0.1	0.4	0.012	0.031
Mean number of other ambulatory encounters*	6.4	12.0	5.7	11.3	0.609	0.052
Mean number of filled prescriptions*	28.6	22.3	26.3	19.1	2.295	0.111
Mean number of generics dispensed*	12.3	5.2	11.6	4.5	0.656	0.136
dispensed*	10.7	4.4	10.1	4.2	0.570	0.132

Table 1at. Aggregated Weighted Characteristics of GLP-1RA or SGLT-2i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	SGLT-2 Inhibitors	

* Covariate included in the propensity score logistic regression model.

¹ Covariates in blue show a standardized difference greater than 0.1.

² Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³ Value represents standard deviation where no % follows the value.

⁴ Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵ 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.

⁶ 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1au. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	1,139,505	100.0%	1,390,017	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	60.7	10.4	64.9	10.9	-4.271	-0.400
Age						
18-24 years	*****	*****	*****	*****	0.209	0.032
25-44 years	139,889	12.3%	*****	*****	*****	*****
45-64 years	483,965	42.5%	500,890	36.0%	6.437	0.132
65-79 years	*****	*****	596,113	42.9%	*****	*****
≥ 80 years	41,913	3.7%	*****	*****	*****	*****
Sex*						
Female	630,902	55.4%	720,453	51.8%	3.536	0.071
Male	508,603	44.6%	669,564	48.2%	-3.536	-0.071
Race ³						
American Indian or Alaska Native	8,220	0.7%	10,760	0.8%	-0.053	-0.006
Asian	16,244	1.4%	66,543	4.8%	-3.362	-0.195
Black or African American	109,023	9.6%	169,228	12.2%	-2.607	-0.084
Multi-racial	5,681	0.5%	3,641	0.3%	0.237	0.038
Native Hawaiian or Other Pacific Islander	3,029	0.3%	5,352	0.4%	-0.119	-0.021
Unknown	418,743	36.7%	432,555	31.1%	5.629	0.119

Table 1au. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
White	578,565	50.8%	701,938	50.5%	0.275	0.005
Hispanic origin						
Yes	50,759	4.5%	117,276	8.4%	-3.983	-0.163
No	650,787	57.1%	901,146	64.8%	-7.718	-0.159
Unknown	437,959	38.4%	371,595	26.7%	11.701	0.252
Year*						
2015	17,166	1.5%	61,279	4.4%	-2.902	-0.172
2016	83,081	7.3%	263,564	19.0%	-11.670	-0.351
2017	100,047	8.8%	259,499	18.7%	-9.889	-0.290
2018	117,965	10.4%	223,470	16.1%	-5.724	-0.170
2019	144,475	12.7%	200,219	14.4%	-1.725	-0.050
2020	157,847	13.9%	168,808	12.1%	1.708	0.051
2021	156,981	13.8%	104,255	7.5%	6.276	0.205
2022	195,197	17.1%	74,994	5.4%	11.735	0.378
2023	166,746	14.6%	33,929	2.4%	12.192	0.447
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI)*,4	1.3	1.6	1.5	1.8	-0.210	-0.123
Combined comorbidity score*,5	1.6	2.1	1.9	2.6	-0.288	-0.123

Table 1au. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Obesity*	540,871	47.5%	369,990	26.6%	20.848	0.442
Weight Reduction Surgery or Procedure*	655	0.1%	1,618	0.1%	-0.059	-0.020
Lifestyle intervention*	210,259	18.5%	188,004	13.5%	4.926	0.135
Cardiovascular Disease*	199,204	17.5%	302,786	21.8%	-4.301	-0.108
Cognitive Impairment*	20,115	1.8%	67,619	4.9%	-3.099	-0.174
Traumatic Brain Injury*	2,420	0.2%	3,293	0.2%	-0.025	-0.005
Migraine*	44,104	3.9%	35,410	2.5%	1.323	0.075
Epilepsy*	13,118	1.2%	20,599	1.5%	-0.331	-0.029
Chronic Pain*	239,614	21.0%	225,538	16.2%	4.802	0.124
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	8,371	0.7%	8,397	0.6%	0.131	0.016
Psychiatric History Overall*	710,718	62.4%	733,770	52.8%	9.582	0.195
Psychiatric Drug Dispensings	530,791	46.6%	532,538	38.3%	8.269	0.168
Intentional Self-Harm Encounter	1,041	0.1%	1,459	0.1%	-0.014	-0.004
Any Other Psychiatric Event	576,804	50.6%	582,312	41.9%	8.726	0.176
Attention-Deficit/Hyperactivity Disorder	13,510	1.2%	6,474	0.5%	0.720	0.080
Akathisia	1,076	0.1%	1,481	0.1%	-0.012	-0.004
Anxiety	191,155	16.8%	177,319	12.8%	4.019	0.113

Table 1au. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Psychiatric History	Medical Product		Covariate Balance			
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Behavioral Disorder	44,454	3.9%	48,122	3.5%	0.439	0.023
Bipolar Disorder	45,082	4.0%	44,039	3.2%	0.788	0.043
Cerebral Degenerations usually Manifested in Childhood	9,110	0.8%	19,922	1.4%	-0.634	-0.060
Conduct Disorder	968	0.1%	1,288	0.1%	-0.008	-0.003
Delirium	12,289	1.1%	33,465	2.4%	-1.329	-0.102
Depression	206,797	18.1%	204,259	14.7%	3.453	0.093
Electroconvulsive Therapy	180	0.0%	266	0.0%	-0.003	-0.003
Hallucination	1,894	0.2%	3,992	0.3%	-0.121	-0.025
Obsessive-Compulsive Disorder	2,175	0.2%	1,665	0.1%	0.071	0.018
Other Cerebral Degenerations	13,783	1.2%	35,909	2.6%	-1.374	-0.101
Other Mental Disorders	8,399	0.7%	13,126	0.9%	-0.207	-0.023
Other Psychological Disorders	95,880	8.4%	118,798	8.5%	-0.132	-0.005
Persistent Mental Disorders due to Conditions Classified Elsewhere	13,878	1.2%	51,569	3.7%	-2.492	-0.161
Personality Disorders	4,741	0.4%	4,144	0.3%	0.118	0.020
Pervasive Developmental Disorders	1,889	0.2%	1,898	0.1%	0.029	0.008
Post-Traumatic Stress Disorder	21,484	1.9%	15,533	1.1%	0.768	0.063

Table 1au. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Psychotherapy	64,346	5.6%	59,050	4.2%	1.399	0.065
Psychotic Conditions	3,760	0.3%	10,434	0.8%	-0.421	-0.057
Schizophrenia	17,936	1.6%	29,528	2.1%	-0.550	-0.041
Sleep Disorder	296,398	26.0%	226,038	16.3%	9.750	0.241
Substance Abuse	47,843	4.2%	55,218	4.0%	0.226	0.011
Suicidal Behavior	5,278	0.5%	7,305	0.5%	-0.062	-0.009
Transcranial Magnetic Stimulation	242	0.0%	88	0.0%	0.015	0.013
Vagus Nerve Stimulation	945	0.1%	790	0.1%	0.026	0.010

Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	8,757	0.8%	0	0.0%	NaN	NaN
dulaglutide	376,882	33.1%	0	0.0%	NaN	NaN
exenatide	82,588	7.2%	0	0.0%	NaN	NaN
liraglutide	230,930	20.3%	0	0.0%	NaN	NaN
lixisenatide	15,613	1.4%	0	0.0%	NaN	NaN
semaglutide	397,000	34.8%	0	0.0%	NaN	NaN
tirzepatide	28,594	2.5%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	1,139,503	100.0%	1,390,017	100.0%	-0.000	-0.002

Table 1au. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
insulin*	383,561	33.7%	246,194	17.7%	15.949	0.371
metformin*	1,009,681	88.6%	1,207,414	86.9%	1.744	0.053
alpha-glucosidase inhibitors*	4,501	0.4%	7,238	0.5%	-0.126	-0.019
thiazolidinediones*	93,191	8.2%	96,594	6.9%	1.229	0.046
meglitinides*	11,997	1.1%	21,167	1.5%	-0.470	-0.042
amylin analogue*	153	0.0%	40	0.0%	0.011	0.012
sulfonylureas*	413,987	36.3%	627,402	45.1%	-8.806	-0.180
bile acid sequestrants*	4,266	0.4%	5,530	0.4%	-0.023	-0.004
Other Weight Loss Agents*	3,757	0.3%	730	0.1%	0.277	0.063
benzphetamine	*****	*****	*****	*****	0.000	0.002
Combination naltrexone and bupropion	424	0.0%	116	0.0%	0.029	0.019
diethylpropion	83	0.0%	14	0.0%	0.006	0.010
lorcaserin	181	0.0%	69	0.0%	0.011	0.011
phentermine	2,831	0.2%	462	0.0%	0.215	0.057
phentermine-topiramate	195	0.0%	29	0.0%	0.015	0.015
phendimetrazine	63	0.0%	19	0.0%	0.004	0.007
orlistat	69	0.0%	38	0.0%	0.003	0.005
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						

Table 1au. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Analgesic Opiates*	285,708	25.1%	334,237	24.0%	1.027	0.024
Anxiolytics/Hypnotics	218,485	19.2%	231,618	16.7%	2.511	0.066
Lithium & Other Mood Stabilizers	66,644	5.8%	72,499	5.2%	0.633	0.028
Antidepressants	437,399	38.4%	407,747	29.3%	9.051	0.192
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	10.9	10.5	10.4	11.3	0.487	0.045
Mean number of emergency room encounters*	0.3	1.0	0.4	1.1	-0.041	-0.038
Mean number of inpatient hospital encounters*	0.1	0.4	0.2	0.6	-0.080	-0.168
Mean number of non-acute institutional encounters*	0.0	0.2	0.1	0.3	-0.039	-0.146
Mean number of other ambulatory encounters*	3.9	11.5	5.1	14.2	-1.261	-0.098
Mean number of filled prescriptions*	26.2	19.7	25.4	20.2	0.710	0.036
Mean number of generics dispensed*	10.9	5.1	10.4	5.1	0.553	0.109
Mean number of unique drug classes dispensed*	9.8	4.6	8.7	4.6	1.102	0.240

Table 1au. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	DPP-4 Inhibitors	

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1av. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	1,301,898	N/A	1,530,694	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years) [*]	61.8	10.4	62.7	11.6	-0.890	-0.081
Age						
18-24 years	3,809	0.3%	8,396	0.5%	-0.256	-0.040
25-44 years	120,598	9.3%	168,984	11.0%	-1.776	-0.061
45-64 years	584,646	44.9%	599,060	39.1%	5.771	0.131
65-79 years	518,629	39.8%	612,190	40.0%	-0.158	-0.004
≥ 80 years	74,217	5.7%	142,064	9.3%	-3.580	-0.139
Sex [*]						
Female	720,333	55.3%	842,025	55.0%	0.320	0.006
Male	581,565	44.7%	688,669	45.0%	-0.320	-0.006
Race ⁴						
American Indian or Alaska Native	8,339	0.6%	13,116	0.9%	-0.216	-0.025
Asian	22,401	1.7%	60,456	3.9%	-2.229	-0.136
Black or African American	123,020	9.4%	199,954	13.1%	-3.614	-0.117
Multi-racial	30,775	2.4%	4,448	0.3%	2.073	0.201
Native Hawaiian or Other Pacific Islander	3,198	0.2%	4,989	0.3%	-0.080	-0.015
Unknown	486,602	37.4%	498,187	32.5%	4.830	0.158
White	627,564	48.2%	749,543	49.0%	-0.764	-0.019

Table 1av. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Hispanic origin						
Yes	77,699	6.0%	129,747	8.5%	-2.508	-0.102
No	710,695	54.6%	962,078	62.9%	-8.263	-0.297
Unknown	513,504	39.4%	438,869	28.7%	10.771	0.477
Year*						
2015	40,152	3.1%	45,867	3.0%	0.088	0.005
2016	174,574	13.4%	205,934	13.5%	-0.044	-0.001
2017	178,087	13.7%	217,974	14.2%	-0.561	-0.016
2018	170,359	13.1%	210,025	13.7%	-0.635	-0.019
2019	177,423	13.6%	215,774	14.1%	-0.468	-0.014
2020	151,467	11.6%	206,231	13.5%	-1.839	-0.056
2021	140,991	10.8%	157,484	10.3%	0.541	0.018
2022	167,852	12.9%	160,127	10.5%	2.432	0.077
2023	100,994	7.8%	111,278	7.3%	0.488	0.019
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications						
Severity Index(aDCSI) ^{*,5}	1.7	2.0	1.5	1.8	0.195	0.103
Combined comorbidity score ^{*,6}	2.4	2.9	1.9	2.4	0.463	0.172
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity [*]	536,828	41.2%	565,712	37.0%	4.276	0.089

Table 1av. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weight Reduction Surgery or Procedure*	2,058	0.2%	1,557	0.1%	0.056	0.016
Lifestyle intervention*	243,247	18.7%	232,823	15.2%	3.474	0.095
Cardiovascular Disease*	309,015	23.7%	321,272	21.0%	2.747	0.068
Cognitive Impairment*	77,091	5.9%	53,946	3.5%	2.397	0.114
Traumatic Brain Injury*	3,674	0.3%	3,885	0.3%	0.028	0.005
Migraine*	84,287	6.5%	55,180	3.6%	2.869	0.133
Epilepsy*	31,734	2.4%	22,987	1.5%	0.936	0.068
Chronic Pain*	342,656	26.3%	310,449	20.3%	6.038	0.144
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	16,761	1.3%	13,392	0.9%	0.413	0.040
Psychiatric History Overall*	849,034	65.2%	914,910	59.8%	5.444	0.113
Psychiatric Drug Dispensings	654,425	50.3%	700,577	45.8%	4.498	0.090
Intentional Self-Harm Encounter	6,702	0.5%	1,776	0.1%	0.399	0.071
Any Other Psychiatric Event	713,709	54.8%	733,917	47.9%	6.874	0.139
Disorder	17,148	1.3%	12,673	0.8%	0.489	0.048
Akathisia	1,655	0.1%	1,807	0.1%	0.009	0.003
Anxiety	268,441	20.6%	253,344	16.6%	4.068	0.105
Behavioral Disorder	88,924	6.8%	61,754	4.0%	2.796	0.124
Bipolar Disorder	70,986	5.5%	69,529	4.5%	0.910	0.042
Cerebral Degenerations usually Manifested in Childhood	21,355	1.6%	19,664	1.3%	0.356	0.030

Table 1av. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Conduct Disorder	1,148	0.1%	1,794	0.1%	-0.029	-0.009
Delirium	51,848	4.0%	32,155	2.1%	1.882	0.110
Depression	295,426	22.7%	270,530	17.7%	5.018	0.126
Electroconvulsive Therapy	659	0.1%	358	0.0%	0.027	0.014
Hallucination	5,188	0.4%	4,375	0.3%	0.113	0.019
Obsessive-Compulsive Disorder	2,472	0.2%	2,922	0.2%	-0.001	-0.000
Other Cerebral Degenerations	33,030	2.5%	31,772	2.1%	0.461	0.031
Other Mental Disorders	19,462	1.5%	15,173	1.0%	0.504	0.045
Other Psychological Disorders	140,490	10.8%	154,904	10.1%	0.671	0.022
Persistent Mental Disorders due to Conditions Classified Elsewhere	52,729	4.1%	40,355	2.6%	1.414	0.079
Personality Disorders	11,106	0.9%	7,751	0.5%	0.347	0.042
Pervasive Developmental Disorders	1,248	0.1%	3,834	0.3%	-0.155	-0.037
Post-Traumatic Stress Disorder	25,826	2.0%	29,355	1.9%	0.066	0.005
Psychotherapy	84,123	6.5%	87,858	5.7%	0.722	0.030
Psychotic Conditions	16,209	1.2%	10,642	0.7%	0.550	0.056
Schizophrenia	37,531	2.9%	41,626	2.7%	0.163	0.010
Sleep Disorder	382,056	29.3%	306,681	20.0%	9.311	0.219
Substance Abuse	68,222	5.2%	75,691	4.9%	0.295	0.013

Table 1av. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Psychiatric History						
Suicidal Behavior	15,095	1.2%	8,302	0.5%	0.617	0.067
Transcranial Magnetic Stimulation	162	0.0%	155	0.0%	0.002	0.002
Vagus Nerve Stimulation	1,023	0.1%	1,066	0.1%	0.009	0.003
Medical Product Use	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	22,360	1.7%	0	0.0%	NaN	NaN
dulaglutide	472,913	36.3%	0	0.0%	NaN	NaN
exenatide	127,098	9.8%	0	0.0%	NaN	NaN
liraglutide	340,549	26.2%	0	0.0%	NaN	NaN
lixisenatide	12,019	0.9%	0	0.0%	NaN	NaN
semaglutide	313,059	24.0%	0	0.0%	NaN	NaN
tirzepatide	19,421	1.5%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	1,301,896	100.0%	1,530,694	100.0%	-0.000	-0.002
insulin*	460,307	35.4%	575,076	37.6%	-2.213	-0.046
metformin*	1,129,376	86.7%	1,335,435	87.2%	-0.495	-0.015
alpha-glucosidase inhibitors*	6,962	0.5%	8,243	0.5%	-0.004	-0.001
thiazolidinediones*	89,762	6.9%	124,519	8.1%	-1.240	-0.047
meglitinides*	17,396	1.3%	22,292	1.5%	-0.120	-0.010
amylin analogue*	109	0.0%	239	0.0%	-0.007	-0.007
sulfonylureas*	523,279	40.2%	642,062	41.9%	-1.752	-0.036
bile acid sequestrants*	6,504	0.5%	6,615	0.4%	0.067	0.010

Table 1av. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Other Weight Loss Agents*	2,859	0.2%	2,795	0.2%	0.037	0.008
benzphetamine	3	0.0%	3	0.0%	0.000	0.000
bupropion	592	0.0%	362	0.0%	0.022	0.012
diethylpropion	64	0.0%	44	0.0%	0.002	0.003
lorcaserin	133	0.0%	198	0.0%	-0.003	-0.003
phentermine	1,927	0.1%	2,037	0.1%	0.015	0.004
phentermine-topiramate	131	0.0%	77	0.0%	0.005	0.006
phendimetrazine	57	0.0%	43	0.0%	0.002	0.003
orlistat	38	0.0%	81	0.0%	-0.002	-0.004
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	464,538	35.7%	420,445	27.5%	8.214	0.177
Antipsychotics	116,722	9.0%	140,370	9.2%	-0.205	-0.007
Anxiolytics/Hypnotics	285,309	21.9%	322,274	21.1%	0.861	0.021
Lithium & Other Mood Stabilizers	99,461	7.6%	110,967	7.2%	0.390	0.015
Antidepressants	540,763	41.5%	554,217	36.2%	5.330	0.110
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	13.5	12.7	11.5	13.2	1.919	0.148
Mean number of emergency room encounters*	0.9	2.5	0.4	1.1	0.487	0.250

Table 1av. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of inpatient hospital encounters*	0.4	1.9	0.2	0.5	0.276	0.202
Mean number of non-acute institutional encounters*	0.2	1.0	0.0	0.3	0.123	0.166
Mean number of other ambulatory encounters*	7.1	16.6	5.1	13.9	1.979	0.129
Mean number of filled prescriptions*	34.7	30.9	28.3	22.5	6.383	0.236
Mean number of generics dispensed*	13.9	8.9	11.5	5.6	2.419	0.324
Mean number of unique drug classes dispensed*	11.2	6.4	10.0	5.3	1.185	0.201

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1aw. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	630,804	100.0%	720,423	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	60.3	10.6	65.5	11.0	-5.252	-0.487
Age						
18-24 years	4,017	0.6%	2,708	0.4%	0.261	0.037
25-44 years	83,364	13.2%	59,159	8.2%	5.004	0.162
45-64 years	267,236	42.4%	246,588	34.2%	8.136	0.168
65-79 years	253,804	40.2%	310,970	43.2%	-2.930	-0.059
≥ 80 years	22,383	3.5%	100,998	14.0%	-10.471	-0.376
Sex*						
Female	630,804	100.0%	720,423	100.0%	0.000	NaN
Male	0	0.0%	0	0.0%	NaN	NaN
Race ³						
American Indian or Alaska Native	5,083	0.8%	6,283	0.9%	-0.066	-0.007
Asian	8,869	1.4%	34,999	4.9%	-3.452	-0.199
Black or African American	74,382	11.8%	105,015	14.6%	-2.785	-0.082
Multi-racial	3,075	0.5%	1,645	0.2%	0.259	0.043
Native Hawaiian or Other Pacific Islander	1,555	0.2%	2,770	0.4%	-0.138	-0.025
Unknown	224,127	35.5%	207,373	28.8%	6.745	0.145
White	313,713	49.7%	362,338	50.3%	-0.563	-0.011
Hispanic origin						

Table 1aw. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Yes	31,561	5.0%	68,642	9.5%	-4.525	-0.175
No	368,258	58.4%	486,091	67.5%	-9.094	-0.189
Unknown	230,985	36.6%	165,690	23.0%	13.619	0.301
Year*						
2015	9,606	1.5%	31,576	4.4%	-2.860	-0.170
2016	47,339	7.5%	135,874	18.9%	-11.356	-0.341
2017	56,533	9.0%	134,747	18.7%	-9.742	-0.285
2018	65,208	10.3%	115,242	16.0%	-5.659	-0.168
2019	79,256	12.6%	104,127	14.5%	-1.889	-0.055
2020	87,622	13.9%	89,298	12.4%	1.495	0.044
2021	83,782	13.3%	53,749	7.5%	5.821	0.192
2022	107,226	17.0%	38,463	5.3%	11.659	0.377
2023	94,232	14.9%	17,347	2.4%	12.531	0.457
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*4}	1.2	1.5	1.4	1.7	-0.270	-0.164
Combined comorbidity score ^{*5}	1.6	2.0	1.9	2.5	-0.317	-0.137
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	312,850	49.6%	205,122	28.5%	21.123	0.444
Weight Reduction Surgery or Procedure*	431	0.1%	874	0.1%	-0.053	-0.017

Table 1aw. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Lifestyle intervention*	129,621	20.5%	103,790	14.4%	6.142	0.162
Medical History						
Cardiovascular Disease*	93,485	14.8%	142,587	19.8%	-4.972	-0.132
Cognitive Impairment*	11,297	1.8%	40,193	5.6%	-3.788	-0.202
Traumatic Brain Injury*	1,283	0.2%	1,629	0.2%	-0.023	-0.005
Migraine*	34,951	5.5%	25,980	3.6%	1.934	0.093
Epilepsy*	7,587	1.2%	10,896	1.5%	-0.310	-0.027
Chronic Pain*	150,124	23.8%	132,937	18.5%	5.346	0.131
Psychiatric History						
Previous Intentional Self-Harm Ever	5,518	0.9%	4,915	0.7%	0.193	0.022
Psychiatric History Overall*	420,751	66.7%	412,115	57.2%	9.496	0.197
Psychiatric Drug Dispensings	344,718	54.6%	325,460	45.2%	9.471	0.190
Intentional Self-Harm Encounter	691	0.1%	809	0.1%	-0.003	-0.001
Any Other Psychiatric Event	333,024	52.8%	318,656	44.2%	8.562	0.172
Attention-Deficit/Hyperactivity Disorder	7,843	1.2%	3,138	0.4%	0.808	0.089
Akathisia	679	0.1%	789	0.1%	-0.002	-0.001
Anxiety	133,163	21.1%	116,386	16.2%	4.955	0.128
Behavioral Disorder	26,759	4.2%	25,768	3.6%	0.665	0.034
Bipolar Disorder	30,649	4.9%	27,451	3.8%	1.048	0.051
Cerebral Degenerations usually Manifested in Childhood	4,917	0.8%	10,433	1.4%	-0.669	-0.064
Conduct Disorder	303	0.0%	453	0.1%	-0.015	-0.006
Delirium	6,917	1.1%	18,470	2.6%	-1.467	-0.110

Table 1aw. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Depression	142,069	22.5%	132,398	18.4%	4.144	0.103
Electroconvulsive Therapy	118	0.0%	175	0.0%	-0.006	-0.004
Hallucination	1,157	0.2%	2,288	0.3%	-0.134	-0.027
Obsessive-Compulsive Disorder	1,317	0.2%	855	0.1%	0.090	0.022
Other Cerebral Degenerations	7,426	1.2%	20,569	2.9%	-1.678	-0.120
Other Mental Disorders	5,187	0.8%	7,432	1.0%	-0.209	-0.022
Other Psychological Disorders	50,206	8.0%	55,939	7.8%	0.194	0.007
Persistent Mental Disorders due to Conditions Classified Elsewhere	7,803	1.2%	31,122	4.3%	-3.083	-0.188
Personality Disorders	3,711	0.6%	2,802	0.4%	0.199	0.029
Pervasive Developmental Disorders	540	0.1%	493	0.1%	0.017	0.006
Post-Traumatic Stress Disorder	15,800	2.5%	10,429	1.4%	1.057	0.076
Psychotherapy	43,392	6.9%	36,262	5.0%	1.845	0.078
Psychotic Conditions	2,123	0.3%	5,595	0.8%	-0.440	-0.059
Schizophrenia	9,525	1.5%	14,649	2.0%	-0.523	-0.040
Sleep Disorder	153,679	24.4%	112,581	15.6%	8.735	0.220
Substance Abuse	23,062	3.7%	22,400	3.1%	0.547	0.030
Suicidal Behavior	3,141	0.5%	4,034	0.6%	-0.062	-0.009
Transcranial Magnetic Stimulation	148	0.0%	50	0.0%	0.017	0.013
Vagus Nerve Stimulation	619	0.1%	500	0.1%	0.029	0.010

Table 1aw. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	4,914	0.8%	0	0.0%	NaN	NaN
dulaglutide	199,305	31.6%	0	0.0%	NaN	NaN
exenatide	46,330	7.3%	0	0.0%	NaN	NaN
liraglutide	136,409	21.6%	0	0.0%	NaN	NaN
lixisenatide	7,769	1.2%	0	0.0%	NaN	NaN
semaglutide	219,621	34.8%	0	0.0%	NaN	NaN
tirzepatide	16,911	2.7%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	630,803	100.0%	720,423	100.0%	-0.000	-0.002
insulin*	206,207	32.7%	134,439	18.7%	14.028	0.325
metformin*	555,208	88.0%	620,488	86.1%	1.888	0.056
alpha-glucosidase inhibitors*	2,392	0.4%	3,726	0.5%	-0.138	-0.021
thiazolidinediones*	43,784	6.9%	45,748	6.4%	0.591	0.024
meglitinides*	6,390	1.0%	11,107	1.5%	-0.529	-0.047
amylin analogue*	86	0.0%	25	0.0%	0.010	0.011
sulfonylureas*	215,942	34.2%	319,927	44.4%	-10.175	-0.209
bile acid sequestrants*	2,612	0.4%	3,236	0.4%	-0.035	-0.005
Other Weight Loss Agents*	2,679	0.4%	495	0.1%	0.356	0.072
benzphetamine	*****	*****	*****	*****	0.000	0.002
Combination naltrexone and bupropion	314	0.0%	74	0.0%	0.040	0.023
diethylpropion	57	0.0%	*****	*****	*****	*****
lorcaserin	130	0.0%	47	0.0%	0.014	0.012
phentermine	1,999	0.3%	305	0.0%	0.275	0.065

Table 1aw. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
phentermine-topiramate	146	0.0%	*****	*****	*****	*****
phendimetrazine	46	0.0%	*****	*****	*****	*****
orlistat	50	0.0%	*****	*****	*****	*****
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	170,951	27.1%	188,175	26.1%	0.980	0.022
Antipsychotics	48,970	7.8%	53,653	7.4%	0.316	0.012
Anxiolytics/Hypnotics	145,801	23.1%	144,777	20.1%	3.017	0.073
Lithium & Other Mood Stabilizers	42,874	6.8%	42,551	5.9%	0.890	0.037
Antidepressants	293,695	46.6%	259,302	36.0%	10.566	0.216
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	11.4	10.4	10.8	11.0	0.598	0.056
Mean number of emergency room encounters*	0.4	1.1	0.4	1.1	-0.043	-0.039
Mean number of inpatient hospital encounters*	0.1	0.4	0.2	0.5	-0.085	-0.181
Mean number of non-acute institutional encounters*	0.0	0.2	0.1	0.3	-0.042	-0.158
Mean number of other ambulatory encounters*	4.2	12.4	5.6	15.3	-1.458	-0.105
Mean number of filled prescriptions*	27.6	20.8	27.3	21.4	0.283	0.013

Table 1aw. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of generics dispensed*	11.5	5.4	11.1	5.4	0.480	0.089
Mean number of unique drug classes dispensed*	10.4	4.9	9.3	4.8	1.064	0.220

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1ax. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	675,132	N/A	780,825	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	62.2	10.6	62.8	11.9	-0.586	-0.052
Age						
18-24 years	2,596	0.4%	5,162	0.7%	-0.277	-0.039
25-44 years	69,036	10.2%	90,053	11.5%	-1.307	-0.044
45-64 years	282,476	41.8%	296,772	38.0%	3.833	0.087
65-79 years	277,474	41.1%	310,414	39.8%	1.345	0.032
≥ 80 years	43,549	6.5%	78,424	10.0%	-3.593	-0.134
Sex*						
Female	675,132	100.0%	780,825	100.0%	0.000	NaN
Male	0	0.0%	0	0.0%	NaN	NaN
Race ⁴						
American Indian or Alaska Native	5,223	0.8%	7,537	1.0%	-0.192	-0.021
Asian	10,015	1.5%	30,700	3.9%	-2.448	-0.152
Black or African American	79,998	11.8%	122,723	15.7%	-3.868	-0.115
Multi-racial	2,672	0.4%	2,082	0.3%	0.129	0.023
Native Hawaiian or Other Pacific Islander	1,634	0.2%	2,569	0.3%	-0.087	-0.016
Unknown	242,200	35.9%	232,062	29.7%	6.154	0.199
White	333,390	49.4%	383,151	49.1%	0.311	0.008

Table 1ax. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product			Covariate Balance		
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Hispanic origin						
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Yes	31,834	4.7%	74,102	9.5%	-4.775	-0.196
No	391,329	58.0%	517,051	66.2%	-8.255	-0.290
Unknown	251,969	37.3%	189,672	24.3%	13.030	0.634
Year*						
2015	20,656	3.1%	23,400	3.0%	0.063	0.004
2016	90,683	13.4%	106,051	13.6%	-0.150	-0.004
2017	91,493	13.6%	112,412	14.4%	-0.845	-0.024
2018	86,645	12.8%	107,586	13.8%	-0.945	-0.028
2019	96,236	14.3%	110,155	14.1%	0.147	0.004
2020	82,350	12.2%	106,388	13.6%	-1.427	-0.043
2021	70,982	10.5%	77,867	10.0%	0.541	0.018
2022	78,192	11.6%	81,072	10.4%	1.199	0.039
2023	57,896	8.6%	55,895	7.2%	1.417	0.053
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	1.6	1.9	1.4	1.7	0.175	0.096
Combined comorbidity score ^{7,8}	2.3	2.8	1.9	2.4	0.351	0.134
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity [*]	295,926	43.8%	304,070	38.9%	4.890	0.101
Weight Reduction Surgery or Procedure [*]	793	0.1%	906	0.1%	0.001	0.000

Table 1ax. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Lifestyle intervention*	122,590	18.2%	128,069	16.4%	1.756	0.047
Medical History						
Cardiovascular Disease*	146,838	21.7%	145,757	18.7%	3.083	0.079
Cognitive Impairment*	39,722	5.9%	30,829	3.9%	1.935	0.091
Traumatic Brain Injury*	2,216	0.3%	1,835	0.2%	0.093	0.018
Migraine*	40,723	6.0%	38,895	5.0%	1.051	0.046
Epilepsy*	17,813	2.6%	12,197	1.6%	1.076	0.075
Chronic Pain*	171,898	25.5%	179,214	23.0%	2.510	0.059
Psychiatric History						
Previous Intentional Self-Harm Ever	9,015	1.3%	8,155	1.0%	0.291	0.027
Psychiatric History Overall*	452,115	67.0%	499,697	64.0%	2.971	0.063
Psychiatric Drug Dispensings	371,170	55.0%	409,601	52.5%	2.520	0.051
Intentional Self-Harm Encounter	3,140	0.5%	1,027	0.1%	0.334	0.061
Any Other Psychiatric Event	366,988	54.4%	393,971	50.5%	3.902	0.079
Attention-Deficit/Hyperactivity Disorder	7,272	1.1%	6,477	0.8%	0.248	0.025
Akathisia	809	0.1%	1,023	0.1%	-0.011	-0.003
Anxiety	150,950	22.4%	158,533	20.3%	2.055	0.050
Behavioral Disorder	41,422	6.1%	33,604	4.3%	1.832	0.083
Bipolar Disorder	39,534	5.9%	43,247	5.5%	0.317	0.014

Table 1ax. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Cerebral Degenerations usually Manifested in Childhood	10,320	1.5%	10,016	1.3%	0.246	0.021
Conduct Disorder	290	0.0%	588	0.1%	-0.032	-0.013
Delirium	24,662	3.7%	17,294	2.2%	1.438	0.086
Depression	173,315	25.7%	169,575	21.7%	3.954	0.094
Electroconvulsive Therapy	181	0.0%	254	0.0%	-0.006	-0.003
Hallucination	2,815	0.4%	2,435	0.3%	0.105	0.017
Obsessive-Compulsive Disorder	1,374	0.2%	1,499	0.2%	0.012	0.003
Other Cerebral Degenerations	17,227	2.6%	17,349	2.2%	0.330	0.022
Other Mental Disorders	9,005	1.3%	8,460	1.1%	0.250	0.023
Other Psychological Disorders	67,043	9.9%	74,158	9.5%	0.433	0.015
Persistent Mental Disorders due to Conditions Classified Elsewhere	27,947	4.1%	23,379	3.0%	1.145	0.062
Personality Disorders	6,869	1.0%	5,604	0.7%	0.300	0.032
Pervasive Developmental Disorders	365	0.1%	1,059	0.1%	-0.081	-0.026
Post-Traumatic Stress Disorder	17,298	2.6%	20,243	2.6%	-0.030	-0.002
Psychotherapy	51,605	7.6%	54,282	7.0%	0.692	0.027
Psychotic Conditions	6,268	0.9%	5,651	0.7%	0.205	0.023
Schizophrenia	18,134	2.7%	20,367	2.6%	0.078	0.005
Sleep Disorder	172,713	25.6%	151,186	19.4%	6.220	0.150
Substance Abuse	29,423	4.4%	32,952	4.2%	0.138	0.007
Suicidal Behavior	6,273	0.9%	4,671	0.6%	0.331	0.038
Transcranial Magnetic Stimulation	92	0.0%	94	0.0%	0.002	0.001
Vagus Nerve Stimulation	641	0.1%	560	0.1%	0.023	0.008

Table 1ax. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Index GLP-1RA Product						
albiglutide	9,283	1.4%	0	0.0%	NaN	NaN
dulaglutide	223,043	33.0%	0	0.0%	NaN	NaN
exenatide	64,224	9.5%	0	0.0%	NaN	NaN
liraglutide	190,418	28.2%	0	0.0%	NaN	NaN
lixisenatide	6,197	0.9%	0	0.0%	NaN	NaN
semaglutide	172,148	25.5%	0	0.0%	NaN	NaN
tirzepatide	11,346	1.7%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	675,131	100.0%	780,825	100.0%	-0.000	-0.002
insulin*	230,560	34.2%	288,825	37.0%	-2.839	-0.060
metformin*	582,874	86.3%	675,465	86.5%	-0.172	-0.005
alpha-glucosidase inhibitors*	3,227	0.5%	4,009	0.5%	-0.035	-0.005
thiazolidinediones*	43,266	6.4%	56,426	7.2%	-0.818	-0.032
meglitinides*	9,439	1.4%	11,215	1.4%	-0.038	-0.003
amylin analogue*	60	0.0%	119	0.0%	-0.006	-0.006
sulfonylureas*	257,190	38.1%	318,128	40.7%	-2.648	-0.054
bile acid sequestrants*	3,565	0.5%	3,682	0.5%	0.057	0.008
Other Weight Loss Agents*	2,120	0.3%	1,581	0.2%	0.111	0.022
benzphetamine	2	0.0%	3	0.0%	0.000	0.000
Combination naltrexone and bupropion	426	0.1%	178	0.0%	0.040	0.019
diethylpropion	49	0.0%	36	0.0%	0.003	0.003
lorcaserin	103	0.0%	141	0.0%	-0.003	-0.002
phentermine	1,425	0.2%	1,124	0.1%	0.067	0.016

Table 1ax. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
phentermine-topiramate	110	0.0%	46	0.0%	0.010	0.010
phendimetrazine	45	0.0%	28	0.0%	0.003	0.004
orlistat	29	0.0%	64	0.0%	-0.004	-0.005
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	226,726	33.6%	231,406	29.6%	3.946	0.085
Antipsychotics	63,036	9.3%	80,650	10.3%	-0.992	-0.033
Anxiolytics/Hypnotics	166,842	24.7%	192,864	24.7%	0.012	0.000
Lithium & Other Mood Stabilizers	54,115	8.0%	63,666	8.2%	-0.138	-0.005
Antidepressants	312,552	46.3%	335,363	42.9%	3.345	0.068
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	12.9	11.7	12.0	13.0	0.873	0.071
Mean number of emergency room encounters*	0.7	2.1	0.5	1.2	0.222	0.132
Mean number of inpatient hospital encounters*	0.3	0.8	0.2	0.5	0.136	0.198
Mean number of non-acute institutional encounters*	0.1	0.7	0.0	0.3	0.093	0.176
Mean number of other ambulatory encounters*	7.2	17.4	5.6	15.1	1.636	0.100
Mean number of filled prescriptions*	33.8	29.7	30.0	23.4	3.812	0.143
Mean number of generics dispensed*	13.4	7.7	12.1	5.8	1.235	0.181

Table 1ax. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of unique drug classes dispensed*	11.2	5.8	10.6	5.5	0.536	0.095

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1ay. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	508,587	100.0%	669,544	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	61.2	10.3	64.3	10.7	-3.145	-0.299
Age						
18-24 years	2,004	0.4%	1,729	0.3%	0.136	0.024
25-44 years	56,495	11.1%	56,004	8.4%	2.744	0.093
45-64 years	216,658	42.6%	254,277	38.0%	4.622	0.094
65-79 years	213,900	42.1%	285,126	42.6%	-0.527	-0.011
≥ 80 years	19,530	3.8%	72,408	10.8%	-6.974	-0.270
Sex*						
Female	0	0.0%	0	0.0%	NaN	NaN
Male	508,587	100.0%	669,544	100.0%	0.000	NaN
Race ³						
American Indian or Alaska Native	3,137	0.6%	4,476	0.7%	-0.052	-0.006
Asian	7,375	1.5%	31,543	4.7%	-3.261	-0.190
Black or African American	34,636	6.8%	64,208	9.6%	-2.780	-0.101
Multi-racial	2,605	0.5%	1,996	0.3%	0.214	0.034
Native Hawaiian or Other Pacific Islander	1,474	0.3%	2,582	0.4%	-0.096	-0.017
Unknown	194,539	38.3%	225,151	33.6%	4.623	0.096
White	264,821	52.1%	339,588	50.7%	1.351	0.027
Hispanic origin						

Table 1ay. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Yes					
	19,192	3.8%	48,629	7.3%	-3.489	-0.153
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
No	282,502	55.5%	415,036	62.0%	-6.441	-0.131
Unknown	206,893	40.7%	205,879	30.7%	9.931	0.208
Year*						
2015	7,560	1.5%	29,700	4.4%	-2.949	-0.175
2016	35,741	7.0%	127,669	19.1%	-12.041	-0.363
2017	43,513	8.6%	124,746	18.6%	-10.076	-0.297
2018	52,757	10.4%	108,224	16.2%	-5.791	-0.171
2019	65,217	12.8%	96,083	14.4%	-1.527	-0.045
2020	70,222	13.8%	79,508	11.9%	1.932	0.058
2021	73,190	14.4%	50,503	7.5%	6.848	0.220
2022	87,945	17.3%	36,529	5.5%	11.836	0.379
2023	72,442	14.2%	16,582	2.5%	11.767	0.435
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI)* ⁴	1.5	1.7	1.6	1.8	-0.124	-0.070
Combined comorbidity score* ⁵	1.6	2.1	1.9	2.6	-0.258	-0.109
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	227,922	44.8%	164,853	24.6%	20.193	0.434
Weight Reduction Surgery or Procedure*	224	0.0%	743	0.1%	-0.067	-0.024
Lifestyle intervention*	80,603	15.8%	84,206	12.6%	3.272	0.094

Table 1ay. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cardiovascular Disease*	105,698	20.8%	160,174	23.9%	-3.140	-0.075
Medical History	Number/ Mean	Percent/ Standard Deviation²	Number/ Mean	Percent/ Standard Deviation²	Absolute Difference	Standardized Difference
Cognitive Impairment*	8,818	1.7%	27,416	4.1%	-2.361	-0.141
Traumatic Brain Injury*	1,137	0.2%	1,663	0.2%	-0.025	-0.005
Migraine*	9,136	1.8%	9,421	1.4%	0.389	0.031
Epilepsy*	5,530	1.1%	9,695	1.4%	-0.361	-0.032
Chronic Pain*	89,427	17.6%	92,566	13.8%	3.758	0.103
Psychiatric History	Number/ Mean	Percent/ Standard Deviation²	Number/ Mean	Percent/ Standard Deviation²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	2,850	0.6%	3,479	0.5%	0.041	0.006
Psychiatric History Overall*	289,857	57.0%	321,608	48.0%	8.959	0.180
Psychiatric Drug Dispensings	185,965	36.6%	207,033	30.9%	5.644	0.120
Intentional Self-Harm Encounter	350	0.1%	649	0.1%	-0.028	-0.010
Any Other Psychiatric Event	243,690	47.9%	263,613	39.4%	8.543	0.173
Attention-Deficit/Hyperactivity Disorder	5,659	1.1%	3,333	0.5%	0.615	0.069
Akathisia	396	0.1%	692	0.1%	-0.025	-0.008
Anxiety	57,932	11.4%	60,904	9.1%	2.294	0.076
Behavioral Disorder	17,687	3.5%	22,344	3.3%	0.140	0.008
Bipolar Disorder	14,411	2.8%	16,578	2.5%	0.358	0.022
Cerebral Degenerations usually Manifested in Childhood	4,193	0.8%	9,486	1.4%	-0.592	-0.056
Conduct Disorder	663	0.1%	834	0.1%	0.006	0.002
Delirium	5,371	1.1%	14,991	2.2%	-1.183	-0.093
Depression	64,679	12.7%	71,832	10.7%	1.989	0.062
Electroconvulsive Therapy	62	0.0%	91	0.0%	-0.001	-0.001
Hallucination	736	0.1%	1,703	0.3%	-0.110	-0.025

Table 1ay. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Obsessive-Compulsive Disorder	857	0.2%	810	0.1%	0.048	0.013
Other Cerebral Degenerations	6,356	1.2%	15,336	2.3%	-1.041	-0.079
Other Mental Disorders	3,212	0.6%	5,693	0.9%	-0.219	-0.026
Other Psychological Disorders	45,649	9.0%	62,841	9.4%	-0.410	-0.014
Persistent Mental Disorders due to Conditions Classified Elsewhere	6,075	1.2%	20,439	3.1%	-1.858	-0.129
Personality Disorders	1,027	0.2%	1,340	0.2%	0.002	0.000
Pervasive Developmental Disorders	1,349	0.3%	1,405	0.2%	0.055	0.011
Post-Traumatic Stress Disorder	5,672	1.1%	5,100	0.8%	0.354	0.037
Psychotherapy	20,924	4.1%	22,776	3.4%	0.712	0.037
Psychotic Conditions	1,637	0.3%	4,838	0.7%	-0.401	-0.056
Schizophrenia	8,406	1.7%	14,868	2.2%	-0.568	-0.041
Sleep Disorder	142,661	28.1%	113,436	16.9%	11.108	0.268
Substance Abuse	24,761	4.9%	32,807	4.9%	-0.031	-0.001
Suicidal Behavior	2,135	0.4%	3,270	0.5%	-0.069	-0.010
Transcranial Magnetic Stimulation	94	0.0%	38	0.0%	0.013	0.012
Vagus Nerve Stimulation	325	0.1%	290	0.0%	0.021	0.009
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	3,843	0.8%	0	0.0%	NaN	NaN
dulaglutide	177,558	34.9%	0	0.0%	NaN	NaN
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference

Table 1ay. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
exenatide	36,258	7.1%	0	0.0%	NaN	NaN
liraglutide	94,517	18.6%	0	0.0%	NaN	NaN
lixisenatide	7,834	1.5%	0	0.0%	NaN	NaN
semaglutide	177,314	34.9%	0	0.0%	NaN	NaN
tirzepatide	11,667	2.3%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	508,586	100.0%	669,544	100.0%	-0.000	-0.002
insulin*	177,276	34.9%	111,747	16.7%	18.167	0.425
metformin*	454,377	89.3%	586,882	87.7%	1.687	0.053
alpha-glucosidase inhibitors*	2,108	0.4%	3,512	0.5%	-0.110	-0.016
thiazolidinediones*	49,384	9.7%	50,845	7.6%	2.116	0.075
meglitinides*	5,607	1.1%	10,058	1.5%	-0.400	-0.035
amylin analogue*	67	0.0%	15	0.0%	0.011	0.012
sulfonylureas*	197,998	38.9%	307,452	45.9%	-6.989	-0.142
bile acid sequestrants*	1,653	0.3%	2,294	0.3%	-0.018	-0.003
Other Weight Loss Agents*	1,072	0.2%	235	0.0%	0.176	0.050
benzphetamine	*****	*****	0	0.0%	NaN	NaN
bupropion	110	0.0%	42	0.0%	0.015	0.013
diethylpropion	26	0.0%	*****	*****	*****	*****
lorcaserin	51	0.0%	22	0.0%	0.007	0.008
phentermine	826	0.2%	157	0.0%	0.139	0.046
phentermine-topiramate	49	0.0%	*****	*****	*****	*****
phendimetrazine	17	0.0%	*****	*****	*****	*****
orlistat	19	0.0%	*****	*****	*****	*****
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference

Table 1ay. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Other Agents						
Analgesic Opiates*	114,695	22.6%	146,024	21.8%	0.742	0.018
Antipsychotics	27,272	5.4%	39,054	5.8%	-0.471	-0.020
Anxiolytics/Hypnotics	72,620	14.3%	86,809	13.0%	1.313	0.038
Lithium & Other Mood Stabilizers	23,738	4.7%	29,936	4.5%	0.196	0.009
Antidepressants	143,605	28.2%	148,412	22.2%	6.070	0.140
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	10.2	10.6	10.0	11.6	0.283	0.025
Mean number of emergency room encounters*	0.3	0.9	0.3	1.1	-0.045	-0.045
Mean number of inpatient hospital encounters*	0.1	0.4	0.2	0.6	-0.075	-0.154
Mean number of non-acute institutional encounters*	0.0	0.2	0.1	0.3	-0.034	-0.136
Mean number of other ambulatory encounters*	3.5	10.2	4.6	12.8	-1.099	-0.095
Mean number of filled prescriptions*	24.4	18.2	23.5	18.6	0.933	0.051

Table 1ay. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of generics dispensed*	10.2	4.6	9.7	4.7	0.533	0.115
Mean number of unique drug classes dispensed*	9.1	4.1	8.0	4.2	1.043	0.250

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1az. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	576,038	N/A	743,226	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	62.1	10.4	62.7	11.3	-0.686	-0.063
Age						
18-24 years	1,260	0.2%	3,099	0.4%	-0.198	-0.035
25-44 years	49,155	8.5%	77,657	10.4%	-1.915	-0.067
45-64 years	258,299	44.8%	297,825	40.1%	4.769	0.108
65-79 years	237,320	41.2%	301,311	40.5%	0.658	0.016
≥ 80 years	30,004	5.2%	63,334	8.5%	-3.313	-0.134
Sex*						
Female	0	0.0%	0	0.0%	NaN	NaN
Male	576,038	100.0%	743,226	100.0%	0.000	NaN
Race ⁴						
American Indian or Alaska Native	2,986	0.5%	5,551	0.7%	-0.229	-0.029
Asian	8,296	1.4%	30,098	4.0%	-2.609	-0.162
Black or African American	43,197	7.5%	74,360	10.0%	-2.506	-0.090
Multi-racial	2,856	0.5%	2,494	0.3%	0.160	0.025
Native Hawaiian or Other Pacific Islander	1,548	0.3%	2,454	0.3%	-0.061	-0.011
Unknown	226,217	39.3%	261,893	35.2%	4.034	0.132
White	290,938	50.5%	366,376	49.3%	1.211	0.031

Table 1az. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product		Covariate Balance			
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Hispanic origin						
Yes	19,502	3.4%	54,935	7.4%	-4.006	-0.185
No	311,014	54.0%	444,395	59.8%	-5.801	-0.212
Unknown	245,522	42.6%	243,897	32.8%	9.807	0.450
Year*						
2015	19,719	3.4%	22,486	3.0%	0.398	0.023
2016	82,208	14.3%	100,093	13.5%	0.804	0.023
2017	79,041	13.7%	105,634	14.2%	-0.491	-0.014
2018	81,435	14.1%	102,379	13.8%	0.362	0.010
2019	73,540	12.8%	106,015	14.3%	-1.498	-0.044
2020	71,530	12.4%	99,198	13.3%	-0.929	-0.028
2021	60,923	10.6%	77,793	10.5%	0.109	0.004
2022	63,659	11.1%	76,341	10.3%	0.780	0.026
2023	43,982	7.6%	53,288	7.2%	0.465	0.018
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	2.0	2.1	1.7	1.9	0.292	0.148
Combined comorbidity score ^{*,6}	2.4	3.0	1.9	2.5	0.511	0.184
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	220,662	38.3%	252,077	33.9%	4.390	0.092
Weight Reduction Surgery or Procedure*	1,439	0.2%	628	0.1%	0.165	0.041

Table 1az. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
	Number/	Percent/	Number/	Percent/	Absolute	Standardized
	Mean	Standard Deviation ³	Mean	Standard Deviation ³	Difference	Difference
Lifestyle intervention	89,095	15.5%	99,576	13.4%	2.069	0.060
Medical History	Number/	Percent/	Number/	Percent/	Absolute	Standardized
	Mean	Standard Deviation³	Mean	Standard Deviation³	Difference	Difference
Cardiovascular Disease*	158,225	27.5%	176,427	23.7%	3.730	0.088
Cognitive Impairment*	30,939	5.4%	22,900	3.1%	2.290	0.115
Traumatic Brain Injury*	1,468	0.3%	2,030	0.3%	-0.018	-0.004
Migraine*	12,712	2.2%	12,778	1.7%	0.488	0.035
Epilepsy*	12,212	2.1%	10,627	1.4%	0.690	0.052
Chronic Pain*	133,811	23.2%	124,883	16.8%	6.427	0.162
Psychiatric History	Number/	Percent/	Number/	Percent/	Absolute	Standardized
	Mean	Standard Deviation³	Mean	Standard Deviation³	Difference	Difference
Previous Intentional Self-Harm Ever	6,004	1.0%	4,912	0.7%	0.381	0.042
Psychiatric History Overall*	347,274	60.3%	403,314	54.3%	6.021	0.123
Psychiatric Drug Dispensings	232,869	40.4%	275,830	37.1%	3.313	0.068
Intentional Self-Harm Encounter	2,097	0.4%	755	0.1%	0.262	0.055
Any Other Psychiatric Event	300,070	52.1%	330,691	44.5%	7.598	0.153
Attention-Deficit/Hyperactivity Disorder	5,727	1.0%	5,933	0.8%	0.196	0.021
Akathisia	990	0.2%	784	0.1%	0.066	0.018
Anxiety	82,528	14.3%	84,557	11.4%	2.950	0.088
Behavioral Disorder	32,949	5.7%	27,635	3.7%	2.002	0.095
Bipolar Disorder	20,470	3.6%	24,535	3.3%	0.253	0.014
Cerebral Degenerations usually Manifested in Childhood	10,427	1.8%	9,446	1.3%	0.539	0.044
Conduct Disorder	914	0.2%	1,220	0.2%	-0.005	-0.001
Delirium	20,751	3.6%	14,516	2.0%	1.649	0.101
Depression	101,695	17.7%	91,609	12.3%	5.328	0.151

Table 1az. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Electroconvulsive Therapy	722	0.1%	112	0.0%	0.110	0.042
Hallucination	1,932	0.3%	1,907	0.3%	0.079	0.015
Obsessive-Compulsive Disorder	1,230	0.2%	1,345	0.2%	0.033	0.007
Other Cerebral Degenerations	14,866	2.6%	14,300	1.9%	0.657	0.044
Other Mental Disorders	10,657	1.9%	6,517	0.9%	0.973	0.084
Other Psychological Disorders	71,470	12.4%	80,390	10.8%	1.591	0.050
Persistent Mental Disorders due to Conditions Classified Elsewhere	23,222	4.0%	16,840	2.3%	1.766	0.102
Personality Disorders	2,821	0.5%	1,879	0.3%	0.237	0.039
Pervasive Developmental Disorders	890	0.2%	2,537	0.3%	-0.187	-0.038
Post-Traumatic Stress Disorder	7,275	1.3%	7,857	1.1%	0.206	0.019
Psychotherapy	28,957	5.0%	30,553	4.1%	0.916	0.044
Psychotic Conditions	4,762	0.8%	4,964	0.7%	0.159	0.018
Schizophrenia	12,460	2.2%	21,147	2.8%	-0.682	-0.044
Sleep Disorder	175,270	30.4%	151,757	20.4%	10.008	0.232
Substance Abuse	41,075	7.1%	42,605	5.7%	1.398	0.057
Suicidal Behavior	8,861	1.5%	3,595	0.5%	1.055	0.106
Transcranial Magnetic Stimulation	72	0.0%	56	0.0%	0.005	0.005
Vagus Nerve Stimulation	382	0.1%	521	0.1%	-0.004	-0.001

Table 1az. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Index GLP-1RA Product						
albiglutide	8,104	1.4%	0	0.0%	NaN	NaN
dulaglutide	212,452	36.9%	0	0.0%	NaN	NaN
exenatide	61,624	10.7%	0	0.0%	NaN	NaN
liraglutide	140,890	24.5%	0	0.0%	NaN	NaN
lixisenatide	5,861	1.0%	0	0.0%	NaN	NaN
semaglutide	143,090	24.8%	0	0.0%	NaN	NaN
tirzepatide	8,710	1.5%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	576,037	100.0%	743,226	100.0%	-0.000	-0.001
insulin*	218,137	37.9%	280,349	37.7%	0.148	0.003
metformin*	507,429	88.1%	655,056	88.1%	-0.047	-0.001
alpha-glucosidase inhibitors*	2,614	0.5%	3,997	0.5%	-0.084	-0.012
thiazolidinediones*	45,413	7.9%	68,553	9.2%	-1.340	-0.048
meglitinides*	7,751	1.3%	10,838	1.5%	-0.113	-0.010
amylin analogue*	30	0.0%	103	0.0%	-0.009	-0.009
sulfonylureas*	229,037	39.8%	322,585	43.4%	-3.642	-0.074
bile acid sequestrants*	2,994	0.5%	2,823	0.4%	0.140	0.021
Other Weight Loss Agents*	662	0.1%	1,152	0.2%	-0.040	-0.011
benzphetamine	1	0.0%	0	0.0%	NaN	NaN
bupropion	76	0.0%	183	0.0%	-0.011	-0.008
diethylpropion	15	0.0%	6	0.0%	0.002	0.004
lorcaserin	32	0.0%	26	0.0%	0.002	0.003

Table 1az. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product				Covariate Balance		
Medical Product Use	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
phentermine	504	0.1%	883	0.1%	-0.031	-0.010
phentermine-topiramate	29	0.0%	27	0.0%	0.001	0.002
phendimetrazine	11	0.0%	23	0.0%	-0.001	-0.002
orlistat	11	0.0%	12	0.0%	0.000	0.001
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	191,286	33.2%	182,952	24.6%	8.591	0.191
Antipsychotics	41,545	7.2%	56,115	7.6%	-0.338	-0.013
Anxiolytics/Hypnotics	107,243	18.6%	118,995	16.0%	2.607	0.069
Lithium & Other Mood Stabilizers	30,733	5.3%	44,073	5.9%	-0.595	-0.026
Antidepressants	174,203	30.2%	203,878	27.4%	2.810	0.062
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	12.7	12.6	10.9	13.4	1.727	0.133
Mean number of emergency room encounters*	0.7	2.3	0.4	1.1	0.370	0.204
Mean number of inpatient hospital encounters*	0.4	1.0	0.2	0.5	0.217	0.265
Mean number of non-acute institutional encounters*	0.1	0.6	0.0	0.3	0.078	0.180
Mean number of other ambulatory encounters*	6.4	14.8	4.6	12.5	1.807	0.132

Table 1az. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of filled prescriptions [*]	31.1	26.4	26.0	20.7	5.049	0.213
Mean number of generics dispensed [*]	12.7	7.5	10.6	5.1	2.067	0.322
Mean number of unique drug classes dispensed [*]	10.2	5.5	9.2	4.8	0.987	0.191

^{*}Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1ba. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	6,021	100.0%	4,437	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	21.9	2.0	22.2	1.9	-0.303	-0.152
Age						
18-24 years	6,021	100.0%	4,437	100.0%	0.000	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	4,017	66.7%	2,708	61.0%	5.684	0.119
Male	2,004	33.3%	1,729	39.0%	-5.684	-0.119
Race ³						
American Indian or Alaska Native	80	1.3%	70	1.6%	-0.249	-0.021
Asian	126	2.1%	180	4.1%	-1.964	-0.114
Black or African American	899	14.9%	676	15.2%	-0.304	-0.009
Multi-racial	46	0.8%	16	0.4%	0.403	0.054
Native Hawaiian or Other Pacific Islander	23	0.4%	31	0.7%	-0.317	-0.043
Unknown	3,487	57.9%	2,374	53.5%	4.409	0.089
White	1,360	22.6%	1,090	24.6%	-1.979	-0.047
Hispanic origin						
Yes	793	13.2%	1,043	23.5%	-10.336	-0.270

Table 1ba. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	2,348	39.0%	2,012	45.3%	-6.349	-0.129
Unknown	2,880	47.8%	1,382	31.1%	16.685	0.346
Year*						
2015	86	1.4%	109	2.5%	-1.028	-0.075
2016	434	7.2%	738	16.6%	-9.425	-0.294
2017	586	9.7%	977	22.0%	-12.287	-0.341
2018	727	12.1%	859	19.4%	-7.286	-0.201
2019	1,073	17.8%	749	16.9%	0.940	0.025
2020	1,456	24.2%	784	17.7%	6.512	0.161
2021	492	8.2%	123	2.8%	5.399	0.239
2022	672	11.2%	79	1.8%	9.380	0.388
2023	495	8.2%	19	0.4%	7.793	0.390
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	0.2	0.6	0.2	0.6	0.012	0.021
Combined comorbidity score ^{*,5}	1.1	1.1	1.0	1.2	0.124	0.108
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	3,212	53.3%	1,639	36.9%	16.407	0.334
Weight Reduction Surgery or Procedure*	*****	*****	*****	*****	0.011	0.006
Lifestyle intervention	1,780	29.6%	1,031	23.2%	6.327	0.144
Cardiovascular Disease*	54	0.9%	33	0.7%	0.153	0.017

Table 1ba. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical History	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Covariate Balance	
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Cognitive Impairment*	14	0.2%	*****	*****	*****	*****
Traumatic Brain Injury*	12	0.2%	*****	*****	*****	*****
Migraine*	295	4.9%	186	4.2%	0.707	0.034
Epilepsy*	112	1.9%	111	2.5%	-0.642	-0.044
Chronic Pain*	381	6.3%	202	4.6%	1.775	0.078
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	183	3.0%	120	2.7%	0.335	0.020
Psychiatric History Overall*	3,397	56.4%	2,170	48.9%	7.512	0.151
Psychiatric Drug Dispensings	2,554	42.4%	1,599	36.0%	6.380	0.131
Intentional Self-Harm Encounter	55	0.9%	39	0.9%	0.034	0.004
Any Other Psychiatric Event	2,986	49.6%	1,881	42.4%	7.200	0.145
Attention-Deficit/Hyperactivity Disorder	472	7.8%	245	5.5%	2.317	0.093
Akathisia	*****	*****	*****	*****	-0.001	-0.000
Anxiety	1,272	21.1%	654	14.7%	6.386	0.167
Behavioral Disorder	584	9.7%	345	7.8%	1.924	0.068
Bipolar Disorder	499	8.3%	351	7.9%	0.377	0.014
Cerebral Degenerations usually Manifested in Childhood	11	0.2%	*****	*****	*****	*****
Conduct Disorder	*****	*****	44	1.0%	*****	*****
Delirium	45	0.7%	28	0.6%	0.116	0.014
Depression	1,348	22.4%	777	17.5%	4.876	0.122
Electroconvulsive Therapy	*****	*****	*****	*****	0.011	0.006

Table 1ba. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Hallucination	19	0.3%	21	0.5%	-0.158	-0.025
Obsessive-Compulsive Disorder	55	0.9%	15	0.3%	0.575	0.073
Other Cerebral	13	0.2%	*****	*****	*****	*****
Other Mental Disorders	106	1.8%	80	1.8%	-0.043	-0.003
Other Psychological Disorders	562	9.3%	462	10.4%	-1.078	-0.036
Persistent Mental Disorders due to Conditions Classified Elsewhere	*****	*****	*****	*****	0.005	0.002
Personality Disorders	105	1.7%	57	1.3%	0.459	0.038
Pervasive Developmental Disorders	348	5.8%	218	4.9%	0.867	0.039
Post-Traumatic Stress Disorder	278	4.6%	161	3.6%	0.989	0.050
Psychotherapy	863	14.3%	434	9.8%	4.552	0.140
Psychotic Conditions	67	1.1%	69	1.6%	-0.442	-0.039
Schizophrenia	169	2.8%	174	3.9%	-1.115	-0.062
Sleep Disorder	789	13.1%	354	8.0%	5.126	0.168
Substance Abuse	145	2.4%	128	2.9%	-0.477	-0.030
Suicidal Behavior	61	1.0%	57	1.3%	-0.272	-0.025
Transcranial Magnetic Stimulation	*****	*****	0	0.0%	NaN	NaN
Vagus Nerve Stimulation	*****	*****	*****	*****	0.011	0.006

Table 1ba. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	80	1.3%	0	0.0%	NaN	NaN
dulaglutide	1,679	27.9%	0	0.0%	NaN	NaN
exenatide	666	11.1%	0	0.0%	NaN	NaN
liraglutide	1,791	29.7%	0	0.0%	NaN	NaN
lixisenatide	43	0.7%	0	0.0%	NaN	NaN
semaglutide	1,637	27.2%	0	0.0%	NaN	NaN
tirzepatide	128	2.1%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	6,021	100.0%	4,437	100.0%	0.000	NaN
insulin*	2,083	34.6%	915	20.6%	13.974	0.316
metformin*	5,797	96.3%	4,271	96.3%	0.021	0.001
alpha-glucosidase inhibitors*	*****	*****	*****	*****	-0.013	-0.004
thiazolidinediones*	200	3.3%	165	3.7%	-0.397	-0.022
meglitinides*	12	0.2%	16	0.4%	-0.161	-0.031
amylin analogue*	*****	*****	0	0.0%	NaN	NaN
sulfonylureas*	993	16.5%	1,143	25.8%	-9.268	-0.229
bile acid sequestrants*	*****	*****	*****	*****	0.027	0.014
Other Weight Loss Agents*	*****	*****	*****	*****	0.475	0.083
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	*****	*****	0	0.0%	NaN	NaN
diethylpropion	*****	*****	0	0.0%	NaN	NaN
lorcaserin	*****	*****	0	0.0%	NaN	NaN
phentermine	*****	*****	*****	*****	0.225	0.050

Table 1ba. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical Product Use	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Covariate Balance	
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
phentermine-topiramate	*****	*****	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	*****	*****	0	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	710	11.8%	600	13.5%	-1.731	-0.052
Antipsychotics	834	13.9%	599	13.5%	0.351	0.010
Anxiolytics/Hypnotics	930	15.4%	556	12.5%	2.915	0.084
Lithium & Other Mood Stabilizers	568	9.4%	431	9.7%	-0.280	-0.010
Antidepressants	2,071	34.4%	1,193	26.9%	7.509	0.163
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	9.4	11.8	8.4	10.7	1.012	0.090
Mean number of emergency room encounters*	0.6	1.5	0.8	1.8	-0.125	-0.075
Mean number of inpatient hospital encounters*	0.1	0.3	0.1	0.4	-0.024	-0.062
Mean number of non-acute institutional encounters*	0.0	0.1	0.0	0.2	-0.008	-0.044

Table 1ba. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of other ambulatory encounters*	6.5	21.2	7.7	24.8	-1.161	-0.050
Mean number of filled prescriptions*	17.6	15.6	16.6	16.1	0.994	0.063
Mean number of generics dispensed*	7.9	4.7	7.6	4.7	0.274	0.058
Mean number of unique drug classes dispensed*	7.0	4.2	6.1	4.2	0.849	0.201

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bb. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	6,978	N/A	4,962	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	22.4	2.1	22.0	2.0	0.442	0.214
Age						
18-24 years	6,978	100.0%	4,962	100.0%	0.000	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	4,003	57.4%	3,152	63.5%	-6.151	-0.125
Male	2,975	42.6%	1,810	36.5%	6.151	0.125
Race ⁴						
American Indian or Alaska Native	71	1.0%	68	1.4%	-0.345	-0.031
Asian	119	1.7%	146	2.9%	-1.230	-0.081
Black or African American	1,045	15.0%	856	17.2%	-2.275	-0.063
Multi-racial	27	0.4%	23	0.5%	-0.071	-0.011
Native Hawaiian or Other Pacific Islander	25	0.4%	31	0.6%	-0.272	-0.039
Unknown	3,338	47.8%	2,634	53.1%	-5.237	-0.125
White	2,353	33.7%	1,205	24.3%	9.430	0.224

Table 1bb. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Hispanic origin						
Yes	754	10.8%	1,125	22.7%	-11.854	-0.332
No	3,525	50.5%	2,266	45.7%	4.853	0.119
Unknown	2,699	38.7%	1,572	31.7%	7.001	0.233
Year*						
2015	106	1.5%	106	2.1%	-0.610	-0.045
2016	1,594	22.8%	547	11.0%	11.820	0.322
2017	1,124	16.1%	800	16.1%	-0.028	-0.001
2018	823	11.8%	749	15.1%	-3.286	-0.096
2019	1,001	14.3%	1,001	20.2%	-5.835	-0.154
2020	1,170	16.8%	1,129	22.7%	-5.973	-0.151
2021	396	5.7%	166	3.3%	2.346	0.118
2022	491	7.0%	341	6.9%	0.163	0.007
2023	272	3.9%	124	2.5%	1.403	0.082
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	0.8	1.4	0.2	0.6	0.542	0.511
Combined comorbidity score ^{*,6}	1.7	1.5	1.2	1.2	0.495	0.370

Table 1bb. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Obesity*	4,028	57.7%	2,225	44.8%	12.892	0.261
Procedure*	0	0.0%	0	0.0%	NaN	NaN
Lifestyle intervention*	1,568	22.5%	1,397	28.1%	-5.671	-0.131
Cardiovascular Disease*	59	0.8%	26	0.5%	0.310	0.037
Cognitive Impairment*	9	0.1%	9	0.2%	-0.064	-0.016
Traumatic Brain Injury*	7	0.1%	5	0.1%	-0.013	-0.004
Migraine*	529	7.6%	198	4.0%	3.592	0.153
Epilepsy*	1,070	15.3%	106	2.1%	13.196	0.493
Chronic Pain*	368	5.3%	324	6.5%	-1.257	-0.053
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	198	2.8%	186	3.7%	-0.907	-0.050
Psychiatric History Overall [†]	4,431	63.5%	2,756	55.5%	7.966	0.164
Psychiatric Drug Dispensings	3,618	51.9%	2,147	43.3%	8.587	0.174
Intentional Self-Harm Encounter	61	0.9%	50	1.0%	-0.131	-0.014
Any Other Psychiatric Event	4,048	58.0%	2,393	48.2%	9.778	0.199
Attention-Deficit/Hyperactivity Disorder	420	6.0%	421	8.5%	-2.460	-0.096
Akathisia	14	0.2%	1	0.0%	0.175	0.053
Anxiety	1,448	20.7%	857	17.3%	3.473	0.088
Behavioral Disorder	588	8.4%	493	9.9%	-1.496	-0.052
Bipolar Disorder	534	7.7%	523	10.5%	-2.878	-0.100

Table 1bb. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Cerebral Degenerations usually Manifested in Childhood	22	0.3%	2	0.0%	0.272	0.062
Conduct Disorder	55	0.8%	49	1.0%	-0.206	-0.022
Delirium	40	0.6%	20	0.4%	0.169	0.024
Depression	1,303	18.7%	1,093	22.0%	-3.357	-0.084
Electroconvulsive Therapy	3	0.0%	3	0.1%	-0.013	-0.006
Hallucination	26	0.4%	27	0.5%	-0.176	-0.026
Obsessive-Compulsive Disorder	48	0.7%	24	0.5%	0.209	0.027
Other Cerebral Degenerations	970	13.9%	5	0.1%	13.812	0.582
Other Mental Disorders	82	1.2%	80	1.6%	-0.428	-0.036
Other Psychological Disorders	1,505	21.6%	526	10.6%	10.963	0.308
Persistent Mental Disorders due to Conditions Classified Elsewhere	2	0.0%	6	0.1%	-0.086	-0.032
Personality Disorders	101	1.4%	132	2.7%	-1.209	-0.085
Pervasive Developmental Disorders	318	4.6%	286	5.8%	-1.205	-0.055
Post-Traumatic Stress Disorder	264	3.8%	297	6.0%	-2.207	-0.102
Psychotherapy	781	11.2%	616	12.4%	-1.212	-0.037
Psychotic Conditions	85	1.2%	78	1.6%	-0.344	-0.029
Schizophrenia	168	2.4%	251	5.1%	-2.651	-0.141
Sleep Disorder	1,898	27.2%	549	11.1%	16.142	0.429
Substance Abuse	160	2.3%	154	3.1%	-0.810	-0.050
Suicidal Behavior	56	0.8%	81	1.6%	-0.834	-0.076
Transcranial Magnetic Stimulation	2	0.0%	0	0.0%	NaN	NaN
Vagus Nerve Stimulation	3	0.0%	1	0.0%	0.033	0.019

Table 1bb. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Index GLP-1RA Product						
albiglutide	135	1.9%	0	0.0%	NaN	NaN
dulaglutide	1,834	26.3%	0	0.0%	NaN	NaN
exenatide	755	10.8%	0	0.0%	NaN	NaN
liraglutide	2,856	40.9%	0	0.0%	NaN	NaN
lixisenatide	40	0.6%	0	0.0%	NaN	NaN
semaglutide	1,277	18.3%	0	0.0%	NaN	NaN
tirzepatide	83	1.2%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	6,978	100.0%	4,962	100.0%	0.000	NaN
insulin*	3,144	45.1%	2,140	43.1%	1.946	0.040
metformin*	6,745	96.7%	4,716	95.0%	1.627	0.081
alpha-glucosidase inhibitors*	3	0.0%	4	0.1%	-0.036	-0.014
thiazolidinediones*	1,157	16.6%	204	4.1%	12.468	0.427
meglitinides*	25	0.4%	14	0.3%	0.069	0.012
amylin analogue*	0	0.0%	0	0.0%	NaN	NaN
sulfonylureas*	1,225	17.6%	1,039	20.9%	-3.371	-0.085
bile acid sequestrants*	0	0.0%	0	0.0%	NaN	NaN
Other Weight Loss Agents*	3	0.0%	1	0.0%	0.007	0.004
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	0	0.0%	0	0.0%	NaN	NaN
diethylpropion	1	0.0%	0	0.0%	NaN	NaN
lorcaserin	0	0.0%	0	0.0%	NaN	NaN

Table 1bb. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
phentermine	2	0.0%	1	0.0%	-0.005	-0.003
phentermine-topiramate	0	0.0%	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	0	0.0%	0	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	2,122	30.4%	669	13.5%	16.921	0.427
Antipsychotics	822	11.8%	871	17.6%	-5.777	-0.166
Anxiolytics/Hypnotics	1,154	16.5%	847	17.1%	-0.523	-0.014
Lithium & Other Mood Stabilizers	789	11.3%	679	13.7%	-2.379	-0.072
Antidepressants	3,159	45.3%	1,679	33.8%	11.447	0.238
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	12.4	12.6	10.0	12.6	2.408	0.191
Mean number of emergency room encounters*	1.3	3.0	0.8	1.6	0.517	0.216
Mean number of inpatient hospital encounters*	0.2	0.5	0.1	0.4	0.114	0.263
Mean number of non-acute institutional encounters*	0.2	0.4	0.0	0.1	0.170	0.594

Table 1bb. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of other ambulatory encounters*	13.4	24.7	7.8	23.9	5.596	0.231
Mean number of filled prescriptions*	29.6	28.6	19.5	19.0	10.112	0.416
Mean number of generics dispensed*	11.8	8.4	8.6	5.0	3.164	0.457
Mean number of unique drug classes dispensed*	9.0	5.7	7.5	4.8	1.521	0.289

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bc. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	139,859	100.0%	115,163	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	38.4	4.9	38.5	4.9	-0.084	-0.017
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	139,859	100.0%	115,163	100.0%	0.000	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	83,364	59.6%	59,159	51.4%	8.236	0.166
Male	56,495	40.4%	56,004	48.6%	-8.236	-0.166
Race ³						
American Indian or Alaska Native	1,583	1.1%	1,673	1.5%	-0.321	-0.028
Asian	2,116	1.5%	5,005	4.3%	-2.833	-0.169
Black or African American	14,433	10.3%	15,645	13.6%	-3.265	-0.101
Multi-racial	1,317	0.9%	684	0.6%	0.348	0.040
Native Hawaiian or Other Pacific Islander	490	0.4%	619	0.5%	-0.187	-0.028
Unknown	84,189	60.2%	60,107	52.2%	8.003	0.162
White	35,731	25.5%	31,430	27.3%	-1.744	-0.040
Hispanic origin						

Table 1bc. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Yes	11,092	7.9%	17,570	15.3%	-7.326	-0.230
No	48,349	34.6%	51,409	44.6%	-10.070	-0.207
Unknown	80,418	57.5%	46,184	40.1%	17.396	0.353
Year*						
2015	2,237	1.6%	4,418	3.8%	-2.237	-0.138
2016	11,558	8.3%	21,730	18.9%	-10.605	-0.313
2017	14,238	10.2%	24,496	21.3%	-11.090	-0.308
2018	16,296	11.7%	20,868	18.1%	-6.469	-0.182
2019	20,296	14.5%	18,202	15.8%	-1.294	-0.036
2020	24,539	17.5%	16,737	14.5%	3.012	0.082
2021	15,047	10.8%	4,610	4.0%	6.756	0.261
2022	20,238	14.5%	3,025	2.6%	11.844	0.433
2023	15,410	11.0%	1,077	0.9%	10.083	0.435
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	0.5	1.0	0.4	1.0	0.038	0.039
Combined comorbidity score ^{*,5}	1.0	1.4	0.9	1.4	0.082	0.058
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	74,291	53.1%	37,865	32.9%	20.239	0.418
Weight Reduction Surgery or Procedure*	*****	*****	*****	*****	0.000	0.000

Table 1bc. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Lifestyle intervention*	37,026	26.5%	24,507	21.3%	5.194	0.122
Cardiovascular Disease*	5,718	4.1%	4,783	4.2%	-0.065	-0.003
Cognitive Impairment*	237	0.2%	*****	*****	*****	*****
Traumatic Brain Injury*	324	0.2%	*****	*****	*****	*****
Migraine*	9,300	6.6%	5,395	4.7%	1.965	0.085
Epilepsy*	2,184	1.6%	2,047	1.8%	-0.216	-0.017
Chronic Pain*	21,001	15.0%	13,213	11.5%	3.543	0.105
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	2,121	1.5%	1,531	1.3%	0.187	0.016
Psychiatric History Overall*	86,595	61.9%	59,562	51.7%	10.196	0.207
Psychiatric Drug Dispensings	66,208	47.3%	44,980	39.1%	8.281	0.168
Intentional Self-Harm Encounter	324	0.2%	330	0.3%	-0.055	-0.011
Any Other Psychiatric Event	72,979	52.2%	48,673	42.3%	9.916	0.200
Attention-Deficit/Hyperactivity Disorder	4,453	3.2%	1,835	1.6%	1.591	0.104
Akathisia	107	0.1%	103	0.1%	-0.013	-0.004
Anxiety	30,565	21.9%	17,154	14.9%	6.959	0.180
Behavioral Disorder	8,782	6.3%	5,858	5.1%	1.192	0.052
Bipolar Disorder	9,998	7.1%	7,411	6.4%	0.713	0.028
Cerebral Degenerations usually Manifested in						
Childhood	406	0.3%	324	0.3%	0.009	0.002
Conduct Disorder	390	0.3%	397	0.3%	-0.066	-0.012
Delirium	765	0.5%	825	0.7%	-0.169	-0.021
Depression	26,835	19.2%	16,883	14.7%	4.527	0.121

Table 1bc. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Electroconvulsive Therapy	46	0.0%	30	0.0%	0.007	0.004
Hallucination	322	0.2%	422	0.4%	-0.136	-0.025
Obsessive-Compulsive Disorder	639	0.5%	316	0.3%	0.182	0.030
Other Cerebral	306	0.2%	270	0.2%	-0.016	-0.003
Other Mental Disorders	1,421	1.0%	1,216	1.1%	-0.040	-0.004
Other Psychological Disorders	14,967	10.7%	12,646	11.0%	-0.279	-0.009
Persistent Mental Disorders due to Conditions Classified Elsewhere	*****	*****	*****	*****	-0.047	-0.016
Personality Disorders	1,570	1.1%	1,072	0.9%	0.192	0.019
Pervasive Developmental Disorders	1,022	0.7%	840	0.7%	0.001	0.000
Post-Traumatic Stress Disorder	5,614	4.0%	3,394	2.9%	1.067	0.058
Psychotherapy	14,497	10.4%	8,811	7.7%	2.715	0.095
Psychotic Conditions	791	0.6%	1,239	1.1%	-0.510	-0.057
Schizophrenia	4,666	3.3%	5,297	4.6%	-1.263	-0.065
Sleep Disorder	29,552	21.1%	14,904	12.9%	8.188	0.219
Substance Abuse	6,881	4.9%	6,333	5.5%	-0.579	-0.026
Suicidal Behavior	848	0.6%	765	0.7%	-0.058	-0.007
Transcranial Magnetic Stimulation	*****	*****	*****	*****	0.020	0.016
Vagus Nerve Stimulation	79	0.1%	43	0.0%	0.019	0.009

Table 1bc. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	1,798	1.3%	0	0.0%	NaN	NaN
dulaglutide	40,810	29.2%	0	0.0%	NaN	NaN
exenatide	13,022	9.3%	0	0.0%	NaN	NaN
liraglutide	35,186	25.2%	0	0.0%	NaN	NaN
lixisenatide	1,091	0.8%	0	0.0%	NaN	NaN
semaglutide	44,092	31.5%	0	0.0%	NaN	NaN
tirzepatide	4,063	2.9%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents						
insulin*	41,008	29.3%	20,939	18.2%	11.139	0.264
metformin*	130,799	93.5%	107,776	93.6%	-0.064	-0.003
alpha-glucosidase inhibitors*	*****	*****	*****	*****	-0.022	-0.004
thiazolidinediones*	7,053	5.0%	5,024	4.4%	0.680	0.032
meglitinides*	474	0.3%	491	0.4%	-0.087	-0.014
amylin analogue*	*****	*****	*****	*****	0.008	0.011
sulfonylureas*	36,493	26.1%	40,686	35.3%	-9.236	-0.201
bile acid sequestrants*	*****	*****	*****	*****	0.047	0.011
Other Weight Loss Agents*						
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	*****	*****	19	0.0%	*****	*****
diethylpropion	*****	*****	*****	*****	0.008	0.012
lorcaserin	55	0.0%	*****	*****	*****	*****
phentermine	664	0.5%	108	0.1%	0.381	0.072

Table 1bc. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
phentermine-topiramate	48	0.0%	*****	*****	*****	*****
phendimetrazine	*****	*****	*****	*****	0.005	0.007
orlistat	*****	*****	*****	*****	0.002	0.002
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	30,636	21.9%	25,636	22.3%	-0.356	-0.009
Antipsychotics	16,067	11.5%	13,878	12.1%	-0.563	-0.017
Anxiolytics/Hypnotics	28,893	20.7%	20,276	17.6%	3.052	0.078
Lithium & Other Mood Stabilizers	12,954	9.3%	10,355	9.0%	0.271	0.009
Antidepressants	54,023	38.6%	34,422	29.9%	8.737	0.185
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	9.3	10.6	8.5	11.3	0.793	0.072
Mean number of emergency room encounters *	0.5	1.4	0.6	1.5	-0.052	-0.036
Mean number of inpatient hospital encounters *	0.1	0.3	0.1	0.4	-0.021	-0.054
Mean number of non-acute institutional encounters *	0.0	0.1	0.0	0.2	-0.007	-0.044

Table 1bc. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of other ambulatory encounters*	4.0	13.3	4.7	16.2	-0.697	-0.047
Mean number of filled prescriptions*	23.6	19.8	22.2	19.7	1.401	0.071
Mean number of generics dispensed*	9.7	5.3	9.1	5.3	0.600	0.113
Mean number of unique drug classes dispensed*	8.6	4.7	7.4	4.7	1.222	0.259

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bd. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Patient Characteristics ^{1,2}	Medical Product		Covariate Balance			
	GLP-1 Receptor Agonists	DPP-4 Inhibitors	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weighted patients	157,410	N/A	136,255	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	38.6	4.9	38.6	4.9	-0.079	-0.016
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	157,410	100.0%	136,255	100.0%	0.000	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	89,905	57.1%	80,874	59.4%	-2.240	-0.046
Male	67,506	42.9%	55,380	40.6%	2.240	0.046
Race ⁴						
American Indian or Alaska Native	1,573	1.0%	1,973	1.4%	-0.448	-0.041
Asian	2,230	1.4%	4,254	3.1%	-1.705	-0.116
Black or African American	14,150	9.0%	18,231	13.4%	-4.391	-0.146
Multi-racial	1,327	0.8%	823	0.6%	0.239	0.029
Native Hawaiian or Other Pacific Islander	523	0.3%	599	0.4%	-0.107	-0.017
Unknown	97,540	62.0%	73,687	54.1%	7.885	0.221
White	40,067	25.5%	36,688	26.9%	-1.472	-0.039
Hispanic origin						
Yes	11,799	7.5%	18,386	13.5%	-5.998	-0.207
No	51,781	32.9%	56,172	41.2%	-8.330	-0.257
Unknown	93,830	59.6%	61,696	45.3%	14.328	0.584
Year*						
2015	4,075	2.6%	3,234	2.4%	0.215	0.014

Table 1bd. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
2016	22,093	14.0%	17,265	12.7%	1.365	0.040
2017	25,149	16.0%	21,043	15.4%	0.533	0.015
2018	20,744	13.2%	20,442	15.0%	-1.824	-0.053
2019	21,294	13.5%	21,179	15.5%	-2.016	-0.058
2020	22,882	14.5%	23,419	17.2%	-2.651	-0.074
2021	14,947	9.5%	9,617	7.1%	2.437	0.091
2022	15,587	9.9%	12,617	9.3%	0.642	0.023
2023	10,640	6.8%	7,440	5.5%	1.299	0.056
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	0.5	1.1	0.6	1.1	-0.031	-0.029
Combined comorbidity score ^{*,6}	1.1	1.6	1.2	1.6	-0.043	-0.028
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity [*]	78,491	49.9%	60,977	44.8%	5.112	0.106
Weight Reduction Surgery or Procedure [*]	128	0.1%	285	0.2%	-0.128	-0.034
Lifestyle intervention [*]	43,554	27.7%	31,877	23.4%	4.274	0.099
Cardiovascular Disease [*]	8,451	5.4%	6,608	4.8%	0.519	0.024
Cognitive Impairment [*]	413	0.3%	336	0.2%	0.016	0.003
Traumatic Brain Injury [*]	338	0.2%	268	0.2%	0.018	0.004
Migraine [*]	14,349	9.1%	9,410	6.9%	2.209	0.082
Epilepsy [*]	3,012	1.9%	2,644	1.9%	-0.027	-0.002
Chronic Pain [*]	31,158	19.8%	22,557	16.6%	3.239	0.085

Table 1bd. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Previous Intentional Self-Harm Ever	2,851	1.8%	2,249	1.7%	0.161	0.012
Psychiatric History Overall*	99,470	63.2%	84,628	62.1%	1.081	0.023
Psychiatric Drug Dispensings	77,137	49.0%	67,625	49.6%	-0.627	-0.013
Intentional Self-Harm Encounter	748	0.5%	382	0.3%	0.195	0.032
Any Other Psychiatric Event	85,698	54.4%	69,918	51.3%	3.128	0.064
Attention-Deficit/Hyperactivity Disorder	7,703	4.9%	3,002	2.2%	2.690	0.147
Akathisia	226	0.1%	118	0.1%	0.057	0.017
Anxiety	39,809	25.3%	28,661	21.0%	4.255	0.102
Behavioral Disorder	11,430	7.3%	9,708	7.1%	0.137	0.005
Bipolar Disorder	15,537	9.9%	12,413	9.1%	0.760	0.026
Cerebral Degenerations usually Manifested in						
Childhood	460	0.3%	503	0.4%	-0.077	-0.013
Conduct Disorder	368	0.2%	487	0.4%	-0.124	-0.023
Delirium	907	0.6%	1,696	1.2%	-0.669	-0.071
Depression	37,369	23.7%	26,595	19.5%	4.221	0.104
Electroconvulsive Therapy	49	0.0%	38	0.0%	0.003	0.002
Hallucination	547	0.3%	526	0.4%	-0.039	-0.006
Obsessive-Compulsive Disorder	611	0.4%	494	0.4%	0.026	0.004
Other Cerebral	721	0.5%	379	0.3%	0.180	0.030
Other Mental Disorders	1,686	1.1%	1,891	1.4%	-0.317	-0.029
Other Psychological Disorders	23,586	15.0%	18,120	13.3%	1.685	0.049

Table 1bd. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Persistent Mental Disorders due to Conditions Classified Elsewhere	151	0.1%	168	0.1%	-0.028	-0.008
Personality Disorders	3,345	2.1%	2,829	2.1%	0.049	0.003
Pervasive Developmental Disorders	918	0.6%	977	0.7%	-0.134	-0.017
Post-Traumatic Stress Disorder	7,816	5.0%	6,794	5.0%	-0.021	-0.001
Psychotherapy	17,782	11.3%	15,379	11.3%	0.010	0.000
Psychotic Conditions	940	0.6%	1,399	1.0%	-0.430	-0.048
Schizophrenia	5,547	3.5%	6,827	5.0%	-1.487	-0.076
Sleep Disorder	37,908	24.1%	24,346	17.9%	6.214	0.154
Substance Abuse	11,107	7.1%	9,175	6.7%	0.323	0.013
Suicidal Behavior	1,601	1.0%	956	0.7%	0.316	0.034
Transcranial Magnetic Stimulation	31	0.0%	42	0.0%	-0.011	-0.007
Vagus Nerve Stimulation	183	0.1%	350	0.3%	-0.141	-0.033

Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	3,478	2.2%	0	0.0%	NaN	NaN
dulaglutide	47,241	30.0%	0	0.0%	NaN	NaN
exenatide	18,243	11.6%	0	0.0%	NaN	NaN
liraglutide	45,909	29.2%	0	0.0%	NaN	NaN
lixisenatide	1,082	0.7%	0	0.0%	NaN	NaN
semaglutide	39,573	25.1%	0	0.0%	NaN	NaN
tirzepatide	2,925	1.9%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	157,410	100.0%	136,255	100.0%	0.000	NaN
insulin*	45,796	29.1%	57,646	42.3%	-13.214	-0.281

Table 1bd. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
metformin*	147,813	93.9%	126,454	92.8%	1.096	0.044
alpha-glucosidase inhibitors*	308	0.2%	459	0.3%	-0.141	-0.027
thiazolidinediones*	6,976	4.4%	7,929	5.8%	-1.388	-0.063
meglitinides*	685	0.4%	638	0.5%	-0.033	-0.005
amylin analogue*	3	0.0%	3	0.0%	-0.000	-0.000
sulfonylureas*	47,120	29.9%	43,520	31.9%	-2.006	-0.044
bile acid sequestrants*	680	0.4%	238	0.2%	0.258	0.047
Other Weight Loss Agents*	734	0.5%	453	0.3%	0.134	0.021
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
Combination naltrexone and bupropion	98	0.1%	21	0.0%	0.047	0.024
diethylpropion	9	0.0%	1	0.0%	0.005	0.009
lorcaserin	40	0.0%	30	0.0%	0.003	0.002
phentermine	547	0.3%	364	0.3%	0.080	0.014
phentermine-topiramate	43	0.0%	15	0.0%	0.016	0.012
phendimetrazine	7	0.0%	1	0.0%	0.004	0.007
orlistat	7	0.0%	21	0.0%	-0.011	-0.011
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	51,730	32.9%	37,327	27.4%	5.468	0.120
Antipsychotics	22,809	14.5%	20,763	15.2%	-0.748	-0.022
Anxiolytics/Hypnotics	39,902	25.3%	33,933	24.9%	0.445	0.010
Lithium & Other Mood Stabilizers	15,524	9.9%	16,971	12.5%	-2.593	-0.084
Antidepressants	63,342	40.2%	53,177	39.0%	1.212	0.025

Table 1bd. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of ambulatory encounters*	11.2	12.9	10.8	13.9	0.320	0.024
Mean number of emergency room encounters*	1.0	2.7	0.8	1.7	0.251	0.112
Mean number of inpatient hospital encounters*	0.2	0.9	0.1	0.4	0.080	0.118
Mean number of non-acute institutional encounters*	0.0	0.4	0.0	0.2	0.014	0.046
Mean number of other ambulatory encounters*	5.3	16.1	5.5	16.6	-0.184	-0.011
Mean number of filled prescriptions*	28.3	26.1	27.7	24.3	0.617	0.024
Mean number of generics dispensed*	12.1	8.9	11.0	6.4	1.036	0.134
Mean number of unique drug classes dispensed*	9.7	6.6	9.6	6.0	0.090	0.014

Table 1bd. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	DPP-4 Inhibitors	

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1be. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	483,894	100.0%	500,865	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	55.8	5.4	56.2	5.4	-0.465	-0.087
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	483,894	100.0%	500,865	100.0%	0.000	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	267,236	55.2%	246,588	49.2%	5.994	0.120
Male	216,658	44.8%	254,277	50.8%	-5.994	-0.120
Race ³						
American Indian or Alaska Native	3,799	0.8%	4,716	0.9%	-0.156	-0.017
Asian	5,514	1.1%	24,038	4.8%	-3.660	-0.217
Black or African American	47,660	9.8%	63,346	12.6%	-2.798	-0.089
Multi-racial	3,841	0.8%	2,415	0.5%	0.312	0.039
Native Hawaiian or Other Pacific Islander	1,073	0.2%	1,952	0.4%	-0.168	-0.030
Unknown	265,319	54.8%	250,772	50.1%	4.762	0.095
White	156,688	32.4%	153,626	30.7%	1.709	0.037
Hispanic origin						

Table 1be. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Yes	26,486	5.5%	63,400	12.7%	-7.185	-0.252
No	186,310	38.5%	230,246	46.0%	-7.467	-0.152
Unknown	271,098	56.0%	207,219	41.4%	14.652	0.296
Year*						
2015	8,087	1.7%	20,399	4.1%	-2.402	-0.144
2016	38,411	7.9%	94,702	18.9%	-10.970	-0.326
2017	47,490	9.8%	103,649	20.7%	-10.880	-0.306
2018	54,733	11.3%	88,653	17.7%	-6.389	-0.182
2019	66,183	13.7%	77,821	15.5%	-1.860	-0.053
2020	72,596	15.0%	66,074	13.2%	1.810	0.052
2021	59,968	12.4%	25,564	5.1%	7.289	0.260
2022	76,645	15.8%	17,240	3.4%	12.397	0.430
2023	59,781	12.4%	6,763	1.4%	11.004	0.446
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	1.0	1.4	1.0	1.4	0.065	0.045
Combined comorbidity score ^{*,5}	1.3	1.8	1.2	1.9	0.070	0.037
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	230,517	47.6%	136,543	27.3%	20.376	0.431
Weight Reduction Surgery or Procedure*	283	0.1%	420	0.1%	-0.025	-0.010
Lifestyle intervention*	108,538	22.4%	91,727	18.3%	4.116	0.102
Cardiovascular Disease*	62,532	12.9%	65,677	13.1%	-0.190	-0.006
Cognitive Impairment*	2,967	0.6%	5,126	1.0%	-0.410	-0.046

Table 1be. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Traumatic Brain Injury*	1,062	0.2%	1,017	0.2%	0.016	0.004
Migraine*	22,406	4.6%	15,449	3.1%	1.546	0.080
Epilepsy*	6,210	1.3%	7,948	1.6%	-0.304	-0.026
Chronic Pain*	108,689	22.5%	83,590	16.7%	5.772	0.146
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	4,641	1.0%	4,457	0.9%	0.069	0.007
Psychiatric History Overall*	313,788	64.8%	267,553	53.4%	11.428	0.234
Psychiatric Drug Dispensings	242,359	50.1%	204,065	40.7%	9.343	0.188
Intentional Self-Harm Encounter	512	0.1%	757	0.2%	-0.045	-0.013
Any Other Psychiatric Event	254,451	52.6%	209,255	41.8%	10.805	0.218
Attention-Deficit/Hyperactivity Disorder	6,468	1.3%	3,103	0.6%	0.717	0.073
Akathisia	469	0.1%	497	0.1%	-0.002	-0.001
Anxiety	89,087	18.4%	66,190	13.2%	5.195	0.143
Behavioral Disorder	20,994	4.3%	18,871	3.8%	0.571	0.029
Bipolar Disorder	24,665	5.1%	22,459	4.5%	0.613	0.029
Cerebral Degenerations usually Manifested in Childhood	2,618	0.5%	3,535	0.7%	-0.165	-0.021
Conduct Disorder	402	0.1%	552	0.1%	-0.027	-0.009
Delirium	4,127	0.9%	6,567	1.3%	-0.458	-0.044
Depression	93,252	19.3%	75,981	15.2%	4.101	0.109
Electroconvulsive Therapy	92	0.0%	138	0.0%	-0.009	-0.006
Hallucination	747	0.2%	1,166	0.2%	-0.078	-0.018

Table 1be. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Obsessive-Compulsive Disorder	1,032	0.2%	776	0.2%	0.058	0.014
Other Cerebral Degenerations	2,309	0.5%	2,840	0.6%	-0.090	-0.012
Other Mental Disorders	3,581	0.7%	4,178	0.8%	-0.094	-0.011
Other Psychological Disorders	51,152	10.6%	53,679	10.7%	-0.146	-0.005
Persistent Mental Disorders due to Conditions Classified Elsewhere	1,694	0.4%	3,038	0.6%	-0.256	-0.037
Personality Disorders	2,507	0.5%	2,139	0.4%	0.091	0.013
Pervasive Developmental Disorders	435	0.1%	664	0.1%	-0.043	-0.013
Post-Traumatic Stress Disorder	12,643	2.6%	9,274	1.9%	0.761	0.052
Psychotherapy	33,956	7.0%	28,626	5.7%	1.302	0.053
Psychotic Conditions	1,806	0.4%	3,889	0.8%	-0.403	-0.053
Schizophrenia	10,373	2.1%	17,152	3.4%	-1.281	-0.078
Sleep Disorder	128,063	26.5%	77,654	15.5%	10.961	0.272
Substance Abuse	25,834	5.3%	28,498	5.7%	-0.351	-0.015
Suicidal Behavior	2,495	0.5%	2,870	0.6%	-0.057	-0.008
Transcranial Magnetic Stimulation	111	0.0%	41	0.0%	0.015	0.012
Vagus Nerve Stimulation	347	0.1%	239	0.0%	0.024	0.010
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	5,541	1.1%	0	0.0%	NaN	NaN
dulaglutide	154,765	32.0%	0	0.0%	NaN	NaN
exenatide	39,338	8.1%	0	0.0%	NaN	NaN
liraglutide	105,092	21.7%	0	0.0%	NaN	NaN

Table 1be. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
lixisenatide	5,108	1.1%	0	0.0%	NaN	NaN
semaglutide	161,516	33.4%	0	0.0%	NaN	NaN
tirzepatide	13,065	2.7%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	483,892	100.0%	500,865	100.0%	-0.000	-0.003
insulin*	166,382	34.4%	97,749	19.5%	14.868	0.340
metformin*	441,482	91.2%	459,023	91.6%	-0.411	-0.015
alpha-glucosidase inhibitors*	1,574	0.3%	2,225	0.4%	-0.119	-0.019
thiazolidinediones*	33,463	6.9%	30,259	6.0%	0.874	0.036
meglitinides*	3,080	0.6%	3,932	0.8%	-0.149	-0.018
amylin analogue*	66	0.0%	22	0.0%	0.009	0.010
sulfonylureas*	159,966	33.1%	212,296	42.4%	-9.328	-0.193
bile acid sequestrants*	1,601	0.3%	1,404	0.3%	0.051	0.009
Other Weight Loss Agents*	2,254	0.5%	426	0.1%	0.381	0.073
benzphetamine	*****	*****	*****	*****	0.000	0.001
Combination naltrexone and bupropion	269	0.1%	83	0.0%	0.039	0.021
diethylpropion	43	0.0%	*****	*****	*****	*****
lorcaserin	112	0.0%	49	0.0%	0.013	0.010
phentermine	1,671	0.3%	253	0.1%	0.295	0.066
phentermine-topiramate	131	0.0%	16	0.0%	0.024	0.019
phendimetrazine	45	0.0%	*****	*****	*****	*****
orlistat	47	0.0%	20	0.0%	0.006	0.007
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	135,101	27.9%	131,889	26.3%	1.587	0.036
Antipsychotics	42,213	8.7%	46,363	9.3%	-0.533	-0.019
Anxiolytics/Hypnotics	105,760	21.9%	93,543	18.7%	3.180	0.079

Table 1be. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Lithium & Other Mood Stabilizers	35,012	7.2%	34,704	6.9%	0.307	0.012
Antidepressants	200,402	41.4%	158,441	31.6%	9.781	0.204
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	10.2	10.4	9.4	11.7	0.749	0.068
Mean number of emergency room encounters*	0.4	1.1	0.4	1.2	-0.035	-0.031
Mean number of inpatient hospital encounters*	0.1	0.4	0.1	0.5	-0.040	-0.090
Mean number of non-acute institutional encounters*	0.0	0.1	0.0	0.2	-0.014	-0.073
Mean number of other ambulatory encounters*	4.3	13.8	5.4	16.7	-1.058	-0.069
Mean number of filled prescriptions*	29.1	21.1	27.9	21.7	1.172	0.055
Mean number of generics dispensed*	11.2	5.3	10.5	5.4	0.772	0.144
Mean number of unique drug classes dispensed*	10.0	4.8	8.7	4.8	1.333	0.278

Table 1be. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	DPP-4 Inhibitors	

^{*} Covariate included in the propensity score logistic regression model.

¹ Covariates in blue show a standardized difference greater than 0.1.

² Value represents standard deviation where no % follows the value.

³ Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴ 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.

⁵ 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bf. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Patient Characteristics ^{1,2}	Medical Product		Covariate Balance			
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weighted patients	518,253	N/A	565,337	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	55.9	5.4	56.0	5.4	-0.067	-0.012
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	518,253	100.0%	565,337	100.0%	0.000	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	273,066	52.7%	311,668	55.1%	-2.440	-0.049
Male	245,187	47.3%	253,669	44.9%	2.440	0.049
Race ⁴						
American Indian or Alaska Native	3,464	0.7%	5,294	0.9%	-0.268	-0.030
Asian	5,693	1.1%	21,669	3.8%	-2.734	-0.180
Black or African American	46,632	9.0%	72,748	12.9%	-3.870	-0.130
Multi-racial	3,864	0.7%	2,907	0.5%	0.231	0.030
Native Hawaiian or Other Pacific Islander	1,055	0.2%	1,936	0.3%	-0.139	-0.027
Unknown	302,997	58.5%	290,532	51.4%	7.074	0.212
White	154,548	29.8%	170,252	30.1%	-0.294	-0.008

Table 1bf. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Hispanic origin						
Yes	26,702	5.2%	66,529	11.8%	-6.616	-0.254
No	180,191	34.8%	244,757	43.3%	-8.525	-0.288
Unknown	311,359	60.1%	254,052	44.9%	15.141	0.672
Year*						
2015	16,601	3.2%	15,302	2.7%	0.497	0.029
2016	71,524	13.8%	74,047	13.1%	0.703	0.021
2017	74,851	14.4%	87,919	15.6%	-1.109	-0.031
2018	69,990	13.5%	84,230	14.9%	-1.394	-0.040
2019	67,763	13.1%	87,318	15.4%	-2.370	-0.068
2020	65,800	12.7%	85,798	15.2%	-2.480	-0.072
2021	51,226	9.9%	46,101	8.2%	1.730	0.062
2022	60,310	11.6%	50,252	8.9%	2.748	0.093
2023	40,189	7.8%	34,371	6.1%	1.675	0.067
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications						
Severity Index(aDCSI) ^{*,5}	1.2	1.6	1.1	1.5	0.035	0.022
Combined comorbidity score ^{7,b}	1.5	2.2	1.4	2.0	0.065	0.031
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	225,080	43.4%	209,759	37.1%	6.327	0.134
Weight Reduction Surgery or Procedure*	737	0.1%	393	0.1%	0.073	0.022

Table 1bf. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Lifestyle intervention*	111,375	21.5%	110,099	19.5%	2.016	0.050
Cardiovascular Disease*	78,372	15.1%	80,575	14.3%	0.870	0.025
Cognitive Impairment*	8,297	1.6%	4,835	0.9%	0.746	0.068
Traumatic Brain Injury*	1,249	0.2%	1,293	0.2%	0.012	0.003
Migraine*	24,623	4.8%	23,752	4.2%	0.550	0.027
Epilepsy*	8,126	1.6%	8,379	1.5%	0.086	0.007
Chronic Pain*	127,724	24.6%	120,502	21.3%	3.330	0.081
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	5,741	1.1%	6,421	1.1%	-0.028	-0.003
Psychiatric History Overall*	330,441	63.8%	347,340	61.4%	2.321	0.049
Psychiatric Drug Dispensings	252,846	48.8%	278,100	49.2%	-0.404	-0.008
Intentional Self-Harm Encounter	1,825	0.4%	787	0.1%	0.213	0.043
Any Other Psychiatric Event	271,743	52.4%	275,189	48.7%	3.757	0.077
Attention-Deficit/Hyperactivity Disorder	8,575	1.7%	5,484	1.0%	0.685	0.060
Akathisia	535	0.1%	666	0.1%	-0.015	-0.004
Anxiety	96,195	18.6%	99,916	17.7%	0.888	0.023
Behavioral Disorder	27,138	5.2%	24,041	4.3%	0.984	0.046
Bipolar Disorder	27,707	5.3%	32,276	5.7%	-0.363	-0.016
Cerebral Degenerations usually Manifested in Childhood	3,206	0.6%	4,112	0.7%	-0.109	-0.013

Table 1bf. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Conduct Disorder	401	0.1%	572	0.1%	-0.024	-0.008
Delirium	9,179	1.8%	8,024	1.4%	0.352	0.028
Depression	103,809	20.0%	105,982	18.7%	1.284	0.033
Electroconvulsive Therapy	138	0.0%	165	0.0%	-0.003	-0.002
Hallucination	1,369	0.3%	1,172	0.2%	0.057	0.012
Obsessive-Compulsive Disorder	924	0.2%	1,241	0.2%	-0.041	-0.009
Other Cerebral	2,834	0.5%	3,203	0.6%	-0.020	-0.003
Other Mental Disorders	4,422	0.9%	4,908	0.9%	-0.015	-0.002
Other Psychological Disorders	63,777	12.3%	69,425	12.3%	0.026	0.001
Persistent Mental Disorders due to Conditions Classified Elsewhere	2,618	0.5%	2,764	0.5%	0.016	0.002
Personality Disorders	2,972	0.6%	3,120	0.6%	0.022	0.003
Pervasive Developmental Disorders	380	0.1%	800	0.1%	-0.068	-0.021
Post-Traumatic Stress Disorder	11,607	2.2%	15,784	2.8%	-0.552	-0.035
Psychotherapy	36,358	7.0%	41,108	7.3%	-0.256	-0.010
Psychotic Conditions	2,710	0.5%	4,038	0.7%	-0.191	-0.024
Schizophrenia	12,076	2.3%	20,418	3.6%	-1.282	-0.076
Sleep Disorder	141,250	27.3%	112,030	19.8%	7.438	0.178
Substance Abuse	28,306	5.5%	37,140	6.6%	-1.108	-0.047
Suicidal Behavior	4,186	0.8%	3,364	0.6%	0.213	0.025
Transcranial Magnetic Stimulation	81	0.0%	51	0.0%	0.007	0.006
Vagus Nerve Stimulation	343	0.1%	287	0.1%	0.015	0.006

Table 1bf. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Index GLP-1RA Product						
albiglutide	11,045	2.1%	0	0.0%	NaN	NaN
dulaglutide	174,714	33.7%	0	0.0%	NaN	NaN
exenatide	54,463	10.5%	0	0.0%	NaN	NaN
liraglutide	132,941	25.7%	0	0.0%	NaN	NaN
lixisenatide	4,140	0.8%	0	0.0%	NaN	NaN
semaglutide	135,210	26.1%	0	0.0%	NaN	NaN
tirzepatide	9,898	1.9%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	518,251	100.0%	565,337	100.0%	-0.000	-0.003
insulin*	169,473	32.7%	232,322	41.1%	-8.394	-0.176
metformin*	473,226	91.3%	513,845	90.9%	0.420	0.015
alpha-glucosidase inhibitors*	3,123	0.6%	2,409	0.4%	0.177	0.025
thiazolidinediones*	33,598	6.5%	41,014	7.3%	-0.772	-0.031
meglitinides*	4,234	0.8%	4,713	0.8%	-0.017	-0.002
amylin analogue*	47	0.0%	82	0.0%	-0.005	-0.005
sulfonylureas*	182,943	35.3%	221,145	39.1%	-3.817	-0.079
bile acid sequestrants*	1,990	0.4%	2,020	0.4%	0.027	0.004
Other Weight Loss Agents*	1,871	0.4%	1,724	0.3%	0.056	0.010
benzphetamine	1	0.0%	1	0.0%	0.000	0.000
bupropion	446	0.1%	332	0.1%	0.027	0.010
diethylpropion	41	0.0%	27	0.0%	0.003	0.004
lorcaserin	92	0.0%	148	0.0%	-0.008	-0.006
phentermine	1,200	0.2%	1,132	0.2%	0.031	0.007
phentermine-topiramate	85	0.0%	49	0.0%	0.008	0.007
phendimetrazine	44	0.0%	31	0.0%	0.003	0.003
orlistat	27	0.0%	43	0.0%	-0.002	-0.003

Table 1bf. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product				Covariate Balance		
GLP-1 Receptor Agonists			DPP-4 Inhibitors			
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Other Agents						
Analgesic Opiates*	180,226	34.8%	170,131	30.1%	4.682	0.101
Antipsychotics	45,801	8.8%	65,741	11.6%	-2.791	-0.094
Anxiolytics/Hypnotics	118,391	22.8%	135,231	23.9%	-1.076	-0.026
Lithium & Other Mood Stabilizers	38,874	7.5%	49,209	8.7%	-1.203	-0.045
Antidepressants	202,598	39.1%	222,804	39.4%	-0.318	-0.007
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	11.1	11.2	10.9	13.8	0.134	0.011
Mean number of emergency room encounters*	0.7	1.8	0.5	1.2	0.177	0.114
Mean number of inpatient hospital encounters*	0.2	0.7	0.1	0.5	0.066	0.113
Mean number of non-acute institutional encounters*	0.1	1.2	0.0	0.2	0.079	0.090
Mean number of other ambulatory encounters*	4.9	14.0	5.8	17.1	-0.965	-0.062
Mean number of filled prescriptions*	31.5	25.0	31.9	24.9	-0.364	-0.015
Mean number of generics dispensed*	12.4	7.1	11.9	6.1	0.462	0.070
Mean number of unique drug classes dispensed*	10.3	5.5	10.4	5.7	-0.120	-0.021

Table 1bf. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	DPP-4 Inhibitors	

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bg. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	467,704	100.0%	596,096	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	70.8	3.8	71.8	4.1	-0.977	-0.246
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	467,704	100.0%	596,096	100.0%	0.000	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	253,804	54.3%	310,970	52.2%	2.098	0.042
Male	213,900	45.7%	285,126	47.8%	-2.098	-0.042
Race ³						
American Indian or Alaska Native	2,498	0.5%	3,581	0.6%	-0.067	-0.009
Asian	7,506	1.6%	28,249	4.7%	-3.134	-0.180
Black or African American	42,886	9.2%	72,594	12.2%	-3.009	-0.098
Multi-racial	465	0.1%	481	0.1%	0.019	0.006
Native Hawaiian or Other Pacific Islander	1,330	0.3%	2,276	0.4%	-0.097	-0.017
Unknown	61,446	13.1%	97,416	16.3%	-3.205	-0.090
White	351,573	75.2%	391,499	65.7%	9.493	0.209
Hispanic origin						
Yes	11,234	2.4%	28,076	4.7%	-2.308	-0.125

Table 1bg. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	378,352	80.9%	472,652	79.3%	1.604	0.040
Unknown	78,118	16.7%	95,368	16.0%	0.704	0.019
Year*						
2015	6,342	1.4%	28,589	4.8%	-3.440	-0.200
2016	30,562	6.5%	115,482	19.4%	-12.839	-0.390
2017	34,955	7.5%	102,698	17.2%	-9.755	-0.300
2018	42,532	9.1%	87,716	14.7%	-5.621	-0.174
2019	51,931	11.1%	79,569	13.3%	-2.245	-0.069
2020	54,172	11.6%	65,661	11.0%	0.567	0.018
2021	74,070	15.8%	56,234	9.4%	6.403	0.194
2022	89,229	19.1%	40,893	6.9%	12.218	0.370
2023	83,911	17.9%	19,254	3.2%	14.711	0.492
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI)*,4	1.7	1.8	1.8	1.9	-0.084	-0.045
Combined comorbidity score*,5	2.0	2.4	2.1	2.8	-0.164	-0.063
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	219,534	46.9%	164,884	27.7%	19.278	0.407
Weight Reduction Surgery or Procedure*	231	0.0%	753	0.1%	-0.077	-0.026
Lifestyle intervention*	58,265	12.5%	56,463	9.5%	2.986	0.096
Cardiovascular Disease*	114,675	24.5%	160,101	26.9%	-2.340	-0.054

Table 1bg. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cognitive Impairment*	11,379	2.4%	28,747	4.8%	-2.390	-0.128
Traumatic Brain Injury*	919	0.2%	1,403	0.2%	-0.039	-0.008
Migraine*	11,420	2.4%	11,755	2.0%	0.470	0.032
Epilepsy*	4,113	0.9%	7,800	1.3%	-0.429	-0.041
Chronic Pain	101,083	21.6%	100,891	16.9%	4.687	0.119
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	1,317	0.3%	1,878	0.3%	-0.033	-0.006
Psychiatric History Overall*	282,318	60.4%	306,883	51.5%	8.880	0.180
Psychiatric Drug Dispensings	202,947	43.4%	216,590	36.3%	7.057	0.145
Intentional Self-Harm Encounter	136	0.0%	277	0.0%	-0.017	-0.009
Any Other Psychiatric Event	226,423	48.4%	242,527	40.7%	7.726	0.156
Attention-Deficit/Hyperactivity Disorder	2,070	0.4%	1,205	0.2%	0.240	0.042
Akathisia	460	0.1%	693	0.1%	-0.018	-0.005
Anxiety	65,071	13.9%	71,704	12.0%	1.884	0.056
Behavioral Disorder	12,887	2.8%	16,840	2.8%	-0.070	-0.004
Bipolar Disorder	9,321	2.0%	11,232	1.9%	0.109	0.008
Cerebral Degenerations usually Manifested in Childhood	5,067	1.1%	9,802	1.6%	-0.561	-0.048
Conduct Disorder	107	0.0%	211	0.0%	-0.013	-0.007
Delirium	5,835	1.2%	14,993	2.5%	-1.268	-0.093
Depression	78,720	16.8%	83,869	14.1%	2.761	0.076
Electroconvulsive Therapy	*****	*****	84	0.0%	*****	*****
Hallucination	628	0.1%	1,409	0.2%	-0.102	-0.024
Obsessive-Compulsive Disorder	420	0.1%	475	0.1%	0.010	0.003

Table 1bg. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Other Cerebral Degenerations	8,182	1.7%	16,336	2.7%	-0.991	-0.067
Other Mental Disorders	2,865	0.6%	4,981	0.8%	-0.223	-0.026
Other Psychological Disorders	27,426	5.9%	42,623	7.2%	-1.286	-0.052
Persistent Mental Disorders due to Conditions Classified Elsewhere	7,817	1.7%	21,440	3.6%	-1.925	-0.120
Personality Disorders	528	0.1%	714	0.1%	-0.007	-0.002
Pervasive Developmental Disorders	*****	*****	162	0.0%	*****	*****
Post-Traumatic Stress Disorder	2,856	0.6%	2,470	0.4%	0.196	0.027
Psychotherapy	14,073	3.0%	16,515	2.8%	0.238	0.014
Psychotic Conditions	897	0.2%	3,300	0.6%	-0.362	-0.059
Schizophrenia	2,569	0.5%	6,049	1.0%	-0.465	-0.053
Sleep Disorder	128,600	27.5%	106,601	17.9%	9.613	0.231
Substance Abuse	14,147	3.0%	17,407	2.9%	0.105	0.006
Suicidal Behavior	1,717	0.4%	2,720	0.5%	-0.089	-0.014
Transcranial Magnetic Stimulation	89	0.0%	34	0.0%	0.013	0.012
Vagus Nerve Stimulation	484	0.1%	406	0.1%	0.035	0.012
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	1,239	0.3%	0	0.0%	NaN	NaN
dulaglutide	162,554	34.8%	0	0.0%	NaN	NaN

Table 1bg. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
exenatide	27,271	5.8%	0	0.0%	NaN	NaN
liraglutide	82,520	17.6%	0	0.0%	NaN	NaN
lixisenatide	8,301	1.8%	0	0.0%	NaN	NaN
semaglutide	175,259	37.5%	0	0.0%	NaN	NaN
tirzepatide	10,672	2.3%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	467,704	100.0%	596,096	100.0%	0.000	NaN
insulin*	158,112	33.8%	97,961	16.4%	17.372	0.409
metformin*	400,870	85.7%	509,796	85.5%	0.188	0.005
alpha-glucosidase inhibitors*	2,257	0.5%	3,403	0.6%	-0.088	-0.012
thiazolidinediones*	47,941	10.3%	47,472	8.0%	2.286	0.080
meglitinides*	7,085	1.5%	10,598	1.8%	-0.263	-0.021
amylin analogue*	68	0.0%	*****	*****	*****	*****
sulfonylureas*	195,156	41.7%	282,853	47.5%	-5.725	-0.115
bile acid sequestrants*	2,186	0.5%	2,994	0.5%	-0.035	-0.005
Other Weight Loss Agents*	561	0.1%	*****	*****	*****	*****
benzphetamine	*****	*****	*****	*****	0.000	0.002
bupropion	39	0.0%	14	0.0%	0.006	0.008
diethylpropion	26	0.0%	*****	*****	*****	*****
lorcaserin	*****	*****	*****	*****	0.001	0.001
phentermine	462	0.1%	*****	*****	*****	*****
phentermine-topiramate	*****	*****	*****	*****	0.002	0.005
phendimetrazine	*****	*****	*****	*****	0.001	0.003
orlistat	*****	*****	*****	*****	0.000	0.001

Table 1bg. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	110,445	23.6%	139,212	23.4%	0.260	0.006
Antipsychotics	15,592	3.3%	23,813	4.0%	-0.661	-0.035
Anxiolytics/Hypnotics	76,901	16.4%	91,275	15.3%	1.130	0.031
Lithium & Other Mood Stabilizers	16,925	3.6%	21,818	3.7%	-0.041	-0.002
Antidepressants	167,622	35.8%	164,939	27.7%	8.169	0.176
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	11.9	10.4	11.0	11.0	0.828	0.077
Mean number of emergency room encounters *	0.3	0.8	0.3	0.9	-0.058	-0.068
Mean number of inpatient hospital encounters *	0.1	0.4	0.2	0.6	-0.083	-0.173
Mean number of non-acute institutional encounters *	0.0	0.2	0.1	0.3	-0.036	-0.134
Mean number of other ambulatory encounters *	3.1	7.2	4.2	10.7	-1.078	-0.118
Mean number of filled prescriptions *	23.9	16.6	23.5	17.9	0.382	0.022

Table 1bg. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of generics dispensed*	11.0	4.6	10.4	4.8	0.633	0.135
Mean number of unique drug classes dispensed*	9.9	4.2	8.7	4.3	1.170	0.275

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bh. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Patient Characteristics ^{1,2}	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Covariate Balance	
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weighted patients	576,692	N/A	5,773,994	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	71.2	4.0	70.1	3.9	1.067	0.268
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	576,692	100.0%	5,773,994	100.0%	0.000	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	331,782	57.5%	3,899,317	67.5%	-10.000	-0.208
Male	244,910	42.5%	1,874,676	32.5%	10.000	0.208
Race ⁴						
American Indian or Alaska Native	3,415	0.6%	45,764	0.8%	-0.200	-0.024
Asian	9,052	1.6%	1,138,487	19.7%	-18.148	-0.621
Black or African American	68,129	11.8%	669,562	11.6%	0.218	0.007
Multi-racial	489	0.1%	837	0.0%	0.070	0.032
Native Hawaiian or Other Pacific Islander	1,497	0.3%	73,440	1.3%	-1.012	-0.116
Unknown	67,427	11.7%	2,349,571	40.7%	-29.000	-0.772
White	426,682	74.0%	1,496,334	25.9%	48.073	1.191

Table 1bh. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Hispanic origin						
Yes	14,186	2.5%	1,693,001	29.3%	-26.861	-0.803
No	478,827	83.0%	3,394,805	58.8%	24.235	0.653
Unknown	83,679	14.5%	686,188	11.9%	2.626	0.106
Year*						
2015	15,901	2.8%	50,758	0.9%	1.878	0.141
2016	80,711	14.0%	373,937	6.5%	7.519	0.251
2017	68,017	11.8%	718,831	12.4%	-0.655	-0.020
2018	67,996	11.8%	833,431	14.4%	-2.643	-0.078
2019	108,523	18.8%	1,493,338	25.9%	-7.045	-0.171
2020	61,220	10.6%	2,082,599	36.1%	-25.453	-0.638
2021	62,006	10.8%	81,135	1.4%	9.347	0.403
2022	62,996	10.9%	79,099	1.4%	9.554	0.410
2023	49,321	8.6%	60,865	1.1%	7.498	0.359
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications						
Severity Index(aDCSI) ^{*,5}	2.7	2.4	1.5	1.8	1.177	0.553
Combined comorbidity score ^{*,6}	3.5	3.7	1.8	2.3	1.720	0.560
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity [*]	251,642	43.6%	1,128,302	19.5%	24.094	0.539

Table 1bh. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Weight Reduction Surgery or Procedure*	925	0.2%	2,634	0.0%	0.115	0.036
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Lifestyle intervention*	61,621	10.7%	918,287	15.9%	-5.219	-0.154
Cardiovascular Disease*	232,876	40.4%	974,362	16.9%	23.506	0.542
Cognitive Impairment*	56,436	9.8%	246,963	4.3%	5.509	0.217
Traumatic Brain Injury*	1,496	0.3%	5,741	0.1%	0.160	0.038
Migraine*	21,494	3.7%	108,468	1.9%	1.848	0.112
Epilepsy*	26,384	4.6%	63,068	1.1%	3.483	0.211
Chronic Pain*	141,974	24.6%	855,759	14.8%	9.798	0.248
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	6,799	1.2%	13,266	0.2%	0.949	0.114
Psychiatric History Overall*	384,648	66.7%	2,852,945	49.4%	17.289	0.356
Psychiatric Drug Dispensings	299,113	51.9%	2,286,316	39.6%	12.270	0.249
Intentional Self-Harm Encounter	579	0.1%	5,454	0.1%	0.006	0.002
Any Other Psychiatric Event	330,542	57.3%	1,903,871	33.0%	24.344	0.506
Attention-Deficit/Hyperactivity Disorder	1,928	0.3%	12,679	0.2%	0.115	0.022
Akathisia	806	0.1%	9,676	0.2%	-0.028	-0.007
Anxiety	103,920	18.0%	504,957	8.7%	9.275	0.275
Behavioral Disorder	58,843	10.2%	148,771	2.6%	7.627	0.317
Bipolar Disorder	20,757	3.6%	168,597	2.9%	0.679	0.038
Cerebral Degenerations usually Manifested in Childhood	12,645	2.2%	63,486	1.1%	1.093	0.086

Table 1bh. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Conduct Disorder	368	0.1%	2,203	0.0%	0.026	0.011
Delirium	40,457	7.0%	125,772	2.2%	4.837	0.233
Depression	157,712	27.3%	739,994	12.8%	14.532	0.370
Electroconvulsive Therapy	816	0.1%	271	0.0%	0.137	0.051
Hallucination	2,365	0.4%	10,974	0.2%	0.220	0.040
Obsessive-Compulsive Disorder	387	0.1%	2,539	0.0%	0.023	0.010
Other Cerebral Degenerations	19,894	3.4%	118,587	2.1%	1.396	0.085
Other Mental Disorders	8,164	1.4%	39,507	0.7%	0.731	0.072
Other Psychological Disorders	58,835	10.2%	268,875	4.7%	5.545	0.212
Persistent Mental Disorders due to Conditions Classified Elsewhere	42,724	7.4%	186,116	3.2%	4.185	0.187
Personality Disorders	1,048	0.2%	19,672	0.3%	-0.159	-0.031
Pervasive Developmental Disorders	110	0.0%	282	0.0%	0.014	0.013
Post-Traumatic Stress Disorder	10,443	1.8%	101,698	1.8%	0.049	0.004
Psychotherapy	32,138	5.6%	266,826	4.6%	0.952	0.043
Psychotic Conditions	4,746	0.8%	63,360	1.1%	-0.274	-0.028
Schizophrenia	17,447	3.0%	177,210	3.1%	-0.044	-0.003
Sleep Disorder	194,251	33.7%	553,667	9.6%	24.095	0.614
Substance Abuse	22,963	4.0%	165,244	2.9%	1.120	0.062
Suicidal Behavior	8,607	1.5%	14,280	0.2%	1.245	0.134
Transcranial Magnetic Stimulation	56	0.0%	62	0.0%	0.009	0.012
Vagus Nerve Stimulation	521	0.1%	1,108	0.0%	0.071	0.030

Table 1bh. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Index GLP-1RA Product						
albiglutide	3,186	0.6%	0	0.0%	NaN	NaN
dulaglutide	199,486	34.6%	0	0.0%	NaN	NaN
exenatide	49,461	8.6%	0	0.0%	NaN	NaN
liraglutide	174,962	30.3%	0	0.0%	NaN	NaN
lixisenatide	6,808	1.2%	0	0.0%	NaN	NaN
semaglutide	135,966	23.6%	0	0.0%	NaN	NaN
tirzepatide	7,091	1.2%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	576,692	100.0%	5,773,994	100.0%	0.000	NaN
insulin*	250,058	43.4%	3,568,850	61.8%	-18.448	-0.380
metformin*	457,929	79.4%	5,112,381	88.5%	-9.135	-0.251
alpha-glucosidase inhibitors*	2,919	0.5%	69,642	1.2%	-0.700	-0.076
thiazolidinediones*	45,052	7.8%	562,112	9.7%	-1.923	-0.068
meglitinides*	10,599	1.8%	123,202	2.1%	-0.296	-0.021
amylin analogue*	35	0.0%	156	0.0%	0.003	0.005
sulfonylureas*	262,547	45.5%	2,428,745	42.1%	3.463	0.070
bile acid sequestrants*	3,291	0.6%	3,580	0.1%	0.509	0.090
Other Weight Loss Agents*	354	0.1%	408	0.0%	0.054	0.029
benzphetamine	2	0.0%	1	0.0%	0.000	0.002
bupropion	23	0.0%	35	0.0%	0.003	0.007
diethylpropion	16	0.0%	19	0.0%	0.002	0.006
lorcaserin	6	0.0%	22	0.0%	0.001	0.002

Table 1bh. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

		Medical Product			Covariate Balance		
		GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference	
phentermine	292	0.1%	323	0.0%	0.045	0.027	
phentermine-topiramate	8	0.0%	8	0.0%	0.001	0.005	
phendimetrazine	13	0.0%	9	0.0%	0.002	0.006	
orlistat	6	0.0%	10	0.0%	0.001	0.004	
setmelanotide	0	0.0%	0	0.0%	NaN	NaN	
Other Agents							
Analgesic Opiates*	217,873	37.8%	1,346,122	23.3%	14.466	0.318	
Antipsychotics	42,726	7.4%	593,400	10.3%	-2.868	-0.101	
Anxiolytics/Hypnotics	115,313	20.0%	984,846	17.1%	2.939	0.076	
Lithium & Other Mood Stabilizers	39,083	6.8%	370,394	6.4%	0.362	0.015	
Antidepressants	252,090	43.7%	1,712,493	29.7%	14.054	0.295	
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference	
Mean number of ambulatory encounters*	16.3	14.1	12.4	18.9	3.899	0.234	
Mean number of emergency room encounters*	0.6	2.1	0.4	1.1	0.276	0.163	
Mean number of inpatient hospital encounters*	0.6	1.2	0.2	0.5	0.412	0.452	
Mean number of non-acute institutional encounters*	0.4	0.9	0.0	0.4	0.341	0.474	
Mean number of other ambulatory encounters*	10.7	18.7	24.9	46.8	-14.113	-0.396	
Mean number of filled prescriptions*	39.9	36.9	44.3	32.5	-4.405	-0.127	

Table 1bh. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of generics dispensed*	14.9	8.4	14.1	6.5	0.831	0.111
Mean number of unique drug classes dispensed*	11.7	5.8	12.4	6.1	-0.637	-0.107

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bi. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	41,913	100.0%	173,406	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years) [*]	83.7	3.3	85.1	4.0	-1.419	-0.384
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	41,913	100.0%	173,406	100.0%	0.000	NaN
Sex [*]						
Female	22,383	53.4%	100,998	58.2%	-4.840	-0.098
Male	19,530	46.6%	72,408	41.8%	4.840	0.098
Race ³						
American Indian or Alaska Native	260	0.6%	719	0.4%	0.206	0.029
Asian	982	2.3%	9,070	5.2%	-2.888	-0.152
Black or African American	3,140	7.5%	16,962	9.8%	-2.290	-0.082
Multi-racial	11	0.0%	45	0.0%	0.000	0.000
Native Hawaiian or Other Pacific Islander	113	0.3%	474	0.3%	-0.004	-0.001
Unknown	4,225	10.1%	21,855	12.6%	-2.523	-0.080
White	33,182	79.2%	124,281	71.7%	7.498	0.175
Hispanic origin						
Yes	1,148	2.7%	7,182	4.1%	-1.403	-0.077

Table 1bi. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	35,401	84.5%	144,808	83.5%	0.955	0.026
Unknown	5,364	12.8%	21,416	12.4%	0.448	0.014
Year*						
2015	414	1.0%	7,761	4.5%	-3.488	-0.215
2016	2,115	5.0%	30,891	17.8%	-12.768	-0.410
2017	2,777	6.6%	27,673	16.0%	-9.333	-0.298
2018	3,677	8.8%	25,370	14.6%	-5.857	-0.183
2019	4,990	11.9%	23,869	13.8%	-1.859	-0.056
2020	5,081	12.1%	19,550	11.3%	0.849	0.026
2021	7,395	17.6%	17,721	10.2%	7.424	0.216
2022	8,387	20.0%	13,755	7.9%	12.078	0.354
2023	7,077	16.9%	6,816	3.9%	12.954	0.434
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI)* ⁴	2.7	2.1	2.8	2.1	-0.137	-0.065
Combined comorbidity score* ⁵	3.4	2.9	3.7	3.3	-0.354	-0.113
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	13,218	31.5%	29,044	16.7%	14.788	0.351
Weight Reduction Surgery or Procedure*	34	0.1%	357	0.2%	-0.125	-0.033
Lifestyle intervention*	4,615	11.0%	14,268	8.2%	2.783	0.094
Cardiovascular Disease*	16,204	38.7%	72,167	41.6%	-2.956	-0.060

Table 1bi. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cognitive Impairment*	5,518	13.2%	33,394	19.3%	-6.092	-0.166
Traumatic Brain Injury*	103	0.2%	663	0.4%	-0.137	-0.024
Migraine*	666	1.6%	2,616	1.5%	0.080	0.007
Epilepsy*	498	1.2%	2,685	1.5%	-0.360	-0.031
Chronic Pain*	8,397	20.0%	27,607	15.9%	4.114	0.107
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	106	0.3%	408	0.2%	0.018	0.004
Psychiatric History Overall*	24,510	58.5%	97,555	56.3%	2.220	0.045
Psychiatric Drug Dispensings	16,615	39.6%	65,259	37.6%	2.008	0.041
Intentional Self-Harm Encounter	14	0.0%	55	0.0%	0.002	0.001
Any Other Psychiatric Event	19,875	47.4%	79,933	46.1%	1.324	0.027
Attention-Deficit/Hyperactivity Disorder	39	0.1%	83	0.0%	0.045	0.017
Akathisia	*****	*****	185	0.1%	*****	*****
Anxiety	5,100	12.2%	21,588	12.4%	-0.281	-0.009
Behavioral Disorder	1,199	2.9%	6,198	3.6%	-0.714	-0.040
Bipolar Disorder	577	1.4%	2,576	1.5%	-0.109	-0.009
Cerebral Degenerations usually Manifested in Childhood	1,008	2.4%	6,254	3.6%	-1.202	-0.070
Conduct Disorder	*****	*****	83	0.0%	*****	*****
Delirium	1,516	3.6%	11,048	6.4%	-2.754	-0.127
Depression	6,593	15.7%	26,720	15.4%	0.321	0.009

Table 1bi. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Electroconvulsive Therapy	*****	*****	*****	*****	-0.003	-0.003
Hallucination	177	0.4%	973	0.6%	-0.139	-0.020
Obsessive-Compulsive Disorder	28	0.1%	83	0.0%	0.019	0.008
Other Cerebral	2,972	7.1%	16,451	9.5%	-2.396	-0.087
Other Mental Disorders	426	1.0%	2,670	1.5%	-0.523	-0.047
Other Psychological Disorders	1,748	4.2%	9,370	5.4%	-1.233	-0.058
Persistent Mental Disorders due to Conditions Classified Elsewhere	4,274	10.2%	26,953	15.5%	-5.346	-0.160
Personality Disorders	28	0.1%	160	0.1%	-0.025	-0.009
Pervasive Developmental Disorders	*****	*****	14	0.0%	*****	*****
Post-Traumatic Stress Disorder	81	0.2%	230	0.1%	0.061	0.015
Psychotherapy	927	2.2%	4,652	2.7%	-0.471	-0.030
Psychotic Conditions	199	0.5%	1,936	1.1%	-0.642	-0.072
Schizophrenia	154	0.4%	845	0.5%	-0.120	-0.018
Sleep Disorder	9,336	22.3%	26,504	15.3%	6.990	0.180
Substance Abuse	816	1.9%	2,841	1.6%	0.309	0.023
Suicidal Behavior	155	0.4%	892	0.5%	-0.145	-0.022
Transcranial Magnetic Stimulation	*****	*****	*****	*****	0.006	0.007
Vagus Nerve Stimulation	32	0.1%	101	0.1%	0.018	0.007

Table 1bi. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	99	0.2%	0	0.0%	NaN	NaN
dulaglutide	17,055	40.7%	0	0.0%	NaN	NaN
exenatide	2,291	5.5%	0	0.0%	NaN	NaN
liraglutide	6,337	15.1%	0	0.0%	NaN	NaN
lixisenatide	1,060	2.5%	0	0.0%	NaN	NaN
semaglutide	14,431	34.4%	0	0.0%	NaN	NaN
tirzepatide	650	1.6%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	41,913	100.0%	173,406	100.0%	0.000	NaN
insulin*	15,898	37.9%	28,622	16.5%	21.425	0.496
metformin*	30,637	73.1%	126,504	73.0%	0.144	0.003
alpha-glucosidase inhibitors*	333	0.8%	1,308	0.8%	0.040	0.005
thiazolidinediones*	4,511	10.8%	13,673	7.9%	2.878	0.099
meglitinides*	1,346	3.2%	6,128	3.5%	-0.322	-0.018
amylin analogue*	*****	*****	*****	*****	0.008	0.010
sulfonylureas*	21,332	50.9%	90,401	52.1%	-1.237	-0.025
bile acid sequestrants*	202	0.5%	960	0.6%	-0.072	-0.010
Other Weight Loss Agents*	*****	*****	*****	*****	0.020	0.018
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	0	0.0%	0	0.0%	NaN	NaN
diethylpropion	0	0.0%	0	0.0%	NaN	NaN

Table 1bi. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
lorcaserin	0	0.0%	0	0.0%	NaN	NaN
phentermine	*****	*****	*****	*****	0.020	0.019
phentermine-topiramate	0	0.0%	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	0	0.0%	*****	*****	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	8,754	20.9%	36,862	21.3%	-0.372	-0.009
Antipsychotics	1,536	3.7%	8,054	4.6%	-0.980	-0.049
Anxiolytics/Hypnotics	5,937	14.2%	25,936	15.0%	-0.792	-0.022
Stabilizers	1,153	2.8%	5,179	3.0%	-0.236	-0.014
Antidepressants	13,182	31.5%	48,719	28.1%	3.356	0.073
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	13.1	11.0	12.2	11.1	0.966	0.087
Mean number of emergency room encounters *	0.4	0.9	0.4	1.0	-0.068	-0.068
Mean number of inpatient hospital encounters *	0.2	0.5	0.3	0.7	-0.159	-0.252
Mean number of non-acute institutional encounters *	0.1	0.3	0.2	0.5	-0.092	-0.209
Mean number of other ambulatory encounters *	5.6	11.4	7.7	14.3	-2.090	-0.161

Table 1bi. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of filled prescriptions*	27.4	20.7	27.4	20.9	-0.002	-0.000
Mean number of generics dispensed*	11.7	4.6	11.2	4.7	0.436	0.094
Mean number of unique drug classes dispensed*	10.5	4.1	9.6	4.3	0.927	0.221

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bj. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	51,160	N/A	176,576	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	85.0	4.0	84.9	3.9	0.142	0.036
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	51,160	100.0%	176,576	100.0%	0.000	NaN
Sex*						
Female	32,708	63.9%	101,380	57.4%	6.518	0.134
Male	18,453	36.1%	75,196	42.6%	-6.518	-0.134
Race ⁴						
American Indian or Alaska Native	270	0.5%	763	0.4%	0.095	0.014
Asian	2,032	4.0%	9,012	5.1%	-1.133	-0.055
Black or African American	4,023	7.9%	17,608	10.0%	-2.108	-0.074
Multi-racial	22	0.0%	43	0.0%	0.019	0.011
Native Hawaiian or Other Pacific Islander	124	0.2%	481	0.3%	-0.031	-0.006
Unknown	4,991	9.8%	22,145	12.5%	-2.786	-0.114
White	39,699	77.6%	126,525	71.7%	5.942	0.149

Table 1bj. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Hispanic origin						
Yes	1,508	2.9%	7,452	4.2%	-1.273	-0.069
No	43,617	85.3%	147,398	83.5%	1.779	0.076
Unknown	6,036	11.8%	21,725	12.3%	-0.506	-0.031
Year*						
2015	1,923	3.8%	6,586	3.7%	0.030	0.002
2016	7,494	14.6%	26,717	15.1%	-0.482	-0.014
2017	7,204	14.1%	24,813	14.1%	0.028	0.001
2018	7,252	14.2%	23,754	13.5%	0.722	0.021
2019	7,665	15.0%	23,739	13.4%	1.539	0.044
2020	5,069	9.9%	20,394	11.5%	-1.642	-0.053
2021	5,875	11.5%	20,764	11.8%	-0.276	-0.009
2022	5,664	11.1%	18,581	10.5%	0.548	0.018
2023	3,015	5.9%	11,228	6.4%	-0.466	-0.020
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	3.5	2.3	2.8	2.1	0.643	0.290
Combined comorbidity score ^{*,6}	5.0	3.8	3.7	3.3	1.318	0.370
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	12,192	23.8%	35,330	20.0%	3.823	0.093

Table 1bj. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weight Reduction Surgery or Procedure*	119	0.2%	312	0.2%	0.056	0.012
Lifestyle intervention*	4,287	8.4%	15,541	8.8%	-0.421	-0.015
Cardiovascular Disease*	26,267	51.3%	73,289	41.5%	9.836	0.198
Cognitive Impairment*	14,044	27.5%	32,243	18.3%	9.192	0.220
Traumatic Brain Injury*	293	0.6%	630	0.4%	0.215	0.032
Migraine*	1,391	2.7%	2,735	1.5%	1.171	0.081
Epilepsy*	1,674	3.3%	2,662	1.5%	1.764	0.116
Chronic Pain*	12,281	24.0%	29,850	16.9%	7.100	0.177
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	149	0.3%	433	0.2%	0.046	0.009
Psychiatric History Overall*	35,227	68.9%	100,787	57.1%	11.777	0.246
Psychiatric Drug Dispensings	24,699	48.3%	68,487	38.8%	9.492	0.193
Intentional Self-Harm Encounter	68	0.1%	51	0.0%	0.105	0.037
Any Other Psychiatric Event	29,379	57.4%	82,180	46.5%	10.885	0.219
Attention-Deficit/Hyperactivity Disorder	35	0.1%	86	0.0%	0.020	0.008
Akathisia	45	0.1%	195	0.1%	-0.022	-0.007
Anxiety	8,604	16.8%	22,591	12.8%	4.025	0.114
Behavioral Disorder	3,434	6.7%	6,163	3.5%	3.221	0.147
Bipolar Disorder	1,008	2.0%	2,690	1.5%	0.446	0.034

Table 1bj. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Cerebral Degenerations usually Manifested in Childhood	2,978	5.8%	6,174	3.5%	2.324	0.110
Conduct Disorder	14	0.0%	75	0.0%	-0.015	-0.008
Delirium	6,623	12.9%	10,580	6.0%	6.955	0.239
Depression	12,762	24.9%	27,500	15.6%	9.371	0.235
Electroconvulsive Therapy	25	0.0%	14	0.0%	0.040	0.024
Hallucination	373	0.7%	969	0.5%	0.180	0.023
Obsessive-Compulsive Disorder	50	0.1%	83	0.0%	0.050	0.019
Other Cerebral Degenerations	7,612	14.9%	16,298	9.2%	5.649	0.174
Other Mental Disorders	1,582	3.1%	2,573	1.5%	1.635	0.111
Other Psychological Disorders	4,085	8.0%	9,194	5.2%	2.778	0.113
Persistent Mental Disorders due to Conditions Classified Elsewhere	11,350	22.2%	25,896	14.7%	7.520	0.195
Personality Disorders	131	0.3%	155	0.1%	0.168	0.041
Pervasive Developmental Disorders	2	0.0%	14	0.0%	-0.004	-0.005
Post-Traumatic Stress Disorder	76	0.1%	238	0.1%	0.015	0.004
Psychotherapy	1,835	3.6%	4,757	2.7%	0.893	0.051
Psychotic Conditions	476	0.9%	1,773	1.0%	-0.074	-0.008
Schizophrenia	286	0.6%	887	0.5%	0.057	0.008
Sleep Disorder	12,070	23.6%	28,668	16.2%	7.356	0.185
Substance Abuse	1,131	2.2%	2,981	1.7%	0.523	0.038

Table 1bj. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Suicidal Behavior	232	0.5%	896	0.5%	-0.054	-0.008
Transcranial Magnetic Stimulation	2	0.0%	9	0.0%	-0.000	-0.000
Vagus Nerve Stimulation	25	0.0%	104	0.1%	-0.009	-0.004

Medical Product Use	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
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Index GLP-1RA Product

albiglutide	322	0.6%	0	0.0%	NaN	NaN
dulaglutide	21,863	42.7%	0	0.0%	NaN	NaN
exenatide	4,497	8.8%	0	0.0%	NaN	NaN
liraglutide	12,856	25.1%	0	0.0%	NaN	NaN
lixisenatide	733	1.4%	0	0.0%	NaN	NaN
semaglutide	10,618	20.8%	0	0.0%	NaN	NaN
tirzepatide	309	0.6%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	51,160	100.0%	176,576	100.0%	0.000	NaN
insulin*	21,527	42.1%	42,664	24.2%	17.915	0.388
metformin*	37,544	73.4%	128,844	73.0%	0.416	0.009
alpha-glucosidase inhibitors*	493	1.0%	1,448	0.8%	0.144	0.015
thiazolidinediones*	4,140	8.1%	15,160	8.6%	-0.494	-0.018
meglitinides*	1,947	3.8%	6,297	3.6%	0.239	0.013
amylin analogue*	1	0.0%	9	0.0%	-0.002	-0.003
sulfonylureas*	24,431	47.8%	91,672	51.9%	-4.163	-0.083
bile acid sequestrants*	673	1.3%	956	0.5%	0.775	0.081
Other Weight Loss Agents*	3	0.0%	6	0.0%	0.002	0.003

Table 1bj. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	0	0.0%	0	0.0%	NaN	NaN
diethylpropion	0	0.0%	0	0.0%	NaN	NaN
lorcaserin	0	0.0%	0	0.0%	NaN	NaN
phentermine	3	0.0%	5	0.0%	0.003	0.004
phentermine-topiramate	0	0.0%	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	0	0.0%	1	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	16,083	31.4%	37,950	21.5%	9.944	0.227
Antipsychotics	4,464	8.7%	8,281	4.7%	4.036	0.162
Anxiolytics/Hypnotics	9,982	19.5%	27,045	15.3%	4.194	0.111
Lithium & Other Mood Stabilizers	1,686	3.3%	5,604	3.2%	0.121	0.007
Antidepressants	18,861	36.9%	51,724	29.3%	7.574	0.162
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	15.3	12.0	12.5	11.8	2.785	0.234
Mean number of emergency room encounters*	0.9	1.7	0.4	1.0	0.421	0.301
Mean number of inpatient hospital encounters*	0.7	1.1	0.3	0.7	0.360	0.399
Mean number of non-acute institutional encounters*	0.4	0.8	0.1	0.5	0.205	0.311

Table 1bj. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 0% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of other ambulatory encounters*	12.8	18.4	7.5	14.0	5.323	0.326
Mean number of filled prescriptions*	39.6	31.4	27.8	21.2	11.803	0.440
Mean number of generics dispensed*	15.4	7.9	11.4	4.7	3.998	0.612
Mean number of unique drug classes dispensed*	12.6	6.1	9.9	4.4	2.682	0.506

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bk. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	1,064,766	N/A	1,402,713	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	62.0	10.3	63.3	11.4	-1.307	-0.121
Age						
18-24 years	3,762	0.4%	6,820	0.5%	-0.133	-0.021
25-44 years	107,946	10.1%	144,817	10.3%	-0.186	-0.006
45-64 years	449,686	42.2%	534,672	38.1%	4.116	0.095
65-79 years	446,918	42.0%	577,434	41.2%	0.808	0.019
≥ 80 years	56,455	5.3%	138,970	9.9%	-4.605	-0.178
Sex*						
Female	571,874	53.7%	757,012	54.0%	-0.259	-0.005
Male	492,893	46.3%	645,701	46.0%	0.259	0.005
Race ⁴						
American Indian or Alaska Native	7,113	0.7%	12,325	0.9%	-0.211	-0.024
Asian	16,477	1.5%	59,318	4.2%	-2.681	-0.162
Black or African American	99,825	9.4%	184,074	13.1%	-3.747	-0.121
Multi-racial	4,906	0.5%	3,926	0.3%	0.181	0.030
Native Hawaiian or Other Pacific Islander	3,023	0.3%	4,843	0.3%	-0.061	-0.011
Unknown	396,379	37.2%	435,507	31.0%	6.179	0.198
White	537,043	50.4%	702,721	50.1%	0.340	0.008
Hispanic origin						

Table 1bk. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Yes	45,854	4.3%	123,458	8.8%	-4.495	-0.191
No	602,050	56.5%	909,127	64.8%	-8.269	-0.289
Unknown	416,863	39.2%	370,129	26.4%	12.764	0.588
Year*						
2015	29,910	2.8%	45,351	3.2%	-0.424	-0.025
2016	133,540	12.5%	203,467	14.5%	-1.964	-0.058
2017	139,253	13.1%	214,665	15.3%	-2.225	-0.064
2018	136,441	12.8%	204,253	14.6%	-1.747	-0.051
2019	141,246	13.3%	206,285	14.7%	-1.441	-0.042
2020	134,885	12.7%	191,849	13.7%	-1.009	-0.030
2021	121,327	11.4%	136,438	9.7%	1.668	0.055
2022	130,722	12.3%	124,461	8.9%	3.404	0.112
2023	97,442	9.2%	75,944	5.4%	3.737	0.146
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	1.5	1.7	1.5	1.8	-0.064	-0.036
Combined comorbidity score ^{*,6}	1.8	2.4	1.9	2.5	-0.073	-0.030
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	426,787	40.1%	478,432	34.1%	5.975	0.125
Weight Reduction Surgery or Procedure*	1,058	0.1%	1,402	0.1%	-0.001	-0.000

Table 1bk. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Medical History						
Lifestyle intervention*	180,449	16.9%	204,852	14.6%	2.343	0.065
Cardiovascular Disease*	215,211	20.2%	296,967	21.2%	-0.959	-0.024
Cognitive Impairment*	35,398	3.3%	53,090	3.8%	-0.460	-0.025
Traumatic Brain Injury*	2,538	0.2%	3,396	0.2%	-0.004	-0.001
Migraine*	38,478	3.6%	44,967	3.2%	0.408	0.022
Epilepsy*	15,413	1.4%	20,694	1.5%	-0.028	-0.002
Chronic Pain*	216,227	20.3%	267,428	19.1%	1.242	0.031
Psychiatric History						
Previous Intentional Self-Harm Ever	7,634	0.7%	10,987	0.8%	-0.066	-0.008
Psychiatric History Overall*	636,018	59.7%	811,918	57.9%	1.851	0.038
Psychiatric Drug Dispensings	468,247	44.0%	611,091	43.6%	0.412	0.008
Intentional Self-Harm Encounter	1,274	0.1%	1,632	0.1%	0.003	0.001
Any Other Psychiatric Event	518,004	48.6%	647,511	46.2%	2.488	0.050
Attention-Deficit/Hyperactivity Disorder	10,409	1.0%	9,442	0.7%	0.304	0.034
Akathisia	1,135	0.1%	1,656	0.1%	-0.012	-0.003
Anxiety	168,761	15.8%	211,612	15.1%	0.764	0.021
Behavioral Disorder	42,732	4.0%	53,529	3.8%	0.197	0.010
Bipolar Disorder	39,565	3.7%	57,883	4.1%	-0.411	-0.021
Cerebral Degenerations usually Manifested in Childhood	11,340	1.1%	18,542	1.3%	-0.257	-0.024

Table 1bk. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Conduct Disorder	845	0.1%	1,553	0.1%	-0.031	-0.010
Delirium	19,994	1.9%	29,782	2.1%	-0.245	-0.018
Depression	190,897	17.9%	234,086	16.7%	1.240	0.033
Electroconvulsive Therapy	200	0.0%	327	0.0%	-0.005	-0.003
Hallucination	2,620	0.2%	4,001	0.3%	-0.039	-0.008
Obsessive-Compulsive Disorder	1,759	0.2%	2,277	0.2%	0.003	0.001
Other Cerebral Degenerations	18,858	1.8%	30,574	2.2%	-0.409	-0.029
Other Mental Disorders	9,253	0.9%	13,490	1.0%	-0.093	-0.010
Other Psychological Disorders	91,782	8.6%	134,718	9.6%	-0.984	-0.034
Persistent Mental Disorders due to Conditions Classified Elsewhere	25,417	2.4%	39,872	2.8%	-0.455	-0.029
Personality Disorders	4,246	0.4%	5,658	0.4%	-0.005	-0.001
Pervasive Developmental Disorders	1,216	0.1%	2,792	0.2%	-0.085	-0.021
Post-Traumatic Stress Disorder	17,099	1.6%	22,462	1.6%	0.005	0.000
Psychotherapy	55,365	5.2%	73,303	5.2%	-0.026	-0.001
Psychotic Conditions	5,206	0.5%	9,974	0.7%	-0.222	-0.029
Schizophrenia	16,111	1.5%	36,234	2.6%	-1.070	-0.076
Sleep Disorder	260,472	24.5%	262,623	18.7%	5.740	0.141
Substance Abuse	45,554	4.3%	65,621	4.7%	-0.400	-0.019
Suicidal Behavior	5,995	0.6%	7,697	0.5%	0.014	0.002
Transcranial Magnetic Stimulation	162	0.0%	144	0.0%	0.005	0.004
Vagus Nerve Stimulation	880	0.1%	888	0.1%	0.019	0.007

Table 1bk. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Index GLP-1RA Product						
albiglutide	13,154	1.2%	0	0.0%	NaN	NaN
dulaglutide	367,129	34.5%	0	0.0%	NaN	NaN
exenatide	98,898	9.3%	0	0.0%	NaN	NaN
liraglutide	269,027	25.3%	0	0.0%	NaN	NaN
lixisenatide	11,004	1.0%	0	0.0%	NaN	NaN
semaglutide	289,636	27.2%	0	0.0%	NaN	NaN
tirzepatide	17,856	1.7%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	1,064,765	100.0%	1,402,713	100.0%	-0.000	-0.002
insulin*	341,886	32.1%	459,358	32.7%	-0.639	-0.014
metformin*	934,626	87.8%	1,223,077	87.2%	0.584	0.018
alpha-glucosidase inhibitors*	4,935	0.5%	7,190	0.5%	-0.049	-0.007
thiazolidinediones*	82,057	7.7%	108,060	7.7%	0.003	0.000
meglitinides*	13,763	1.3%	20,367	1.5%	-0.159	-0.014
amylin analogue*	96	0.0%	142	0.0%	-0.001	-0.001
sulfonylureas*	419,991	39.4%	595,292	42.4%	-2.994	-0.061
bile acid sequestrants*	5,074	0.5%	5,952	0.4%	0.052	0.008
Other Weight Loss Agents*	2,489	0.2%	1,703	0.1%	0.112	0.027
benzphetamine	3	0.0%	3	0.0%	0.000	0.000
bupropion	311	0.0%	241	0.0%	0.012	0.008
diethylpropion	62	0.0%	38	0.0%	0.003	0.005
lorcaserin	133	0.0%	120	0.0%	0.004	0.004

Table 1bk. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
phentermine	1,838	0.2%	1,168	0.1%	0.089	0.025
phentermine-topiramate	131	0.0%	64	0.0%	0.008	0.008
phendimetrazine	55	0.0%	40	0.0%	0.002	0.004
orlistat	38	0.0%	67	0.0%	-0.001	-0.002
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	287,906	27.0%	370,940	26.4%	0.595	0.013
Antipsychotics	65,838	6.2%	117,357	8.4%	-2.183	-0.085
Anxiolytics/Hypnotics	195,664	18.4%	272,960	19.5%	-1.083	-0.028
Lithium & Other Mood Stabilizers	57,200	5.4%	92,495	6.6%	-1.222	-0.052
Antidepressants	380,253	35.7%	478,877	34.1%	1.573	0.033
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	11.0	10.5	11.2	12.6	-0.118	-0.010
Mean number of emergency room encounters *	0.4	1.3	0.4	1.1	0.015	0.012
Mean number of non-acute institutional encounters *	0.0	0.3	0.0	0.3	-0.004	-0.013
Mean number of other ambulatory encounters *	4.5	12.8	5.1	14.2	-0.637	-0.047
Mean number of filled prescriptions *	27.0	21.6	27.4	21.5	-0.314	-0.015

Table 1bk. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of generics dispensed*	11.2	5.6	11.1	5.3	0.069	0.013
Mean number of unique drug classes dispensed*	9.7	4.7	9.6	5.0	0.075	0.015

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1b. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Patient Characteristics ¹	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Covariate Balance	
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Unique patients	630,804	100.0%	720,423	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	60.3	10.6	65.5	11.0	-5.252	-0.487
Age						
18-24 years	4,017	0.6%	2,708	0.4%	0.261	0.037
25-44 years	83,364	13.2%	59,159	8.2%	5.004	0.162
45-64 years	267,236	42.4%	246,588	34.2%	8.136	0.168
65-79 years	253,804	40.2%	310,970	43.2%	-2.930	-0.059
≥ 80 years	22,383	3.5%	100,998	14.0%	-10.471	-0.376
Sex*						
Female	630,804	100.0%	720,423	100.0%	0.000	NaN
Male	0	0.0%	0	0.0%	NaN	NaN
Race ³						
American Indian or Alaska Native	5,083	0.8%	6,283	0.9%	-0.066	-0.007
Asian	8,869	1.4%	34,999	4.9%	-3.452	-0.199
Black or African American	74,382	11.8%	105,015	14.6%	-2.785	-0.082
Multi-racial	3,075	0.5%	1,645	0.2%	0.259	0.043
Native Hawaiian or Other Pacific Islander	1,555	0.2%	2,770	0.4%	-0.138	-0.025
Unknown	224,127	35.5%	207,373	28.8%	6.745	0.145
White	313,713	49.7%	362,338	50.3%	-0.563	-0.011
Hispanic origin						

Table 1b. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Yes	31,561	5.0%	68,642	9.5%	-4.525	-0.175
No	368,258	58.4%	486,091	67.5%	-9.094	-0.189
Unknown	230,985	36.6%	165,690	23.0%	13.619	0.301
Year*						
2015	9,606	1.5%	31,576	4.4%	-2.860	-0.170
2016	47,339	7.5%	135,874	18.9%	-11.356	-0.341
2017	56,533	9.0%	134,747	18.7%	-9.742	-0.285
2018	65,208	10.3%	115,242	16.0%	-5.659	-0.168
2019	79,256	12.6%	104,127	14.5%	-1.889	-0.055
2020	87,622	13.9%	89,298	12.4%	1.495	0.044
2021	83,782	13.3%	53,749	7.5%	5.821	0.192
2022	107,226	17.0%	38,463	5.3%	11.659	0.377
2023	94,232	14.9%	17,347	2.4%	12.531	0.457
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	1.2	1.5	1.4	1.7	-0.270	-0.164
Combined comorbidity score ^{*,5}	1.6	2.0	1.9	2.5	-0.317	-0.137

Table 1b. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Obesity*	312,850	49.6%	205,122	28.5%	21.123	0.444
Weight Reduction Surgery or Procedure*	431	0.1%	874	0.1%	-0.053	-0.017
Lifestyle intervention*	129,621	20.5%	103,790	14.4%	6.142	0.162
Cardiovascular Disease*	93,485	14.8%	142,587	19.8%	-4.972	-0.132
Cognitive Impairment*	11,297	1.8%	40,193	5.6%	-3.788	-0.202
Traumatic Brain Injury*	1,283	0.2%	1,629	0.2%	-0.023	-0.005
Migraine*	34,951	5.5%	25,980	3.6%	1.934	0.093
Epilepsy*	7,587	1.2%	10,896	1.5%	-0.310	-0.027
Chronic Pain*	150,124	23.8%	132,937	18.5%	5.346	0.131
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	5,518	0.9%	4,915	0.7%	0.193	0.022
Psychiatric History Overall*	420,751	66.7%	412,115	57.2%	9.496	0.197
Psychiatric Drug Dispensings	344,718	54.6%	325,460	45.2%	9.471	0.190
Intentional Self-Harm Encounter	691	0.1%	809	0.1%	-0.003	-0.001
Any Other Psychiatric Event	333,024	52.8%	318,656	44.2%	8.562	0.172
Attention-Deficit/Hyperactivity Disorder	7,843	1.2%	3,138	0.4%	0.808	0.089
Akathisia	679	0.1%	789	0.1%	-0.002	-0.001
Anxiety	133,163	21.1%	116,386	16.2%	4.955	0.128
Behavioral Disorder	26,759	4.2%	25,768	3.6%	0.665	0.034
Bipolar Disorder	30,649	4.9%	27,451	3.8%	1.048	0.051

Table 1b. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product		Covariate Balance			
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cerebral Degenerations usually Manifested in Childhood	4,917	0.8%	10,433	1.4%	-0.669	-0.064
Conduct Disorder	303	0.0%	453	0.1%	-0.015	-0.006
Delirium	6,917	1.1%	18,470	2.6%	-1.467	-0.110
Depression	142,069	22.5%	132,398	18.4%	4.144	0.103
Electroconvulsive Therapy	118	0.0%	175	0.0%	-0.006	-0.004
Hallucination	1,157	0.2%	2,288	0.3%	-0.134	-0.027
Obsessive-Compulsive Disorder	1,317	0.2%	855	0.1%	0.090	0.022
Other Cerebral Degenerations	7,426	1.2%	20,569	2.9%	-1.678	-0.120
Other Mental Disorders	5,187	0.8%	7,432	1.0%	-0.209	-0.022
Other Psychological Disorders	50,206	8.0%	55,939	7.8%	0.194	0.007
Persistent Mental Disorders due to Conditions Classified Elsewhere	7,803	1.2%	31,122	4.3%	-3.083	-0.188
Personality Disorders	3,711	0.6%	2,802	0.4%	0.199	0.029
Pervasive Developmental Disorders	540	0.1%	493	0.1%	0.017	0.006
Post-Traumatic Stress Disorder	15,800	2.5%	10,429	1.4%	1.057	0.076
Psychotherapy	43,392	6.9%	36,262	5.0%	1.845	0.078
Psychotic Conditions	2,123	0.3%	5,595	0.8%	-0.440	-0.059
Schizophrenia	9,525	1.5%	14,649	2.0%	-0.523	-0.040
Sleep Disorder	153,679	24.4%	112,581	15.6%	8.735	0.220
Substance Abuse	23,062	3.7%	22,400	3.1%	0.547	0.030
Suicidal Behavior	3,141	0.5%	4,034	0.6%	-0.062	-0.009

Table 1b. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Psychiatric History						
Transcranial Magnetic Stimulation	148	0.0%	50	0.0%	0.017	0.013
Vagus Nerve Stimulation	619	0.1%	500	0.1%	0.029	0.010
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Medical Product Use						
Index GLP-1RA Product						
albiglutide	4,914	0.8%	0	0.0%	NaN	NaN
dulaglutide	199,305	31.6%	0	0.0%	NaN	NaN
exenatide	46,330	7.3%	0	0.0%	NaN	NaN
liraglutide	136,409	21.6%	0	0.0%	NaN	NaN
lixisenatide	7,769	1.2%	0	0.0%	NaN	NaN
semaglutide	219,621	34.8%	0	0.0%	NaN	NaN
tirzepatide	16,911	2.7%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	630,803	100.0%	720,423	100.0%	-0.000	-0.002
insulin*	206,207	32.7%	134,439	18.7%	14.028	0.325
metformin*	555,208	88.0%	620,488	86.1%	1.888	0.056
alpha-glucosidase inhibitors*	2,392	0.4%	3,726	0.5%	-0.138	-0.021
thiazolidinediones*	43,784	6.9%	45,748	6.4%	0.591	0.024
meglitinides*	6,390	1.0%	11,107	1.5%	-0.529	-0.047
amylin analogue*	86	0.0%	25	0.0%	0.010	0.011
sulfonylureas*	215,942	34.2%	319,927	44.4%	-10.175	-0.209
bile acid sequestrants*	2,612	0.4%	3,236	0.4%	-0.035	-0.005
Other Weight Loss Agents*	2,679	0.4%	495	0.1%	0.356	0.072

Table 1b. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
benzphetamine	*****	*****	*****	*****	0.000	0.002
bupropion	314	0.0%	74	0.0%	0.040	0.023
diethylpropion	57	0.0%	*****	*****	*****	*****
lorcaserin	130	0.0%	47	0.0%	0.014	0.012
phentermine	1,999	0.3%	305	0.0%	0.275	0.065
phentermine-topiramate	146	0.0%	*****	*****	*****	*****
phendimetrazine	46	0.0%	*****	*****	*****	*****
orlistat	50	0.0%	*****	*****	*****	*****
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	170,951	27.1%	188,175	26.1%	0.980	0.022
Antipsychotics	48,970	7.8%	53,653	7.4%	0.316	0.012
Anxiolytics/Hypnotics	145,801	23.1%	144,777	20.1%	3.017	0.073
Lithium & Other Mood Stabilizers	42,874	6.8%	42,551	5.9%	0.890	0.037
Antidepressants	293,695	46.6%	259,302	36.0%	10.566	0.216
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	11.4	10.4	10.8	11.0	0.598	0.056
Mean number of emergency room encounters*	0.4	1.1	0.4	1.1	-0.043	-0.039
Mean number of inpatient hospital encounters*	0.1	0.4	0.2	0.5	-0.085	-0.181

Table 1b1. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of non-acute institutional encounters [*]	0.0	0.2	0.1	0.3	-0.042	-0.158
Mean number of other ambulatory encounters [*]	4.2	12.4	5.6	15.3	-1.458	-0.105
Mean number of filled prescriptions [*]	27.6	20.8	27.3	21.4	0.283	0.013
Mean number of generics dispensed [*]	11.5	5.4	11.1	5.4	0.480	0.089
Mean number of unique drug classes dispensed [*]	10.4	4.9	9.3	4.8	1.064	0.220

^{*} Covariate included in the propensity score logistic regression model.

¹ Covariates in blue show a standardized difference greater than 0.1.

² Value represents standard deviation where no % follows the value.

³ Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴ 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.

⁵ 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bm. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Patient Characteristics ^{1,2}	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weighted patients	593,957	N/A	721,762	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	61.7	10.4	63.4	11.6	-1.651	-0.150
Age						
18-24 years	2,577	0.4%	4,246	0.6%	-0.155	-0.022
25-44 years	64,751	10.9%	77,701	10.8%	0.136	0.005
45-64 years	248,648	41.9%	266,245	36.9%	4.975	0.114
65-79 years	245,082	41.3%	296,259	41.0%	0.216	0.005
≥ 80 years	32,899	5.5%	77,311	10.7%	-5.172	-0.195
Sex*						
Female	593,957	100.0%	721,762	100.0%	0.000	NaN
Male	0	0.0%	0	0.0%	NaN	NaN
Race ⁴						
American Indian or Alaska Native	4,454	0.7%	7,120	1.0%	-0.236	-0.026
Asian	9,254	1.6%	30,238	4.2%	-2.631	-0.159
Black or African American	68,570	11.5%	113,361	15.7%	-4.162	-0.124
Multi-racial	2,609	0.4%	1,851	0.3%	0.183	0.032
Native Hawaiian or Other Pacific Islander	1,574	0.3%	2,488	0.3%	-0.080	-0.015
Unknown	214,444	36.1%	205,909	28.5%	7.576	0.241
White	293,052	49.3%	360,796	50.0%	-0.649	-0.016

Table 1bm. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Hispanic origin						
Yes	29,103	4.9%	70,878	9.8%	-4.920	-0.199
No	342,419	57.7%	488,926	67.7%	-10.090	-0.348
Unknown	222,435	37.4%	161,958	22.4%	15.010	0.714
Year*						
2015	16,165	2.7%	23,187	3.2%	-0.491	-0.029
2016	73,815	12.4%	104,926	14.5%	-2.110	-0.062
2017	77,393	13.0%	111,040	15.4%	-2.354	-0.068
2018	75,091	12.6%	104,821	14.5%	-1.880	-0.055
2019	78,020	13.1%	106,096	14.7%	-1.564	-0.045
2020	76,129	12.8%	100,092	13.9%	-1.050	-0.031
2021	66,761	11.2%	68,777	9.5%	1.711	0.057
2022	73,857	12.4%	63,537	8.8%	3.632	0.120
2023	56,726	9.6%	39,286	5.4%	4.108	0.159
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications						
Severity Index(aDCSI) ^{*,5}	1.3	1.7	1.4	1.7	-0.095	-0.056
Combined comorbidity score ^{*,6}	1.8	2.3	1.9	2.4	-0.097	-0.041
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	252,411	42.5%	261,510	36.2%	6.264	0.130

Table 1bm. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Procedure*	625	0.1%	783	0.1%	-0.003	-0.001
Lifestyle intervention*	112,734	19.0%	113,545	15.7%	3.249	0.088
Cardiovascular Disease*	103,813	17.5%	136,311	18.9%	-1.408	-0.037
Cognitive Impairment*	20,677	3.5%	30,405	4.2%	-0.731	-0.038
Traumatic Brain Injury*	1,331	0.2%	1,680	0.2%	-0.009	-0.002
Migraine*	30,554	5.1%	32,728	4.5%	0.610	0.028
Epilepsy*	8,698	1.5%	11,014	1.5%	-0.061	-0.005
Chronic Pain*	135,310	22.8%	156,407	21.7%	1.111	0.027
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	4,859	0.8%	6,610	0.9%	-0.098	-0.011
Psychiatric History Overall*	379,899	64.0%	450,233	62.4%	1.581	0.033
Psychiatric Drug Dispensings	307,774	51.8%	365,395	50.6%	1.192	0.024
Intentional Self-Harm Encounter	798	0.1%	938	0.1%	0.004	0.001
Any Other Psychiatric Event	301,218	50.7%	351,786	48.7%	1.974	0.040
Attention-Deficit/Hyperactivity Disorder	6,105	1.0%	4,818	0.7%	0.360	0.039
Akathisia	690	0.1%	914	0.1%	-0.011	-0.003
Anxiety	118,629	20.0%	136,016	18.8%	1.128	0.029
Behavioral Disorder	25,314	4.3%	29,003	4.0%	0.244	0.012
Bipolar Disorder	26,757	4.5%	36,344	5.0%	-0.531	-0.025
Cerebral Degenerations usually Manifested in Childhood	6,227	1.0%	9,524	1.3%	-0.271	-0.025
Conduct Disorder	263	0.0%	543	0.1%	-0.031	-0.013

Table 1bm. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Delirium	11,225	1.9%	16,058	2.2%	-0.335	-0.024
Depression	131,794	22.2%	149,349	20.7%	1.497	0.037
Electroconvulsive Therapy	124	0.0%	226	0.0%	-0.011	-0.007
Hallucination	1,586	0.3%	2,222	0.3%	-0.041	-0.008
Obsessive-Compulsive Disorder	1,082	0.2%	1,222	0.2%	0.013	0.003
Other Cerebral Degenerations	10,616	1.8%	16,836	2.3%	-0.545	-0.039
Other Mental Disorders	5,522	0.9%	7,693	1.1%	-0.136	-0.014
Other Psychological Disorders	47,392	8.0%	64,900	9.0%	-1.013	-0.036
Persistent Mental Disorders due to Conditions Classified Elsewhere	14,981	2.5%	23,163	3.2%	-0.687	-0.042
Personality Disorders	3,170	0.5%	4,114	0.6%	-0.036	-0.005
Pervasive Developmental Disorders	357	0.1%	806	0.1%	-0.052	-0.018
Post-Traumatic Stress Disorder	12,465	2.1%	15,577	2.2%	-0.060	-0.004
Psychotherapy	37,179	6.3%	45,697	6.3%	-0.072	-0.003
Psychotic Conditions	2,920	0.5%	5,230	0.7%	-0.233	-0.030
Schizophrenia	8,842	1.5%	18,010	2.5%	-1.007	-0.072
Sleep Disorder	136,203	22.9%	131,173	18.2%	4.757	0.119
Substance Abuse	21,477	3.6%	28,102	3.9%	-0.278	-0.015
Suicidal Behavior	3,465	0.6%	4,298	0.6%	-0.012	-0.002
Transcranial Magnetic Stimulation	92	0.0%	90	0.0%	0.003	0.003
Vagus Nerve Stimulation	575	0.1%	538	0.1%	0.022	0.008

Table 1bm. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Index GLP-1RA Product						
albiglutide	7,173	1.2%	0	0.0%	NaN	NaN
dulaglutide	195,996	33.0%	0	0.0%	NaN	NaN
exenatide	54,719	9.2%	0	0.0%	NaN	NaN
liraglutide	157,065	26.4%	0	0.0%	NaN	NaN
lixisenatide	5,760	1.0%	0	0.0%	NaN	NaN
semaglutide	163,171	27.5%	0	0.0%	NaN	NaN
tirzepatide	10,956	1.8%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	593,956	100.0%	721,762	100.0%	-0.000	-0.002
insulin*	186,609	31.4%	236,801	32.8%	-1.391	-0.030
metformin*	518,169	87.2%	624,197	86.5%	0.758	0.023
alpha-glucosidase inhibitors*	2,650	0.4%	3,649	0.5%	-0.059	-0.009
thiazolidinediones*	39,826	6.7%	49,647	6.9%	-0.173	-0.007
meglitinides*	7,397	1.2%	10,369	1.4%	-0.191	-0.017
amylin analogue*	55	0.0%	80	0.0%	-0.002	-0.002
sulfonylureas*	224,594	37.8%	297,992	41.3%	-3.474	-0.071
bile acid sequestrants*	3,023	0.5%	3,327	0.5%	0.048	0.007
Other Weight Loss Agents*	1,880	0.3%	1,071	0.1%	0.168	0.035
benzphetamine	2	0.0%	3	0.0%	0.000	0.000
bupropion	241	0.0%	139	0.0%	0.021	0.012
diethylpropion	48	0.0%	31	0.0%	0.004	0.005
lorcaserin	104	0.0%	90	0.0%	0.005	0.004

Table 1bm. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical Product				Covariate Balance		
GLP-1 Receptor Agonists			DPP-4 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
phentermine	1,370	0.2%	712	0.1%	0.132	0.033
phentermine-topiramate	109	0.0%	44	0.0%	0.012	0.011
phendimetrazine	44	0.0%	28	0.0%	0.004	0.005
orlistat	29	0.0%	53	0.0%	-0.003	-0.003
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	170,906	28.8%	207,312	28.7%	0.051	0.001
Antipsychotics	42,503	7.2%	68,073	9.4%	-2.276	-0.083
Anxiolytics/Hypnotics	131,268	22.1%	168,105	23.3%	-1.190	-0.028
Lithium & Other Mood Stabilizers	36,946	6.2%	54,115	7.5%	-1.277	-0.051
Antidepressants	259,326	43.7%	297,003	41.1%	2.511	0.051
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	11.5	10.3	11.6	12.4	-0.170	-0.015
Mean number of emergency room encounters *	0.5	1.4	0.5	1.2	0.008	0.006
Mean number of inpatient hospital encounters *	0.1	0.5	0.2	0.5	-0.012	-0.023
Mean number of non-acute institutional encounters *	0.0	0.3	0.0	0.3	-0.006	-0.020
Mean number of other ambulatory encounters *	4.8	13.7	5.6	15.3	-0.793	-0.055

Table 1bm. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of filled prescriptions*	28.5	22.7	29.2	22.7	-0.683	-0.030
Mean number of generics dispensed*	11.8	5.9	11.8	5.6	-0.029	-0.005
Mean number of unique drug classes dispensed*	10.3	5.0	10.3	5.2	0.013	0.002

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bn. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	508,587	100.0%	669,544	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	61.2	10.3	64.3	10.7	-3.145	-0.299
Age						
18-24 years	2,004	0.4%	1,729	0.3%	0.136	0.024
25-44 years	56,495	11.1%	56,004	8.4%	2.744	0.093
45-64 years	216,658	42.6%	254,277	38.0%	4.622	0.094
65-79 years	213,900	42.1%	285,126	42.6%	-0.527	-0.011
≥ 80 years	19,530	3.8%	72,408	10.8%	-6.974	-0.270
Sex*						
Female	0	0.0%	0	0.0%	NaN	NaN
Male	508,587	100.0%	669,544	100.0%	0.000	NaN
Race ³						
American Indian or Alaska Native	3,137	0.6%	4,476	0.7%	-0.052	-0.006
Asian	7,375	1.5%	31,543	4.7%	-3.261	-0.190
Black or African American	34,636	6.8%	64,208	9.6%	-2.780	-0.101
Multi-racial	2,605	0.5%	1,996	0.3%	0.214	0.034
Native Hawaiian or Other Pacific Islander	1,474	0.3%	2,582	0.4%	-0.096	-0.017
Unknown	194,539	38.3%	225,151	33.6%	4.623	0.096
White	264,821	52.1%	339,588	50.7%	1.351	0.027
Hispanic origin						
Yes	19,192	3.8%	48,629	7.3%	-3.489	-0.153

Table 1bn. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	282,502	55.5%	415,036	62.0%	-6.441	-0.131
Unknown	206,893	40.7%	205,879	30.7%	9.931	0.208
Year*						
2015	7,560	1.5%	29,700	4.4%	-2.949	-0.175
2016	35,741	7.0%	127,669	19.1%	-12.041	-0.363
2017	43,513	8.6%	124,746	18.6%	-10.076	-0.297
2018	52,757	10.4%	108,224	16.2%	-5.791	-0.171
2019	65,217	12.8%	96,083	14.4%	-1.527	-0.045
2020	70,222	13.8%	79,508	11.9%	1.932	0.058
2021	73,190	14.4%	50,503	7.5%	6.848	0.220
2022	87,945	17.3%	36,529	5.5%	11.836	0.379
2023	72,442	14.2%	16,582	2.5%	11.767	0.435
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI)* ⁴	1.5	1.7	1.6	1.8	-0.124	-0.070
Combined comorbidity score* ⁵	1.6	2.1	1.9	2.6	-0.258	-0.109
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	227,922	44.8%	164,853	24.6%	20.193	0.434
Weight Reduction Surgery or Procedure*	224	0.0%	743	0.1%	-0.067	-0.024
Lifestyle intervention*	80,603	15.8%	84,206	12.6%	3.272	0.094
Cardiovascular Disease*	105,698	20.8%	160,174	23.9%	-3.140	-0.075

Table 1bn. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cognitive Impairment*	8,818	1.7%	27,416	4.1%	-2.361	-0.141
Traumatic Brain Injury*	1,137	0.2%	1,663	0.2%	-0.025	-0.005
Migraine*	9,136	1.8%	9,421	1.4%	0.389	0.031
Epilepsy*	5,530	1.1%	9,695	1.4%	-0.361	-0.032
Chronic Pain*	89,427	17.6%	92,566	13.8%	3.758	0.103
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	2,850	0.6%	3,479	0.5%	0.041	0.006
Psychiatric History Overall*	289,857	57.0%	321,608	48.0%	8.959	0.180
Psychiatric Drug Dispensings	185,965	36.6%	207,033	30.9%	5.644	0.120
Intentional Self-Harm Encounter	350	0.1%	649	0.1%	-0.028	-0.010
Any Other Psychiatric Event	243,690	47.9%	263,613	39.4%	8.543	0.173
Attention-Deficit/Hyperactivity Disorder	5,659	1.1%	3,333	0.5%	0.615	0.069
Akathisia	396	0.1%	692	0.1%	-0.025	-0.008
Anxiety	57,932	11.4%	60,904	9.1%	2.294	0.076
Behavioral Disorder	17,687	3.5%	22,344	3.3%	0.140	0.008
Bipolar Disorder	14,411	2.8%	16,578	2.5%	0.358	0.022
Cerebral Degenerations usually Manifested in Childhood	4,193	0.8%	9,486	1.4%	-0.592	-0.056
Conduct Disorder	663	0.1%	834	0.1%	0.006	0.002
Delirium	5,371	1.1%	14,991	2.2%	-1.183	-0.093
Depression	64,679	12.7%	71,832	10.7%	1.989	0.062
Electroconvulsive Therapy	62	0.0%	91	0.0%	-0.001	-0.001
Hallucination	736	0.1%	1,703	0.3%	-0.110	-0.025

Table 1bn. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Obsessive-Compulsive Disorder	857	0.2%	810	0.1%	0.048	0.013
Other Cerebral Degenerations	6,356	1.2%	15,336	2.3%	-1.041	-0.079
Other Mental Disorders	3,212	0.6%	5,693	0.9%	-0.219	-0.026
Other Psychological Disorders	45,649	9.0%	62,841	9.4%	-0.410	-0.014
Persistent Mental Disorders due to Conditions Classified Elsewhere	6,075	1.2%	20,439	3.1%	-1.858	-0.129
Personality Disorders	1,027	0.2%	1,340	0.2%	0.002	0.000
Pervasive Developmental Disorders	1,349	0.3%	1,405	0.2%	0.055	0.011
Post-Traumatic Stress Disorder	5,672	1.1%	5,100	0.8%	0.354	0.037
Psychotherapy	20,924	4.1%	22,776	3.4%	0.712	0.037
Psychotic Conditions	1,637	0.3%	4,838	0.7%	-0.401	-0.056
Schizophrenia	8,406	1.7%	14,868	2.2%	-0.568	-0.041
Sleep Disorder	142,661	28.1%	113,436	16.9%	11.108	0.268
Substance Abuse	24,761	4.9%	32,807	4.9%	-0.031	-0.001
Suicidal Behavior	2,135	0.4%	3,270	0.5%	-0.069	-0.010
Transcranial Magnetic Stimulation	94	0.0%	38	0.0%	0.013	0.012
Vagus Nerve Stimulation	325	0.1%	290	0.0%	0.021	0.009

Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	3,843	0.8%	0	0.0%	NaN	NaN
dulaglutide	177,558	34.9%	0	0.0%	NaN	NaN
exenatide	36,258	7.1%	0	0.0%	NaN	NaN

Table 1bn. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
liraglutide	94,517	18.6%	0	0.0%	NaN	NaN
lixisenatide	7,834	1.5%	0	0.0%	NaN	NaN
semaglutide	177,314	34.9%	0	0.0%	NaN	NaN
tirzepatide	11,667	2.3%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	508,586	100.0%	669,544	100.0%	-0.000	-0.002
insulin*	177,276	34.9%	111,747	16.7%	18.167	0.425
metformin*	454,377	89.3%	586,882	87.7%	1.687	0.053
alpha-glucosidase inhibitors*	2,108	0.4%	3,512	0.5%	-0.110	-0.016
thiazolidinediones*	49,384	9.7%	50,845	7.6%	2.116	0.075
meglitinides*	5,607	1.1%	10,058	1.5%	-0.400	-0.035
amylin analogue*	67	0.0%	15	0.0%	0.011	0.012
sulfonylureas*	197,998	38.9%	307,452	45.9%	-6.989	-0.142
bile acid sequestrants*	1,653	0.3%	2,294	0.3%	-0.018	-0.003
Other Weight Loss Agents*	1,072	0.2%	235	0.0%	0.176	0.050
benzphetamine	*****	*****	0	0.0%	NaN	NaN
bupropion	110	0.0%	42	0.0%	0.015	0.013
diethylpropion	26	0.0%	*****	*****	*****	*****
lorcaserin	51	0.0%	22	0.0%	0.007	0.008
phentermine	826	0.2%	157	0.0%	0.139	0.046
phentermine-topiramate	49	0.0%	*****	*****	*****	*****
phendimetrazine	17	0.0%	*****	*****	*****	*****
orlistat	19	0.0%	*****	*****	*****	*****
setmelanotide	0	0.0%	0	0.0%	NaN	NaN

Table 1bn. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Other Agents						
Analgesic Opiates*	114,695	22.6%	146,024	21.8%	0.742	0.018
Antipsychotics	27,272	5.4%	39,054	5.8%	-0.471	-0.020
Anxiolytics/Hypnotics	72,620	14.3%	86,809	13.0%	1.313	0.038
Lithium & Other Mood Stabilizers	23,738	4.7%	29,936	4.5%	0.196	0.009
Antidepressants	143,605	28.2%	148,412	22.2%	6.070	0.140
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	10.2	10.6	10.0	11.6	0.283	0.025
Mean number of emergency room encounters*	0.3	0.9	0.3	1.1	-0.045	-0.045
Mean number of inpatient hospital encounters*	0.1	0.4	0.2	0.6	-0.075	-0.154
Mean number of non-acute institutional encounters*	0.0	0.2	0.1	0.3	-0.034	-0.136
Mean number of other ambulatory encounters*	3.5	10.2	4.6	12.8	-1.099	-0.095
Mean number of filled prescriptions*	24.4	18.2	23.5	18.6	0.933	0.051
Mean number of generics dispensed*	10.2	4.6	9.7	4.7	0.533	0.115
Mean number of unique drug classes dispensed*	9.1	4.1	8.0	4.2	1.043	0.250

Table 1bn. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	DPP-4 Inhibitors	

^{*} Covariate included in the propensity score logistic regression model.

¹ Covariates in blue show a standardized difference greater than 0.1.

² Value represents standard deviation where no % follows the value.

³ Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴ 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.

⁵ 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bo. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	470,755	N/A	681,343	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	62.2	10.1	63.1	11.1	-0.910	-0.086
Age						
18-24 years	1,248	0.3%	2,564	0.4%	-0.111	-0.020
25-44 years	43,732	9.3%	66,839	9.8%	-0.520	-0.018
45-64 years	200,533	42.6%	269,545	39.6%	3.037	0.070
65-79 years	201,490	42.8%	281,224	41.3%	1.526	0.037
≥ 80 years	23,753	5.0%	61,172	9.0%	-3.932	-0.157
Sex*						
Female	0	0.0%	0	0.0%	NaN	NaN
Male	470,755	100.0%	681,343	100.0%	0.000	NaN
Race ⁴						
American Indian or Alaska Native	2,673	0.6%	5,194	0.8%	-0.194	-0.024
Asian	7,189	1.5%	29,302	4.3%	-2.774	-0.167
Black or African American	31,912	6.8%	69,495	10.2%	-3.421	-0.125
Multi-racial	2,268	0.5%	2,108	0.3%	0.172	0.028
Native Hawaiian or Other Pacific Islander	1,427	0.3%	2,377	0.3%	-0.046	-0.008
Unknown	182,140	38.7%	229,930	33.7%	4.945	0.159
White	243,145	51.7%	342,937	50.3%	1.318	0.034
Hispanic origin						

Table 1bo. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Yes	17,050	3.6%	52,071	7.6%	-4.021	-0.182
No	259,347	55.1%	420,459	61.7%	-6.618	-0.235
Unknown	194,358	41.3%	208,813	30.6%	10.639	0.473
Year*						
2015	13,711	2.9%	22,186	3.3%	-0.344	-0.020
2016	59,601	12.7%	98,872	14.5%	-1.851	-0.054
2017	61,654	13.1%	103,885	15.2%	-2.150	-0.062
2018	61,216	13.0%	99,787	14.6%	-1.642	-0.048
2019	63,086	13.4%	100,424	14.7%	-1.338	-0.039
2020	58,782	12.5%	91,783	13.5%	-0.984	-0.029
2021	54,586	11.6%	67,422	9.9%	1.700	0.055
2022	57,103	12.1%	60,567	8.9%	3.241	0.107
2023	41,016	8.7%	36,416	5.3%	3.368	0.133
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	1.6	1.8	1.7	1.8	-0.022	-0.012
Combined comorbidity score ^{*,6}	1.8	2.4	1.9	2.5	-0.041	-0.017
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	175,769	37.3%	214,401	31.5%	5.870	0.125
Weight Reduction Surgery or Procedure*	433	0.1%	608	0.1%	0.003	0.001

Table 1bo. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Lifestyle intervention*	69,141	14.7%	89,710	13.2%	1.520	0.044
Cardiovascular Disease*	110,616	23.5%	162,148	23.8%	-0.301	-0.007
Cognitive Impairment*	14,650	3.1%	22,547	3.3%	-0.197	-0.011
Traumatic Brain Injury*	1,198	0.3%	1,713	0.3%	0.003	0.001
Migraine*	8,540	1.8%	11,072	1.6%	0.189	0.015
Epilepsy*	6,678	1.4%	9,638	1.4%	0.004	0.000
Chronic Pain*	81,715	17.4%	109,064	16.0%	1.351	0.036
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	2,747	0.6%	4,347	0.6%	-0.054	-0.007
Psychiatric History Overall*	258,164	54.8%	358,123	52.6%	2.279	0.046
Psychiatric Drug Dispensings	164,042	34.8%	240,005	35.2%	-0.379	-0.008
Intentional Self-Harm Encounter	458	0.1%	709	0.1%	-0.007	-0.002
Any Other Psychiatric Event	217,620	46.2%	293,706	43.1%	3.121	0.063
Attention-Deficit/Hyperactivity Disorder	4,311	0.9%	4,594	0.7%	0.242	0.027
Akathisia	448	0.1%	748	0.1%	-0.015	-0.005
Anxiety	51,618	11.0%	72,684	10.7%	0.297	0.010
Behavioral Disorder	17,417	3.7%	24,514	3.6%	0.102	0.005
Bipolar Disorder	12,927	2.7%	21,087	3.1%	-0.349	-0.021
Cerebral Degenerations usually Manifested in Childhood	5,100	1.1%	9,010	1.3%	-0.239	-0.022
Conduct Disorder	581	0.1%	1,005	0.1%	-0.024	-0.007

Table 1bo. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Delirium	8,723	1.9%	13,654	2.0%	-0.151	-0.011
Depression	60,650	12.9%	81,722	12.0%	0.889	0.027
Electroconvulsive Therapy	72	0.0%	105	0.0%	-0.000	-0.000
Hallucination	1,020	0.2%	1,751	0.3%	-0.040	-0.008
Obsessive-Compulsive Disorder	671	0.1%	1,027	0.2%	-0.008	-0.002
Other Cerebral Degenerations	8,208	1.7%	13,661	2.0%	-0.262	-0.019
Other Mental Disorders	3,780	0.8%	5,689	0.8%	-0.032	-0.004
Other Psychological Disorders	44,164	9.4%	70,233	10.3%	-0.927	-0.031
Persistent Mental Disorders due to Conditions Classified Elsewhere	10,405	2.2%	16,581	2.4%	-0.223	-0.015
Personality Disorders	1,052	0.2%	1,525	0.2%	-0.000	-0.000
Pervasive Developmental Disorders	869	0.2%	1,904	0.3%	-0.095	-0.020
Post-Traumatic Stress Disorder	4,684	1.0%	6,729	1.0%	0.007	0.001
Psychotherapy	18,436	3.9%	27,057	4.0%	-0.055	-0.003
Psychotic Conditions	2,260	0.5%	4,727	0.7%	-0.214	-0.028
Schizophrenia	7,283	1.5%	18,123	2.7%	-1.113	-0.078
Sleep Disorder	123,390	26.2%	131,840	19.4%	6.861	0.165
Substance Abuse	23,833	5.1%	38,081	5.6%	-0.526	-0.024
Suicidal Behavior	2,520	0.5%	3,375	0.5%	0.040	0.006
Transcranial Magnetic Stimulation	72	0.0%	52	0.0%	0.008	0.007
Vagus Nerve Stimulation	309	0.1%	335	0.0%	0.016	0.007
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Index GLP-1RA Product albiglutide	5,946	1.3%	0	0.0%	NaN	NaN

Table 1bo. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
dulaglutide	170,607	36.2%	0	0.0%	NaN	NaN
exenatide	44,085	9.4%	0	0.0%	NaN	NaN
liraglutide	112,119	23.8%	0	0.0%	NaN	NaN
lixisenatide	5,225	1.1%	0	0.0%	NaN	NaN
semaglutide	126,849	26.9%	0	0.0%	NaN	NaN
tirzepatide	6,987	1.5%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	470,754	100.0%	681,343	100.0%	-0.000	-0.002
insulin*	155,274	33.0%	222,521	32.7%	0.325	0.007
metformin*	416,153	88.4%	599,734	88.0%	0.379	0.012
alpha-glucosidase inhibitors*	2,273	0.5%	3,536	0.5%	-0.036	-0.005
thiazolidinediones*	41,752	8.9%	58,993	8.7%	0.211	0.007
meglitinides*	6,353	1.3%	10,023	1.5%	-0.122	-0.010
amylin analogue*	30	0.0%	54	0.0%	-0.001	-0.002
sulfonylureas*	194,314	41.3%	298,352	43.8%	-2.512	-0.051
bile acid sequestrants*	2,039	0.4%	2,588	0.4%	0.053	0.008
Other Weight Loss Agents*	663	0.1%	567	0.1%	0.057	0.017
benzphetamine	1	0.0%	0	0.0%	NaN	NaN
bupropion	76	0.0%	91	0.0%	0.003	0.002
diethylpropion	15	0.0%	6	0.0%	0.002	0.005
lorcaserin	32	0.0%	24	0.0%	0.003	0.005
phentermine	505	0.1%	416	0.1%	0.046	0.016

Table 1bo. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
phentermine-topiramate	29	0.0%	17	0.0%	0.004	0.005
phendimetrazine	11	0.0%	10	0.0%	0.001	0.002
orlistat	11	0.0%	12	0.0%	0.001	0.001
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	117,517	25.0%	161,970	23.8%	1.191	0.028
Antipsychotics	23,549	5.0%	48,437	7.1%	-2.107	-0.089
Anxiolytics/Hypnotics	65,705	14.0%	101,866	15.0%	-0.993	-0.028
Lithium & Other Mood Stabilizers	20,456	4.3%	37,629	5.5%	-1.177	-0.055
Antidepressants	124,373	26.4%	176,300	25.9%	0.545	0.012
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	10.6	10.7	10.6	12.8	-0.036	-0.003
Mean number of emergency room encounters*	0.4	1.3	0.4	1.1	0.020	0.017
Mean number of inpatient hospital encounters*	0.2	0.6	0.2	0.5	0.002	0.004
Mean number of non-acute institutional encounters*	0.0	0.3	0.0	0.3	-0.001	-0.005
Mean number of other ambulatory encounters*	4.1	11.5	4.6	12.8	-0.487	-0.040
Mean number of filled prescriptions*	25.2	19.9	25.2	19.9	0.058	0.003

Table 1bo. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of generics dispensed*	10.5	5.1	10.3	4.9	0.184	0.037
Mean number of unique drug classes dispensed*	9.0	4.3	8.8	4.5	0.153	0.035

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bp. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	6,021	100.0%	4,437	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	21.9	2.0	22.2	1.9	-0.303	-0.152
Age						
18-24 years	6,021	100.0%	4,437	100.0%	0.000	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	4,017	66.7%	2,708	61.0%	5.684	0.119
Male	2,004	33.3%	1,729	39.0%	-5.684	-0.119
Race ³						
American Indian or Alaska Native	80	1.3%	70	1.6%	-0.249	-0.021
Asian	126	2.1%	180	4.1%	-1.964	-0.114
Black or African American	899	14.9%	676	15.2%	-0.304	-0.009
Multi-racial	46	0.8%	16	0.4%	0.403	0.054
Native Hawaiian or Other Pacific Islander	23	0.4%	31	0.7%	-0.317	-0.043
Unknown	3,487	57.9%	2,374	53.5%	4.409	0.089
White	1,360	22.6%	1,090	24.6%	-1.979	-0.047
Hispanic origin						
Yes	793	13.2%	1,043	23.5%	-10.336	-0.270

Table 1bp. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	2,348	39.0%	2,012	45.3%	-6.349	-0.129
Unknown	2,880	47.8%	1,382	31.1%	16.685	0.346
Year*						
2015	86	1.4%	109	2.5%	-1.028	-0.075
2016	434	7.2%	738	16.6%	-9.425	-0.294
2017	586	9.7%	977	22.0%	-12.287	-0.341
2018	727	12.1%	859	19.4%	-7.286	-0.201
2019	1,073	17.8%	749	16.9%	0.940	0.025
2020	1,456	24.2%	784	17.7%	6.512	0.161
2021	492	8.2%	123	2.8%	5.399	0.239
2022	672	11.2%	79	1.8%	9.380	0.388
2023	495	8.2%	19	0.4%	7.793	0.390
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI)* ⁴	0.2	0.6	0.2	0.6	0.012	0.021
Combined comorbidity score* ⁵	1.1	1.1	1.0	1.2	0.124	0.108
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	3,212	53.3%	1,639	36.9%	16.407	0.334
Weight Reduction Surgery or Procedure*	*****	*****	*****	*****	0.011	0.006
Lifestyle intervention*	1,780	29.6%	1,031	23.2%	6.327	0.144
Cardiovascular Disease*	54	0.9%	33	0.7%	0.153	0.017

Table 1bp. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cognitive Impairment*	14	0.2%	*****	*****	*****	*****
Traumatic Brain Injury*	12	0.2%	*****	*****	*****	*****
Migraine*	295	4.9%	186	4.2%	0.707	0.034
Epilepsy*	112	1.9%	111	2.5%	-0.642	-0.044
Chronic Pain*	381	6.3%	202	4.6%	1.775	0.078
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	183	3.0%	120	2.7%	0.335	0.020
Psychiatric History Overall*	3,397	56.4%	2,170	48.9%	7.512	0.151
Psychiatric Drug Dispensings	2,554	42.4%	1,599	36.0%	6.380	0.131
Intentional Self-Harm Encounter	55	0.9%	39	0.9%	0.034	0.004
Any Other Psychiatric Event	2,986	49.6%	1,881	42.4%	7.200	0.145
Attention-Deficit/Hyperactivity Disorder	472	7.8%	245	5.5%	2.317	0.093
Akathisia	*****	*****	*****	*****	-0.001	-0.000
Anxiety	1,272	21.1%	654	14.7%	6.386	0.167
Behavioral Disorder	584	9.7%	345	7.8%	1.924	0.068
Bipolar Disorder	499	8.3%	351	7.9%	0.377	0.014
Cerebral Degenerations usually Manifested in Childhood	11	0.2%	*****	*****	*****	*****
Conduct Disorder	*****	*****	44	1.0%	*****	*****
Delirium	45	0.7%	28	0.6%	0.116	0.014
Depression	1,348	22.4%	777	17.5%	4.876	0.122
Electroconvulsive Therapy	*****	*****	*****	*****	0.011	0.006
Hallucination	19	0.3%	21	0.5%	-0.158	-0.025

Table 1bp. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Obsessive-Compulsive Disorder	55	0.9%	15	0.3%	0.575	0.073
Other Cerebral Degenerations	13	0.2%	*****	*****	*****	*****
Other Mental Disorders	106	1.8%	80	1.8%	-0.043	-0.003
Other Psychological Disorders	562	9.3%	462	10.4%	-1.078	-0.036
Persistent Mental Disorders due to Conditions Classified Elsewhere	*****	*****	*****	*****	0.005	0.002
Personality Disorders	105	1.7%	57	1.3%	0.459	0.038
Pervasive Developmental Disorders	348	5.8%	218	4.9%	0.867	0.039
Post-Traumatic Stress Disorder	278	4.6%	161	3.6%	0.989	0.050
Psychotherapy	863	14.3%	434	9.8%	4.552	0.140
Psychotic Conditions	67	1.1%	69	1.6%	-0.442	-0.039
Schizophrenia	169	2.8%	174	3.9%	-1.115	-0.062
Sleep Disorder	789	13.1%	354	8.0%	5.126	0.168
Substance Abuse	145	2.4%	128	2.9%	-0.477	-0.030
Suicidal Behavior	61	1.0%	57	1.3%	-0.272	-0.025
Transcranial Magnetic Stimulation	*****	*****	0	0.0%	NaN	NaN
Vagus Nerve Stimulation	*****	*****	*****	*****	0.011	0.006
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	80	1.3%	0	0.0%	NaN	NaN

Table 1bp. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
dulaglutide	1,679	27.9%	0	0.0%	NaN	NaN
exenatide	666	11.1%	0	0.0%	NaN	NaN
liraglutide	1,791	29.7%	0	0.0%	NaN	NaN
lixisenatide	43	0.7%	0	0.0%	NaN	NaN
semaglutide	1,637	27.2%	0	0.0%	NaN	NaN
tirzepatide	128	2.1%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	6,021	100.0%	4,437	100.0%	0.000	NaN
insulin*	2,083	34.6%	915	20.6%	13.974	0.316
metformin*	5,797	96.3%	4,271	96.3%	0.021	0.001
alpha-glucosidase inhibitors*	*****	*****	*****	*****	-0.013	-0.004
thiazolidinediones*	200	3.3%	165	3.7%	-0.397	-0.022
meglitinides*	12	0.2%	16	0.4%	-0.161	-0.031
amylin analogue*	*****	*****	0	0.0%	NaN	NaN
sulfonylureas*	993	16.5%	1,143	25.8%	-9.268	-0.229
bile acid sequestrants*	*****	*****	*****	*****	0.027	0.014
Other Weight Loss Agents*	34	0.6%	*****	*****	*****	*****
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	*****	*****	0	0.0%	NaN	NaN
diethylpropion	*****	*****	0	0.0%	NaN	NaN
lorcaserin	*****	*****	0	0.0%	NaN	NaN
phentermine	19	0.3%	*****	*****	*****	*****
phentermine-topiramate	*****	*****	0	0.0%	NaN	NaN

Table 1bp. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	*****	*****	0	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	710	11.8%	600	13.5%	-1.731	-0.052
Antipsychotics	834	13.9%	599	13.5%	0.351	0.010
Anxiolytics/Hypnotics	930	15.4%	556	12.5%	2.915	0.084
Lithium & Other Mood Stabilizers	568	9.4%	431	9.7%	-0.280	-0.010
Antidepressants	2,071	34.4%	1,193	26.9%	7.509	0.163
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	9.4	11.8	8.4	10.7	1.012	0.090
Mean number of emergency room encounters*	0.6	1.5	0.8	1.8	-0.125	-0.075
Mean number of inpatient hospital encounters*	0.1	0.3	0.1	0.4	-0.024	-0.062
Mean number of non-acute institutional encounters*	0.0	0.1	0.0	0.2	-0.008	-0.044
Mean number of other ambulatory encounters*	6.5	21.2	7.7	24.8	-1.161	-0.050
Mean number of filled prescriptions*	17.6	15.6	16.6	16.1	0.994	0.063
Mean number of generics dispensed*	7.9	4.7	7.6	4.7	0.274	0.058

Table 1bp. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of unique drug classes dispensed*	7.0	4.2	6.1	4.2	0.849	0.201

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bq. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Patient Characteristics ^{1,2}	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weighted patients	5,593	N/A	4,559	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years) [*]	22.0	2.0	22.0	2.0	0.047	0.023
Age						
18-24 years	5,593	100.0%	4,559	100.0%	0.000	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex [*]						
Female	3,604	64.4%	2,871	63.0%	1.456	0.030
Male	1,989	35.6%	1,688	37.0%	-1.456	-0.030
Race ⁴						
American Indian or Alaska Native	70	1.2%	66	1.4%	-0.201	-0.018
Asian	119	2.1%	146	3.2%	-1.066	-0.066
Black or African American	797	14.3%	805	17.7%	-3.407	-0.096
Multi-racial	27	0.5%	20	0.4%	0.042	0.006
Native Hawaiian or Other Pacific Islander	25	0.4%	28	0.6%	-0.186	-0.025
Unknown	3,224	57.6%	2,397	52.6%	5.063	0.120
White	1,331	23.8%	1,096	24.0%	-0.245	-0.006
Hispanic origin						

Table 1bq. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Yes	719	12.9%	1,085	23.8%	-10.950	-0.299
No	2,253	40.3%	2,105	46.2%	-5.878	-0.143
Unknown	2,620	46.9%	1,369	30.0%	16.827	0.547
Year*						
2015	106	1.9%	100	2.2%	-0.284	-0.020
2016	621	11.1%	546	12.0%	-0.880	-0.028
2017	808	14.5%	781	17.1%	-2.667	-0.073
2018	796	14.2%	740	16.2%	-1.985	-0.055
2019	964	17.2%	942	20.7%	-3.416	-0.088
2020	1,143	20.4%	999	21.9%	-1.489	-0.037
2021	396	7.1%	148	3.2%	3.846	0.183
2022	486	8.7%	224	4.9%	3.768	0.161
2023	272	4.9%	80	1.8%	3.106	0.181
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	0.2	0.6	0.2	0.6	-0.006	-0.010
Combined comorbidity score ^{*,6}	1.1	1.2	1.1	1.2	0.008	0.007
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	2,737	48.9%	1,975	43.3%	5.618	0.116
Weight Reduction Surgery or Procedure*	0	0.0%	0	0.0%	NaN	NaN

Table 1bq. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Lifestyle intervention*	1,530	27.4%	1,197	26.3%	1.101	0.025
Cardiovascular Disease*	50	0.9%	26	0.6%	0.317	0.037
Cognitive Impairment*	9	0.2%	9	0.2%	-0.050	-0.012
Traumatic Brain Injury*	7	0.1%	5	0.1%	0.002	0.000
Migraine*	281	5.0%	191	4.2%	0.833	0.040
Epilepsy*	110	2.0%	106	2.3%	-0.358	-0.025
Chronic Pain*	337	6.0%	262	5.8%	0.266	0.011
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	167	3.0%	162	3.5%	-0.573	-0.032
Psychiatric History Overall*	3,083	55.1%	2,443	53.6%	1.543	0.031
Psychiatric Drug Dispensings	2,294	41.0%	1,878	41.2%	-0.178	-0.004
Intentional Self-Harm Encounter	56	1.0%	44	1.0%	0.037	0.004
Any Other Psychiatric Event	2,702	48.3%	2,119	46.5%	1.827	0.037
Attention-Deficit/Hyperactivity Disorder	406	7.3%	324	7.1%	0.150	0.006
Akathisia	9	0.2%	1	0.0%	0.147	0.048
Anxiety	1,132	20.2%	741	16.2%	3.995	0.104
Behavioral Disorder	527	9.4%	405	8.9%	0.527	0.018
Bipolar Disorder	460	8.2%	441	9.7%	-1.446	-0.051
Cerebral Degenerations usually Manifested in Childhood	14	0.2%	2	0.1%	0.193	0.050

Table 1bq. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Conduct Disorder	55	1.0%	45	1.0%	-0.007	-0.001
Delirium	40	0.7%	20	0.4%	0.275	0.036
Depression	1,197	21.4%	903	19.8%	1.585	0.039
Electroconvulsive Therapy	3	0.0%	3	0.1%	-0.008	-0.004
Hallucination	22	0.4%	26	0.6%	-0.173	-0.025
Obsessive-Compulsive Disorder	48	0.9%	24	0.5%	0.339	0.041
Other Cerebral Degenerations	17	0.3%	5	0.1%	0.208	0.046
Other Mental Disorders	78	1.4%	80	1.8%	-0.351	-0.028
Other Psychological Disorders	542	9.7%	480	10.5%	-0.832	-0.028
Persistent Mental Disorders due to Conditions Classified Elsewhere	2	0.0%	6	0.1%	-0.089	-0.032
Personality Disorders	97	1.7%	79	1.7%	0.004	0.000
Pervasive Developmental Disorders	311	5.6%	260	5.7%	-0.151	-0.007
Post-Traumatic Stress Disorder	238	4.2%	209	4.6%	-0.345	-0.017
Psychotherapy	739	13.2%	519	11.4%	1.830	0.056
Psychotic Conditions	78	1.4%	76	1.7%	-0.281	-0.023
Schizophrenia	164	2.9%	236	5.2%	-2.240	-0.115
Sleep Disorder	701	12.5%	472	10.3%	2.192	0.070
Substance Abuse	147	2.6%	141	3.1%	-0.456	-0.027
Suicidal Behavior	56	1.0%	57	1.2%	-0.238	-0.023
Transcranial Magnetic Stimulation	2	0.0%	0	0.0%	NaN	NaN
Vagus Nerve Stimulation	3	0.1%	1	0.0%	0.043	0.023

Table 1bq. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Index GLP-1RA Product						
albiglutide	107	1.9%	0	0.0%	NaN	NaN
dulaglutide	1,586	28.4%	0	0.0%	NaN	NaN
exenatide	732	13.1%	0	0.0%	NaN	NaN
liraglutide	1,813	32.4%	0	0.0%	NaN	NaN
lixisenatide	37	0.7%	0	0.0%	NaN	NaN
semaglutide	1,238	22.1%	0	0.0%	NaN	NaN
tirzepatide	83	1.5%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	5,593	100.0%	4,559	100.0%	0.000	NaN
insulin*	1,875	33.5%	1,833	40.2%	-6.672	-0.140
metformin*	5,367	96.0%	4,370	95.9%	0.115	0.006
alpha-glucosidase inhibitors*	3	0.1%	4	0.1%	-0.032	-0.012
thiazolidinediones*	201	3.6%	173	3.8%	-0.208	-0.011
meglitinides*	18	0.3%	14	0.3%	0.009	0.002
amylin analogue*	0	0.0%	0	0.0%	NaN	NaN
sulfonylureas*	1,094	19.6%	987	21.7%	-2.089	-0.052
bile acid sequestrants*	0	0.0%	0	0.0%	NaN	NaN
Other Weight Loss Agents*	3	0.0%	1	0.0%	0.013	0.007
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	0	0.0%	0	0.0%	NaN	NaN
diethylpropion	1	0.0%	0	0.0%	NaN	NaN
lorcaserin	0	0.0%	0	0.0%	NaN	NaN

Table 1bq. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
phentermine	2	0.0%	1	0.0%	-0.001	-0.001
phentermine-topiramate	0	0.0%	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	0	0.0%	0	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	787	14.1%	623	13.7%	0.393	0.011
Antipsychotics	761	13.6%	781	17.1%	-3.523	-0.101
Anxiolytics/Hypnotics	839	15.0%	714	15.7%	-0.675	-0.019
Lithium & Other Mood Stabilizers	509	9.1%	571	12.5%	-3.437	-0.112
Antidepressants	1,847	33.0%	1,437	31.5%	1.490	0.032
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	9.4	11.7	9.5	12.5	-0.136	-0.011
Mean number of emergency room encounters*	0.8	2.0	0.8	1.6	-0.012	-0.007
Mean number of inpatient hospital encounters*	0.1	0.4	0.1	0.4	-0.004	-0.010
Mean number of non-acute institutional encounters*	0.0	0.1	0.0	0.2	0.002	0.013
Mean number of other ambulatory encounters*	7.0	22.2	7.9	24.7	-0.948	-0.040

Table 1bq. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of filled prescriptions*	18.2	17.3	18.7	18.2	-0.493	-0.028
Mean number of generics dispensed*	8.2	5.3	8.3	4.9	-0.123	-0.024
Mean number of unique drug classes dispensed*	7.0	4.5	7.1	4.6	-0.114	-0.025

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1br. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Patient Characteristics ¹	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Covariate Balance	
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Unique patients	139,859	100.0%	115,163	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years) [*]	38.4	4.9	38.5	4.9	-0.084	-0.017
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	139,859	100.0%	115,163	100.0%	0.000	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex [*]						
Female	83,364	59.6%	59,159	51.4%	8.236	0.166
Male	56,495	40.4%	56,004	48.6%	-8.236	-0.166
Race ³						
American Indian or Alaska Native	1,583	1.1%	1,673	1.5%	-0.321	-0.028
Asian	2,116	1.5%	5,005	4.3%	-2.833	-0.169
Black or African American	14,433	10.3%	15,645	13.6%	-3.265	-0.101
Multi-racial	1,317	0.9%	684	0.6%	0.348	0.040
Native Hawaiian or Other Pacific Islander	490	0.4%	619	0.5%	-0.187	-0.028
Unknown	84,189	60.2%	60,107	52.2%	8.003	0.162
White	35,731	25.5%	31,430	27.3%	-1.744	-0.040
Hispanic origin						
Yes	11,092	7.9%	17,570	15.3%	-7.326	-0.230

Table 1br. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	48,349	34.6%	51,409	44.6%	-10.070	-0.207
Unknown	80,418	57.5%	46,184	40.1%	17.396	0.353
Year*						
2015	2,237	1.6%	4,418	3.8%	-2.237	-0.138
2016	11,558	8.3%	21,730	18.9%	-10.605	-0.313
2017	14,238	10.2%	24,496	21.3%	-11.090	-0.308
2018	16,296	11.7%	20,868	18.1%	-6.469	-0.182
2019	20,296	14.5%	18,202	15.8%	-1.294	-0.036
2020	24,539	17.5%	16,737	14.5%	3.012	0.082
2021	15,047	10.8%	4,610	4.0%	6.756	0.261
2022	20,238	14.5%	3,025	2.6%	11.844	0.433
2023	15,410	11.0%	1,077	0.9%	10.083	0.435
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI)* ⁴	0.5	1.0	0.4	1.0	0.038	0.039
Combined comorbidity score* ⁵	1.0	1.4	0.9	1.4	0.082	0.058
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	74,291	53.1%	37,865	32.9%	20.239	0.418
Weight Reduction Surgery or Procedure*	*****	*****	*****	*****	0.000	0.000
Lifestyle intervention*	37,026	26.5%	24,507	21.3%	5.194	0.122
Cardiovascular Disease*	5,718	4.1%	4,783	4.2%	-0.065	-0.003

Table 1br. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Cognitive Impairment*	237	0.2%	*****	*****	*****	*****
Traumatic Brain Injury*	324	0.2%	*****	*****	*****	*****
Migraine*	9,300	6.6%	5,395	4.7%	1.965	0.085
Epilepsy*	2,184	1.6%	2,047	1.8%	-0.216	-0.017
Chronic Pain*	21,001	15.0%	13,213	11.5%	3.543	0.105
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	2,121	1.5%	1,531	1.3%	0.187	0.016
Psychiatric History Overall*	86,595	61.9%	59,562	51.7%	10.196	0.207
Psychiatric Drug Dispensings	66,208	47.3%	44,980	39.1%	8.281	0.168
Intentional Self-Harm Encounter	324	0.2%	330	0.3%	-0.055	-0.011
Any Other Psychiatric Event	72,979	52.2%	48,673	42.3%	9.916	0.200
Attention- Deficit/Hyperactivity Disorder	4,453	3.2%	1,835	1.6%	1.591	0.104
Akathisia	107	0.1%	103	0.1%	-0.013	-0.004
Anxiety	30,565	21.9%	17,154	14.9%	6.959	0.180
Behavioral Disorder	8,782	6.3%	5,858	5.1%	1.192	0.052
Bipolar Disorder	9,998	7.1%	7,411	6.4%	0.713	0.028
Cerebral Degenerations usually Manifested in Childhood	406	0.3%	324	0.3%	0.009	0.002
Conduct Disorder	390	0.3%	397	0.3%	-0.066	-0.012
Delirium	765	0.5%	825	0.7%	-0.169	-0.021
Depression	26,835	19.2%	16,883	14.7%	4.527	0.121

Table 1br. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Electroconvulsive Therapy	46	0.0%	30	0.0%	0.007	0.004
Hallucination	322	0.2%	422	0.4%	-0.136	-0.025
Obsessive-Compulsive Disorder	639	0.5%	316	0.3%	0.182	0.030
Other Cerebral Degenerations	306	0.2%	270	0.2%	-0.016	-0.003
Other Mental Disorders	1,421	1.0%	1,216	1.1%	-0.040	-0.004
Other Psychological Disorders	14,967	10.7%	12,646	11.0%	-0.279	-0.009
Persistent Mental Disorders due to Conditions Classified Elsewhere	*****	*****	*****	*****	-0.047	-0.016
Personality Disorders	1,570	1.1%	1,072	0.9%	0.192	0.019
Pervasive Developmental Disorders	1,022	0.7%	840	0.7%	0.001	0.000
Post-Traumatic Stress Disorder	5,614	4.0%	3,394	2.9%	1.067	0.058
Psychotherapy	14,497	10.4%	8,811	7.7%	2.715	0.095
Psychotic Conditions	791	0.6%	1,239	1.1%	-0.510	-0.057
Schizophrenia	4,666	3.3%	5,297	4.6%	-1.263	-0.065
Sleep Disorder	29,552	21.1%	14,904	12.9%	8.188	0.219
Substance Abuse	6,881	4.9%	6,333	5.5%	-0.579	-0.026
Suicidal Behavior	848	0.6%	765	0.7%	-0.058	-0.007
Transcranial Magnetic Stimulation	*****	*****	*****	*****	0.020	0.016
Vagus Nerve Stimulation	79	0.1%	43	0.0%	0.019	0.009

Table 1br. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	1,798	1.3%	0	0.0%	NaN	NaN
dulaglutide	40,810	29.2%	0	0.0%	NaN	NaN
exenatide	13,022	9.3%	0	0.0%	NaN	NaN
liraglutide	35,186	25.2%	0	0.0%	NaN	NaN
lixisenatide	1,091	0.8%	0	0.0%	NaN	NaN
semaglutide	44,092	31.5%	0	0.0%	NaN	NaN
tirzepatide	4,063	2.9%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	139,859	100.0%	115,163	100.0%	0.000	NaN
insulin*	41,008	29.3%	20,939	18.2%	11.139	0.264
metformin*	130,799	93.5%	107,776	93.6%	-0.064	-0.003
alpha-glucosidase inhibitors*	*****	*****	*****	*****	-0.022	-0.004
thiazolidinediones*	7,053	5.0%	5,024	4.4%	0.680	0.032
meglitinides*	474	0.3%	491	0.4%	-0.087	-0.014
amylin analogue*	*****	*****	*****	*****	0.008	0.011
sulfonylureas*	36,493	26.1%	40,686	35.3%	-9.236	-0.201
bile acid sequestrants*	*****	*****	*****	*****	0.047	0.011
Other Weight Loss Agents*	893	0.6%	158	0.1%	0.501	0.081
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	*****	*****	19	0.0%	*****	*****
diethylpropion	*****	*****	*****	*****	0.008	0.012
lorcaserin	55	0.0%	*****	*****	*****	*****
phentermine	664	0.5%	108	0.1%	0.381	0.072

Table 1br. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
phentermine-topiramate	48	0.0%	*****	*****	*****	*****
phendimetrazine	*****	*****	*****	*****	0.005	0.007
orlistat	*****	*****	*****	*****	0.002	0.002
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	30,636	21.9%	25,636	22.3%	-0.356	-0.009
Antipsychotics	16,067	11.5%	13,878	12.1%	-0.563	-0.017
Anxiolytics/Hypnotics	28,893	20.7%	20,276	17.6%	3.052	0.078
Lithium & Other Mood Stabilizers	12,954	9.3%	10,355	9.0%	0.271	0.009
Antidepressants	54,023	38.6%	34,422	29.9%	8.737	0.185
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	9.3	10.6	8.5	11.3	0.793	0.072
Mean number of emergency room encounters *	0.5	1.4	0.6	1.5	-0.052	-0.036
Mean number of inpatient hospital encounters *	0.1	0.3	0.1	0.4	-0.021	-0.054
Mean number of non-acute institutional encounters *	0.0	0.1	0.0	0.2	-0.007	-0.044
Mean number of other ambulatory encounters *	4.0	13.3	4.7	16.2	-0.697	-0.047
Mean number of filled prescriptions *	23.6	19.8	22.2	19.7	1.401	0.071

Table 1br. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of generics dispensed*	9.7	5.3	9.1	5.3	0.600	0.113
Mean number of unique drug classes dispensed*	8.6	4.7	7.4	4.7	1.222	0.259

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bs. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Patient Characteristics ^{1,2}	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weighted patients	134,513	N/A	116,241	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	38.6	4.8	38.4	4.9	0.153	0.031
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	134,513	100.0%	116,241	100.0%	0.000	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	75,676	56.3%	67,435	58.0%	-1.754	-0.036
Male	58,838	43.7%	48,806	42.0%	1.754	0.036
Race ⁴						
American Indian or Alaska Native	1,483	1.1%	1,868	1.6%	-0.504	-0.044
Asian	2,129	1.6%	4,182	3.6%	-2.015	-0.128
Black or African American	13,537	10.1%	17,080	14.7%	-4.631	-0.147
Multi-racial	1,219	0.9%	705	0.6%	0.299	0.036
Native Hawaiian or Other Pacific Islander	496	0.4%	582	0.5%	-0.132	-0.020
Unknown	81,854	60.9%	58,925	50.7%	10.159	0.276
White	33,796	25.1%	32,898	28.3%	-3.177	-0.082
Hispanic origin						

Table 1bs. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Yes	10,432	7.8%	17,843	15.3%	-7.594	-0.250
No	45,766	34.0%	53,377	45.9%	-11.896	-0.351
Unknown	78,315	58.2%	45,021	38.7%	19.490	0.758
Year*						
2015	3,412	2.5%	3,148	2.7%	-0.171	-0.011
2016	16,618	12.4%	16,599	14.3%	-1.925	-0.057
2017	18,785	14.0%	20,137	17.3%	-3.358	-0.093
2018	18,190	13.5%	19,118	16.4%	-2.924	-0.082
2019	19,241	14.3%	19,782	17.0%	-2.714	-0.075
2020	20,311	15.1%	20,946	18.0%	-2.920	-0.080
2021	12,333	9.2%	6,721	5.8%	3.387	0.133
2022	15,030	11.2%	6,446	5.5%	5.629	0.211
2023	10,592	7.9%	3,346	2.9%	4.996	0.228
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	0.5	1.0	0.5	1.1	-0.036	-0.035
Combined comorbidity score ^{*,6}	1.0	1.4	1.1	1.5	-0.059	-0.041
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	65,124	48.4%	46,353	39.9%	8.537	0.178
Weight Reduction Surgery or Procedure*	114	0.1%	98	0.1%	0.001	0.000
Lifestyle intervention*	33,718	25.1%	25,958	22.3%	2.735	0.065

Table 1bs. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Cardiovascular Disease*	6,066	4.5%	5,399	4.6%	-0.135	-0.006
Cognitive Impairment*	303	0.2%	283	0.2%	-0.018	-0.004
Traumatic Brain Injury*	298	0.2%	255	0.2%	0.003	0.001
Migraine*	8,634	6.4%	7,025	6.0%	0.375	0.016
Epilepsy*	2,336	1.7%	2,143	1.8%	-0.107	-0.008
Chronic Pain*	20,263	15.1%	16,818	14.5%	0.596	0.017
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	2,014	1.5%	1,920	1.7%	-0.154	-0.013
Psychiatric History Overall*	79,840	59.4%	68,018	58.5%	0.840	0.018
Psychiatric Drug Dispensings	60,133	44.7%	53,372	45.9%	-1.210	-0.025
Intentional Self-Harm Encounter	398	0.3%	360	0.3%	-0.014	-0.002
Any Other Psychiatric Event	67,356	50.1%	55,688	47.9%	2.167	0.045
Attention-Deficit/Hyperactivity Disorder	3,901	2.9%	2,402	2.1%	0.833	0.054
Akathisia	110	0.1%	115	0.1%	-0.017	-0.006
Anxiety	27,552	20.5%	21,429	18.4%	2.048	0.052
Behavioral Disorder	8,263	6.1%	6,918	6.0%	0.192	0.008
Bipolar Disorder	9,083	6.8%	9,339	8.0%	-1.282	-0.050
Cerebral Degenerations usually Manifested in Childhood	417	0.3%	407	0.3%	-0.040	-0.007
Conduct Disorder	362	0.3%	446	0.4%	-0.114	-0.020

Table 1bs. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Delirium	819	0.6%	952	0.8%	-0.210	-0.025
Depression	24,756	18.4%	20,534	17.7%	0.739	0.019
Electroconvulsive Therapy	49	0.0%	38	0.0%	0.004	0.002
Hallucination	402	0.3%	433	0.4%	-0.074	-0.013
Obsessive-Compulsive Disorder	562	0.4%	392	0.3%	0.081	0.013
Other Cerebral Degenerations	310	0.2%	298	0.3%	-0.026	-0.005
Other Mental Disorders	1,439	1.1%	1,420	1.2%	-0.152	-0.014
Other Psychological Disorders	14,822	11.0%	14,267	12.3%	-1.254	-0.040
Persistent Mental Disorders due to Conditions Classified Elsewhere	115	0.1%	118	0.1%	-0.016	-0.005
Personality Disorders	1,448	1.1%	1,394	1.2%	-0.123	-0.012
Pervasive Developmental Disorders	894	0.7%	852	0.7%	-0.068	-0.008
Post-Traumatic Stress Disorder	4,964	3.7%	4,678	4.0%	-0.334	-0.017
Psychotherapy	12,678	9.4%	10,990	9.5%	-0.029	-0.001
Psychotic Conditions	849	0.6%	1,250	1.1%	-0.445	-0.049
Schizophrenia	4,465	3.3%	5,725	4.9%	-1.606	-0.084
Sleep Disorder	27,280	20.3%	17,773	15.3%	4.991	0.132
Substance Abuse	6,849	5.1%	7,495	6.4%	-1.356	-0.059
Suicidal Behavior	933	0.7%	846	0.7%	-0.034	-0.004

Table 1bs. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Transcranial Magnetic Stimulation	31	0.0%	23	0.0%	0.004	0.002
Vagus Nerve Stimulation	92	0.1%	55	0.0%	0.021	0.009

Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	2,449	1.8%	0	0.0%	NaN	NaN
dulaglutide	40,266	29.9%	0	0.0%	NaN	NaN
exenatide	14,586	10.8%	0	0.0%	NaN	NaN
liraglutide	38,319	28.5%	0	0.0%	NaN	NaN
lixisenatide	898	0.7%	0	0.0%	NaN	NaN
semaglutide	35,508	26.4%	0	0.0%	NaN	NaN
tirzepatide	2,916	2.2%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	134,513	100.0%	116,241	100.0%	0.000	NaN
insulin*	38,491	28.6%	40,745	35.1%	-6.437	-0.140
metformin*	125,687	93.4%	108,177	93.1%	0.375	0.015
alpha-glucosidase inhibitors*	307	0.2%	358	0.3%	-0.080	-0.015
thiazolidinediones*	6,463	4.8%	5,987	5.2%	-0.346	-0.016
meglitinides*	521	0.4%	514	0.4%	-0.055	-0.009
amylin analogue*	3	0.0%	3	0.0%	-0.000	-0.000
sulfonylureas*	38,458	28.6%	37,965	32.7%	-4.070	-0.089
bile acid sequestrants*	290	0.2%	211	0.2%	0.034	0.008
Other Weight Loss Agents*	684	0.5%	287	0.2%	0.262	0.043

Table 1bs. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	98	0.1%	21	0.0%	0.055	0.026
diethylpropion	9	0.0%	1	0.0%	0.006	0.009
lorcaserin	40	0.0%	21	0.0%	0.011	0.007
phentermine	497	0.4%	209	0.2%	0.189	0.036
phentermine-topiramate	43	0.0%	15	0.0%	0.019	0.013
phendimetrazine	7	0.0%	1	0.0%	0.004	0.007
orlistat	7	0.0%	19	0.0%	-0.011	-0.010
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	32,404	24.1%	29,821	25.7%	-1.564	-0.037
Antipsychotics	14,440	10.7%	16,789	14.4%	-3.708	-0.118
Anxiolytics/Hypnotics	26,502	19.7%	25,513	21.9%	-2.246	-0.056
Lithium & Other Mood Stabilizers	11,676	8.7%	12,863	11.1%	-2.386	-0.083
Antidepressants	48,448	36.0%	42,041	36.2%	-0.150	-0.003
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	9.2	10.3	9.8	12.9	-0.543	-0.046
Mean number of emergency room encounters *	0.6	1.6	0.7	1.6	-0.071	-0.044
Mean number of inpatient hospital encounters *	0.1	0.4	0.1	0.4	-0.009	-0.020

Table 1bs. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of non-acute institutional encounters*	0.0	0.2	0.0	0.2	-0.001	-0.004
Mean number of other ambulatory encounters*	4.1	13.7	5.3	16.8	-1.204	-0.079
Mean number of filled prescriptions*	23.6	20.3	25.5	22.1	-1.876	-0.088
Mean number of generics dispensed*	9.8	5.8	10.3	5.8	-0.458	-0.079
Mean number of unique drug classes dispensed*	8.4	4.8	8.8	5.3	-0.347	-0.068

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bt. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	483,894	100.0%	500,865	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years) [*]	55.8	5.4	56.2	5.4	-0.465	-0.087
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	483,894	100.0%	500,865	100.0%	0.000	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex [*]						
Female	267,236	55.2%	246,588	49.2%	5.994	0.120
Male	216,658	44.8%	254,277	50.8%	-5.994	-0.120
Race ³						
American Indian or Alaska Native	3,799	0.8%	4,716	0.9%	-0.156	-0.017
Asian	5,514	1.1%	24,038	4.8%	-3.660	-0.217
Black or African American	47,660	9.8%	63,346	12.6%	-2.798	-0.089
Multi-racial	3,841	0.8%	2,415	0.5%	0.312	0.039
Native Hawaiian or Other Pacific Islander	1,073	0.2%	1,952	0.4%	-0.168	-0.030
Unknown	265,319	54.8%	250,772	50.1%	4.762	0.095
White	156,688	32.4%	153,626	30.7%	1.709	0.037
Hispanic origin						
Yes	26,486	5.5%	63,400	12.7%	-7.185	-0.252

Table 1bt. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	186,310	38.5%	230,246	46.0%	-7.467	-0.152
Unknown	271,098	56.0%	207,219	41.4%	14.652	0.296
Year*						
2015	8,087	1.7%	20,399	4.1%	-2.402	-0.144
2016	38,411	7.9%	94,702	18.9%	-10.970	-0.326
2017	47,490	9.8%	103,649	20.7%	-10.880	-0.306
2018	54,733	11.3%	88,653	17.7%	-6.389	-0.182
2019	66,183	13.7%	77,821	15.5%	-1.860	-0.053
2020	72,596	15.0%	66,074	13.2%	1.810	0.052
2021	59,968	12.4%	25,564	5.1%	7.289	0.260
2022	76,645	15.8%	17,240	3.4%	12.397	0.430
2023	59,781	12.4%	6,763	1.4%	11.004	0.446
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI)* ⁴	1.0	1.4	1.0	1.4	0.065	0.045
Combined comorbidity score* ⁵	1.3	1.8	1.2	1.9	0.070	0.037
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	230,517	47.6%	136,543	27.3%	20.376	0.431
Weight Reduction Surgery or Procedure*	283	0.1%	420	0.1%	-0.025	-0.010
Lifestyle intervention*	108,538	22.4%	91,727	18.3%	4.116	0.102
Cardiovascular Disease*	62,532	12.9%	65,677	13.1%	-0.190	-0.006

Table 1bt. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Cognitive Impairment*	2,967	0.6%	5,126	1.0%	-0.410	-0.046
Medical History						
Traumatic Brain Injury*	1,062	0.2%	1,017	0.2%	0.016	0.004
Migraine*	22,406	4.6%	15,449	3.1%	1.546	0.080
Epilepsy*	6,210	1.3%	7,948	1.6%	-0.304	-0.026
Chronic Pain*	108,689	22.5%	83,590	16.7%	5.772	0.146
Psychiatric History						
Previous Intentional Self-Harm Ever	4,641	1.0%	4,457	0.9%	0.069	0.007
Psychiatric History Overall*	313,788	64.8%	267,553	53.4%	11.428	0.234
Psychiatric Drug Dispensings	242,359	50.1%	204,065	40.7%	9.343	0.188
Intentional Self-Harm Encounter	512	0.1%	757	0.2%	-0.045	-0.013
Any Other Psychiatric Event	254,451	52.6%	209,255	41.8%	10.805	0.218
Attention-Deficit/Hyperactivity Disorder	6,468	1.3%	3,103	0.6%	0.717	0.073
Akathisia	469	0.1%	497	0.1%	-0.002	-0.001
Anxiety	89,087	18.4%	66,190	13.2%	5.195	0.143
Behavioral Disorder	20,994	4.3%	18,871	3.8%	0.571	0.029
Bipolar Disorder	24,665	5.1%	22,459	4.5%	0.613	0.029
Cerebral Degenerations usually Manifested in Childhood	2,618	0.5%	3,535	0.7%	-0.165	-0.021
Conduct Disorder	402	0.1%	552	0.1%	-0.027	-0.009
Delirium	4,127	0.9%	6,567	1.3%	-0.458	-0.044
Depression	93,252	19.3%	75,981	15.2%	4.101	0.109
Electroconvulsive Therapy	92	0.0%	138	0.0%	-0.009	-0.006
Hallucination	747	0.2%	1,166	0.2%	-0.078	-0.018
Obsessive-Compulsive Disorder	1,032	0.2%	776	0.2%	0.058	0.014
Other Cerebral Degenerations	2,309	0.5%	2,840	0.6%	-0.090	-0.012

Table 1bt. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Other Mental Disorders	3,581	0.7%	4,178	0.8%	-0.094	-0.011
Other Psychological Disorders	51,152	10.6%	53,679	10.7%	-0.146	-0.005
Persistent Mental Disorders due to Conditions Classified Elsewhere	1,694	0.4%	3,038	0.6%	-0.256	-0.037
Personality Disorders	2,507	0.5%	2,139	0.4%	0.091	0.013
Pervasive Developmental Disorders	435	0.1%	664	0.1%	-0.043	-0.013
Post-Traumatic Stress Disorder	12,643	2.6%	9,274	1.9%	0.761	0.052
Psychotherapy	33,956	7.0%	28,626	5.7%	1.302	0.053
Psychotic Conditions	1,806	0.4%	3,889	0.8%	-0.403	-0.053
Schizophrenia	10,373	2.1%	17,152	3.4%	-1.281	-0.078
Sleep Disorder	128,063	26.5%	77,654	15.5%	10.961	0.272
Substance Abuse	25,834	5.3%	28,498	5.7%	-0.351	-0.015
Suicidal Behavior	2,495	0.5%	2,870	0.6%	-0.057	-0.008
Transcranial Magnetic Stimulation	111	0.0%	41	0.0%	0.015	0.012
Vagus Nerve Stimulation	347	0.1%	239	0.0%	0.024	0.010
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	5,541	1.1%	0	0.0%	NaN	NaN
dulaglutide	154,765	32.0%	0	0.0%	NaN	NaN
exenatide	39,338	8.1%	0	0.0%	NaN	NaN
liraglutide	105,092	21.7%	0	0.0%	NaN	NaN

Table 1bt. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
lixisenatide	5,108	1.1%	0	0.0%	NaN	NaN
semaglutide	161,516	33.4%	0	0.0%	NaN	NaN
tirzepatide	13,065	2.7%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	483,892	100.0%	500,865	100.0%	-0.000	-0.003
insulin*	166,382	34.4%	97,749	19.5%	14.868	0.340
metformin*	441,482	91.2%	459,023	91.6%	-0.411	-0.015
alpha-glucosidase inhibitors*	1,574	0.3%	2,225	0.4%	-0.119	-0.019
thiazolidinediones*	33,463	6.9%	30,259	6.0%	0.874	0.036
meglitinides*	3,080	0.6%	3,932	0.8%	-0.149	-0.018
amylin analogue*	66	0.0%	22	0.0%	0.009	0.010
sulfonylureas*	159,966	33.1%	212,296	42.4%	-9.328	-0.193
bile acid sequestrants*	1,601	0.3%	1,404	0.3%	0.051	0.009
Other Weight Loss Agents*	2,254	0.5%	426	0.1%	0.381	0.073
benzphetamine	*****	*****	*****	*****	0.000	0.001
bupropion	269	0.1%	83	0.0%	0.039	0.021
diethylpropion	43	0.0%	*****	*****	*****	*****
lorcaserin	112	0.0%	49	0.0%	0.013	0.010
phentermine	1,671	0.3%	253	0.1%	0.295	0.066
phentermine-topiramate	131	0.0%	16	0.0%	0.024	0.019
phendimetrazine	45	0.0%	*****	*****	*****	*****
orlistat	47	0.0%	20	0.0%	0.006	0.007
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						

Table 1bt. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Analgesic Opiates*	135,101	27.9%	131,889	26.3%	1.587	0.036
Antipsychotics	42,213	8.7%	46,363	9.3%	-0.533	-0.019
Anxiolytics/Hypnotics	105,760	21.9%	93,543	18.7%	3.180	0.079
Lithium & Other Mood Stabilizers	35,012	7.2%	34,704	6.9%	0.307	0.012
Antidepressants	200,402	41.4%	158,441	31.6%	9.781	0.204
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	10.2	10.4	9.4	11.7	0.749	0.068
Mean number of emergency room encounters*	0.4	1.1	0.4	1.2	-0.035	-0.031
Mean number of inpatient hospital encounters*	0.1	0.4	0.1	0.5	-0.040	-0.090
Mean number of non-acute institutional encounters*	0.0	0.1	0.0	0.2	-0.014	-0.073
Mean number of other ambulatory encounters*	4.3	13.8	5.4	16.7	-1.058	-0.069
Mean number of filled prescriptions*	29.1	21.1	27.9	21.7	1.172	0.055
Mean number of generics dispensed*	11.2	5.3	10.5	5.4	0.772	0.144
Mean number of unique drug classes dispensed*	10.0	4.8	8.7	4.8	1.333	0.278

Table 1bt. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	DPP-4 Inhibitors	

^{*} Covariate included in the propensity score logistic regression model.

¹ Covariates in blue show a standardized difference greater than 0.1.

² Value represents standard deviation where no % follows the value.

³ Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴ 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.

⁵ 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bu. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	459,698	N/A	506,625	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	56.0	5.4	56.0	5.4	0.004	0.001
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	459,698	100.0%	506,625	100.0%	0.000	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	241,837	52.6%	269,574	53.2%	-0.602	-0.012
Male	217,861	47.4%	237,052	46.8%	0.602	0.012
Race ⁴						
American Indian or Alaska Native	3,378	0.7%	5,125	1.0%	-0.277	-0.030
Asian	5,533	1.2%	21,445	4.2%	-3.029	-0.190
Black or African American	44,275	9.6%	67,189	13.3%	-3.631	-0.119
Multi-racial	3,455	0.8%	2,507	0.5%	0.257	0.034
Native Hawaiian or Other Pacific Islander	1,041	0.2%	1,887	0.4%	-0.146	-0.027
Unknown	255,757	55.6%	249,591	49.3%	6.370	0.186
White	146,260	31.8%	158,881	31.4%	0.456	0.012
Hispanic origin						

Table 1bu. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Yes	24,465	5.3%	64,415	12.7%	-7.393	-0.275
No	173,950	37.8%	235,294	46.4%	-8.603	-0.279
Unknown	261,283	56.8%	206,916	40.8%	15.996	0.684
Year*						
2015	13,091	2.8%	14,945	2.9%	-0.102	-0.006
2016	58,516	12.7%	72,603	14.3%	-1.601	-0.047
2017	63,414	13.8%	85,963	17.0%	-3.173	-0.088
2018	61,126	13.3%	81,464	16.1%	-2.783	-0.079
2019	62,552	13.6%	82,831	16.3%	-2.742	-0.077
2020	60,289	13.1%	78,736	15.5%	-2.426	-0.070
2021	47,990	10.4%	36,894	7.3%	3.157	0.113
2022	54,334	11.8%	34,232	6.8%	5.063	0.179
2023	38,384	8.3%	18,956	3.7%	4.608	0.198
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	1.1	1.5	1.1	1.5	-0.016	-0.011
Combined comorbidity score ^{*,6}	1.3	1.9	1.4	2.0	-0.030	-0.015
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	193,084	42.0%	170,908	33.7%	8.268	0.176
Weight Reduction Surgery or Procedure*	374	0.1%	388	0.1%	0.005	0.002
Lifestyle intervention*	96,720	21.0%	96,123	19.0%	2.067	0.052
Cardiovascular Disease*	63,711	13.9%	70,340	13.9%	-0.025	-0.001

Table 1bu. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Cognitive Impairment*	3,894	0.8%	4,614	0.9%	-0.064	-0.007
Traumatic Brain Injury*	1,047	0.2%	1,097	0.2%	0.011	0.002
Migraine*	20,005	4.4%	19,296	3.8%	0.543	0.028
Epilepsy*	6,849	1.5%	7,779	1.5%	-0.046	-0.004
Chronic Pain*	99,475	21.6%	100,349	19.8%	1.832	0.046
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	4,308	0.9%	5,121	1.0%	-0.074	-0.008
Psychiatric History Overall*	283,845	61.7%	300,582	59.3%	2.416	0.051
Psychiatric Drug Dispensings	216,345	47.1%	236,857	46.8%	0.311	0.006
Intentional Self-Harm Encounter	652	0.1%	753	0.1%	-0.007	-0.002
Any Other Psychiatric Event	230,499	50.1%	235,919	46.6%	3.575	0.074
Attention-Deficit/Hyperactivity Disorder	5,406	1.2%	3,952	0.8%	0.396	0.040
Akathisia	466	0.1%	583	0.1%	-0.014	-0.004
Anxiety	79,111	17.2%	80,075	15.8%	1.404	0.038
Behavioral Disorder	19,843	4.3%	20,734	4.1%	0.224	0.011
Bipolar Disorder	21,977	4.8%	27,268	5.4%	-0.601	-0.028
Cerebral Degenerations usually Manifested in Childhood	2,766	0.6%	3,666	0.7%	-0.122	-0.015
Conduct Disorder	369	0.1%	539	0.1%	-0.026	-0.009
Delirium	4,980	1.1%	6,837	1.3%	-0.266	-0.024
Depression	84,990	18.5%	88,684	17.5%	0.984	0.026

Table 1bu. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Electroconvulsive Therapy	104	0.0%	153	0.0%	-0.008	-0.005
Hallucination	852	0.2%	1,144	0.2%	-0.040	-0.009
Obsessive-Compulsive Disorder	882	0.2%	980	0.2%	-0.002	-0.000
Other Cerebral Degenerations	2,419	0.5%	2,880	0.6%	-0.042	-0.006
Other Mental Disorders	3,595	0.8%	4,430	0.9%	-0.092	-0.010
Other Psychological Disorders	48,959	10.7%	59,156	11.7%	-1.026	-0.033
Persistent Mental Disorders due to Conditions Classified Elsewhere	2,194	0.5%	2,686	0.5%	-0.053	-0.007
Personality Disorders	2,344	0.5%	2,610	0.5%	-0.005	-0.001
Pervasive Developmental Disorders	378	0.1%	707	0.1%	-0.058	-0.017
Post-Traumatic Stress Disorder	10,448	2.3%	12,059	2.4%	-0.108	-0.007
Psychotherapy	29,546	6.4%	34,259	6.8%	-0.335	-0.014
Psychotic Conditions	2,140	0.5%	3,813	0.8%	-0.287	-0.037
Schizophrenia	9,745	2.1%	18,403	3.6%	-1.513	-0.092
Sleep Disorder	115,129	25.0%	91,340	18.0%	7.015	0.174
Substance Abuse	24,568	5.3%	32,184	6.4%	-1.008	-0.043
Suicidal Behavior	2,725	0.6%	3,092	0.6%	-0.017	-0.002
Transcranial Magnetic Stimulation	81	0.0%	51	0.0%	0.008	0.006
Vagus Nerve Stimulation	325	0.1%	277	0.1%	0.016	0.006

Table 1bu. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Index GLP-1RA Product						
albiglutide	8,128	1.8%	0	0.0%	NaN	NaN
dulaglutide	152,054	33.1%	0	0.0%	NaN	NaN
exenatide	45,440	9.9%	0	0.0%	NaN	NaN
liraglutide	117,389	25.5%	0	0.0%	NaN	NaN
lixisenatide	3,957	0.9%	0	0.0%	NaN	NaN
semaglutide	125,104	27.2%	0	0.0%	NaN	NaN
tirzepatide	8,882	1.9%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	459,696	100.0%	506,625	100.0%	-0.000	-0.003
insulin*	144,619	31.5%	180,171	35.6%	-4.103	-0.088
metformin*	418,970	91.1%	462,032	91.2%	-0.058	-0.002
alpha-glucosidase inhibitors*	1,663	0.4%	2,208	0.4%	-0.074	-0.012
thiazolidinediones*	30,703	6.7%	34,247	6.8%	-0.081	-0.003
meglitinides*	3,339	0.7%	4,044	0.8%	-0.072	-0.008
amylin analogue*	47	0.0%	53	0.0%	-0.000	-0.000
sulfonylureas*	165,205	35.9%	201,128	39.7%	-3.762	-0.078
bile acid sequestrants*	1,795	0.4%	1,594	0.3%	0.076	0.013
Other Weight Loss Agents*	1,603	0.3%	984	0.2%	0.154	0.030
benzphetamine	1	0.0%	1	0.0%	0.000	0.000
bupropion	214	0.0%	186	0.0%	0.010	0.005
diethylpropion	39	0.0%	21	0.0%	0.004	0.006
lorcaserin	92	0.0%	83	0.0%	0.004	0.003
phentermine	1,164	0.3%	624	0.1%	0.130	0.030

Table 1bu. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
phentermine-topiramate	85	0.0%	34	0.0%	0.012	0.010
phendimetrazine	42	0.0%	27	0.0%	0.004	0.004
orlistat	27	0.0%	34	0.0%	-0.001	-0.001
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates [*]	134,974	29.4%	147,915	29.2%	0.165	0.004
Antipsychotics	36,679	8.0%	55,455	10.9%	-2.967	-0.104
Anxiolytics/Hypnotics	95,558	20.8%	111,718	22.1%	-1.264	-0.031
Lithium & Other Mood Stabilizers	31,018	6.7%	41,767	8.2%	-1.497	-0.058
Antidepressants	176,046	38.3%	188,225	37.2%	1.143	0.024
Mean number of ambulatory encounters [*]	10.1	10.3	10.4	13.0	-0.313	-0.027
Mean number of emergency room encounters [*]	0.4	1.3	0.5	1.2	-0.023	-0.019
Mean number of inpatient hospital encounters [*]	0.1	0.5	0.1	0.5	-0.009	-0.019
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of non-acute institutional encounters [*]	0.0	0.2	0.0	0.2	-0.001	-0.005
Mean number of other ambulatory encounters [*]	4.3	13.5	5.9	17.6	-1.593	-0.101
Mean number of filled prescriptions [*]	28.7	21.5	30.8	23.7	-2.121	-0.094

Table 1bu. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of generics dispensed*	11.2	5.7	11.5	5.7	-0.271	-0.047
Mean number of unique drug classes dispensed*	9.7	4.8	9.9	5.3	-0.164	-0.032

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bv. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	467,704	100.0%	596,096	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	70.8	3.8	71.8	4.1	-0.977	-0.246
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	467,704	100.0%	596,096	100.0%	0.000	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	253,804	54.3%	310,970	52.2%	2.098	0.042
Male	213,900	45.7%	285,126	47.8%	-2.098	-0.042
Race ³						
American Indian or Alaska Native	2,498	0.5%	3,581	0.6%	-0.067	-0.009
Asian	7,506	1.6%	28,249	4.7%	-3.134	-0.180
Black or African American	42,886	9.2%	72,594	12.2%	-3.009	-0.098
Multi-racial	465	0.1%	481	0.1%	0.019	0.006
Native Hawaiian or Other Pacific Islander	1,330	0.3%	2,276	0.4%	-0.097	-0.017
Unknown	61,446	13.1%	97,416	16.3%	-3.205	-0.090
White	351,573	75.2%	391,499	65.7%	9.493	0.209
Hispanic origin						
Yes	11,234	2.4%	28,076	4.7%	-2.308	-0.125

Table 1bv. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	378,352	80.9%	472,652	79.3%	1.604	0.040
Unknown	78,118	16.7%	95,368	16.0%	0.704	0.019
Year*						
2015	6,342	1.4%	28,589	4.8%	-3.440	-0.200
2016	30,562	6.5%	115,482	19.4%	-12.839	-0.390
2017	34,955	7.5%	102,698	17.2%	-9.755	-0.300
2018	42,532	9.1%	87,716	14.7%	-5.621	-0.174
2019	51,931	11.1%	79,569	13.3%	-2.245	-0.069
2020	54,172	11.6%	65,661	11.0%	0.567	0.018
2021	74,070	15.8%	56,234	9.4%	6.403	0.194
2022	89,229	19.1%	40,893	6.9%	12.218	0.370
2023	83,911	17.9%	19,254	3.2%	14.711	0.492
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	1.7	1.8	1.8	1.9	-0.084	-0.045
Combined comorbidity score ^{*,5}	2.0	2.4	2.1	2.8	-0.164	-0.063
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	219,534	46.9%	164,884	27.7%	19.278	0.407
Weight Reduction Surgery or Procedure*	231	0.0%	753	0.1%	-0.077	-0.026
Lifestyle intervention*	58,265	12.5%	56,463	9.5%	2.986	0.096
Cardiovascular Disease*	114,675	24.5%	160,101	26.9%	-2.340	-0.054

Table 1bv. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Cognitive Impairment*	11,379	2.4%	28,747	4.8%	-2.390	-0.128
Traumatic Brain Injury*	919	0.2%	1,403	0.2%	-0.039	-0.008
Migraine*	11,420	2.4%	11,755	2.0%	0.470	0.032
Epilepsy*	4,113	0.9%	7,800	1.3%	-0.429	-0.041
Chronic Pain*	101,083	21.6%	100,891	16.9%	4.687	0.119
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	1,317	0.3%	1,878	0.3%	-0.033	-0.006
Psychiatric History Overall*	282,318	60.4%	306,883	51.5%	8.880	0.180
Psychiatric Drug Dispensings	202,947	43.4%	216,590	36.3%	7.057	0.145
Intentional Self-Harm Encounter	136	0.0%	277	0.0%	-0.017	-0.009
Any Other Psychiatric Event	226,423	48.4%	242,527	40.7%	7.726	0.156
Attention-Deficit/Hyperactivity Disorder	2,070	0.4%	1,205	0.2%	0.240	0.042
Akathisia	460	0.1%	693	0.1%	-0.018	-0.005
Anxiety	65,071	13.9%	71,704	12.0%	1.884	0.056
Behavioral Disorder	12,887	2.8%	16,840	2.8%	-0.070	-0.004
Bipolar Disorder	9,321	2.0%	11,232	1.9%	0.109	0.008
Cerebral Degenerations usually Manifested in Childhood	5,067	1.1%	9,802	1.6%	-0.561	-0.048
Conduct Disorder	107	0.0%	211	0.0%	-0.013	-0.007
Delirium	5,835	1.2%	14,993	2.5%	-1.268	-0.093

Table 1bv. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Depression	78,720	16.8%	83,869	14.1%	2.761	0.076
Electroconvulsive Therapy	*****	*****	84	0.0%	*****	*****
Hallucination	628	0.1%	1,409	0.2%	-0.102	-0.024
Obsessive-Compulsive Disorder	420	0.1%	475	0.1%	0.010	0.003
Other Cerebral Degenerations	8,182	1.7%	16,336	2.7%	-0.991	-0.067
Other Mental Disorders	2,865	0.6%	4,981	0.8%	-0.223	-0.026
Other Psychological Disorders	27,426	5.9%	42,623	7.2%	-1.286	-0.052
Persistent Mental Disorders due to Conditions Classified Elsewhere	7,817	1.7%	21,440	3.6%	-1.925	-0.120
Personality Disorders	528	0.1%	714	0.1%	-0.007	-0.002
Pervasive Developmental Disorders	*****	*****	162	0.0%	*****	*****
Post-Traumatic Stress Disorder	2,856	0.6%	2,470	0.4%	0.196	0.027
Psychotherapy	14,073	3.0%	16,515	2.8%	0.238	0.014
Psychotic Conditions	897	0.2%	3,300	0.6%	-0.362	-0.059
Schizophrenia	2,569	0.5%	6,049	1.0%	-0.465	-0.053
Sleep Disorder	128,600	27.5%	106,601	17.9%	9.613	0.231
Substance Abuse	14,147	3.0%	17,407	2.9%	0.105	0.006
Suicidal Behavior	1,717	0.4%	2,720	0.5%	-0.089	-0.014
Transcranial Magnetic Stimulation	89	0.0%	34	0.0%	0.013	0.012
Vagus Nerve Stimulation	484	0.1%	406	0.1%	0.035	0.012

Table 1bv. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	1,239	0.3%	0	0.0%	NaN	NaN
dulaglutide	162,554	34.8%	0	0.0%	NaN	NaN
exenatide	27,271	5.8%	0	0.0%	NaN	NaN
liraglutide	82,520	17.6%	0	0.0%	NaN	NaN
lixisenatide	8,301	1.8%	0	0.0%	NaN	NaN
semaglutide	175,259	37.5%	0	0.0%	NaN	NaN
tirzepatide	10,672	2.3%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	467,704	100.0%	596,096	100.0%	0.000	NaN
insulin*	158,112	33.8%	97,961	16.4%	17.372	0.409
metformin*	400,870	85.7%	509,796	85.5%	0.188	0.005
alpha-glucosidase inhibitors*	2,257	0.5%	3,403	0.6%	-0.088	-0.012
thiazolidinediones*	47,941	10.3%	47,472	8.0%	2.286	0.080
meglitinides*	7,085	1.5%	10,598	1.8%	-0.263	-0.021
amylin analogue*	68	0.0%	*****	*****	*****	*****
sulfonylureas*	195,156	41.7%	282,853	47.5%	-5.725	-0.115
bile acid sequestrants*	2,186	0.5%	2,994	0.5%	-0.035	-0.005
Other Weight Loss Agents*	561	0.1%	*****	*****	*****	*****
benzphetamine	*****	*****	*****	*****	0.000	0.002
bupropion	39	0.0%	14	0.0%	0.006	0.008
diethylpropion	26	0.0%	*****	*****	*****	*****
lorcaserin	*****	*****	*****	*****	0.001	0.001
phentermine	462	0.1%	*****	*****	*****	*****

Table 1bv. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Medical Product					Covariate Balance	
Medical Product Use	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
phentermine-topiramate	*****	*****	*****	*****	0.002	0.005
phendimetrazine	*****	*****	*****	*****	0.001	0.003
orlistat	*****	*****	*****	*****	0.000	0.001
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	110,445	23.6%	139,212	23.4%	0.260	0.006
Antipsychotics	15,592	3.3%	23,813	4.0%	-0.661	-0.035
Anxiolytics/Hypnotics	76,901	16.4%	91,275	15.3%	1.130	0.031
Lithium & Other Mood Stabilizers	16,925	3.6%	21,818	3.7%	-0.041	-0.002
Antidepressants	167,622	35.8%	164,939	27.7%	8.169	0.176
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	11.9	10.4	11.0	11.0	0.828	0.077
Mean number of emergency room encounters *	0.3	0.8	0.3	0.9	-0.058	-0.068
Mean number of inpatient hospital encounters *	0.1	0.4	0.2	0.6	-0.083	-0.173
Mean number of non-acute institutional encounters *	0.0	0.2	0.1	0.3	-0.036	-0.134
Mean number of other ambulatory encounters *	3.1	7.2	4.2	10.7	-1.078	-0.118
Mean number of filled prescriptions *	23.9	16.6	23.5	17.9	0.382	0.022

Table 1bv. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of generics dispensed*	11.0	4.6	10.4	4.8	0.633	0.135
Mean number of unique drug classes dispensed*	9.9	4.2	8.7	4.3	1.170	0.275

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bw. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Patient Characteristics ^{1,2}	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weighted patients	436,297	N/A	5,333,882	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	71.3	4.0	70.2	4.0	1.021	0.258
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	436,297	100.0%	5,333,882	100.0%	0.000	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	234,671	53.8%	3,560,551	66.8%	-12.966	-0.268
Male	201,626	46.2%	1,773,331	33.2%	12.966	0.268
Race ⁴						
American Indian or Alaska Native	2,339	0.5%	45,453	0.9%	-0.316	-0.038
Asian	7,373	1.7%	1,092,164	20.5%	-18.786	-0.633
Black or African American	41,044	9.4%	638,400	12.0%	-2.561	-0.084
Multi-racial	468	0.1%	756	0.0%	0.093	0.038
Native Hawaiian or Other Pacific Islander	1,283	0.3%	73,377	1.4%	-1.082	-0.119
Unknown	56,414	12.9%	2,189,423	41.0%	-28.117	-0.744
White	327,376	75.0%	1,294,310	24.3%	50.769	1.305
Hispanic origin						
Yes	10,317	2.4%	1,592,214	29.9%	-27.486	-0.820

Table 1bw. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
No	353,806	81.1%	3,117,782	58.5%	22.640	0.608
Unknown	72,174	16.5%	623,887	11.7%	4.846	0.194
Year*						
2015	12,485	2.9%	50,691	1.0%	1.911	0.140
2016	54,367	12.5%	370,889	7.0%	5.508	0.188
2017	52,534	12.0%	715,225	13.4%	-1.368	-0.041
2018	52,113	11.9%	815,321	15.3%	-3.341	-0.098
2019	53,879	12.3%	1,391,218	26.1%	-13.733	-0.355
2020	49,635	11.4%	1,806,842	33.9%	-22.498	-0.564
2021	56,574	13.0%	73,154	1.4%	11.595	0.465
2022	57,975	13.3%	66,645	1.2%	12.039	0.481
2023	46,734	10.7%	43,896	0.8%	9.889	0.437
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Severity Index(aDCSI) ^{*,5}	2.0	2.0	1.5	1.7	0.464	0.250
Combined comorbidity score ^{*,0}	2.3	2.7	1.7	2.3	0.584	0.233
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	171,821	39.4%	909,372	17.0%	22.333	0.516
Weight Reduction Surgery or Procedure*	476	0.1%	2,566	0.0%	0.061	0.022
Lifestyle intervention*	49,329	11.3%	826,448	15.5%	-4.188	-0.123
Cardiovascular Disease*	122,198	28.0%	868,085	16.3%	11.733	0.286
Cognitive Impairment*	18,824	4.3%	237,726	4.5%	-0.143	-0.007

Table 1bw. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Traumatic Brain Injury*	1,063	0.2%	5,568	0.1%	0.139	0.033
Migraine*	10,615	2.4%	93,793	1.8%	0.674	0.047
Epilepsy*	5,673	1.3%	61,362	1.2%	0.150	0.014
Chronic Pain*	92,614	21.2%	683,303	12.8%	8.417	0.226
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	1,447	0.3%	12,601	0.2%	0.095	0.018
Psychiatric History Overall*	256,158	58.7%	2,483,176	46.6%	12.157	0.246
Psychiatric Drug Dispensings	183,386	42.0%	1,955,519	36.7%	5.370	0.110
Intentional Self-Harm Encounter	180	0.0%	5,098	0.1%	-0.054	-0.021
Any Other Psychiatric Event	207,538	47.6%	1,623,702	30.4%	17.127	0.358
Attention-Deficit/Hyperactivity Disorder	1,620	0.4%	9,727	0.2%	0.189	0.036
Akathisia	533	0.1%	9,339	0.2%	-0.053	-0.014
Anxiety	60,901	14.0%	403,122	7.6%	6.401	0.208
Behavioral Disorder	13,674	3.1%	143,993	2.7%	0.435	0.026
Bipolar Disorder	9,762	2.2%	113,939	2.1%	0.101	0.007
Cerebral Degenerations usually Manifested in						
Childhood	6,323	1.4%	57,931	1.1%	0.363	0.032
Conduct Disorder	168	0.0%	2,203	0.0%	-0.003	-0.001
Delirium	10,401	2.4%	111,757	2.1%	0.289	0.020
Depression	76,555	17.5%	592,159	11.1%	6.445	0.185

Table 1bw. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Electroconvulsive Therapy	57	0.0%	269	0.0%	0.008	0.009
Hallucination	1,080	0.2%	8,727	0.2%	0.084	0.019
Obsessive-Compulsive Disorder	378	0.1%	2,466	0.0%	0.040	0.016
Other Cerebral Degenerations	10,516	2.4%	115,124	2.2%	0.252	0.017
Other Mental Disorders	3,589	0.8%	39,102	0.7%	0.090	0.010
Other Psychological Disorders	28,493	6.5%	232,222	4.4%	2.177	0.096
Persistent Mental Disorders due to Conditions Classified Elsewhere	13,398	3.1%	179,054	3.4%	-0.286	-0.016
Personality Disorders	601	0.1%	16,814	0.3%	-0.177	-0.037
Pervasive Developmental Disorders	85	0.0%	234	0.0%	0.015	0.014
Post-Traumatic Stress Disorder	2,614	0.6%	70,370	1.3%	-0.720	-0.074
Psychotherapy	14,189	3.3%	224,804	4.2%	-0.963	-0.051
Psychotic Conditions	1,812	0.4%	50,505	0.9%	-0.532	-0.065
Schizophrenia	3,179	0.7%	156,788	2.9%	-2.211	-0.165
Sleep Disorder	113,028	25.9%	486,978	9.1%	16.776	0.454
Substance Abuse	14,350	3.3%	129,825	2.4%	0.855	0.051
Suicidal Behavior	2,120	0.5%	14,180	0.3%	0.220	0.036
Transcranial Magnetic Stimulation	56	0.0%	54	0.0%	0.012	0.014
Vagus Nerve Stimulation	459	0.1%	1,085	0.0%	0.085	0.034

Table 1bw. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Index GLP-1RA Product						
albiglutide	2,210	0.5%	0	0.0%	NaN	NaN
dulaglutide	158,500	36.3%	0	0.0%	NaN	NaN
exenatide	35,428	8.1%	0	0.0%	NaN	NaN
liraglutide	105,469	24.2%	0	0.0%	NaN	NaN
lixisenatide	5,479	1.3%	0	0.0%	NaN	NaN
semaglutide	123,199	28.2%	0	0.0%	NaN	NaN
tirzepatide	6,252	1.4%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	436,297	100.0%	5,333,882	100.0%	0.000	NaN
insulin*	145,483	33.3%	3,137,173	58.8%	-25.471	-0.534
metformin*	370,962	85.0%	4,732,286	88.7%	-3.696	-0.110
alpha-glucosidase inhibitors*	2,432	0.6%	66,765	1.3%	-0.694	-0.073
thiazolidinediones*	40,859	9.4%	487,513	9.1%	0.225	0.008
meglitinides*	7,682	1.8%	112,653	2.1%	-0.351	-0.026
amylin analogue*	35	0.0%	59	0.0%	0.007	0.010
sulfonylureas*	192,334	44.1%	2,283,334	42.8%	1.275	0.026
bile acid sequestrants*	2,664	0.6%	3,282	0.1%	0.549	0.095
Other Weight Loss Agents*	353	0.1%	294	0.0%	0.075	0.036
benzphetamine	2	0.0%	1	0.0%	0.000	0.003
bupropion	23	0.0%	26	0.0%	0.005	0.009
diethylpropion	16	0.0%	16	0.0%	0.003	0.008
lorcaserin	6	0.0%	13	0.0%	0.001	0.004

Table 1bw. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
phentermine	291	0.1%	220	0.0%	0.063	0.033
phentermine-topiramate	8	0.0%	8	0.0%	0.002	0.005
phendimetrazine	11	0.0%	9	0.0%	0.002	0.006
orlistat	6	0.0%	10	0.0%	0.001	0.004
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	115,983	26.6%	1,114,119	20.9%	5.696	0.134
Antipsychotics	16,107	3.7%	434,482	8.1%	-4.454	-0.190
Anxiolytics/Hypnotics	71,509	16.4%	796,827	14.9%	1.451	0.040
Lithium & Other Mood Stabilizers	16,110	3.7%	297,301	5.6%	-1.881	-0.090
Antidepressants	149,510	34.3%	1,487,319	27.9%	6.384	0.138
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	12.2	10.5	10.8	15.9	1.399	0.104
Mean number of emergency room encounters*	0.3	1.1	0.3	1.1	0.002	0.002
Mean number of inpatient hospital encounters*	0.2	0.6	0.2	0.5	0.013	0.025
Mean number of non-acute institutional encounters*	0.1	0.3	0.0	0.4	0.003	0.008

Table 1bw. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of other ambulatory encounters*	4.1	9.8	23.3	45.9	-19.194	-0.578
Mean number of filled prescriptions*	25.7	20.0	41.6	30.3	-15.935	-0.621
Mean number of generics dispensed*	11.4	5.2	13.6	6.2	-2.141	-0.375
classes dispensed [~]	9.9	4.4	11.8	5.7	-1.957	-0.383

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bx. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	41,913	100.0%	173,406	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	83.7	3.3	85.1	4.0	-1.419	-0.384
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	41,913	100.0%	173,406	100.0%	0.000	NaN
Sex*						
Female	22,383	53.4%	100,998	58.2%	-4.840	-0.098
Male	19,530	46.6%	72,408	41.8%	4.840	0.098
Race ³						
American Indian or Alaska Native	260	0.6%	719	0.4%	0.206	0.029
Asian	982	2.3%	9,070	5.2%	-2.888	-0.152
Black or African American	3,140	7.5%	16,962	9.8%	-2.290	-0.082
Multi-racial	11	0.0%	45	0.0%	0.000	0.000
Native Hawaiian or Other Pacific Islander	113	0.3%	474	0.3%	-0.004	-0.001
Unknown	4,225	10.1%	21,855	12.6%	-2.523	-0.080
White	33,182	79.2%	124,281	71.7%	7.498	0.175
Hispanic origin						
Yes	1,148	2.7%	7,182	4.1%	-1.403	-0.077

Table 1bx. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	35,401	84.5%	144,808	83.5%	0.955	0.026
Unknown	5,364	12.8%	21,416	12.4%	0.448	0.014
Year*						
2015	414	1.0%	7,761	4.5%	-3.488	-0.215
2016	2,115	5.0%	30,891	17.8%	-12.768	-0.410
2017	2,777	6.6%	27,673	16.0%	-9.333	-0.298
2018	3,677	8.8%	25,370	14.6%	-5.857	-0.183
2019	4,990	11.9%	23,869	13.8%	-1.859	-0.056
2020	5,081	12.1%	19,550	11.3%	0.849	0.026
2021	7,395	17.6%	17,721	10.2%	7.424	0.216
2022	8,387	20.0%	13,755	7.9%	12.078	0.354
2023	7,077	16.9%	6,816	3.9%	12.954	0.434
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	2.7	2.1	2.8	2.1	-0.137	-0.065
Combined comorbidity score ^{*,5}	3.4	2.9	3.7	3.3	-0.354	-0.113
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	13,218	31.5%	29,044	16.7%	14.788	0.351
Weight Reduction Surgery or Procedure*	34	0.1%	357	0.2%	-0.125	-0.033
Lifestyle intervention*	4,615	11.0%	14,268	8.2%	2.783	0.094

Table 1bx. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cardiovascular Disease*	16,204	38.7%	72,167	41.6%	-2.956	-0.060
Cognitive Impairment*	5,518	13.2%	33,394	19.3%	-6.092	-0.166
Traumatic Brain Injury*	103	0.2%	663	0.4%	-0.137	-0.024
Migraine*	666	1.6%	2,616	1.5%	0.080	0.007
Epilepsy*	498	1.2%	2,685	1.5%	-0.360	-0.031
Chronic Pain*	8,397	20.0%	27,607	15.9%	4.114	0.107
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	106	0.3%	408	0.2%	0.018	0.004
Psychiatric History Overall*	24,510	58.5%	97,555	56.3%	2.220	0.045
Psychiatric Drug Dispensings	16,615	39.6%	65,259	37.6%	2.008	0.041
Intentional Self-Harm Encounter	14	0.0%	55	0.0%	0.002	0.001
Any Other Psychiatric Event	19,875	47.4%	79,933	46.1%	1.324	0.027
Attention-Deficit/Hyperactivity Disorder	39	0.1%	83	0.0%	0.045	0.017
Akathisia	*****	*****	185	0.1%	*****	*****
Anxiety	5,100	12.2%	21,588	12.4%	-0.281	-0.009
Behavioral Disorder	1,199	2.9%	6,198	3.6%	-0.714	-0.040
Bipolar Disorder	577	1.4%	2,576	1.5%	-0.109	-0.009
Cerebral Degenerations usually Manifested in Childhood	1,008	2.4%	6,254	3.6%	-1.202	-0.070

Table 1bx. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Conduct Disorder	*****	*****	83	0.0%	*****	*****
Delirium	1,516	3.6%	11,048	6.4%	-2.754	-0.127
Depression	6,593	15.7%	26,720	15.4%	0.321	0.009
Electroconvulsive Therapy	*****	*****	*****	*****	-0.003	-0.003
Hallucination	177	0.4%	973	0.6%	-0.139	-0.020
Obsessive-Compulsive Disorder	28	0.1%	83	0.0%	0.019	0.008
Other Cerebral Degenerations	2,972	7.1%	16,451	9.5%	-2.396	-0.087
Other Mental Disorders	426	1.0%	2,670	1.5%	-0.523	-0.047
Other Psychological Disorders	1,748	4.2%	9,370	5.4%	-1.233	-0.058
Persistent Mental Disorders due to Conditions Classified Elsewhere	4,274	10.2%	26,953	15.5%	-5.346	-0.160
Personality Disorders	28	0.1%	160	0.1%	-0.025	-0.009
Pervasive Developmental Disorders	*****	*****	14	0.0%	*****	*****
Post-Traumatic Stress Disorder	81	0.2%	230	0.1%	0.061	0.015
Psychotherapy	927	2.2%	4,652	2.7%	-0.471	-0.030
Psychotic Conditions	199	0.5%	1,936	1.1%	-0.642	-0.072
Schizophrenia	154	0.4%	845	0.5%	-0.120	-0.018
Sleep Disorder	9,336	22.3%	26,504	15.3%	6.990	0.180
Substance Abuse	816	1.9%	2,841	1.6%	0.309	0.023
Suicidal Behavior	155	0.4%	892	0.5%	-0.145	-0.022

Table 1bx. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Psychiatric History						
Transcranial Magnetic Stimulation	*****	*****	*****	*****	0.006	0.007
Vagus Nerve Stimulation	32	0.1%	101	0.1%	0.018	0.007
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	99	0.2%	0	0.0%	NaN	NaN
dulaglutide	17,055	40.7%	0	0.0%	NaN	NaN
exenatide	2,291	5.5%	0	0.0%	NaN	NaN
liraglutide	6,337	15.1%	0	0.0%	NaN	NaN
lixisenatide	1,060	2.5%	0	0.0%	NaN	NaN
semaglutide	14,431	34.4%	0	0.0%	NaN	NaN
tirzepatide	650	1.6%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	41,913	100.0%	173,406	100.0%	0.000	NaN
insulin*	15,898	37.9%	28,622	16.5%	21.425	0.496
metformin*	30,637	73.1%	126,504	73.0%	0.144	0.003
alpha-glucosidase inhibitors*	333	0.8%	1,308	0.8%	0.040	0.005
thiazolidinediones*	4,511	10.8%	13,673	7.9%	2.878	0.099
meglitinides*	1,346	3.2%	6,128	3.5%	-0.322	-0.018
amylin analogue*	*****	*****	*****	*****	0.008	0.010
sulfonylureas*	21,332	50.9%	90,401	52.1%	-1.237	-0.025
bile acid sequestrants*	202	0.5%	960	0.6%	-0.072	-0.010
Other Weight Loss Agents*	*****	*****	*****	*****	0.020	0.018

Table 1bx. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	0	0.0%	0	0.0%	NaN	NaN
diethylpropion	0	0.0%	0	0.0%	NaN	NaN
lorcaserin	0	0.0%	0	0.0%	NaN	NaN
phentermine	*****	*****	*****	*****	0.020	0.019
phentermine-topiramate	0	0.0%	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	0	0.0%	*****	*****	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	8,754	20.9%	36,862	21.3%	-0.372	-0.009
Antipsychotics	1,536	3.7%	8,054	4.6%	-0.980	-0.049
Anxiolytics/Hypnotics	5,937	14.2%	25,936	15.0%	-0.792	-0.022
Lithium & Other Mood Stabilizers	1,153	2.8%	5,179	3.0%	-0.236	-0.014
Antidepressants	13,182	31.5%	48,719	28.1%	3.356	0.073
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	13.1	11.0	12.2	11.1	0.966	0.087
Mean number of emergency room encounters*	0.4	0.9	0.4	1.0	-0.068	-0.068

Table 1bx. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of inpatient hospital encounters*	0.2	0.5	0.3	0.7	-0.159	-0.252
Mean number of non-acute institutional encounters*	0.1	0.3	0.2	0.5	-0.092	-0.209
Mean number of other ambulatory encounters*	5.6	11.4	7.7	14.3	-2.090	-0.161
Mean number of filled prescriptions*	27.4	20.7	27.4	20.9	-0.002	-0.000
Mean number of generics dispensed*	11.7	4.6	11.2	4.7	0.436	0.094
Mean number of unique drug classes dispensed*	10.5	4.1	9.6	4.3	0.927	0.221

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1by. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	34,799	N/A	173,541	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	84.6	3.9	84.9	3.9	-0.293	-0.075
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	34,799	100.0%	173,541	100.0%	0.000	NaN
Sex*						
Female	20,022	57.5%	99,805	57.5%	0.026	0.001
Male	14,777	42.5%	73,736	42.5%	-0.026	-0.001
Race ⁴						
American Indian or Alaska Native	168	0.5%	754	0.4%	0.047	0.007
Asian	951	2.7%	8,886	5.1%	-2.388	-0.124
Black or African American	2,779	8.0%	17,261	9.9%	-1.961	-0.069
Multi-racial	17	0.0%	43	0.0%	0.024	0.012
Native Hawaiian or Other Pacific Islander	109	0.3%	472	0.3%	0.041	0.008
Unknown	3,659	10.5%	21,745	12.5%	-2.016	-0.082
White	27,117	77.9%	124,380	71.7%	6.254	0.158
Hispanic origin						
Yes	1,103	3.2%	7,244	4.2%	-1.005	-0.054

Table 1by. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
No	29,213	83.9%	144,991	83.5%	0.401	0.017
Unknown	4,483	12.9%	21,305	12.3%	0.605	0.038
Year*						
2015	981	2.8%	6,584	3.8%	-0.974	-0.054
2016	4,185	12.0%	26,711	15.4%	-3.366	-0.098
2017	4,267	12.3%	24,806	14.3%	-2.031	-0.060
2018	4,563	13.1%	23,728	13.7%	-0.561	-0.016
2019	4,871	14.0%	23,620	13.6%	0.386	0.011
2020	4,267	12.3%	20,133	11.6%	0.661	0.020
2021	4,572	13.1%	20,215	11.6%	1.489	0.045
2022	4,313	12.4%	17,551	10.1%	2.281	0.072
2023	2,779	8.0%	10,192	5.9%	2.112	0.084
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	3.0	2.2	2.8	2.1	0.179	0.083
Combined comorbidity score ^{*,6}	3.9	3.3	3.7	3.3	0.253	0.077
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity [*]	8,073	23.2%	33,533	19.3%	3.877	0.095
Weight Reduction Surgery or Procedure [*]	77	0.2%	310	0.2%	0.042	0.009
Lifestyle intervention [*]	3,321	9.5%	15,096	8.7%	0.844	0.029
Cardiovascular Disease [*]	15,150	43.5%	71,855	41.4%	2.131	0.043

Table 1by. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Cognitive Impairment*	6,793	19.5%	31,968	18.4%	1.099	0.028
Traumatic Brain Injury*	136	0.4%	626	0.4%	0.030	0.005
Migraine*	600	1.7%	2,662	1.5%	0.189	0.015
Epilepsy*	563	1.6%	2,613	1.5%	0.111	0.009
Chronic Pain*	6,573	18.9%	29,074	16.8%	2.135	0.056
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	94	0.3%	430	0.2%	0.022	0.004
Psychiatric History Overall*	20,927	60.1%	98,639	56.8%	3.298	0.067
Psychiatric Drug Dispensings	13,980	40.2%	66,744	38.5%	1.715	0.035
Intentional Self-Harm Encounter	18	0.1%	51	0.0%	0.023	0.012
Any Other Psychiatric Event	17,405	50.0%	80,514	46.4%	3.621	0.073
Attention-Deficit/Hyperactivity Disorder	32	0.1%	86	0.0%	0.043	0.016
Akathisia	28	0.1%	185	0.1%	-0.025	-0.008
Anxiety	4,632	13.3%	21,953	12.7%	0.661	0.020
Behavioral Disorder	1,393	4.0%	6,055	3.5%	0.513	0.027
Bipolar Disorder	611	1.8%	2,628	1.5%	0.243	0.019
Cerebral Degenerations usually Manifested in Childhood	1,135	3.3%	6,083	3.5%	-0.243	-0.013
Conduct Disorder	14	0.0%	75	0.0%	-0.003	-0.001
Delirium	2,310	6.6%	10,466	6.0%	0.607	0.025

Table 1by. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Depression	6,234	17.9%	26,924	15.5%	2.399	0.064
Electroconvulsive Therapy	5	0.0%	14	0.0%	0.006	0.006
Hallucination	224	0.6%	950	0.5%	0.096	0.012
Obsessive-Compulsive Disorder	35	0.1%	83	0.0%	0.054	0.020
Other Cerebral Degenerations	3,275	9.4%	16,067	9.3%	0.154	0.005
Other Mental Disorders	526	1.5%	2,540	1.5%	0.047	0.004
Other Psychological Disorders	1,956	5.6%	9,082	5.2%	0.387	0.017
Persistent Mental Disorders due to Conditions Classified Elsewhere	5,425	15.6%	25,689	14.8%	0.786	0.022
Personality Disorders	32	0.1%	155	0.1%	0.003	0.001
Pervasive Developmental Disorders	2	0.0%	14	0.0%	-0.002	-0.002
Post-Traumatic Stress Disorder	60	0.2%	236	0.1%	0.037	0.009
Psychotherapy	1,004	2.9%	4,632	2.7%	0.215	0.013
Psychotic Conditions	297	0.9%	1,769	1.0%	-0.165	-0.017
Schizophrenia	191	0.5%	868	0.5%	0.048	0.007
Sleep Disorder	7,062	20.3%	27,781	16.0%	4.285	0.111
Substance Abuse	744	2.1%	2,926	1.7%	0.451	0.033
Suicidal Behavior	160	0.5%	881	0.5%	-0.048	-0.007
Transcranial Magnetic Stimulation	2	0.0%	9	0.0%	0.002	0.003
Vagus Nerve Stimulation	24	0.1%	104	0.1%	0.008	0.003

Table 1by. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Index GLP-1RA Product						
albiglutide	217	0.6%	0	0.0%	NaN	NaN
dulaglutide	14,983	43.1%	0	0.0%	NaN	NaN
exenatide	2,959	8.5%	0	0.0%	NaN	NaN
liraglutide	7,749	22.3%	0	0.0%	NaN	NaN
lixisenatide	572	1.6%	0	0.0%	NaN	NaN
semaglutide	8,076	23.2%	0	0.0%	NaN	NaN
tirzepatide	267	0.8%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	34,799	100.0%	173,541	100.0%	0.000	NaN
insulin*	13,043	37.5%	39,753	22.9%	14.574	0.322
metformin*	25,285	72.7%	126,560	72.9%	-0.267	-0.006
alpha-glucosidase inhibitors*	322	0.9%	1,364	0.8%	0.139	0.015
thiazolidinediones*	3,215	9.2%	14,631	8.4%	0.807	0.028
meglitinides*	1,269	3.6%	6,174	3.6%	0.089	0.005
amylin analogue*	1	0.0%	9	0.0%	-0.001	-0.001
sulfonylureas*	17,714	50.9%	89,965	51.8%	-0.938	-0.019
bile acid sequestrants*	258	0.7%	956	0.6%	0.191	0.024
Other Weight Loss Agents*	3	0.0%	6	0.0%	0.005	0.006
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	0	0.0%	0	0.0%	NaN	NaN
diethylpropion	0	0.0%	0	0.0%	NaN	NaN
lorcaserin	0	0.0%	0	0.0%	NaN	NaN

Table 1by. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
phentermine	3	0.0%	5	0.0%	0.005	0.007
phentermine-topiramate	0	0.0%	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	0	0.0%	1	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	8,301	23.9%	37,091	21.4%	2.482	0.059
Antipsychotics	1,617	4.6%	8,093	4.7%	-0.016	-0.001
Anxiolytics/Hypnotics	5,147	14.8%	26,402	15.2%	-0.425	-0.012
Lithium & Other Mood Stabilizers	999	2.9%	5,387	3.1%	-0.233	-0.014
Antidepressants	10,855	31.2%	50,307	29.0%	2.205	0.048
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	13.3	10.9	12.4	11.5	0.921	0.082
Mean number of emergency room encounters*	0.5	1.2	0.4	1.0	0.105	0.092
Mean number of inpatient hospital encounters*	0.3	0.7	0.3	0.7	0.015	0.021
Mean number of non-acute institutional encounters*	0.2	0.5	0.1	0.5	0.007	0.013

Table 1by. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 1% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 1%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of other ambulatory encounters*	8.0	14.8	7.5	14.0	0.554	0.038
Mean number of filled prescriptions*	30.4	23.9	27.7	21.2	2.732	0.121
Mean number of generics dispensed*	12.3	5.3	11.4	4.7	0.946	0.189
Mean number of unique drug classes dispensed*	10.6	4.5	9.8	4.3	0.824	0.187

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1bz. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	1,023,420	N/A	1,332,906	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	61.8	10.3	63.5	11.3	-1.702	-0.158
Age						
18-24 years	3,761	0.4%	6,209	0.5%	-0.098	-0.015
25-44 years	105,918	10.3%	133,871	10.0%	0.306	0.011
45-64 years	432,877	42.3%	502,391	37.7%	4.606	0.106
65-79 years	429,384	42.0%	554,063	41.6%	0.388	0.009
≥ 80 years	51,480	5.0%	136,373	10.2%	-5.201	-0.201
Sex*						
Female	549,972	53.7%	715,397	53.7%	0.067	0.001
Male	473,448	46.3%	617,509	46.3%	-0.067	-0.001
Race ⁴						
American Indian or Alaska Native	6,896	0.7%	11,714	0.9%	-0.205	-0.023
Asian	15,776	1.5%	58,179	4.4%	-2.823	-0.169
Black or African American	95,741	9.4%	174,655	13.1%	-3.748	-0.121
Multi-racial	4,749	0.5%	3,611	0.3%	0.193	0.033
Native Hawaiian or Other Pacific Islander	2,937	0.3%	4,724	0.4%	-0.067	-0.012
Unknown	381,412	37.3%	406,527	30.5%	6.769	0.216
White	515,910	50.4%	673,496	50.5%	-0.118	-0.003
Hispanic origin						
Yes	44,327	4.3%	119,134	8.9%	-4.607	-0.195

Table 1bz. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
No	578,630	56.5%	873,418	65.5%	-8.989	-0.312
Unknown	400,464	39.1%	340,354	25.5%	13.595	0.621
Year*						
2015	27,247	2.7%	44,771	3.4%	-0.697	-0.041
2016	123,025	12.0%	201,047	15.1%	-3.062	-0.090
2017	130,341	12.7%	211,085	15.8%	-3.101	-0.089
2018	129,754	12.7%	199,037	14.9%	-2.254	-0.066
2019	136,149	13.3%	197,875	14.8%	-1.542	-0.045
2020	131,634	12.9%	181,719	13.6%	-0.771	-0.023
2021	119,098	11.6%	124,537	9.3%	2.294	0.076
2022	129,155	12.6%	109,239	8.2%	4.424	0.147
2023	97,017	9.5%	63,596	4.8%	4.708	0.186
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	1.4	1.7	1.5	1.8	-0.103	-0.059
Combined comorbidity score ^{*,6}	1.8	2.3	1.9	2.5	-0.137	-0.058
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	413,583	40.4%	437,170	32.8%	7.614	0.160
Weight Reduction Surgery or Procedure*	871	0.1%	1,349	0.1%	-0.016	-0.005
Lifestyle intervention*	174,967	17.1%	191,597	14.4%	2.722	0.076
Cardiovascular Disease*	199,231	19.5%	282,934	21.2%	-1.760	-0.045

Table 1bz. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Cognitive Impairment*	29,999	2.9%	52,174	3.9%	-0.983	-0.055
Traumatic Brain Injury*	2,316	0.2%	3,214	0.2%	-0.015	-0.003
Migraine*	36,225	3.5%	40,893	3.1%	0.472	0.026
Epilepsy*	13,784	1.3%	19,650	1.5%	-0.127	-0.011
Chronic Pain*	203,567	19.9%	246,941	18.5%	1.364	0.035
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	7,035	0.7%	10,036	0.8%	-0.066	-0.008
Psychiatric History Overall*	607,294	59.3%	760,803	57.1%	2.261	0.046
Psychiatric Drug Dispensings	446,538	43.6%	569,402	42.7%	0.913	0.019
Intentional Self-Harm Encounter	1,103	0.1%	1,543	0.1%	-0.008	-0.002
Any Other Psychiatric Event	492,760	48.1%	605,408	45.4%	2.728	0.055
Attention-Deficit/Hyperactivity Disorder	10,022	1.0%	8,367	0.6%	0.352	0.039
Akathisia	1,053	0.1%	1,550	0.1%	-0.013	-0.004
Anxiety	158,992	15.5%	194,672	14.6%	0.930	0.026
Behavioral Disorder	39,498	3.9%	49,871	3.7%	0.118	0.006
Bipolar Disorder	37,066	3.6%	52,729	4.0%	-0.334	-0.018
Cerebral Degenerations usually Manifested in Childhood	10,092	1.0%	17,760	1.3%	-0.346	-0.032
Conduct Disorder	785	0.1%	1,441	0.1%	-0.031	-0.010

Table 1bz. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Delirium	16,725	1.6%	28,614	2.1%	-0.513	-0.038
Depression	179,574	17.5%	217,702	16.3%	1.214	0.032
Electroconvulsive Therapy	177	0.0%	303	0.0%	-0.005	-0.004
Hallucination	2,223	0.2%	3,788	0.3%	-0.067	-0.013
Obsessive-Compulsive Disorder	1,674	0.2%	2,040	0.2%	0.011	0.003
Other Cerebral Degenerations	16,578	1.6%	29,632	2.2%	-0.603	-0.044
Other Mental Disorders	8,280	0.8%	12,739	1.0%	-0.147	-0.016
Other Psychological Disorders	85,692	8.4%	125,334	9.4%	-1.030	-0.036
Persistent Mental Disorders due to Conditions Classified Elsewhere	21,426	2.1%	39,263	2.9%	-0.852	-0.055
Personality Disorders	3,890	0.4%	5,087	0.4%	-0.002	-0.000
Pervasive Developmental Disorders	1,186	0.1%	2,542	0.2%	-0.075	-0.019
Post-Traumatic Stress Disorder	16,274	1.6%	20,223	1.5%	0.073	0.006
Psychotherapy	52,187	5.1%	67,529	5.1%	0.033	0.002
Psychotic Conditions	4,452	0.4%	9,582	0.7%	-0.284	-0.038
Schizophrenia	15,048	1.5%	33,739	2.5%	-1.061	-0.076
Sleep Disorder	248,029	24.2%	243,263	18.3%	5.985	0.147
Substance Abuse	42,301	4.1%	60,743	4.6%	-0.424	-0.021
Suicidal Behavior	5,407	0.5%	7,309	0.5%	-0.020	-0.003

Table 1bz. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Transcranial Magnetic Stimulation	161	0.0%	124	0.0%	0.006	0.006
Vagus Nerve Stimulation	829	0.1%	829	0.1%	0.019	0.007

Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	12,112	1.2%	0	0.0%	NaN	NaN
dulaglutide	351,705	34.4%	0	0.0%	NaN	NaN
exenatide	93,375	9.1%	0	0.0%	NaN	NaN
liraglutide	254,519	24.9%	0	0.0%	NaN	NaN
lixisenatide	10,771	1.1%	0	0.0%	NaN	NaN
semaglutide	284,706	27.8%	0	0.0%	NaN	NaN
tirzepatide	17,726	1.7%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	1,023,418	100.0%	1,332,906	100.0%	-0.000	-0.002
insulin*	325,100	31.8%	401,636	30.1%	1.634	0.036
metformin*	899,994	87.9%	1,161,838	87.2%	0.774	0.024
alpha-glucosidase inhibitors*	4,649	0.5%	6,833	0.5%	-0.058	-0.008
thiazolidinediones*	79,395	7.8%	100,709	7.6%	0.202	0.008
meglitinides*	12,894	1.3%	19,423	1.5%	-0.197	-0.017
amylin analogue*	94	0.0%	105	0.0%	0.001	0.001
sulfonylureas*	401,559	39.2%	570,170	42.8%	-3.540	-0.072
bile acid sequestrants*	4,611	0.5%	5,566	0.4%	0.033	0.005
Other Weight Loss Agents*	2,451	0.2%	1,357	0.1%	0.138	0.033
benzphetamine	3	0.0%	3	0.0%	0.000	0.000

Table 1bz. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
bupropion	303	0.0%	194	0.0%	0.015	0.010
diethylpropion	58	0.0%	30	0.0%	0.003	0.005
lorcaserin	132	0.0%	96	0.0%	0.006	0.006
phentermine	1,810	0.2%	920	0.1%	0.108	0.031
phentermine-topiramate	130	0.0%	54	0.0%	0.009	0.009
phendimetrazine	49	0.0%	32	0.0%	0.002	0.004
orlistat	39	0.0%	60	0.0%	-0.001	-0.001
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	267,382	26.1%	346,725	26.0%	0.114	0.003
Antipsychotics	61,714	6.0%	107,877	8.1%	-2.063	-0.081
Anxiolytics/Hypnotics	184,614	18.0%	252,721	19.0%	-0.921	-0.024
Stabilizers	54,070	5.3%	84,793	6.4%	-1.078	-0.046
Antidepressants	363,207	35.5%	444,751	33.4%	2.122	0.045
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	10.8	10.3	11.0	12.4	-0.177	-0.015
Mean number of emergency room encounters *	0.4	1.2	0.4	1.1	-0.010	-0.008
Mean number of inpatient hospital encounters *	0.1	0.5	0.2	0.5	-0.024	-0.048
Mean number of non-acute institutional encounters *	0.0	0.3	0.0	0.3	-0.012	-0.044

Table 1bz. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of other ambulatory encounters*	4.3	12.4	5.2	14.3	-0.910	-0.068
Mean number of filled prescriptions*	26.5	20.9	27.1	21.3	-0.618	-0.029
Mean number of generics dispensed*	11.0	5.4	11.0	5.3	-0.010	-0.002
Mean number of unique drug classes dispensed*	9.6	4.7	9.4	4.9	0.121	0.025

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1ca. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	630,804	100.0%	720,423	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	60.3	10.6	65.5	11.0	-5.252	-0.487
Age						
18-24 years	4,017	0.6%	2,708	0.4%	0.261	0.037
25-44 years	83,364	13.2%	59,159	8.2%	5.004	0.162
45-64 years	267,236	42.4%	246,588	34.2%	8.136	0.168
65-79 years	253,804	40.2%	310,970	43.2%	-2.930	-0.059
≥ 80 years	22,383	3.5%	100,998	14.0%	-10.471	-0.376
Sex*						
Female	630,804	100.0%	720,423	100.0%	0.000	NaN
Male	0	0.0%	0	0.0%	NaN	NaN
Race ³						
American Indian or Alaska Native	5,083	0.8%	6,283	0.9%	-0.066	-0.007
Asian	8,869	1.4%	34,999	4.9%	-3.452	-0.199
Black or African American	74,382	11.8%	105,015	14.6%	-2.785	-0.082
Multi-racial	3,075	0.5%	1,645	0.2%	0.259	0.043
Native Hawaiian or Other Pacific Islander	1,555	0.2%	2,770	0.4%	-0.138	-0.025
Unknown	224,127	35.5%	207,373	28.8%	6.745	0.145
White	313,713	49.7%	362,338	50.3%	-0.563	-0.011
Hispanic origin						
Yes	31,561	5.0%	68,642	9.5%	-4.525	-0.175

Table 1ca. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	368,258	58.4%	486,091	67.5%	-9.094	-0.189
Unknown	230,985	36.6%	165,690	23.0%	13.619	0.301
Year*						
2015	9,606	1.5%	31,576	4.4%	-2.860	-0.170
2016	47,339	7.5%	135,874	18.9%	-11.356	-0.341
2017	56,533	9.0%	134,747	18.7%	-9.742	-0.285
2018	65,208	10.3%	115,242	16.0%	-5.659	-0.168
2019	79,256	12.6%	104,127	14.5%	-1.889	-0.055
2020	87,622	13.9%	89,298	12.4%	1.495	0.044
2021	83,782	13.3%	53,749	7.5%	5.821	0.192
2022	107,226	17.0%	38,463	5.3%	11.659	0.377
2023	94,232	14.9%	17,347	2.4%	12.531	0.457
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	1.2	1.5	1.4	1.7	-0.270	-0.164
Combined comorbidity score ^{*,5}	1.6	2.0	1.9	2.5	-0.317	-0.137
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity [*]	312,850	49.6%	205,122	28.5%	21.123	0.444
Weight Reduction Surgery or Procedure [*]	431	0.1%	874	0.1%	-0.053	-0.017
Lifestyle intervention [*]	129,621	20.5%	103,790	14.4%	6.142	0.162
Cardiovascular Disease [*]	93,485	14.8%	142,587	19.8%	-4.972	-0.132

Table 1ca. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cognitive Impairment*	11,297	1.8%	40,193	5.6%	-3.788	-0.202
Traumatic Brain Injury*	1,283	0.2%	1,629	0.2%	-0.023	-0.005
Migraine*	34,951	5.5%	25,980	3.6%	1.934	0.093
Epilepsy*	7,587	1.2%	10,896	1.5%	-0.310	-0.027
Chronic Pain*	150,124	23.8%	132,937	18.5%	5.346	0.131
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	5,518	0.9%	4,915	0.7%	0.193	0.022
Psychiatric History Overall*	420,751	66.7%	412,115	57.2%	9.496	0.197
Psychiatric Drug Dispensings	344,718	54.6%	325,460	45.2%	9.471	0.190
Intentional Self-Harm Encounter	691	0.1%	809	0.1%	-0.003	-0.001
Any Other Psychiatric Event	333,024	52.8%	318,656	44.2%	8.562	0.172
Attention-Deficit/Hyperactivity Disorder	7,843	1.2%	3,138	0.4%	0.808	0.089
Akathisia	679	0.1%	789	0.1%	-0.002	-0.001
Anxiety	133,163	21.1%	116,386	16.2%	4.955	0.128
Behavioral Disorder	26,759	4.2%	25,768	3.6%	0.665	0.034
Bipolar Disorder	30,649	4.9%	27,451	3.8%	1.048	0.051
Cerebral Degenerations usually Manifested in Childhood	4,917	0.8%	10,433	1.4%	-0.669	-0.064
Conduct Disorder	303	0.0%	453	0.1%	-0.015	-0.006

Table 1ca. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Delirium	6,917	1.1%	18,470	2.6%	-1.467	-0.110
Depression	142,069	22.5%	132,398	18.4%	4.144	0.103
Electroconvulsive Therapy	118	0.0%	175	0.0%	-0.006	-0.004
Hallucination	1,157	0.2%	2,288	0.3%	-0.134	-0.027
Obsessive-Compulsive Disorder	1,317	0.2%	855	0.1%	0.090	0.022
Other Cerebral Degenerations	7,426	1.2%	20,569	2.9%	-1.678	-0.120
Other Mental Disorders	5,187	0.8%	7,432	1.0%	-0.209	-0.022
Other Psychological Disorders	50,206	8.0%	55,939	7.8%	0.194	0.007
Persistent Mental Disorders due to Conditions Classified	7,803	1.2%	31,122	4.3%	-3.083	-0.188
Personality Disorders	3,711	0.6%	2,802	0.4%	0.199	0.029
Pervasive Developmental Disorders	540	0.1%	493	0.1%	0.017	0.006
Post-Traumatic Stress Disorder	15,800	2.5%	10,429	1.4%	1.057	0.076
Psychotherapy	43,392	6.9%	36,262	5.0%	1.845	0.078
Psychotic Conditions	2,123	0.3%	5,595	0.8%	-0.440	-0.059
Schizophrenia	9,525	1.5%	14,649	2.0%	-0.523	-0.040
Sleep Disorder	153,679	24.4%	112,581	15.6%	8.735	0.220
Substance Abuse	23,062	3.7%	22,400	3.1%	0.547	0.030
Suicidal Behavior	3,141	0.5%	4,034	0.6%	-0.062	-0.009

Table 1ca. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Transcranial Magnetic Stimulation	148	0.0%	50	0.0%	0.017	0.013
Vagus Nerve Stimulation	619	0.1%	500	0.1%	0.029	0.010
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	4,914	0.8%	0	0.0%	NaN	NaN
dulaglutide	199,305	31.6%	0	0.0%	NaN	NaN
exenatide	46,330	7.3%	0	0.0%	NaN	NaN
liraglutide	136,409	21.6%	0	0.0%	NaN	NaN
lixisenatide	7,769	1.2%	0	0.0%	NaN	NaN
semaglutide	219,621	34.8%	0	0.0%	NaN	NaN
tirzepatide	16,911	2.7%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	630,803	100.0%	720,423	100.0%	-0.000	-0.002
insulin*	206,207	32.7%	134,439	18.7%	14.028	0.325
metformin*	555,208	88.0%	620,488	86.1%	1.888	0.056
alpha-glucosidase inhibitors*	2,392	0.4%	3,726	0.5%	-0.138	-0.021
thiazolidinediones*	43,784	6.9%	45,748	6.4%	0.591	0.024
meglitinides*	6,390	1.0%	11,107	1.5%	-0.529	-0.047
amylin analogue*	86	0.0%	25	0.0%	0.010	0.011
sulfonylureas*	215,942	34.2%	319,927	44.4%	-10.175	-0.209
bile acid sequestrants*	2,612	0.4%	3,236	0.4%	-0.035	-0.005
Other Weight Loss Agents*	2,679	0.4%	495	0.1%	0.356	0.072

Table 1ca. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			DPP-4 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
benzphetamine	*****	*****	*****	*****	0.000	0.002
bupropion	314	0.0%	74	0.0%	0.040	0.023
diethylpropion	57	0.0%	*****	*****	*****	*****
lorcaserin	130	0.0%	47	0.0%	0.014	0.012
phentermine	1,999	0.3%	305	0.0%	0.275	0.065
phentermine-topiramate	146	0.0%	*****	*****	*****	*****
phendimetrazine	46	0.0%	*****	*****	*****	*****
orlistat	50	0.0%	*****	*****	*****	*****
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	170,951	27.1%	188,175	26.1%	0.980	0.022
Antipsychotics	48,970	7.8%	53,653	7.4%	0.316	0.012
Anxiolytics/Hypnotics	145,801	23.1%	144,777	20.1%	3.017	0.073
Stabilizers	42,874	6.8%	42,551	5.9%	0.890	0.037
Antidepressants	293,695	46.6%	259,302	36.0%	10.566	0.216
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	11.4	10.4	10.8	11.0	0.598	0.056
Mean number of emergency room encounters*	0.4	1.1	0.4	1.1	-0.043	-0.039
Mean number of inpatient hospital encounters*	0.1	0.4	0.2	0.5	-0.085	-0.181

Table 1ca. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of non-acute institutional encounters*	0.0	0.2	0.1	0.3	-0.042	-0.158
Mean number of other ambulatory encounters*	4.2	12.4	5.6	15.3	-1.458	-0.105
Mean number of filled prescriptions*	27.6	20.8	27.3	21.4	0.283	0.013
Mean number of generics dispensed*	11.5	5.4	11.1	5.4	0.480	0.089
Mean number of unique drug classes dispensed*	10.4	4.9	9.3	4.8	1.064	0.220

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1cb. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	572,966	N/A	687,956	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	61.5	10.4	63.7	11.5	-2.131	-0.195
Age						
18-24 years	2,578	0.4%	3,881	0.6%	-0.114	-0.016
25-44 years	63,828	11.1%	71,701	10.4%	0.718	0.024
45-64 years	240,777	42.0%	250,519	36.4%	5.608	0.129
65-79 years	236,167	41.2%	285,607	41.5%	-0.297	-0.007
≥ 80 years	29,616	5.2%	76,248	11.1%	-5.914	-0.223
Sex*						
Female	572,966	100.0%	687,956	100.0%	0.000	NaN
Male	0	0.0%	0	0.0%	NaN	NaN
Race ⁴						
American Indian or Alaska Native	4,333	0.8%	6,785	1.0%	-0.230	-0.025
Asian	8,906	1.6%	29,795	4.3%	-2.777	-0.166
Black or African American	66,047	11.5%	107,678	15.7%	-4.125	-0.123
Multi-racial	2,551	0.4%	1,689	0.2%	0.200	0.035
Native Hawaiian or Other Pacific Islander	1,535	0.3%	2,428	0.4%	-0.085	-0.015
Unknown	207,577	36.2%	193,301	28.1%	8.131	0.258
White	282,018	49.2%	346,281	50.3%	-1.114	-0.027
Hispanic origin						
Yes	28,227	4.9%	68,656	10.0%	-5.053	-0.204

Table 1cb. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
No	329,781	57.6%	470,077	68.3%	-10.773	-0.369
Unknown	214,958	37.5%	149,223	21.7%	15.826	0.747
Year*						
2015	14,875	2.6%	22,952	3.3%	-0.740	-0.044
2016	68,503	12.0%	103,768	15.1%	-3.128	-0.092
2017	72,840	12.7%	109,373	15.9%	-3.185	-0.091
2018	71,681	12.5%	102,336	14.9%	-2.365	-0.069
2019	75,451	13.2%	102,237	14.9%	-1.693	-0.049
2020	74,436	13.0%	95,269	13.8%	-0.857	-0.025
2021	65,601	11.4%	63,214	9.2%	2.261	0.075
2022	73,074	12.8%	55,930	8.1%	4.624	0.154
2023	56,506	9.9%	32,876	4.8%	5.083	0.199
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	1.3	1.6	1.4	1.7	-0.137	-0.082
Combined comorbidity score ^{*,6}	1.7	2.2	1.9	2.4	-0.162	-0.069
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	245,330	42.8%	240,189	34.9%	7.904	0.165
Weight Reduction Surgery or Procedure*	537	0.1%	745	0.1%	-0.015	-0.005
Lifestyle intervention*	109,773	19.2%	106,418	15.5%	3.690	0.100
Cardiovascular Disease*	95,988	16.8%	130,449	19.0%	-2.209	-0.059

Table 1cb. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Cognitive Impairment*	17,441	3.0%	29,980	4.4%	-1.314	-0.070
Traumatic Brain Injury*	1,212	0.2%	1,579	0.2%	-0.018	-0.004
Migraine*	29,036	5.1%	29,898	4.3%	0.722	0.034
Epilepsy*	7,850	1.4%	10,437	1.5%	-0.147	-0.012
Chronic Pain*	128,380	22.4%	145,007	21.1%	1.328	0.032
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	4,547	0.8%	6,016	0.9%	-0.081	-0.009
Psychiatric History Overall*	364,538	63.6%	423,771	61.6%	2.024	0.042
Psychiatric Drug Dispensings	295,272	51.5%	342,572	49.8%	1.738	0.035
Intentional Self-Harm Encounter	704	0.1%	884	0.1%	-0.006	-0.002
Any Other Psychiatric Event	287,844	50.2%	329,947	48.0%	2.277	0.046
Attention-Deficit/Hyperactivity Disorder	5,907	1.0%	4,241	0.6%	0.415	0.046
Akathisia	654	0.1%	849	0.1%	-0.009	-0.003
Anxiety	112,592	19.7%	125,863	18.3%	1.356	0.035
Behavioral Disorder	23,624	4.1%	27,006	3.9%	0.197	0.010
Bipolar Disorder	25,270	4.4%	33,163	4.8%	-0.410	-0.020
Cerebral Degenerations usually Manifested in Childhood	5,546	1.0%	9,157	1.3%	-0.363	-0.034
Conduct Disorder	246	0.0%	508	0.1%	-0.031	-0.013
Delirium	9,444	1.6%	15,470	2.2%	-0.600	-0.044

Table 1cb. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Depression	124,870	21.8%	139,485	20.3%	1.518	0.037
Electroconvulsive Therapy	112	0.0%	209	0.0%	-0.011	-0.007
Hallucination	1,356	0.2%	2,128	0.3%	-0.073	-0.014
Obsessive-Compulsive Disorder	1,036	0.2%	1,096	0.2%	0.022	0.005
Other Cerebral Degenerations	9,309	1.6%	16,404	2.4%	-0.760	-0.054
Other Mental Disorders	5,012	0.9%	7,251	1.1%	-0.179	-0.018
Other Psychological Disorders	44,515	7.8%	60,220	8.8%	-0.984	-0.036
Persistent Mental Disorders due to Conditions Classified Elsewhere	12,551	2.2%	22,887	3.3%	-1.136	-0.070
Personality Disorders	2,956	0.5%	3,657	0.5%	-0.016	-0.002
Pervasive Developmental Disorders	344	0.1%	722	0.1%	-0.045	-0.016
Post-Traumatic Stress Disorder	11,945	2.1%	13,981	2.0%	0.053	0.004
Psychotherapy	35,297	6.2%	42,013	6.1%	0.053	0.002
Psychotic Conditions	2,494	0.4%	5,036	0.7%	-0.297	-0.039
Schizophrenia	8,234	1.4%	16,783	2.4%	-1.002	-0.073
Sleep Disorder	130,022	22.7%	121,754	17.7%	4.995	0.125
Substance Abuse	20,087	3.5%	25,804	3.8%	-0.245	-0.013
Suicidal Behavior	3,179	0.6%	4,082	0.6%	-0.038	-0.005
Transcranial Magnetic Stimulation	92	0.0%	74	0.0%	0.005	0.005
Vagus Nerve Stimulation	543	0.1%	509	0.1%	0.021	0.007

Table 1cb. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Index GLP-1RA Product						
albiglutide	6,666	1.2%	0	0.0%	NaN	NaN
dulaglutide	188,228	32.9%	0	0.0%	NaN	NaN
exenatide	51,965	9.1%	0	0.0%	NaN	NaN
liraglutide	149,542	26.1%	0	0.0%	NaN	NaN
lixisenatide	5,625	1.0%	0	0.0%	NaN	NaN
semaglutide	160,768	28.1%	0	0.0%	NaN	NaN
tirzepatide	10,886	1.9%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	572,965	100.0%	687,956	100.0%	-0.000	-0.002
insulin*	178,252	31.1%	209,942	30.5%	0.594	0.013
metformin*	500,794	87.4%	594,891	86.5%	0.932	0.028
alpha-glucosidase inhibitors*	2,498	0.4%	3,483	0.5%	-0.070	-0.010
thiazolidinediones*	38,469	6.7%	46,535	6.8%	-0.050	-0.002
meglitinides*	6,952	1.2%	9,949	1.4%	-0.233	-0.020
amylin analogue*	52	0.0%	57	0.0%	0.001	0.001
sulfonylureas*	215,053	37.5%	286,527	41.6%	-4.116	-0.085
bile acid sequestrants*	2,785	0.5%	3,152	0.5%	0.028	0.004
Other Weight Loss Agents*	1,845	0.3%	880	0.1%	0.194	0.041
benzphetamine	2	0.0%	3	0.0%	0.000	0.000
bupropion	235	0.0%	114	0.0%	0.024	0.014
diethylpropion	44	0.0%	24	0.0%	0.004	0.006
lorcaserin	102	0.0%	71	0.0%	0.007	0.006
phentermine	1,347	0.2%	583	0.1%	0.150	0.038

Table 1cb. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
phentermine-topiramate	105	0.0%	38	0.0%	0.013	0.012
phendimetrazine	38	0.0%	25	0.0%	0.003	0.004
orlistat	29	0.0%	47	0.0%	-0.002	-0.002
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	160,188	28.0%	194,553	28.3%	-0.322	-0.007
Antipsychotics	40,068	7.0%	62,656	9.1%	-2.115	-0.078
Anxiolytics/Hypnotics	124,710	21.8%	156,527	22.8%	-0.987	-0.024
Lithium & Other Mood Stabilizers	35,133	6.1%	49,830	7.2%	-1.111	-0.045
Antidepressants	249,135	43.5%	277,678	40.4%	3.119	0.063
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	11.3	10.2	11.5	12.1	-0.197	-0.018
Mean number of emergency room encounters*	0.4	1.3	0.5	1.1	-0.016	-0.013
Mean number of inpatient hospital encounters*	0.1	0.5	0.2	0.5	-0.030	-0.060
Mean number of non-acute institutional encounters*	0.0	0.3	0.0	0.3	-0.015	-0.052
Mean number of other ambulatory encounters*	4.6	13.3	5.7	15.5	-1.073	-0.074
Mean number of filled prescriptions*	27.9	21.9	29.0	22.5	-1.008	-0.045

Table 1cb. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of generics dispensed*	11.6	5.7	11.7	5.6	-0.102	-0.018
Mean number of unique drug classes dispensed*	10.2	4.9	10.1	5.1	0.058	0.012

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1cc. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	508,587	100.0%	669,544	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	61.2	10.3	64.3	10.7	-3.145	-0.299
Age						
18-24 years	2,004	0.4%	1,729	0.3%	0.136	0.024
25-44 years	56,495	11.1%	56,004	8.4%	2.744	0.093
45-64 years	216,658	42.6%	254,277	38.0%	4.622	0.094
65-79 years	213,900	42.1%	285,126	42.6%	-0.527	-0.011
≥ 80 years	19,530	3.8%	72,408	10.8%	-6.974	-0.270
Sex*						
Female	0	0.0%	0	0.0%	NaN	NaN
Male	508,587	100.0%	669,544	100.0%	0.000	NaN
Race ³						
American Indian or Alaska Native	3,137	0.6%	4,476	0.7%	-0.052	-0.006
Asian	7,375	1.5%	31,543	4.7%	-3.261	-0.190
Black or African American	34,636	6.8%	64,208	9.6%	-2.780	-0.101
Multi-racial	2,605	0.5%	1,996	0.3%	0.214	0.034
Native Hawaiian or Other Pacific Islander	1,474	0.3%	2,582	0.4%	-0.096	-0.017
Unknown	194,539	38.3%	225,151	33.6%	4.623	0.096
White	264,821	52.1%	339,588	50.7%	1.351	0.027
Hispanic origin						
Yes	19,192	3.8%	48,629	7.3%	-3.489	-0.153

Table 1cc. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	282,502	55.5%	415,036	62.0%	-6.441	-0.131
Unknown	206,893	40.7%	205,879	30.7%	9.931	0.208
Year*						
2015	7,560	1.5%	29,700	4.4%	-2.949	-0.175
2016	35,741	7.0%	127,669	19.1%	-12.041	-0.363
2017	43,513	8.6%	124,746	18.6%	-10.076	-0.297
2018	52,757	10.4%	108,224	16.2%	-5.791	-0.171
2019	65,217	12.8%	96,083	14.4%	-1.527	-0.045
2020	70,222	13.8%	79,508	11.9%	1.932	0.058
2021	73,190	14.4%	50,503	7.5%	6.848	0.220
2022	87,945	17.3%	36,529	5.5%	11.836	0.379
2023	72,442	14.2%	16,582	2.5%	11.767	0.435
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	1.5	1.7	1.6	1.8	-0.124	-0.070
Combined comorbidity score ^{*,5}	1.6	2.1	1.9	2.6	-0.258	-0.109
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity [*]	227,922	44.8%	164,853	24.6%	20.193	0.434
Weight Reduction Surgery or Procedure [*]	224	0.0%	743	0.1%	-0.067	-0.024
Lifestyle intervention [*]	80,603	15.8%	84,206	12.6%	3.272	0.094
Cardiovascular Disease [*]	105,698	20.8%	160,174	23.9%	-3.140	-0.075

Table 1cc. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cognitive Impairment*	8,818	1.7%	27,416	4.1%	-2.361	-0.141
Traumatic Brain Injury*	1,137	0.2%	1,663	0.2%	-0.025	-0.005
Migraine*	9,136	1.8%	9,421	1.4%	0.389	0.031
Epilepsy*	5,530	1.1%	9,695	1.4%	-0.361	-0.032
Chronic Pain*	89,427	17.6%	92,566	13.8%	3.758	0.103
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	2,850	0.6%	3,479	0.5%	0.041	0.006
Psychiatric History Overall*	289,857	57.0%	321,608	48.0%	8.959	0.180
Psychiatric Drug Dispensings	185,965	36.6%	207,033	30.9%	5.644	0.120
Intentional Self-Harm Encounter	350	0.1%	649	0.1%	-0.028	-0.010
Any Other Psychiatric Event	243,690	47.9%	263,613	39.4%	8.543	0.173
Attention-Deficit/Hyperactivity Disorder	5,659	1.1%	3,333	0.5%	0.615	0.069
Akathisia	396	0.1%	692	0.1%	-0.025	-0.008
Anxiety	57,932	11.4%	60,904	9.1%	2.294	0.076
Behavioral Disorder	17,687	3.5%	22,344	3.3%	0.140	0.008
Bipolar Disorder	14,411	2.8%	16,578	2.5%	0.358	0.022
Cerebral Degenerations usually Manifested in Childhood	4,193	0.8%	9,486	1.4%	-0.592	-0.056
Conduct Disorder	663	0.1%	834	0.1%	0.006	0.002

Table 1cc. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Delirium	5,371	1.1%	14,991	2.2%	-1.183	-0.093
Depression	64,679	12.7%	71,832	10.7%	1.989	0.062
Electroconvulsive Therapy	62	0.0%	91	0.0%	-0.001	-0.001
Hallucination	736	0.1%	1,703	0.3%	-0.110	-0.025
Obsessive-Compulsive Disorder	857	0.2%	810	0.1%	0.048	0.013
Other Cerebral Degenerations	6,356	1.2%	15,336	2.3%	-1.041	-0.079
Other Mental Disorders	3,212	0.6%	5,693	0.9%	-0.219	-0.026
Other Psychological Disorders	45,649	9.0%	62,841	9.4%	-0.410	-0.014
Persistent Mental Disorders due to Conditions Classified Elsewhere	6,075	1.2%	20,439	3.1%	-1.858	-0.129
Personality Disorders	1,027	0.2%	1,340	0.2%	0.002	0.000
Pervasive Developmental Disorders	1,349	0.3%	1,405	0.2%	0.055	0.011
Post-Traumatic Stress Disorder	5,672	1.1%	5,100	0.8%	0.354	0.037
Psychotherapy	20,924	4.1%	22,776	3.4%	0.712	0.037
Psychotic Conditions	1,637	0.3%	4,838	0.7%	-0.401	-0.056
Schizophrenia	8,406	1.7%	14,868	2.2%	-0.568	-0.041
Sleep Disorder	142,661	28.1%	113,436	16.9%	11.108	0.268
Substance Abuse	24,761	4.9%	32,807	4.9%	-0.031	-0.001
Suicidal Behavior	2,135	0.4%	3,270	0.5%	-0.069	-0.010

Table 1cc. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Transcranial Magnetic Stimulation	94	0.0%	38	0.0%	0.013	0.012
Vagus Nerve Stimulation	325	0.1%	290	0.0%	0.021	0.009
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	3,843	0.8%	0	0.0%	NaN	NaN
dulaglutide	177,558	34.9%	0	0.0%	NaN	NaN
exenatide	36,258	7.1%	0	0.0%	NaN	NaN
liraglutide	94,517	18.6%	0	0.0%	NaN	NaN
lixisenatide	7,834	1.5%	0	0.0%	NaN	NaN
semaglutide	177,314	34.9%	0	0.0%	NaN	NaN
tirzepatide	11,667	2.3%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	508,586	100.0%	669,544	100.0%	-0.000	-0.002
insulin*	177,276	34.9%	111,747	16.7%	18.167	0.425
metformin*	454,377	89.3%	586,882	87.7%	1.687	0.053
alpha-glucosidase inhibitors*	2,108	0.4%	3,512	0.5%	-0.110	-0.016
thiazolidinediones*	49,384	9.7%	50,845	7.6%	2.116	0.075
meglitinides*	5,607	1.1%	10,058	1.5%	-0.400	-0.035
amylin analogue*	67	0.0%	15	0.0%	0.011	0.012
sulfonylureas*	197,998	38.9%	307,452	45.9%	-6.989	-0.142
bile acid sequestrants*	1,653	0.3%	2,294	0.3%	-0.018	-0.003
Other Weight Loss Agents*	1,072	0.2%	235	0.0%	0.176	0.050

Table 1cc. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
benzphetamine	*****	*****	0	0.0%	NaN	NaN
bupropion	110	0.0%	42	0.0%	0.015	0.013
diethylpropion	26	0.0%	*****	*****	*****	*****
lorcaserin	51	0.0%	22	0.0%	0.007	0.008
phentermine	826	0.2%	157	0.0%	0.139	0.046
phentermine-topiramate	49	0.0%	*****	*****	*****	*****
phendimetrazine	17	0.0%	*****	*****	*****	*****
orlistat	19	0.0%	*****	*****	*****	*****
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	114,695	22.6%	146,024	21.8%	0.742	0.018
Antipsychotics	27,272	5.4%	39,054	5.8%	-0.471	-0.020
Anxiolytics/Hypnotics	72,620	14.3%	86,809	13.0%	1.313	0.038
Lithium & Other Mood Stabilizers						
Stabilizers	23,738	4.7%	29,936	4.5%	0.196	0.009
Antidepressants	143,605	28.2%	148,412	22.2%	6.070	0.140
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	10.2	10.6	10.0	11.6	0.283	0.025
Mean number of emergency room encounters*	0.3	0.9	0.3	1.1	-0.045	-0.045
Mean number of inpatient hospital encounters*	0.1	0.4	0.2	0.6	-0.075	-0.154

Table 1cc. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of non-acute institutional encounters*	0.0	0.2	0.1	0.3	-0.034	-0.136
Mean number of other ambulatory encounters*	3.5	10.2	4.6	12.8	-1.099	-0.095
Mean number of filled prescriptions*	24.4	18.2	23.5	18.6	0.933	0.051
Mean number of generics dispensed*	10.2	4.6	9.7	4.7	0.533	0.115
Mean number of unique drug classes dispensed*	9.1	4.1	8.0	4.2	1.043	0.250

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1cd. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	450,497	N/A	645,753	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	62.1	10.1	63.3	11.0	-1.199	-0.113
Age						
18-24 years	1,245	0.3%	2,316	0.4%	-0.082	-0.015
25-44 years	42,684	9.5%	62,081	9.6%	-0.139	-0.005
45-64 years	191,712	42.6%	253,254	39.2%	3.337	0.077
65-79 years	192,904	42.8%	268,481	41.6%	1.244	0.030
≥ 80 years	21,953	4.9%	59,621	9.2%	-4.360	-0.174
Sex*						
Female	0	0.0%	0	0.0%	NaN	NaN
Male	450,497	100.0%	645,753	100.0%	0.000	NaN
Race ⁴						
American Indian or Alaska Native	2,584	0.6%	4,916	0.8%	-0.188	-0.023
Asian	6,828	1.5%	28,560	4.4%	-2.907	-0.174
Black or African American	30,422	6.8%	66,105	10.2%	-3.484	-0.127
Multi-racial	2,180	0.5%	1,948	0.3%	0.182	0.030
Native Hawaiian or Other Pacific Islander	1,380	0.3%	2,314	0.4%	-0.052	-0.009
Unknown	174,077	38.6%	213,861	33.1%	5.523	0.177
White	233,026	51.7%	328,050	50.8%	0.925	0.024
Hispanic origin						
Yes	16,392	3.6%	50,047	7.8%	-4.111	-0.185

Table 1cd. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
No	248,574	55.2%	403,619	62.5%	-7.326	-0.258
Unknown	185,531	41.2%	192,088	29.7%	11.437	0.504
Year*						
2015	12,342	2.7%	21,882	3.4%	-0.649	-0.038
2016	54,442	12.1%	97,586	15.1%	-3.027	-0.089
2017	57,337	12.7%	101,991	15.8%	-3.067	-0.088
2018	57,890	12.9%	97,066	15.0%	-2.181	-0.063
2019	60,550	13.4%	95,919	14.9%	-1.413	-0.041
2020	57,175	12.7%	86,479	13.4%	-0.700	-0.021
2021	53,539	11.9%	61,217	9.5%	2.404	0.079
2022	56,367	12.5%	53,082	8.2%	4.292	0.143
2023	40,855	9.1%	30,531	4.7%	4.341	0.173
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	1.6	1.8	1.6	1.8	-0.058	-0.032
Combined comorbidity score ^{*,6}	1.8	2.3	1.9	2.5	-0.104	-0.043
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	169,825	37.7%	195,355	30.3%	7.445	0.159
Weight Reduction Surgery or Procedure*	334	0.1%	597	0.1%	-0.018	-0.006
Lifestyle intervention*	66,650	14.8%	84,073	13.0%	1.775	0.052
Cardiovascular Disease*	102,328	22.7%	153,673	23.8%	-1.083	-0.026

Table 1cd. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Cognitive Impairment*	12,524	2.8%	22,078	3.4%	-0.639	-0.037
Traumatic Brain Injury*	1,102	0.2%	1,633	0.3%	-0.008	-0.002
Migraine*	7,881	1.7%	10,193	1.6%	0.171	0.013
Epilepsy*	5,922	1.3%	9,183	1.4%	-0.107	-0.009
Chronic Pain*	76,177	16.9%	100,654	15.6%	1.323	0.036
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	2,487	0.6%	4,002	0.6%	-0.068	-0.009
Psychiatric History Overall*	244,950	54.4%	334,562	51.8%	2.564	0.052
Psychiatric Drug Dispensings	155,109	34.4%	222,674	34.5%	-0.052	-0.001
Intentional Self-Harm Encounter	391	0.1%	667	0.1%	-0.016	-0.005
Any Other Psychiatric Event	205,884	45.7%	274,269	42.5%	3.229	0.065
Attention- Deficit/Hyperactivity Disorder	4,129	0.9%	4,114	0.6%	0.279	0.032
Akathisia	401	0.1%	702	0.1%	-0.020	-0.006
Anxiety	48,142	10.7%	66,850	10.4%	0.334	0.011
Behavioral Disorder	15,947	3.5%	22,856	3.5%	0.000	0.000
Bipolar Disorder	11,999	2.7%	19,268	3.0%	-0.320	-0.019
Cerebral Degenerations usually Manifested in Childhood	4,535	1.0%	8,609	1.3%	-0.327	-0.030
Conduct Disorder	538	0.1%	932	0.1%	-0.025	-0.007

Table 1cd. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Delirium	7,274	1.6%	13,089	2.0%	-0.412	-0.031
Depression	56,455	12.5%	76,091	11.8%	0.748	0.023
Electroconvulsive Therapy	61	0.0%	93	0.0%	-0.001	-0.001
Hallucination	859	0.2%	1,645	0.3%	-0.064	-0.014
Obsessive-Compulsive Disorder	637	0.1%	932	0.1%	-0.003	-0.001
Other Cerebral Degenerations	7,252	1.6%	13,160	2.0%	-0.428	-0.032
Other Mental Disorders	3,329	0.7%	5,403	0.8%	-0.098	-0.011
Other Psychological Disorders	40,987	9.1%	65,525	10.1%	-1.049	-0.036
Persistent Mental Disorders due to Conditions Classified Elsewhere	8,851	2.0%	16,278	2.5%	-0.556	-0.038
Personality Disorders	936	0.2%	1,427	0.2%	-0.013	-0.003
Pervasive Developmental Disorders	852	0.2%	1,765	0.3%	-0.084	-0.018
Post-Traumatic Stress Disorder	4,423	1.0%	6,158	1.0%	0.028	0.003
Psychotherapy	17,242	3.8%	25,191	3.9%	-0.074	-0.004
Psychotic Conditions	1,956	0.4%	4,523	0.7%	-0.266	-0.035
Schizophrenia	6,832	1.5%	16,877	2.6%	-1.097	-0.077
Sleep Disorder	117,175	26.0%	121,966	18.9%	7.123	0.172
Substance Abuse	21,964	4.9%	35,380	5.5%	-0.604	-0.027
Suicidal Behavior	2,228	0.5%	3,215	0.5%	-0.003	-0.000

Table 1cd. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Transcranial Magnetic Stimulation	71	0.0%	49	0.0%	0.008	0.008
Vagus Nerve Stimulation	290	0.1%	311	0.0%	0.016	0.007
Medical Product Use	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	5,424	1.2%	0	0.0%	NaN	NaN
dulaglutide	162,876	36.2%	0	0.0%	NaN	NaN
exenatide	41,320	9.2%	0	0.0%	NaN	NaN
liraglutide	105,212	23.4%	0	0.0%	NaN	NaN
lixisenatide	5,125	1.1%	0	0.0%	NaN	NaN
semaglutide	124,382	27.6%	0	0.0%	NaN	NaN
tirzepatide	6,944	1.5%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	450,497	100.0%	645,753	100.0%	-0.000	-0.002
insulin*	146,780	32.6%	191,753	29.7%	2.887	0.063
metformin*	398,963	88.6%	568,058	88.0%	0.592	0.019
alpha-glucosidase inhibitors*	2,141	0.5%	3,365	0.5%	-0.046	-0.007
thiazolidinediones*	40,395	9.0%	54,601	8.5%	0.511	0.018
meglitinides*	5,930	1.3%	9,496	1.5%	-0.154	-0.013
amylin analogue*	31	0.0%	41	0.0%	0.000	0.001
sulfonylureas*	185,399	41.2%	284,623	44.1%	-2.922	-0.059
bile acid sequestrants*	1,829	0.4%	2,378	0.4%	0.038	0.006
Other Weight Loss Agents*	662	0.1%	436	0.1%	0.079	0.024

Table 1cd. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Medical Product				Covariate Balance		
GLP-1 Receptor Agonists			DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
benzphetamine	1	0.0%	0	0.0%	NaN	NaN
bupropion	76	0.0%	73	0.0%	0.006	0.005
diethylpropion	15	0.0%	6	0.0%	0.002	0.005
lorcaserin	32	0.0%	23	0.0%	0.004	0.005
phentermine	503	0.1%	313	0.0%	0.063	0.022
phentermine-topiramate	29	0.0%	13	0.0%	0.004	0.007
phendimetrazine	11	0.0%	6	0.0%	0.002	0.004
orlistat	11	0.0%	12	0.0%	0.001	0.001
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	107,865	23.9%	151,092	23.4%	0.546	0.013
Antipsychotics	21,989	4.9%	44,659	6.9%	-2.035	-0.087
Anxiolytics/Hypnotics	61,467	13.6%	94,125	14.6%	-0.932	-0.027
Stabilizers	19,221	4.3%	34,478	5.3%	-1.073	-0.050
Antidepressants	117,804	26.1%	163,009	25.2%	0.907	0.021
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	10.3	10.5	10.5	12.6	-0.137	-0.012
Mean number of emergency room encounters*	0.4	1.2	0.4	1.1	-0.005	-0.004
Mean number of inpatient hospital encounters*	0.1	0.5	0.2	0.5	-0.019	-0.036

Table 1cd. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of non-acute institutional encounters*	0.0	0.3	0.0	0.3	-0.009	-0.036
Mean number of other ambulatory encounters*	3.9	11.1	4.6	12.9	-0.746	-0.062
Mean number of filled prescriptions*	24.7	19.3	24.9	19.6	-0.244	-0.013
Mean number of generics dispensed*	10.3	4.9	10.2	4.8	0.088	0.018
Mean number of unique drug classes dispensed*	8.9	4.2	8.7	4.4	0.188	0.043

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1ce. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	6,021	100.0%	4,437	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	21.9	2.0	22.2	1.9	-0.303	-0.152
Age						
18-24 years	6,021	100.0%	4,437	100.0%	0.000	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	4,017	66.7%	2,708	61.0%	5.684	0.119
Male	2,004	33.3%	1,729	39.0%	-5.684	-0.119
Race ³						
American Indian or Alaska Native	80	1.3%	70	1.6%	-0.249	-0.021
Asian	126	2.1%	180	4.1%	-1.964	-0.114
Black or African American	899	14.9%	676	15.2%	-0.304	-0.009
Multi-racial	46	0.8%	16	0.4%	0.403	0.054
Native Hawaiian or Other Pacific Islander	23	0.4%	31	0.7%	-0.317	-0.043
Unknown	3,487	57.9%	2,374	53.5%	4.409	0.089
White	1,360	22.6%	1,090	24.6%	-1.979	-0.047
Hispanic origin						
Yes	793	13.2%	1,043	23.5%	-10.336	-0.270

Table 1ce. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	2,348	39.0%	2,012	45.3%	-6.349	-0.129
Unknown	2,880	47.8%	1,382	31.1%	16.685	0.346
Year*						
2015	86	1.4%	109	2.5%	-1.028	-0.075
2016	434	7.2%	738	16.6%	-9.425	-0.294
2017	586	9.7%	977	22.0%	-12.287	-0.341
2018	727	12.1%	859	19.4%	-7.286	-0.201
2019	1,073	17.8%	749	16.9%	0.940	0.025
2020	1,456	24.2%	784	17.7%	6.512	0.161
2021	492	8.2%	123	2.8%	5.399	0.239
2022	672	11.2%	79	1.8%	9.380	0.388
2023	495	8.2%	19	0.4%	7.793	0.390
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	0.2	0.6	0.2	0.6	0.012	0.021
Combined comorbidity score ^{*,5}	1.1	1.1	1.0	1.2	0.124	0.108
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity [*]	3,212	53.3%	1,639	36.9%	16.407	0.334
Weight Reduction Surgery or Procedure [*]	*****	*****	*****	*****	0.011	0.006
Lifestyle intervention [*]	1,780	29.6%	1,031	23.2%	6.327	0.144
Cardiovascular Disease [*]	54	0.9%	33	0.7%	0.153	0.017

Table 1ce. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Cognitive Impairment*	14	0.2%	*****	*****	*****	*****
Traumatic Brain Injury*	12	0.2%	*****	*****	*****	*****
Migraine*	295	4.9%	186	4.2%	0.707	0.034
Epilepsy*	112	1.9%	111	2.5%	-0.642	-0.044
Chronic Pain*	381	6.3%	202	4.6%	1.775	0.078
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	183	3.0%	120	2.7%	0.335	0.020
Psychiatric History Overall*	3,397	56.4%	2,170	48.9%	7.512	0.151
Psychiatric Drug Dispensings	2,554	42.4%	1,599	36.0%	6.380	0.131
Intentional Self-Harm Encounter	55	0.9%	39	0.9%	0.034	0.004
Any Other Psychiatric Event	2,986	49.6%	1,881	42.4%	7.200	0.145
Attention-Deficit/Hyperactivity Disorder	472	7.8%	245	5.5%	2.317	0.093
Akathisia	*****	*****	*****	*****	-0.001	-0.000
Anxiety	1,272	21.1%	654	14.7%	6.386	0.167
Behavioral Disorder	584	9.7%	345	7.8%	1.924	0.068
Bipolar Disorder	499	8.3%	351	7.9%	0.377	0.014
Cerebral Degenerations usually Manifested in Childhood	11	0.2%	*****	*****	*****	*****
Conduct Disorder	*****	*****	44	1.0%	*****	*****
Delirium	45	0.7%	28	0.6%	0.116	0.014

Table 1c. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Depression	1,348	22.4%	777	17.5%	4.876	0.122
Electroconvulsive Therapy	*****	*****	*****	*****	0.011	0.006
Hallucination	19	0.3%	21	0.5%	-0.158	-0.025
Obsessive-Compulsive Disorder	55	0.9%	15	0.3%	0.575	0.073
Other Cerebral Degenerations	13	0.2%	*****	*****	*****	*****
Other Mental Disorders	106	1.8%	80	1.8%	-0.043	-0.003
Other Psychological Disorders	562	9.3%	462	10.4%	-1.078	-0.036
Persistent Mental Disorders due to Conditions Classified Elsewhere	*****	*****	*****	*****	0.005	0.002
Personality Disorders	105	1.7%	57	1.3%	0.459	0.038
Pervasive Developmental Disorders	348	5.8%	218	4.9%	0.867	0.039
Post-Traumatic Stress Disorder	278	4.6%	161	3.6%	0.989	0.050
Psychotherapy	863	14.3%	434	9.8%	4.552	0.140
Psychotic Conditions	67	1.1%	69	1.6%	-0.442	-0.039
Schizophrenia	169	2.8%	174	3.9%	-1.115	-0.062
Sleep Disorder	789	13.1%	354	8.0%	5.126	0.168
Substance Abuse	145	2.4%	128	2.9%	-0.477	-0.030
Suicidal Behavior	61	1.0%	57	1.3%	-0.272	-0.025
Transcranial Magnetic Stimulation	*****	*****	0	0.0%	NaN	NaN

Table 1ce. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	80	1.3%	0	0.0%	NaN	NaN
dulaglutide	1,679	27.9%	0	0.0%	NaN	NaN
exenatide	666	11.1%	0	0.0%	NaN	NaN
liraglutide	1,791	29.7%	0	0.0%	NaN	NaN
lixisenatide	43	0.7%	0	0.0%	NaN	NaN
semaglutide	1,637	27.2%	0	0.0%	NaN	NaN
tirzepatide	128	2.1%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents						
insulin*	2,083	34.6%	915	20.6%	13.974	0.316
metformin*	5,797	96.3%	4,271	96.3%	0.021	0.001
alpha-glucosidase inhibitors*	*****	*****	*****	*****	-0.013	-0.004
thiazolidinediones*	200	3.3%	165	3.7%	-0.397	-0.022
meglitinides*	12	0.2%	16	0.4%	-0.161	-0.031
amylin analogue*	*****	*****	0	0.0%	NaN	NaN
sulfonylureas*	993	16.5%	1,143	25.8%	-9.268	-0.229
bile acid sequestrants*	*****	*****	*****	*****	0.027	0.014
Other Weight Loss Agents*						
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	*****	*****	0	0.0%	NaN	NaN
diethylpropion	*****	*****	0	0.0%	NaN	NaN
lorcaserin	*****	*****	0	0.0%	NaN	NaN
phentermine	19	0.3%	*****	*****	*****	*****

Table 1ce. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
phentermine-topiramate	*****	*****	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	*****	*****	0	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	710	11.8%	600	13.5%	-1.731	-0.052
Antipsychotics	834	13.9%	599	13.5%	0.351	0.010
Anxiolytics/Hypnotics	930	15.4%	556	12.5%	2.915	0.084
Antidepressants	2,071	34.4%	1,193	26.9%	7.509	0.163
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	9.4	11.8	8.4	10.7	1.012	0.090
Mean number of emergency room encounters *	0.6	1.5	0.8	1.8	-0.125	-0.075
Mean number of inpatient hospital encounters *	0.1	0.3	0.1	0.4	-0.024	-0.062
Mean number of non-acute institutional encounters *	0.0	0.1	0.0	0.2	-0.008	-0.044
Mean number of other ambulatory encounters *	6.5	21.2	7.7	24.8	-1.161	-0.050
Mean number of filled prescriptions *	17.6	15.6	16.6	16.1	0.994	0.063

Table 1ce. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of generics dispensed*	7.9	4.7	7.6	4.7	0.274	0.058
Mean number of unique drug classes dispensed*	7.0	4.2	6.1	4.2	0.849	0.201

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1cf. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	5,433	N/A	4,207	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years) [*]	22.0	2.0	22.0	2.0	0.027	0.013
Age						
18-24 years	5,433	100.0%	4,207	100.0%	0.000	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex [*]						
Female	3,507	64.6%	2,651	63.0%	1.544	0.032
Male	1,926	35.4%	1,556	37.0%	-1.544	-0.032
Race ⁴						
American Indian or Alaska Native	67	1.2%	63	1.5%	-0.271	-0.023
Asian	116	2.1%	142	3.4%	-1.231	-0.076
Black or African American	781	14.4%	732	17.4%	-3.013	-0.085
Multi-racial	25	0.5%	13	0.3%	0.162	0.026
Native Hawaiian or Other Pacific Islander	23	0.4%	26	0.6%	-0.200	-0.028
Unknown	3,141	57.8%	2,199	52.3%	5.548	0.131
White	1,279	23.5%	1,032	24.5%	-0.994	-0.025

Table 1cf. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Hispanic origin						
Yes	708	13.0%	1,032	24.5%	-11.493	-0.311
No	2,178	40.1%	1,970	46.8%	-6.723	-0.163
Unknown	2,547	46.9%	1,206	28.7%	18.215	0.588
Year*						
2015	103	1.9%	90	2.1%	-0.232	-0.016
2016	576	10.6%	526	12.5%	-1.895	-0.059
2017	759	14.0%	751	17.9%	-3.877	-0.107
2018	769	14.2%	714	17.0%	-2.799	-0.077
2019	943	17.4%	858	20.4%	-3.035	-0.078
2020	1,134	20.9%	923	21.9%	-1.063	-0.026
2021	395	7.3%	129	3.1%	4.213	0.200
2022	481	8.9%	164	3.9%	4.952	0.217
2023	272	5.0%	53	1.3%	3.735	0.224
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications						
Severity Index(aDCSI) ^{*,5}	0.2	0.6	0.2	0.6	-0.007	-0.011
Combined comorbidity score ^{*,6}	1.1	1.1	1.1	1.1	0.018	0.016
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	2,661	49.0%	1,751	41.6%	7.362	0.152
Procedure*	0	0.0%	0	0.0%	NaN	NaN

Table 1cf. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Lifestyle intervention*	1,485	27.3%	1,073	25.5%	1.827	0.042
Cardiovascular Disease*	46	0.8%	26	0.6%	0.220	0.026
Cognitive Impairment*	9	0.2%	8	0.2%	-0.020	-0.005
Traumatic Brain Injury*	7	0.1%	5	0.1%	-0.005	-0.001
Migraine*	262	4.8%	174	4.1%	0.692	0.033
Epilepsy*	105	1.9%	98	2.3%	-0.397	-0.028
Chronic Pain*	316	5.8%	219	5.2%	0.606	0.027
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	159	2.9%	142	3.4%	-0.461	-0.026
Psychiatric History Overall*	2,956	54.4%	2,205	52.4%	2.001	0.041
Psychiatric Drug Dispensings	2,191	40.3%	1,678	39.9%	0.450	0.009
Intentional Self-Harm Encounter	54	1.0%	38	0.9%	0.085	0.009
Any Other Psychiatric Event	2,589	47.6%	1,906	45.3%	2.331	0.048
Attention-Deficit/Hyperactivity Disorder	388	7.2%	270	6.4%	0.742	0.030
Akathisia	7	0.1%	1	0.0%	0.103	0.038
Anxiety	1,076	19.8%	664	15.8%	4.015	0.106
Behavioral Disorder	503	9.3%	369	8.8%	0.490	0.017
Bipolar Disorder	424	7.8%	383	9.1%	-1.289	-0.047

Table 1cf. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Cerebral Degenerations usually Manifested in Childhood	11	0.2%	2	0.1%	0.148	0.041
Conduct Disorder	51	0.9%	42	1.0%	-0.042	-0.004
Delirium	40	0.7%	20	0.5%	0.259	0.034
Depression	1,146	21.1%	798	19.0%	2.127	0.053
Electroconvulsive Therapy	3	0.0%	3	0.1%	-0.012	-0.005
Hallucination	19	0.4%	23	0.5%	-0.195	-0.029
Obsessive-Compulsive Disorder	48	0.9%	16	0.4%	0.512	0.065
Other Cerebral Degenerations	15	0.3%	5	0.1%	0.161	0.037
Other Mental Disorders	76	1.4%	76	1.8%	-0.402	-0.032
Other Psychological Disorders	511	9.4%	441	10.5%	-1.065	-0.036
Persistent Mental Disorders due to Conditions Classified Elsewhere	2	0.0%	4	0.1%	-0.057	-0.022
Personality Disorders	92	1.7%	65	1.5%	0.158	0.013
Pervasive Developmental Disorders	303	5.6%	229	5.4%	0.136	0.006
Post-Traumatic Stress Disorder	229	4.2%	175	4.2%	0.067	0.003
Psychotherapy	713	13.1%	459	10.9%	2.203	0.068
Psychotic Conditions	68	1.2%	70	1.7%	-0.421	-0.035
Schizophrenia	154	2.8%	201	4.8%	-1.946	-0.103
Sleep Disorder	675	12.4%	403	9.6%	2.853	0.093
Substance Abuse	135	2.5%	126	3.0%	-0.501	-0.031

Table 1cf. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Psychiatric History						
Suicidal Behavior	55	1.0%	50	1.2%	-0.191	-0.018
Transcranial Magnetic Stimulation	2	0.0%	0	0.0%	NaN	NaN
Vagus Nerve Stimulation	3	0.1%	1	0.0%	0.043	0.022
Medical Product Use	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	104	1.9%	0	0.0%	NaN	NaN
dulaglutide	1,550	28.5%	0	0.0%	NaN	NaN
exenatide	698	12.9%	0	0.0%	NaN	NaN
liraglutide	1,748	32.2%	0	0.0%	NaN	NaN
lixisenatide	32	0.6%	0	0.0%	NaN	NaN
semaglutide	1,221	22.5%	0	0.0%	NaN	NaN
tirzepatide	83	1.5%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	5,433	100.0%	4,207	100.0%	0.000	NaN
insulin*	1,798	33.1%	1,572	37.4%	-4.271	-0.090
metformin*	5,221	96.1%	4,044	96.1%	-0.014	-0.001
alpha-glucosidase inhibitors*	3	0.1%	4	0.1%	-0.038	-0.014
thiazolidinediones*	191	3.5%	159	3.8%	-0.251	-0.013
meglitinides*	16	0.3%	14	0.3%	-0.057	-0.010
amylin analogue*	0	0.0%	0	0.0%	NaN	NaN
sulfonylureas*	1,037	19.1%	929	22.1%	-2.997	-0.074
bile acid sequestrants*	0	0.0%	0	0.0%	NaN	NaN

Table 1cf. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Medical Product				Covariate Balance		
Medical Product Use	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Other Weight Loss Agents*	3	0.0%	1	0.0%	0.012	0.006
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	0	0.0%	0	0.0%	NaN	NaN
diethylpropion	1	0.0%	0	0.0%	NaN	NaN
lorcaserin	0	0.0%	0	0.0%	NaN	NaN
phentermine	2	0.0%	1	0.0%	-0.003	-0.002
phentermine-topiramate	0	0.0%	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	0	0.0%	0	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	717	13.2%	583	13.9%	-0.663	-0.019
Antipsychotics	717	13.2%	693	16.5%	-3.269	-0.095
Anxiolytics/Hypnotics	797	14.7%	614	14.6%	0.067	0.002
Lithium & Other Mood Stabilizers	481	8.8%	480	11.4%	-2.562	-0.086
Antidepressants	1,759	32.4%	1,276	30.3%	2.036	0.044
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	9.1	11.4	9.3	12.6	-0.171	-0.014
Mean number of emergency room encounters*	0.7	1.8	0.8	1.7	-0.073	-0.042

Table 1cf. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of inpatient hospital encounters*	0.1	0.4	0.1	0.4	-0.009	-0.024
Mean number of non-acute institutional encounters*	0.0	0.1	0.0	0.2	-0.000	-0.003
Mean number of other ambulatory encounters*	6.6	21.5	8.1	25.3	-1.450	-0.062
Mean number of filled prescriptions*	17.6	16.4	18.0	17.4	-0.377	-0.022
Mean number of generics dispensed*	8.0	5.0	8.1	4.8	-0.141	-0.029
Mean number of unique drug classes dispensed*	6.9	4.3	6.8	4.4	0.010	0.002

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1cg. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	139,859	100.0%	115,163	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years) [*]	38.4	4.9	38.5	4.9	-0.084	-0.017
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	139,859	100.0%	115,163	100.0%	0.000	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex [*]						
Female	83,364	59.6%	59,159	51.4%	8.236	0.166
Male	56,495	40.4%	56,004	48.6%	-8.236	-0.166
Race ³						
American Indian or Alaska Native	1,583	1.1%	1,673	1.5%	-0.321	-0.028
Asian	2,116	1.5%	5,005	4.3%	-2.833	-0.169
Black or African American	14,433	10.3%	15,645	13.6%	-3.265	-0.101
Multi-racial	1,317	0.9%	684	0.6%	0.348	0.040
Native Hawaiian or Other Pacific Islander	490	0.4%	619	0.5%	-0.187	-0.028
Unknown	84,189	60.2%	60,107	52.2%	8.003	0.162
White	35,731	25.5%	31,430	27.3%	-1.744	-0.040
Hispanic origin						
Yes	11,092	7.9%	17,570	15.3%	-7.326	-0.230

Table 1cg. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	48,349	34.6%	51,409	44.6%	-10.070	-0.207
Unknown	80,418	57.5%	46,184	40.1%	17.396	0.353
Year*						
2015	2,237	1.6%	4,418	3.8%	-2.237	-0.138
2016	11,558	8.3%	21,730	18.9%	-10.605	-0.313
2017	14,238	10.2%	24,496	21.3%	-11.090	-0.308
2018	16,296	11.7%	20,868	18.1%	-6.469	-0.182
2019	20,296	14.5%	18,202	15.8%	-1.294	-0.036
2020	24,539	17.5%	16,737	14.5%	3.012	0.082
2021	15,047	10.8%	4,610	4.0%	6.756	0.261
2022	20,238	14.5%	3,025	2.6%	11.844	0.433
2023	15,410	11.0%	1,077	0.9%	10.083	0.435
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	0.5	1.0	0.4	1.0	0.038	0.039
Combined comorbidity score ^{*,5}	1.0	1.4	0.9	1.4	0.082	0.058
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	74,291	53.1%	37,865	32.9%	20.239	0.418
Weight Reduction Surgery or Procedure*	*****	*****	*****	*****	0.000	0.000
Lifestyle intervention*	37,026	26.5%	24,507	21.3%	5.194	0.122
Cardiovascular Disease*	5,718	4.1%	4,783	4.2%	-0.065	-0.003

Table 1cg. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cognitive Impairment*	237	0.2%	*****	*****	*****	*****
Traumatic Brain Injury*	324	0.2%	*****	*****	*****	*****
Migraine*	9,300	6.6%	5,395	4.7%	1.965	0.085
Epilepsy*	2,184	1.6%	2,047	1.8%	-0.216	-0.017
Chronic Pain*	21,001	15.0%	13,213	11.5%	3.543	0.105
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	2,121	1.5%	1,531	1.3%	0.187	0.016
Psychiatric History Overall*	86,595	61.9%	59,562	51.7%	10.196	0.207
Psychiatric Drug Dispensings	66,208	47.3%	44,980	39.1%	8.281	0.168
Intentional Self-Harm Encounter	324	0.2%	330	0.3%	-0.055	-0.011
Any Other Psychiatric Event	72,979	52.2%	48,673	42.3%	9.916	0.200
Attention-Deficit/Hyperactivity Disorder	4,453	3.2%	1,835	1.6%	1.591	0.104
Akathisia	107	0.1%	103	0.1%	-0.013	-0.004
Anxiety	30,565	21.9%	17,154	14.9%	6.959	0.180
Behavioral Disorder	8,782	6.3%	5,858	5.1%	1.192	0.052
Bipolar Disorder	9,998	7.1%	7,411	6.4%	0.713	0.028
Cerebral Degenerations usually Manifested in Childhood	406	0.3%	324	0.3%	0.009	0.002
Conduct Disorder	390	0.3%	397	0.3%	-0.066	-0.012
Delirium	765	0.5%	825	0.7%	-0.169	-0.021
Depression	26,835	19.2%	16,883	14.7%	4.527	0.121

Table 1cg. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Electroconvulsive Therapy	46	0.0%	30	0.0%	0.007	0.004
Hallucination	322	0.2%	422	0.4%	-0.136	-0.025
Obsessive-Compulsive Disorder	639	0.5%	316	0.3%	0.182	0.030
Other Cerebral Degenerations	306	0.2%	270	0.2%	-0.016	-0.003
Other Mental Disorders	1,421	1.0%	1,216	1.1%	-0.040	-0.004
Other Psychological Disorders	14,967	10.7%	12,646	11.0%	-0.279	-0.009
Persistent Mental Disorders due to Conditions Classified Elsewhere	*****	*****	*****	*****	-0.047	-0.016
Personality Disorders	1,570	1.1%	1,072	0.9%	0.192	0.019
Pervasive Developmental Disorders	1,022	0.7%	840	0.7%	0.001	0.000
Post-Traumatic Stress Disorder	5,614	4.0%	3,394	2.9%	1.067	0.058
Psychotherapy	14,497	10.4%	8,811	7.7%	2.715	0.095
Psychotic Conditions	791	0.6%	1,239	1.1%	-0.510	-0.057
Schizophrenia	4,666	3.3%	5,297	4.6%	-1.263	-0.065
Sleep Disorder	29,552	21.1%	14,904	12.9%	8.188	0.219
Substance Abuse	6,881	4.9%	6,333	5.5%	-0.579	-0.026
Suicidal Behavior	848	0.6%	765	0.7%	-0.058	-0.007
Transcranial Magnetic Stimulation	*****	*****	*****	*****	0.020	0.016
Vagus Nerve Stimulation	79	0.1%	43	0.0%	0.019	0.009

Table 1cg. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	1,798	1.3%	0	0.0%	NaN	NaN
dulaglutide	40,810	29.2%	0	0.0%	NaN	NaN
exenatide	13,022	9.3%	0	0.0%	NaN	NaN
liraglutide	35,186	25.2%	0	0.0%	NaN	NaN
lixisenatide	1,091	0.8%	0	0.0%	NaN	NaN
semaglutide	44,092	31.5%	0	0.0%	NaN	NaN
tirzepatide	4,063	2.9%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	139,859	100.0%	115,163	100.0%	0.000	NaN
insulin*	41,008	29.3%	20,939	18.2%	11.139	0.264
metformin*	130,799	93.5%	107,776	93.6%	-0.064	-0.003
alpha-glucosidase inhibitors*	*****	*****	*****	*****	-0.022	-0.004
thiazolidinediones*	7,053	5.0%	5,024	4.4%	0.680	0.032
meglitinides*	474	0.3%	491	0.4%	-0.087	-0.014
amylin analogue*	*****	*****	*****	*****	0.008	0.011
sulfonylureas*	36,493	26.1%	40,686	35.3%	-9.236	-0.201
bile acid sequestrants*	*****	*****	*****	*****	0.047	0.011
Other Weight Loss Agents*	893	0.6%	158	0.1%	0.501	0.081
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	*****	*****	19	0.0%	*****	*****
diethylpropion	*****	*****	*****	*****	0.008	0.012
lorcaserin	55	0.0%	*****	*****	*****	*****
phentermine	664	0.5%	108	0.1%	0.381	0.072

Table 1cg. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical Product					Covariate Balance	
Medical Product Use	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
phentermine-topiramate	48	0.0%	*****	*****	*****	*****
phendimetrazine	*****	*****	*****	*****	0.005	0.007
orlistat	*****	*****	*****	*****	0.002	0.002
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	30,636	21.9%	25,636	22.3%	-0.356	-0.009
Antipsychotics	16,067	11.5%	13,878	12.1%	-0.563	-0.017
Anxiolytics/Hypnotics	28,893	20.7%	20,276	17.6%	3.052	0.078
Lithium & Other Mood Stabilizers	12,954	9.3%	10,355	9.0%	0.271	0.009
Antidepressants	54,023	38.6%	34,422	29.9%	8.737	0.185

Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	9.3	10.6	8.5	11.3	0.793	0.072
Mean number of emergency room encounters *	0.5	1.4	0.6	1.5	-0.052	-0.036
Mean number of inpatient hospital encounters *	0.1	0.3	0.1	0.4	-0.021	-0.054
Mean number of non-acute institutional encounters *	0.0	0.1	0.0	0.2	-0.007	-0.044
Mean number of other ambulatory encounters *	4.0	13.3	4.7	16.2	-0.697	-0.047

Table 1cg. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of filled prescriptions [*]	23.6	19.8	22.2	19.7	1.401	0.071
dispensed [*]	9.7	5.3	9.1	5.3	0.600	0.113
Mean number of unique drug classes dispensed [*]	8.6	4.7	7.4	4.7	1.222	0.259

^{*}Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1ch. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	130,327	N/A	108,407	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years) [*]	38.6	4.8	38.4	4.9	0.169	0.035
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	130,327	100.0%	108,407	100.0%	0.000	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex [*]						
Female	73,579	56.5%	61,994	57.2%	-0.730	-0.015
Male	56,748	43.5%	46,413	42.8%	0.730	0.015
Race ⁴						
American Indian or Alaska Native	1,450	1.1%	1,776	1.6%	-0.526	-0.045
Asian	2,057	1.6%	4,121	3.8%	-2.223	-0.139
Black or African American	13,237	10.2%	16,251	15.0%	-4.834	-0.152
Multi-racial	1,172	0.9%	630	0.6%	0.318	0.038
Native Hawaiian or Other Pacific Islander	480	0.4%	563	0.5%	-0.150	-0.023
Unknown	78,971	60.6%	53,746	49.6%	11.016	0.297
White	32,958	25.3%	31,319	28.9%	-3.601	-0.092

Table 1ch. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Hispanic origin						
Yes	10,203	7.8%	17,288	15.9%	-8.119	-0.264
No	44,813	34.4%	51,359	47.4%	-12.990	-0.377
Unknown	75,310	57.8%	39,760	36.7%	21.109	0.813
Year*						
2015	3,178	2.4%	3,058	2.8%	-0.382	-0.024
2016	15,567	11.9%	16,202	14.9%	-3.001	-0.088
2017	17,715	13.6%	19,542	18.0%	-4.434	-0.122
2018	17,486	13.4%	18,344	16.9%	-3.504	-0.098
2019	18,745	14.4%	18,660	17.2%	-2.830	-0.078
2020	19,975	15.3%	19,474	18.0%	-2.637	-0.072
2021	12,197	9.4%	5,686	5.2%	4.114	0.163
2022	14,909	11.4%	5,023	4.6%	6.807	0.260
2023	10,554	8.1%	2,419	2.2%	5.867	0.274
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*5}	0.5	1.0	0.5	1.0	-0.030	-0.029
Combined comorbidity score ^{*6}	1.0	1.4	1.1	1.5	-0.048	-0.033
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	63,254	48.5%	41,468	38.3%	10.283	0.215
Weight Reduction Surgery or Procedure*	107	0.1%	91	0.1%	-0.002	-0.001

Table 1ch. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Lifestyle intervention*	32,772	25.1%	23,877	22.0%	3.121	0.074
Cardiovascular Disease*	5,661	4.3%	4,942	4.6%	-0.216	-0.011
Cognitive Impairment*	276	0.2%	271	0.2%	-0.038	-0.008
Traumatic Brain Injury*	284	0.2%	231	0.2%	0.005	0.001
Migraine*	8,199	6.3%	6,230	5.7%	0.544	0.023
Epilepsy*	2,206	1.7%	1,978	1.8%	-0.131	-0.010
Chronic Pain*	19,111	14.7%	14,996	13.8%	0.831	0.024
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	1,920	1.5%	1,745	1.6%	-0.137	-0.011
Psychiatric History Overall*	77,121	59.2%	62,341	57.5%	1.668	0.035
Psychiatric Drug Dispensings	58,037	44.5%	48,696	44.9%	-0.388	-0.008
Intentional Self-Harm Encounter	360	0.3%	341	0.3%	-0.038	-0.007
Any Other Psychiatric Event	65,007	49.9%	50,915	47.0%	2.913	0.060
Attention-Deficit/Hyperactivity Disorder	3,744	2.9%	2,113	1.9%	0.924	0.060
Akathisia	101	0.1%	110	0.1%	-0.024	-0.008
Anxiety	26,476	20.3%	19,162	17.7%	2.639	0.068
Behavioral Disorder	7,911	6.1%	6,252	5.8%	0.303	0.013
Bipolar Disorder	8,726	6.7%	8,459	7.8%	-1.107	-0.044

Table 1ch. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Cerebral Degenerations usually Manifested in Childhood	396	0.3%	367	0.3%	-0.035	-0.006
Conduct Disorder	351	0.3%	414	0.4%	-0.112	-0.020
Delirium	778	0.6%	855	0.8%	-0.191	-0.023
Depression	23,764	18.2%	18,596	17.2%	1.080	0.029
Electroconvulsive Therapy	47	0.0%	33	0.0%	0.005	0.003
Hallucination	361	0.3%	406	0.4%	-0.098	-0.017
Obsessive-Compulsive Disorder	537	0.4%	350	0.3%	0.088	0.015
Other Cerebral Degenerations	293	0.2%	272	0.3%	-0.025	-0.005
Other Mental Disorders	1,336	1.0%	1,289	1.2%	-0.164	-0.016
Other Psychological Disorders	14,053	10.8%	13,024	12.0%	-1.231	-0.040
Persistent Mental Disorders due to Conditions Classified Elsewhere	100	0.1%	109	0.1%	-0.024	-0.008
Personality Disorders	1,377	1.1%	1,236	1.1%	-0.084	-0.008
Pervasive Developmental Disorders	870	0.7%	810	0.7%	-0.080	-0.010
Post-Traumatic Stress Disorder	4,774	3.7%	4,209	3.9%	-0.220	-0.012
Psychotherapy	12,263	9.4%	9,930	9.2%	0.249	0.009
Psychotic Conditions	806	0.6%	1,175	1.1%	-0.466	-0.051
Schizophrenia	4,320	3.3%	5,411	5.0%	-1.677	-0.087
Sleep Disorder	26,211	20.1%	16,014	14.8%	5.339	0.143
Substance Abuse	6,485	5.0%	6,855	6.3%	-1.347	-0.059
Suicidal Behavior	871	0.7%	793	0.7%	-0.063	-0.008

Table 1ch. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Psychiatric History						
Transcranial Magnetic Stimulation	31	0.0%	15	0.0%	0.010	0.007
Vagus Nerve Stimulation	83	0.1%	45	0.0%	0.022	0.009
Medical Product Use	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	2,325	1.8%	0	0.0%	NaN	NaN
dulaglutide	38,890	29.8%	0	0.0%	NaN	NaN
exenatide	13,989	10.7%	0	0.0%	NaN	NaN
liraglutide	36,712	28.2%	0	0.0%	NaN	NaN
lixisenatide	865	0.7%	0	0.0%	NaN	NaN
semaglutide	34,977	26.8%	0	0.0%	NaN	NaN
tirzepatide	2,901	2.2%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	130,327	100.0%	108,407	100.0%	0.000	NaN
insulin*	36,817	28.2%	34,957	32.2%	-3.996	-0.088
metformin*	121,825	93.5%	100,956	93.1%	0.350	0.014
alpha-glucosidase inhibitors*	301	0.2%	315	0.3%	-0.060	-0.012
thiazolidinediones*	6,316	4.8%	5,426	5.0%	-0.159	-0.007
meglitinides*	495	0.4%	478	0.4%	-0.060	-0.009
amylin analogue*	3	0.0%	3	0.0%	-0.000	-0.001
sulfonyleureas*	36,972	28.4%	35,889	33.1%	-4.737	-0.103
bile acid sequestrants*	267	0.2%	187	0.2%	0.032	0.007
Other Weight Loss Agents*	667	0.5%	231	0.2%	0.299	0.050
benzphetamine	0	0.0%	0	0.0%	NaN	NaN

Table 1ch. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Medical Product					Covariate Balance	
GLP-1 Receptor Agonists			DPP-4 Inhibitors		Absolute Difference	Standardized Difference
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
bupropion	93	0.1%	21	0.0%	0.052	0.025
diethylpropion	9	0.0%	1	0.0%	0.006	0.009
lorcaserin	40	0.0%	15	0.0%	0.016	0.011
phentermine	485	0.4%	165	0.2%	0.220	0.043
phentermine-topiramate	43	0.0%	14	0.0%	0.020	0.013
phendimetrazine	7	0.0%	1	0.0%	0.004	0.007
orlistat	7	0.0%	15	0.0%	-0.008	-0.008
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	30,126	23.1%	27,264	25.2%	-2.034	-0.048
Antipsychotics	13,916	10.7%	15,438	14.2%	-3.563	-0.114
Anxiolytics/Hypnotics	25,271	19.4%	22,957	21.2%	-1.786	-0.045
Lithium & Other Mood Stabilizers	11,266	8.6%	11,639	10.7%	-2.091	-0.073
Antidepressants	46,819	35.9%	38,226	35.3%	0.663	0.014
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	9.1	10.2	9.6	12.7	-0.494	-0.043
Mean number of emergency room encounters*	0.6	1.5	0.7	1.6	-0.092	-0.060
Mean number of inpatient hospital encounters*	0.1	0.4	0.1	0.4	-0.015	-0.036
Mean number of non-acute institutional encounters*	0.0	0.2	0.0	0.2	-0.002	-0.012

Table 1ch. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of other ambulatory encounters*	4.0	13.6	5.3	17.0	-1.290	-0.084
Mean number of filled prescriptions*	23.2	19.9	25.1	21.7	-1.839	-0.088
Mean number of generics dispensed*	9.6	5.6	10.1	5.7	-0.458	-0.081
Mean number of unique drug classes dispensed*	8.4	4.8	8.6	5.2	-0.212	-0.043

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1ci. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Patient Characteristics ¹	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Covariate Balance	
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Unique patients	483,894	100.0%	500,865	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years)*	55.8	5.4	56.2	5.4	-0.465	-0.087
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	483,894	100.0%	500,865	100.0%	0.000	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	267,236	55.2%	246,588	49.2%	5.994	0.120
Male	216,658	44.8%	254,277	50.8%	-5.994	-0.120
Race ³						
American Indian or Alaska Native	3,799	0.8%	4,716	0.9%	-0.156	-0.017
Asian	5,514	1.1%	24,038	4.8%	-3.660	-0.217
Black or African American	47,660	9.8%	63,346	12.6%	-2.798	-0.089
Multi-racial	3,841	0.8%	2,415	0.5%	0.312	0.039
Native Hawaiian or Other Pacific Islander	1,073	0.2%	1,952	0.4%	-0.168	-0.030
Unknown	265,319	54.8%	250,772	50.1%	4.762	0.095
White	156,688	32.4%	153,626	30.7%	1.709	0.037
Hispanic origin						

Table 1ci. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Yes	26,486	5.5%	63,400	12.7%	-7.185	-0.252
No	186,310	38.5%	230,246	46.0%	-7.467	-0.152
Unknown	271,098	56.0%	207,219	41.4%	14.652	0.296
Year*						
2015	8,087	1.7%	20,399	4.1%	-2.402	-0.144
2016	38,411	7.9%	94,702	18.9%	-10.970	-0.326
2017	47,490	9.8%	103,649	20.7%	-10.880	-0.306
2018	54,733	11.3%	88,653	17.7%	-6.389	-0.182
2019	66,183	13.7%	77,821	15.5%	-1.860	-0.053
2020	72,596	15.0%	66,074	13.2%	1.810	0.052
2021	59,968	12.4%	25,564	5.1%	7.289	0.260
2022	76,645	15.8%	17,240	3.4%	12.397	0.430
2023	59,781	12.4%	6,763	1.4%	11.004	0.446
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	1.0	1.4	1.0	1.4	0.065	0.045
Combined comorbidity score ^{*,5}	1.3	1.8	1.2	1.9	0.070	0.037
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	230,517	47.6%	136,543	27.3%	20.376	0.431
Weight Reduction Surgery or Procedure*	283	0.1%	420	0.1%	-0.025	-0.010
Lifestyle intervention*	108,538	22.4%	91,727	18.3%	4.116	0.102

Table 1ci. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Cardiovascular Disease*	62,532	12.9%	65,677	13.1%	-0.190	-0.006
Cognitive Impairment*	2,967	0.6%	5,126	1.0%	-0.410	-0.046
Traumatic Brain Injury*	1,062	0.2%	1,017	0.2%	0.016	0.004
Migraine*	22,406	4.6%	15,449	3.1%	1.546	0.080
Epilepsy*	6,210	1.3%	7,948	1.6%	-0.304	-0.026
Chronic Pain*	108,689	22.5%	83,590	16.7%	5.772	0.146
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	4,641	1.0%	4,457	0.9%	0.069	0.007
Psychiatric History Overall*	313,788	64.8%	267,553	53.4%	11.428	0.234
Psychiatric Drug Dispensings	242,359	50.1%	204,065	40.7%	9.343	0.188
Intentional Self-Harm Encounter	512	0.1%	757	0.2%	-0.045	-0.013
Any Other Psychiatric Event	254,451	52.6%	209,255	41.8%	10.805	0.218
Attention-Deficit/Hyperactivity Disorder	6,468	1.3%	3,103	0.6%	0.717	0.073
Akathisia	469	0.1%	497	0.1%	-0.002	-0.001
Anxiety	89,087	18.4%	66,190	13.2%	5.195	0.143
Behavioral Disorder	20,994	4.3%	18,871	3.8%	0.571	0.029
Bipolar Disorder	24,665	5.1%	22,459	4.5%	0.613	0.029
Cerebral Degenerations usually Manifested in Childhood	2,618	0.5%	3,535	0.7%	-0.165	-0.021
Conduct Disorder	402	0.1%	552	0.1%	-0.027	-0.009

Table 1ci. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Delirium	4,127	0.9%	6,567	1.3%	-0.458	-0.044
Depression	93,252	19.3%	75,981	15.2%	4.101	0.109
Electroconvulsive Therapy	92	0.0%	138	0.0%	-0.009	-0.006
Hallucination	747	0.2%	1,166	0.2%	-0.078	-0.018
Obsessive-Compulsive Disorder	1,032	0.2%	776	0.2%	0.058	0.014
Other Cerebral Degenerations	2,309	0.5%	2,840	0.6%	-0.090	-0.012
Other Mental Disorders	3,581	0.7%	4,178	0.8%	-0.094	-0.011
Other Psychological Disorders	51,152	10.6%	53,679	10.7%	-0.146	-0.005
Persistent Mental Disorders due to Conditions Classified Elsewhere	1,694	0.4%	3,038	0.6%	-0.256	-0.037
Personality Disorders	2,507	0.5%	2,139	0.4%	0.091	0.013
Pervasive Developmental Disorders	435	0.1%	664	0.1%	-0.043	-0.013
Post-Traumatic Stress Disorder	12,643	2.6%	9,274	1.9%	0.761	0.052
Psychotherapy	33,956	7.0%	28,626	5.7%	1.302	0.053
Psychotic Conditions	1,806	0.4%	3,889	0.8%	-0.403	-0.053
Schizophrenia	10,373	2.1%	17,152	3.4%	-1.281	-0.078
Sleep Disorder	128,063	26.5%	77,654	15.5%	10.961	0.272
Substance Abuse	25,834	5.3%	28,498	5.7%	-0.351	-0.015
Suicidal Behavior	2,495	0.5%	2,870	0.6%	-0.057	-0.008
Transcranial Magnetic Stimulation	111	0.0%	41	0.0%	0.015	0.012
Vagus Nerve Stimulation	347	0.1%	239	0.0%	0.024	0.010

Table 1ci. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	5,541	1.1%	0	0.0%	NaN	NaN
dulaglutide	154,765	32.0%	0	0.0%	NaN	NaN
exenatide	39,338	8.1%	0	0.0%	NaN	NaN
liraglutide	105,092	21.7%	0	0.0%	NaN	NaN
lixisenatide	5,108	1.1%	0	0.0%	NaN	NaN
semaglutide	161,516	33.4%	0	0.0%	NaN	NaN
tirzepatide	13,065	2.7%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	483,892	100.0%	500,865	100.0%	-0.000	-0.003
insulin*	166,382	34.4%	97,749	19.5%	14.868	0.340
metformin*	441,482	91.2%	459,023	91.6%	-0.411	-0.015
alpha-glucosidase inhibitors*	1,574	0.3%	2,225	0.4%	-0.119	-0.019
thiazolidinediones*	33,463	6.9%	30,259	6.0%	0.874	0.036
meglitinides*	3,080	0.6%	3,932	0.8%	-0.149	-0.018
amylin analogue*	66	0.0%	22	0.0%	0.009	0.010
sulfonylureas*	159,966	33.1%	212,296	42.4%	-9.328	-0.193
bile acid sequestrants*	1,601	0.3%	1,404	0.3%	0.051	0.009
Other Weight Loss Agents*	2,254	0.5%	426	0.1%	0.381	0.073
benzphetamine	*****	*****	*****	*****	0.000	0.001
bupropion	269	0.1%	83	0.0%	0.039	0.021
diethylpropion	43	0.0%	*****	*****	*****	*****
lorcaserin	112	0.0%	49	0.0%	0.013	0.010
phentermine	1,671	0.3%	253	0.1%	0.295	0.066

Table 1ci. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
phentermine-topiramate	131	0.0%	16	0.0%	0.024	0.019
phendimetrazine	45	0.0%	*****	*****	*****	*****
orlistat	47	0.0%	20	0.0%	0.006	0.007
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	135,101	27.9%	131,889	26.3%	1.587	0.036
Antipsychotics	42,213	8.7%	46,363	9.3%	-0.533	-0.019
Anxiolytics/Hypnotics	105,760	21.9%	93,543	18.7%	3.180	0.079
Lithium & Other Mood Stabilizers	35,012	7.2%	34,704	6.9%	0.307	0.012
Antidepressants	200,402	41.4%	158,441	31.6%	9.781	0.204
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	10.2	10.4	9.4	11.7	0.749	0.068
Mean number of emergency room encounters *	0.4	1.1	0.4	1.2	-0.035	-0.031
Mean number of inpatient hospital encounters *	0.1	0.4	0.1	0.5	-0.040	-0.090
Mean number of non-acute institutional encounters *	0.0	0.1	0.0	0.2	-0.014	-0.073
Mean number of other ambulatory encounters *	4.3	13.8	5.4	16.7	-1.058	-0.069
Mean number of filled prescriptions *	29.1	21.1	27.9	21.7	1.172	0.055
Mean number of generics dispensed *	11.2	5.3	10.5	5.4	0.772	0.144

Table 1ci. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of unique drug classes dispensed*	10.0	4.8	8.7	4.8	1.333	0.278

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1cj. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	446,457	N/A	479,411	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	56.0	5.4	56.0	5.4	-0.031	-0.006
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	446,457	100.0%	479,411	100.0%	0.000	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	235,475	52.7%	252,864	52.7%	-0.002	-0.000
Male	210,982	47.3%	226,547	47.3%	0.002	0.000
Race ⁴						
American Indian or Alaska Native	3,335	0.7%	4,982	1.0%	-0.292	-0.031
Asian	5,406	1.2%	21,209	4.4%	-3.213	-0.198
Black or African American	43,257	9.7%	64,627	13.5%	-3.792	-0.123
Multi-racial	3,353	0.8%	2,283	0.5%	0.275	0.036
Native Hawaiian or Other Pacific Islander	1,021	0.2%	1,852	0.4%	-0.158	-0.029
Unknown	246,762	55.3%	231,596	48.3%	6.963	0.202
White	143,323	32.1%	152,862	31.9%	0.217	0.006

Table 1cj. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Hispanic origin						
Yes	23,948	5.4%	63,058	13.2%	-7.789	-0.286
No	170,885	38.3%	228,540	47.7%	-9.395	-0.301
Unknown	251,624	56.4%	187,813	39.2%	17.184	0.727
Year*						
2015	12,197	2.7%	14,620	3.0%	-0.317	-0.019
2016	54,928	12.3%	71,499	14.9%	-2.611	-0.076
2017	60,275	13.5%	84,384	17.6%	-4.101	-0.114
2018	59,076	13.2%	79,418	16.6%	-3.334	-0.094
2019	61,094	13.7%	79,242	16.5%	-2.845	-0.080
2020	59,416	13.3%	74,358	15.5%	-2.202	-0.063
2021	47,353	10.6%	32,467	6.8%	3.834	0.139
2022	53,853	12.1%	28,545	6.0%	6.108	0.219
2023	38,265	8.6%	14,878	3.1%	5.467	0.239
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications						
Severity Index(aDCSI) ^{*,5}	1.0	1.5	1.1	1.5	-0.016	-0.011
Combined comorbidity score ^{*,6}	1.3	1.9	1.3	2.0	-0.031	-0.016
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	188,589	42.2%	155,501	32.4%	9.805	0.210

Table 1cj. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weight Reduction Surgery or Procedure*	332	0.1%	372	0.1%	-0.003	-0.001
Medical History						
Lifestyle intervention*	94,160	21.1%	89,905	18.8%	2.337	0.059
Cardiovascular Disease*	60,699	13.6%	66,093	13.8%	-0.191	-0.006
Cognitive Impairment*	3,581	0.8%	4,463	0.9%	-0.129	-0.014
Traumatic Brain Injury*	989	0.2%	1,041	0.2%	0.004	0.001
Migraine*	19,139	4.3%	17,603	3.7%	0.615	0.032
Epilepsy*	6,481	1.5%	7,458	1.6%	-0.104	-0.009
Chronic Pain*	95,330	21.4%	92,355	19.3%	2.088	0.053
Psychiatric History						
Previous Intentional Self-Harm Ever	4,143	0.9%	4,820	1.0%	-0.077	-0.008
Psychiatric History Overall*	275,301	61.7%	280,624	58.5%	3.128	0.066
Psychiatric Drug Dispensings	209,738	47.0%	220,219	45.9%	1.043	0.022
Intentional Self-Harm Encounter	583	0.1%	731	0.2%	-0.022	-0.006
Any Other Psychiatric Event	223,248	50.0%	219,629	45.8%	4.192	0.087
Attention-Deficit/Hyperactivity Disorder	5,253	1.2%	3,547	0.7%	0.437	0.045
Akathisia	449	0.1%	533	0.1%	-0.011	-0.003
Anxiety	76,338	17.1%	73,263	15.3%	1.817	0.050
Behavioral Disorder	18,944	4.2%	19,388	4.0%	0.199	0.010
Bipolar Disorder	21,280	4.8%	25,259	5.3%	-0.502	-0.023

Table 1cj. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Cerebral Degenerations usually Manifested in Childhood	2,594	0.6%	3,462	0.7%	-0.141	-0.018
Conduct Disorder	362	0.1%	521	0.1%	-0.028	-0.009
Delirium	4,560	1.0%	6,428	1.3%	-0.319	-0.030
Depression	82,092	18.4%	82,361	17.2%	1.208	0.032
Electroconvulsive Therapy	93	0.0%	142	0.0%	-0.009	-0.005
Hallucination	785	0.2%	1,109	0.2%	-0.056	-0.012
Obsessive-Compulsive Disorder	865	0.2%	887	0.2%	0.009	0.002
Other Cerebral Degenerations	2,277	0.5%	2,705	0.6%	-0.054	-0.007
Other Mental Disorders	3,400	0.8%	4,201	0.9%	-0.115	-0.013
Other Psychological Disorders	47,019	10.5%	55,203	11.5%	-0.983	-0.032
Persistent Mental Disorders due to Conditions Classified Elsewhere	2,032	0.5%	2,614	0.5%	-0.090	-0.013
Personality Disorders	2,229	0.5%	2,395	0.5%	-0.000	-0.000
Pervasive Developmental Disorders	371	0.1%	674	0.1%	-0.057	-0.017
Post-Traumatic Stress Disorder	10,182	2.3%	11,079	2.3%	-0.030	-0.002
Psychotherapy	28,572	6.4%	31,901	6.7%	-0.254	-0.010
Psychotic Conditions	1,997	0.4%	3,659	0.8%	-0.316	-0.041
Schizophrenia	9,448	2.1%	17,583	3.7%	-1.551	-0.094

Table 1cj. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Psychiatric History						
Sleep Disorder	111,193	24.9%	83,877	17.5%	7.410	0.184
Substance Abuse	23,503	5.3%	30,185	6.3%	-1.032	-0.045
Suicidal Behavior	2,546	0.6%	2,933	0.6%	-0.042	-0.005
Transcranial Magnetic Stimulation	81	0.0%	49	0.0%	0.008	0.006
Vagus Nerve Stimulation	314	0.1%	258	0.1%	0.017	0.007
Medical Product Use	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	7,596	1.7%	0	0.0%	NaN	NaN
dulaglutide	147,436	33.0%	0	0.0%	NaN	NaN
exenatide	43,651	9.8%	0	0.0%	NaN	NaN
liraglutide	112,789	25.3%	0	0.0%	NaN	NaN
lixisenatide	3,877	0.9%	0	0.0%	NaN	NaN
semaglutide	123,256	27.6%	0	0.0%	NaN	NaN
tirzepatide	8,816	2.0%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	446,455	100.0%	479,411	100.0%	-0.000	-0.003
insulin*	140,078	31.4%	158,234	33.0%	-1.630	-0.035
metformin*	406,943	91.1%	437,645	91.3%	-0.139	-0.005
alpha-glucosidase inhibitors*	1,596	0.4%	2,114	0.4%	-0.084	-0.013
thiazolidinediones*	29,967	6.7%	31,689	6.6%	0.102	0.004
meglitinides*	3,200	0.7%	3,788	0.8%	-0.073	-0.008

Table 1cj. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
amylin analogue*	46	0.0%	43	0.0%	0.001	0.001
sulfonylureas*	159,769	35.8%	192,199	40.1%	-4.305	-0.089
bile acid sequestrants*	1,666	0.4%	1,448	0.3%	0.071	0.012
Other Weight Loss Agents*	1,578	0.4%	768	0.2%	0.193	0.038
benzphetamine	1	0.0%	1	0.0%	0.000	0.000
bupropion	205	0.0%	141	0.0%	0.017	0.009
diethylpropion	35	0.0%	15	0.0%	0.005	0.006
lorcaserin	91	0.0%	67	0.0%	0.006	0.005
phentermine	1,149	0.3%	489	0.1%	0.155	0.037
phentermine-topiramate	85	0.0%	28	0.0%	0.013	0.012
phendimetrazine	38	0.0%	19	0.0%	0.005	0.006
orlistat	27	0.0%	31	0.0%	-0.000	-0.000
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	127,889	28.6%	138,207	28.8%	-0.183	-0.004
Antipsychotics	35,538	8.0%	51,707	10.8%	-2.826	-0.100
Anxiolytics/Hypnotics	91,901	20.6%	103,238	21.5%	-0.950	-0.024
Lithium & Other Mood Stabilizers	30,043	6.7%	38,769	8.1%	-1.358	-0.053
Antidepressants	171,055	38.3%	174,613	36.4%	1.891	0.040

Table 1cj. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of ambulatory encounters*	10.0	10.3	10.3	12.8	-0.300	-0.026
Mean number of emergency room encounters*	0.4	1.2	0.5	1.2	-0.039	-0.032
Mean number of inpatient hospital encounters*	0.1	0.5	0.1	0.5	-0.018	-0.039
Mean number of non-acute institutional encounters*	0.0	0.2	0.0	0.2	-0.004	-0.019
Mean number of other ambulatory encounters*	4.3	13.5	6.0	17.8	-1.710	-0.109
Mean number of filled prescriptions*	28.5	21.2	30.6	23.5	-2.160	-0.097
Mean number of generics dispensed*	11.1	5.6	11.4	5.7	-0.275	-0.049
Mean number of unique drug classes dispensed*	9.7	4.8	9.7	5.2	-0.057	-0.011

Table 1cj. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Medical Product		Covariate Balance
GLP-1 Receptor Agonists	DPP-4 Inhibitors	

* Covariate included in the propensity score logistic regression model.

¹ Covariates in blue show a standardized difference greater than 0.1.

² Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³ Value represents standard deviation where no % follows the value.

⁴ Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵ 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.

⁶ 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1ck. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Patient Characteristics ¹	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Covariate Balance	
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Unique patients	467,704	100.0%	596,096	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years) [*]	70.8	3.8	71.8	4.1	-0.977	-0.246
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	467,704	100.0%	596,096	100.0%	0.000	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex [*]						
Female	253,804	54.3%	310,970	52.2%	2.098	0.042
Male	213,900	45.7%	285,126	47.8%	-2.098	-0.042
Race ³						
American Indian or Alaska Native	2,498	0.5%	3,581	0.6%	-0.067	-0.009
Asian	7,506	1.6%	28,249	4.7%	-3.134	-0.180
Black or African American	42,886	9.2%	72,594	12.2%	-3.009	-0.098
Multi-racial	465	0.1%	481	0.1%	0.019	0.006
Native Hawaiian or Other Pacific Islander	1,330	0.3%	2,276	0.4%	-0.097	-0.017
Unknown	61,446	13.1%	97,416	16.3%	-3.205	-0.090
White	351,573	75.2%	391,499	65.7%	9.493	0.209
Hispanic origin						
Yes	11,234	2.4%	28,076	4.7%	-2.308	-0.125

Table 1ck. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	378,352	80.9%	472,652	79.3%	1.604	0.040
Unknown	78,118	16.7%	95,368	16.0%	0.704	0.019
Year*						
2015	6,342	1.4%	28,589	4.8%	-3.440	-0.200
2016	30,562	6.5%	115,482	19.4%	-12.839	-0.390
2017	34,955	7.5%	102,698	17.2%	-9.755	-0.300
2018	42,532	9.1%	87,716	14.7%	-5.621	-0.174
2019	51,931	11.1%	79,569	13.3%	-2.245	-0.069
2020	54,172	11.6%	65,661	11.0%	0.567	0.018
2021	74,070	15.8%	56,234	9.4%	6.403	0.194
2022	89,229	19.1%	40,893	6.9%	12.218	0.370
2023	83,911	17.9%	19,254	3.2%	14.711	0.492
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	1.7	1.8	1.8	1.9	-0.084	-0.045
Combined comorbidity score ^{*,5}	2.0	2.4	2.1	2.8	-0.164	-0.063
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	219,534	46.9%	164,884	27.7%	19.278	0.407
Weight Reduction Surgery or Procedure*	231	0.0%	753	0.1%	-0.077	-0.026
Lifestyle intervention*	58,265	12.5%	56,463	9.5%	2.986	0.096
Cardiovascular Disease*	114,675	24.5%	160,101	26.9%	-2.340	-0.054

Table 1ck. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cognitive Impairment*	11,379	2.4%	28,747	4.8%	-2.390	-0.128
Traumatic Brain Injury*	919	0.2%	1,403	0.2%	-0.039	-0.008
Migraine*	11,420	2.4%	11,755	2.0%	0.470	0.032
Epilepsy*	4,113	0.9%	7,800	1.3%	-0.429	-0.041
Chronic Pain*	101,083	21.6%	100,891	16.9%	4.687	0.119
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	1,317	0.3%	1,878	0.3%	-0.033	-0.006
Psychiatric History Overall*	282,318	60.4%	306,883	51.5%	8.880	0.180
Psychiatric Drug Dispensings	202,947	43.4%	216,590	36.3%	7.057	0.145
Intentional Self-Harm Encounter	136	0.0%	277	0.0%	-0.017	-0.009
Any Other Psychiatric Event	226,423	48.4%	242,527	40.7%	7.726	0.156
Attention-Deficit/Hyperactivity Disorder	2,070	0.4%	1,205	0.2%	0.240	0.042
Akathisia	460	0.1%	693	0.1%	-0.018	-0.005
Anxiety	65,071	13.9%	71,704	12.0%	1.884	0.056
Behavioral Disorder	12,887	2.8%	16,840	2.8%	-0.070	-0.004
Bipolar Disorder	9,321	2.0%	11,232	1.9%	0.109	0.008
Cerebral Degenerations usually Manifested in Childhood	5,067	1.1%	9,802	1.6%	-0.561	-0.048
Conduct Disorder	107	0.0%	211	0.0%	-0.013	-0.007
Delirium	5,835	1.2%	14,993	2.5%	-1.268	-0.093
Depression	78,720	16.8%	83,869	14.1%	2.761	0.076

Table 1ck. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Electroconvulsive Therapy	*****	*****	84	0.0%	*****	*****
Hallucination	628	0.1%	1,409	0.2%	-0.102	-0.024
Obsessive-Compulsive Disorder	420	0.1%	475	0.1%	0.010	0.003
Other Cerebral Degenerations	8,182	1.7%	16,336	2.7%	-0.991	-0.067
Other Mental Disorders	2,865	0.6%	4,981	0.8%	-0.223	-0.026
Other Psychological Disorders	27,426	5.9%	42,623	7.2%	-1.286	-0.052
Persistent Mental Disorders due to Conditions Classified Elsewhere	7,817	1.7%	21,440	3.6%	-1.925	-0.120
Personality Disorders	528	0.1%	714	0.1%	-0.007	-0.002
Pervasive Developmental Disorders	*****	*****	162	0.0%	*****	*****
Post-Traumatic Stress Disorder	2,856	0.6%	2,470	0.4%	0.196	0.027
Psychotherapy	14,073	3.0%	16,515	2.8%	0.238	0.014
Psychotic Conditions	897	0.2%	3,300	0.6%	-0.362	-0.059
Schizophrenia	2,569	0.5%	6,049	1.0%	-0.465	-0.053
Sleep Disorder	128,600	27.5%	106,601	17.9%	9.613	0.231
Substance Abuse	14,147	3.0%	17,407	2.9%	0.105	0.006
Suicidal Behavior	1,717	0.4%	2,720	0.5%	-0.089	-0.014
Transcranial Magnetic Stimulation	89	0.0%	34	0.0%	0.013	0.012
Vagus Nerve Stimulation	484	0.1%	406	0.1%	0.035	0.012

Table 1ck. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	1,239	0.3%	0	0.0%	NaN	NaN
dulaglutide	162,554	34.8%	0	0.0%	NaN	NaN
exenatide	27,271	5.8%	0	0.0%	NaN	NaN
liraglutide	82,520	17.6%	0	0.0%	NaN	NaN
lixisenatide	8,301	1.8%	0	0.0%	NaN	NaN
semaglutide	175,259	37.5%	0	0.0%	NaN	NaN
tirzepatide	10,672	2.3%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	467,704	100.0%	596,096	100.0%	0.000	NaN
insulin*	158,112	33.8%	97,961	16.4%	17.372	0.409
metformin*	400,870	85.7%	509,796	85.5%	0.188	0.005
alpha-glucosidase inhibitors*	2,257	0.5%	3,403	0.6%	-0.088	-0.012
thiazolidinediones*	47,941	10.3%	47,472	8.0%	2.286	0.080
meglitinides*	7,085	1.5%	10,598	1.8%	-0.263	-0.021
amylin analogue*	68	0.0%	*****	*****	*****	*****
sulfonylureas*	195,156	41.7%	282,853	47.5%	-5.725	-0.115
bile acid sequestrants*	2,186	0.5%	2,994	0.5%	-0.035	-0.005
Other Weight Loss Agents*	561	0.1%	*****	*****	*****	*****
benzphetamine	*****	*****	*****	*****	0.000	0.002
bupropion	39	0.0%	14	0.0%	0.006	0.008
diethylpropion	26	0.0%	*****	*****	*****	*****
lorcaserin	*****	*****	*****	*****	0.001	0.001
phentermine	462	0.1%	*****	*****	*****	*****

Table 1ck. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
phentermine-topiramate	*****	*****	*****	*****	0.002	0.005
phendimetrazine	*****	*****	*****	*****	0.001	0.003
orlistat	*****	*****	*****	*****	0.000	0.001
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	110,445	23.6%	139,212	23.4%	0.260	0.006
Antipsychotics	15,592	3.3%	23,813	4.0%	-0.661	-0.035
Anxiolytics/Hypnotics	76,901	16.4%	91,275	15.3%	1.130	0.031
Lithium & Other Mood Stabilizers	16,925	3.6%	21,818	3.7%	-0.041	-0.002
Antidepressants	167,622	35.8%	164,939	27.7%	8.169	0.176
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	11.9	10.4	11.0	11.0	0.828	0.077
Mean number of emergency room encounters *	0.3	0.8	0.3	0.9	-0.058	-0.068
Mean number of inpatient hospital encounters *	0.1	0.4	0.2	0.6	-0.083	-0.173
Mean number of non-acute institutional encounters *	0.0	0.2	0.1	0.3	-0.036	-0.134
Mean number of other ambulatory encounters *	3.1	7.2	4.2	10.7	-1.078	-0.118
Mean number of filled prescriptions *	23.9	16.6	23.5	17.9	0.382	0.022
Mean number of generics dispensed *	11.0	4.6	10.4	4.8	0.633	0.135

Table 1ck. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of unique drug classes dispensed*	9.9	4.2	8.7	4.3	1.170	0.275

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1c. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Weighted patients	416,448	N/A	5,049,663	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years)*	71.2	3.9	70.3	4.0	0.895	0.226
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	416,448	100.0%	5,049,663	100.0%	0.000	NaN
≥ 80 years	0	0.0%	0	0.0%	NaN	NaN
Sex*						
Female	223,585	53.7%	3,358,021	66.5%	-12.811	-0.265
Male	192,864	46.3%	1,691,642	33.5%	12.811	0.265
Race ⁴						
American Indian or Alaska Native	2,224	0.5%	41,972	0.8%	-0.297	-0.036
Asian	6,988	1.7%	1,054,461	20.9%	-19.204	-0.643
Black or African American	38,956	9.4%	606,099	12.0%	-2.648	-0.086
Multi-racial	448	0.1%	729	0.0%	0.093	0.038
Native Hawaiian or Other Pacific Islander	1,248	0.3%	69,856	1.4%	-1.084	-0.119
Unknown	54,026	13.0%	2,069,122	41.0%	-28.002	-0.741
White	312,559	75.1%	1,207,424	23.9%	51.143	1.321

Table 1c. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Hispanic origin						
Yes	9,747	2.3%	1,509,956	29.9%	-27.562	-0.823
No	337,357	81.0%	2,955,774	58.5%	22.474	0.603
Unknown	69,345	16.7%	583,934	11.6%	5.088	0.204
Year*						
2015	11,228	2.7%	50,203	1.0%	1.702	0.127
2016	49,346	11.8%	364,165	7.2%	4.638	0.159
2017	48,540	11.7%	702,180	13.9%	-2.250	-0.068
2018	48,956	11.8%	797,111	15.8%	-4.030	-0.117
2019	51,410	12.3%	1,317,240	26.1%	-13.741	-0.355
2020	47,953	11.5%	1,654,751	32.8%	-21.255	-0.534
2021	55,376	13.3%	67,505	1.3%	11.960	0.476
2022	57,146	13.7%	59,449	1.2%	12.545	0.496
2023	46,493	11.2%	37,059	0.7%	10.430	0.455
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications						
Severity Index(aDCSI) ^{*,5}	1.9	1.9	1.5	1.7	0.434	0.237
Combined comorbidity score ^{*,6}	2.2	2.6	1.6	2.3	0.520	0.212
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	165,438	39.7%	818,406	16.2%	23.519	0.547

Table 1c. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Procedure*	373	0.1%	2,540	0.1%	0.039	0.015
Lifestyle intervention*	47,496	11.4%	786,141	15.6%	-4.163	-0.122
Cardiovascular Disease*	112,493	27.0%	823,120	16.3%	10.712	0.263
Cognitive Impairment*	15,869	3.8%	225,835	4.5%	-0.662	-0.033
Traumatic Brain Injury*	949	0.2%	5,477	0.1%	0.119	0.029
Migraine*	9,864	2.4%	87,200	1.7%	0.642	0.045
Epilepsy*	4,887	1.2%	54,178	1.1%	0.101	0.010
Chronic Pain*	86,563	20.8%	615,879	12.2%	8.590	0.233
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	1,276	0.3%	11,154	0.2%	0.085	0.017
Psychiatric History Overall*	242,275	58.2%	2,291,205	45.4%	12.803	0.259
Psychiatric Drug Dispensings	172,931	41.5%	1,796,557	35.6%	5.947	0.122
Intentional Self-Harm Encounter	151	0.0%	3,776	0.1%	-0.039	-0.016
Any Other Psychiatric Event	195,254	46.9%	1,495,859	29.6%	17.263	0.362
Attention-Deficit/Hyperactivity Disorder	1,561	0.4%	8,263	0.2%	0.211	0.041
Akathisia	492	0.1%	7,948	0.2%	-0.039	-0.011
Anxiety	56,326	13.5%	362,713	7.2%	6.342	0.210
Behavioral Disorder	12,273	2.9%	131,734	2.6%	0.338	0.021
Bipolar Disorder	8,784	2.1%	100,719	2.0%	0.115	0.008
Cerebral Degenerations usually Manifested in Childhood	5,592	1.3%	54,231	1.1%	0.269	0.025
Conduct Disorder	139	0.0%	2,197	0.0%	-0.010	-0.005

Table 1c. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Delirium	8,450	2.0%	104,139	2.1%	-0.033	-0.002
Depression	70,840	17.0%	534,559	10.6%	6.424	0.187
Electroconvulsive Therapy	45	0.0%	263	0.0%	0.006	0.006
Hallucination	861	0.2%	7,337	0.1%	0.062	0.015
Obsessive-Compulsive Disorder	356	0.1%	2,436	0.0%	0.037	0.014
Other Cerebral Degenerations	9,261	2.2%	109,008	2.2%	0.065	0.004
Other Mental Disorders	3,111	0.7%	38,008	0.8%	-0.006	-0.001
Other Psychological Disorders	26,114	6.3%	214,521	4.2%	2.022	0.091
Persistent Mental Disorders due to Conditions Classified Elsewhere	11,207	2.7%	170,700	3.4%	-0.689	-0.040
Personality Disorders	528	0.1%	14,768	0.3%	-0.166	-0.036
Pervasive Developmental Disorders	75	0.0%	222	0.0%	0.014	0.013
Post-Traumatic Stress Disorder	2,389	0.6%	60,365	1.2%	-0.622	-0.066
Psychotherapy	12,870	3.1%	198,789	3.9%	-0.846	-0.046
Psychotic Conditions	1,415	0.3%	46,275	0.9%	-0.577	-0.073
Schizophrenia	2,781	0.7%	146,561	2.9%	-2.235	-0.169
Sleep Disorder	106,779	25.6%	445,002	8.8%	16.828	0.459
Substance Abuse	13,088	3.1%	117,022	2.3%	0.825	0.051
Suicidal Behavior	1,859	0.4%	13,210	0.3%	0.185	0.031
Transcranial Magnetic Stimulation	56	0.0%	46	0.0%	0.012	0.015
Vagus Nerve Stimulation	436	0.1%	1,066	0.0%	0.084	0.033

Table 1c. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Index GLP-1RA Product						
albiglutide	1,937	0.5%	0	0.0%	NaN	NaN
dulaglutide	150,837	36.2%	0	0.0%	NaN	NaN
exenatide	32,897	7.9%	0	0.0%	NaN	NaN
liraglutide	98,434	23.6%	0	0.0%	NaN	NaN
lixisenatide	5,384	1.3%	0	0.0%	NaN	NaN
semaglutide	120,956	29.0%	0	0.0%	NaN	NaN
tirzepatide	6,194	1.5%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	416,448	100.0%	5,049,663	100.0%	0.000	NaN
insulin*	136,653	32.8%	2,867,745	56.8%	-23.977	-0.502
metformin*	354,780	85.2%	4,488,921	88.9%	-3.704	-0.111
alpha-glucosidase inhibitors*	2,289	0.5%	63,878	1.3%	-0.715	-0.076
thiazolidinediones*	39,348	9.4%	446,117	8.8%	0.614	0.021
meglitinides*	7,208	1.7%	105,237	2.1%	-0.353	-0.026
amylin analogue*	35	0.0%	39	0.0%	0.008	0.011
sulfonylureas*	183,266	44.0%	2,181,191	43.2%	0.812	0.016
bile acid sequestrants*	2,396	0.6%	3,065	0.1%	0.515	0.092
Other Weight Loss Agents*	348	0.1%	243	0.0%	0.079	0.038
benzphetamine	2	0.0%	1	0.0%	0.000	0.003
bupropion	23	0.0%	23	0.0%	0.005	0.009
diethylpropion	16	0.0%	13	0.0%	0.004	0.008
lorcaserin	6	0.0%	11	0.0%	0.001	0.004

Table 1c. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
phentermine	286	0.1%	176	0.0%	0.065	0.034
phentermine-topiramate	8	0.0%	8	0.0%	0.002	0.006
phendimetrazine	8	0.0%	9	0.0%	0.002	0.005
orlistat	6	0.0%	10	0.0%	0.001	0.004
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	106,360	25.5%	1,014,714	20.1%	5.445	0.130
Antipsychotics	14,529	3.5%	394,123	7.8%	-4.316	-0.188
Anxiolytics/Hypnotics	66,654	16.0%	726,166	14.4%	1.625	0.045
Lithium & Other Mood Stabilizers	14,906	3.6%	264,110	5.2%	-1.651	-0.081
Antidepressants	141,139	33.9%	1,360,074	26.9%	6.957	0.152
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	12.0	10.4	10.5	15.0	1.531	0.119
Mean number of emergency room encounters*	0.3	1.0	0.3	1.1	-0.023	-0.022
Mean number of inpatient hospital encounters*	0.2	0.5	0.2	0.5	-0.009	-0.018
Mean number of non-acute institutional encounters*	0.0	0.3	0.1	0.4	-0.008	-0.024
Mean number of other ambulatory encounters*	3.7	8.9	22.6	45.3	-18.864	-0.577
Mean number of filled prescriptions*	24.9	18.9	40.6	29.5	-15.699	-0.633

Table 1c. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of generics dispensed*	11.2	5.0	13.3	6.1	-2.163	-0.389
Mean number of unique drug classes dispensed*	9.7	4.3	11.6	5.6	-1.862	-0.372

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1cm. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Patient Characteristics ¹	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Unique patients	41,913	100.0%	173,406	100.0%	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Age (years) [*]	83.7	3.3	85.1	4.0	-1.419	-0.384
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	41,913	100.0%	173,406	100.0%	0.000	NaN
Sex [*]						
Female	22,383	53.4%	100,998	58.2%	-4.840	-0.098
Male	19,530	46.6%	72,408	41.8%	4.840	0.098
Race ³						
American Indian or Alaska Native	260	0.6%	719	0.4%	0.206	0.029
Asian	982	2.3%	9,070	5.2%	-2.888	-0.152
Black or African American	3,140	7.5%	16,962	9.8%	-2.290	-0.082
Multi-racial	11	0.0%	45	0.0%	0.000	0.000
Native Hawaiian or Other Pacific Islander	113	0.3%	474	0.3%	-0.004	-0.001
Unknown	4,225	10.1%	21,855	12.6%	-2.523	-0.080
White	33,182	79.2%	124,281	71.7%	7.498	0.175
Hispanic origin						
Yes	1,148	2.7%	7,182	4.1%	-1.403	-0.077

Table 1cm. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
No	35,401	84.5%	144,808	83.5%	0.955	0.026
Unknown	5,364	12.8%	21,416	12.4%	0.448	0.014
Year*						
2015	414	1.0%	7,761	4.5%	-3.488	-0.215
2016	2,115	5.0%	30,891	17.8%	-12.768	-0.410
2017	2,777	6.6%	27,673	16.0%	-9.333	-0.298
2018	3,677	8.8%	25,370	14.6%	-5.857	-0.183
2019	4,990	11.9%	23,869	13.8%	-1.859	-0.056
2020	5,081	12.1%	19,550	11.3%	0.849	0.026
2021	7,395	17.6%	17,721	10.2%	7.424	0.216
2022	8,387	20.0%	13,755	7.9%	12.078	0.354
2023	7,077	16.9%	6,816	3.9%	12.954	0.434
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,4}	2.7	2.1	2.8	2.1	-0.137	-0.065
Combined comorbidity score ^{*,5}	3.4	2.9	3.7	3.3	-0.354	-0.113
Medical History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Obesity*	13,218	31.5%	29,044	16.7%	14.788	0.351
Weight Reduction Surgery or Lifestyle intervention*	34	0.1%	357	0.2%	-0.125	-0.033
Cardiovascular Disease*	4,615	11.0%	14,268	8.2%	2.783	0.094
	16,204	38.7%	72,167	41.6%	-2.956	-0.060

Table 1cm. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Cognitive Impairment*	5,518	13.2%	33,394	19.3%	-6.092	-0.166
Traumatic Brain Injury*	103	0.2%	663	0.4%	-0.137	-0.024
Migraine*	666	1.6%	2,616	1.5%	0.080	0.007
Epilepsy*	498	1.2%	2,685	1.5%	-0.360	-0.031
Chronic Pain*	8,397	20.0%	27,607	15.9%	4.114	0.107
Psychiatric History	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	106	0.3%	408	0.2%	0.018	0.004
Psychiatric History Overall*	24,510	58.5%	97,555	56.3%	2.220	0.045
Psychiatric Drug Dispensings	16,615	39.6%	65,259	37.6%	2.008	0.041
Intentional Self-Harm Encounter	14	0.0%	55	0.0%	0.002	0.001
Any Other Psychiatric Event	19,875	47.4%	79,933	46.1%	1.324	0.027
Attention-Deficit/Hyperactivity Disorder	39	0.1%	83	0.0%	0.045	0.017
Akathisia	*****	*****	185	0.1%	*****	*****
Anxiety	5,100	12.2%	21,588	12.4%	-0.281	-0.009
Behavioral Disorder	1,199	2.9%	6,198	3.6%	-0.714	-0.040
Bipolar Disorder	577	1.4%	2,576	1.5%	-0.109	-0.009
Cerebral Degenerations usually Manifested in Childhood	1,008	2.4%	6,254	3.6%	-1.202	-0.070
Conduct Disorder	*****	*****	83	0.0%	*****	*****
Delirium	1,516	3.6%	11,048	6.4%	-2.754	-0.127

Table 1cm. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Depression	6,593	15.7%	26,720	15.4%	0.321	0.009
Electroconvulsive Therapy	*****	*****	*****	*****	-0.003	-0.003
Hallucination	177	0.4%	973	0.6%	-0.139	-0.020
Obsessive-Compulsive Disorder	28	0.1%	83	0.0%	0.019	0.008
Other Cerebral Degenerations	2,972	7.1%	16,451	9.5%	-2.396	-0.087
Other Mental Disorders	426	1.0%	2,670	1.5%	-0.523	-0.047
Other Psychological Disorders	1,748	4.2%	9,370	5.4%	-1.233	-0.058
Persistent Mental Disorders due to Conditions Classified Elsewhere	4,274	10.2%	26,953	15.5%	-5.346	-0.160
Personality Disorders	28	0.1%	160	0.1%	-0.025	-0.009
Pervasive Developmental Disorders	*****	*****	14	0.0%	*****	*****
Post-Traumatic Stress Disorder	81	0.2%	230	0.1%	0.061	0.015
Psychotherapy	927	2.2%	4,652	2.7%	-0.471	-0.030
Psychotic Conditions	199	0.5%	1,936	1.1%	-0.642	-0.072
Schizophrenia	154	0.4%	845	0.5%	-0.120	-0.018
Sleep Disorder	9,336	22.3%	26,504	15.3%	6.990	0.180
Substance Abuse	816	1.9%	2,841	1.6%	0.309	0.023
Suicidal Behavior	155	0.4%	892	0.5%	-0.145	-0.022
Transcranial Magnetic Stimulation	*****	*****	*****	*****	0.006	0.007
Vagus Nerve Stimulation	32	0.1%	101	0.1%	0.018	0.007

Table 1cm. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product Use	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Index GLP-1RA Product						
albiglutide	99	0.2%	0	0.0%	NaN	NaN
dulaglutide	17,055	40.7%	0	0.0%	NaN	NaN
exenatide	2,291	5.5%	0	0.0%	NaN	NaN
liraglutide	6,337	15.1%	0	0.0%	NaN	NaN
lixisenatide	1,060	2.5%	0	0.0%	NaN	NaN
semaglutide	14,431	34.4%	0	0.0%	NaN	NaN
tirzepatide	650	1.6%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	41,913	100.0%	173,406	100.0%	0.000	NaN
insulin*	15,898	37.9%	28,622	16.5%	21.425	0.496
metformin*	30,637	73.1%	126,504	73.0%	0.144	0.003
alpha-glucosidase inhibitors*	333	0.8%	1,308	0.8%	0.040	0.005
thiazolidinediones*	4,511	10.8%	13,673	7.9%	2.878	0.099
meglitinides*	1,346	3.2%	6,128	3.5%	-0.322	-0.018
amylin analogue*	*****	*****	*****	*****	0.008	0.010
sulfonylureas*	21,332	50.9%	90,401	52.1%	-1.237	-0.025
bile acid sequestrants*	202	0.5%	960	0.6%	-0.072	-0.010
Other Weight Loss Agents*	*****	*****	*****	*****	0.020	0.018
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	0	0.0%	0	0.0%	NaN	NaN
diethylpropion	0	0.0%	0	0.0%	NaN	NaN
lorcaserin	0	0.0%	0	0.0%	NaN	NaN
phentermine	*****	*****	*****	*****	0.020	0.019

Table 1cm. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical Product Use	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
phentermine-topiramate	0	0.0%	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	0	0.0%	*****	*****	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates *	8,754	20.9%	36,862	21.3%	-0.372	-0.009
Antipsychotics	1,536	3.7%	8,054	4.6%	-0.980	-0.049
Anxiolytics/Hypnotics	5,937	14.2%	25,936	15.0%	-0.792	-0.022
Lithium & Other Mood Stabilizers	1,153	2.8%	5,179	3.0%	-0.236	-0.014
Antidepressants	13,182	31.5%	48,719	28.1%	3.356	0.073
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters *	13.1	11.0	12.2	11.1	0.966	0.087
Mean number of emergency room encounters *	0.4	0.9	0.4	1.0	-0.068	-0.068
Mean number of inpatient hospital encounters *	0.2	0.5	0.3	0.7	-0.159	-0.252
Mean number of non-acute institutional encounters *	0.1	0.3	0.2	0.5	-0.092	-0.209
Mean number of other ambulatory encounters *	5.6	11.4	7.7	14.3	-2.090	-0.161
Mean number of filled prescriptions *	27.4	20.7	27.4	20.9	-0.002	-0.000
Mean number of generics dispensed *	11.7	4.6	11.2	4.7	0.436	0.094

Table 1cm. Aggregated Unadjusted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ²	Number/ Mean	Percent/ Standard Deviation ²		
Mean number of unique drug classes dispensed*	10.5	4.1	9.6	4.3	0.927	0.221

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁴Chang 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.

⁵Gagne 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 these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 1cn. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Patient Characteristics ^{1,2}	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Weighted patients	31,697	N/A	170,731	N/A	N/A	N/A
Demographic Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Age (years) [*]	84.5	3.8	84.9	4.0	-0.464	-0.120
Age						
18-24 years	0	0.0%	0	0.0%	NaN	NaN
25-44 years	0	0.0%	0	0.0%	NaN	NaN
45-64 years	0	0.0%	0	0.0%	NaN	NaN
65-79 years	0	0.0%	0	0.0%	NaN	NaN
≥ 80 years	31,697	100.0%	170,731	100.0%	0.000	NaN
Sex [*]						
Female	17,981	56.7%	98,348	57.6%	-0.875	-0.018
Male	13,715	43.3%	72,383	42.4%	0.875	0.018
Race ⁴						
American Indian or Alaska Native	161	0.5%	735	0.4%	0.078	0.011
Asian	845	2.7%	8,781	5.1%	-2.478	-0.129
Black or African American	2,508	7.9%	16,929	9.9%	-2.003	-0.071
Multi-racial	14	0.0%	41	0.0%	0.020	0.011
Native Hawaiian or Other Pacific Islander	96	0.3%	460	0.3%	0.034	0.006
Unknown	3,289	10.4%	21,396	12.5%	-2.157	-0.088
White	24,784	78.2%	122,389	71.7%	6.504	0.165

Table 1cn. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Demographic Characteristics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Hispanic origin						
Yes	971	3.1%	7,098	4.2%	-1.093	-0.059
No	26,648	84.1%	142,685	83.6%	0.497	0.021
Unknown	4,078	12.9%	20,947	12.3%	0.596	0.037
Year*						
2015	787	2.5%	6,581	3.9%	-1.372	-0.078
2016	3,481	11.0%	26,691	15.6%	-4.652	-0.138
2017	3,702	11.7%	24,766	14.5%	-2.826	-0.084
2018	4,035	12.7%	23,626	13.8%	-1.108	-0.033
2019	4,410	13.9%	23,398	13.7%	0.208	0.006
2020	3,964	12.5%	19,843	11.6%	0.885	0.027
2021	4,380	13.8%	19,649	11.5%	2.311	0.070
2022	4,179	13.2%	16,729	9.8%	3.386	0.107
2023	2,758	8.7%	9,447	5.5%	3.169	0.124
Health Characteristics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Adapted Diabetes Complications Severity Index(aDCSI) ^{*,5}	2.9	2.2	2.8	2.1	0.102	0.048
Combined comorbidity score ^{*,6}	3.8	3.2	3.7	3.3	0.100	0.031
Medical History	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Obesity*	7,591	23.9%	32,286	18.9%	5.038	0.123
Weight Reduction Surgery or Procedure*	56	0.2%	307	0.2%	-0.002	-0.001

Table 1cn. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
Medical History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Lifestyle intervention*	3,081	9.7%	14,719	8.6%	1.100	0.038
Cardiovascular Disease*	13,382	42.2%	70,635	41.4%	0.848	0.017
Cognitive Impairment*	5,748	18.1%	31,616	18.5%	-0.382	-0.010
Traumatic Brain Injury*	111	0.3%	623	0.4%	-0.016	-0.003
Migraine*	516	1.6%	2,607	1.5%	0.102	0.008
Epilepsy*	481	1.5%	2,571	1.5%	0.010	0.001
Chronic Pain*	5,904	18.6%	28,385	16.6%	2.001	0.053
Psychiatric History	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Previous Intentional Self-Harm Ever	85	0.3%	423	0.2%	0.020	0.004
Psychiatric History Overall*	18,728	59.1%	96,829	56.7%	2.369	0.048
Psychiatric Drug Dispensings	12,501	39.4%	65,397	38.3%	1.135	0.023
Intentional Self-Harm Encounter	14	0.0%	51	0.0%	0.015	0.008
Any Other Psychiatric Event	15,472	48.8%	79,077	46.3%	2.496	0.050
Attention-Deficit/Hyperactivity Disorder	29	0.1%	85	0.0%	0.043	0.016
Akathisia	26	0.1%	181	0.1%	-0.023	-0.007
Anxiety	4,038	12.7%	21,519	12.6%	0.137	0.004
Behavioral Disorder	1,163	3.7%	5,976	3.5%	0.170	0.009
Bipolar Disorder	531	1.7%	2,575	1.5%	0.167	0.013

Table 1cn. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Psychiatric History	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Cerebral Degenerations usually Manifested in Childhood	961	3.0%	5,992	3.5%	-0.478	-0.027
Conduct Disorder	11	0.0%	75	0.0%	-0.008	-0.004
Delirium	1,860	5.9%	10,341	6.1%	-0.189	-0.008
Depression	5,451	17.2%	26,445	15.5%	1.709	0.046
Electroconvulsive Therapy	3	0.0%	14	0.0%	0.002	0.002
Hallucination	184	0.6%	936	0.5%	0.031	0.004
Obsessive-Compulsive Disorder	30	0.1%	83	0.0%	0.046	0.017
Other Cerebral Degenerations	2,812	8.9%	15,829	9.3%	-0.398	-0.014
Other Mental Disorders	430	1.4%	2,510	1.5%	-0.114	-0.010
Other Psychological Disorders	1,672	5.3%	8,985	5.3%	0.014	0.001
Persistent Mental Disorders due to Conditions Classified Elsewhere	4,567	14.4%	25,431	14.9%	-0.487	-0.014
Personality Disorders	27	0.1%	154	0.1%	-0.005	-0.002
Pervasive Developmental Disorders	2	0.0%	14	0.0%	-0.001	-0.002
Post-Traumatic Stress Disorder	52	0.2%	232	0.1%	0.028	0.007
Psychotherapy	852	2.7%	4,558	2.7%	0.019	0.001
Psychotic Conditions	242	0.8%	1,763	1.0%	-0.270	-0.029
Schizophrenia	160	0.5%	849	0.5%	0.007	0.001
Sleep Disorder	6,395	20.2%	27,135	15.9%	4.283	0.112
Substance Abuse	652	2.1%	2,862	1.7%	0.382	0.028
Suicidal Behavior	143	0.4%	865	0.5%	-0.057	-0.008

Table 1cn. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors			
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Psychiatric History						
Transcranial Magnetic Stimulation	2	0.0%	9	0.0%	0.003	0.003
Vagus Nerve Stimulation	20	0.1%	103	0.1%	0.003	0.001
Medical Product Use	Number/ Mean	Percent/ Standard Deviation³	Number/ Mean	Percent/ Standard Deviation³	Absolute Difference	Standardized Difference
Index GLP-1RA Product						
albiglutide	171	0.5%	0	0.0%	NaN	NaN
dulaglutide	13,604	42.9%	0	0.0%	NaN	NaN
exenatide	2,584	8.2%	0	0.0%	NaN	NaN
liraglutide	6,812	21.5%	0	0.0%	NaN	NaN
lixisenatide	542	1.7%	0	0.0%	NaN	NaN
semaglutide	7,736	24.4%	0	0.0%	NaN	NaN
tirzepatide	266	0.8%	0	0.0%	NaN	NaN
Any Anti-Diabetic Agents	31,697	100.0%	170,731	100.0%	0.000	NaN
insulin*	11,660	36.8%	37,212	21.8%	14.990	0.334
metformin*	23,038	72.7%	124,524	72.9%	-0.254	-0.006
alpha-glucosidase inhibitors*	289	0.9%	1,330	0.8%	0.131	0.014
thiazolidinediones*	2,997	9.5%	14,241	8.3%	1.113	0.039
meglitinides*	1,146	3.6%	6,050	3.5%	0.073	0.004
amylin analogue*	1	0.0%	6	0.0%	0.001	0.001
sulfonylureas*	16,211	51.1%	88,521	51.8%	-0.705	-0.014
bile acid sequestrants*	219	0.7%	947	0.6%	0.135	0.017
Other Weight Loss Agents*	3	0.0%	6	0.0%	0.006	0.007

Table 1cn. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Medical Product					Covariate Balance	
Medical Product Use	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
benzphetamine	0	0.0%	0	0.0%	NaN	NaN
bupropion	0	0.0%	0	0.0%	NaN	NaN
diethylpropion	0	0.0%	0	0.0%	NaN	NaN
lorcaserin	0	0.0%	0	0.0%	NaN	NaN
phentermine	3	0.0%	5	0.0%	0.006	0.008
phentermine-topiramate	0	0.0%	0	0.0%	NaN	NaN
phendimetrazine	0	0.0%	0	0.0%	NaN	NaN
orlistat	0	0.0%	1	0.0%	NaN	NaN
setmelanotide	0	0.0%	0	0.0%	NaN	NaN
Other Agents						
Analgesic Opiates*	7,219	22.8%	36,385	21.3%	1.464	0.035
Antipsychotics	1,384	4.4%	7,959	4.7%	-0.295	-0.014
Anxiolytics/Hypnotics	4,530	14.3%	25,868	15.2%	-0.859	-0.024
Lithium & Other Mood Stabilizers	875	2.8%	5,246	3.1%	-0.313	-0.019
Antidepressants	9,733	30.7%	49,236	28.8%	1.869	0.041
Health Service Utilization Intensity Metrics	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³	Absolute Difference	Standardized Difference
Mean number of ambulatory encounters*	13.1	10.8	12.4	11.4	0.779	0.070
Mean number of emergency room encounters*	0.5	1.2	0.4	1.0	0.061	0.056
Mean number of inpatient hospital encounters*	0.3	0.7	0.3	0.7	-0.027	-0.040

Table 1cn. Aggregated Weighted Characteristics of GLP-1RA or DPP-4i Users, 2.5% truncation (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 2.5%) in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Health Service Utilization Intensity Metrics	Medical Product				Covariate Balance	
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ³	Number/ Mean	Percent/ Standard Deviation ³		
Mean number of non-acute institutional encounters*	0.1	0.5	0.2	0.5	-0.018	-0.037
Mean number of other ambulatory encounters*	7.4	14.0	7.5	14.0	-0.127	-0.009
Mean number of filled prescriptions*	29.3	22.9	27.6	21.1	1.716	0.078
Mean number of generics dispensed*	12.0	5.1	11.3	4.7	0.675	0.138
Mean number of unique drug classes dispensed*	10.5	4.4	9.8	4.3	0.702	0.162

*Covariate included in the propensity score logistic regression model.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵Chang 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.

⁶Gagne 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 represented by NaN (Not a Number) is due to their inability to be calculated.

N/A: Not Applicable

Table 2a. Effect Estimates for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Site-Adjusted Analysis, Unweighted											
GLP-1 Receptor Agonists	1,150,899	682,408.22	216.57	0.59	837	1.23	0.73	0.35	0.16	1.38 (1.25, 1.54)	<0.001
SGLT-2 Inhibitors	1,066,974	691,171.95	236.60	0.65	606	0.88	0.57				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
GLP-1 Receptor Agonists	1,150,860	682,388.22	216.57	0.59	837	1.23	0.73	0.35	0.16	N/A	N/A
SGLT-2 Inhibitors	1,066,956	691,167.05	236.61	0.65	606	0.88	0.57				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²											
GLP-1 Receptor Agonists	1,693,481	913,905.50	197.11	0.54	1,311	1.43	0.77	-0.10	-0.16	1.03 (0.51, 2.07)	N/A
SGLT-2 Inhibitors	1,177,087	718,593.45	222.98	0.61	1,105	1.54	0.94				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

N/A: Not applicable

Table 2b. Effect Estimates for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Sex

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
GLP-1RA or SGLT-2i Users, 0% truncation											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	1,150,899	682,408.22	216.57	0.59	837	1.23	0.73	0.35	0.16	1.38 (1.25, 1.54)	<0.001
SGLT-2 Inhibitors	1,066,974	691,171.95	236.60	0.65	606	0.88	0.57				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	1,150,860	682,388.22	216.57	0.59	837	1.23	0.73	0.35	0.16	N/A	N/A
SGLT-2 Inhibitors	1,066,956	691,167.05	236.61	0.65	606	0.88	0.57				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	1,693,481	913,905.50	197.11	0.54	1,311	1.43	0.77	-0.10	-0.16	1.03 (0.51, 2.07)	N/A
SGLT-2 Inhibitors	1,177,087	718,593.45	222.98	0.61	1,105	1.54	0.94				
GLP-1RA or SGLT-2i Users, 0% truncation, Sex: Female											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	638,550	372,829.81	213.26	0.58	563	1.51	0.88	0.48	0.26	1.50 (1.30, 1.72)	<0.001
SGLT-2 Inhibitors	464,779	279,994.54	220.04	0.60	289	1.03	0.62				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	638,487	372,799.66	213.26	0.58	563	1.51	0.88	0.48	0.26	N/A	N/A
SGLT-2 Inhibitors	464,752	279,981.56	220.04	0.60	289	1.03	0.62				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	751,348	429,878.82	208.98	0.57	580	1.35	0.77	-0.62	-0.35	0.74 (0.53, 1.01)	N/A
SGLT-2 Inhibitors	509,238	288,985.54	207.27	0.57	570	1.97	1.12				
GLP-1RA or SGLT-2i Users, 0% truncation, Sex: Male											
<i>Site-Adjusted Analysis, Unweighted</i>											

Table 2b. Effect Estimates for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Sex

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
GLP-1 Receptor Agonists	512,310	309,558.41	220.70	0.60	274	0.89	0.53	*****	*****	1.13 (0.96, 1.33)	0.133
SGLT-2 Inhibitors	602,177	411,172.52	249.40	0.68	*****	*****	*****				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	512,278	309,540.46	220.70	0.60	274	0.89	0.53	0.12	0.01	N/A	N/A
SGLT-2 Inhibitors	602,153	411,165.40	249.40	0.68	316	0.77	0.52				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	1,092,225	573,647.33	191.83	0.53	1,484	2.59	1.36	1.49	0.64	3.21 (0.63, 16.49)	N/A
SGLT-2 Inhibitors	659,772	433,077.37	239.75	0.66	477	1.10	0.72				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

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

N/A: Not applicable

Table 2c. Effect Estimates for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Age Group

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference		Hazard Ratio (95% Confidence Interval)	Wald P-Value
								per 1,000 Person Years	per 1,000 New Users		
GLP-1RA or SGLT-2i Users, 0% truncation											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	1,150,899	682,408.22	216.57	0.59	837	1.23	0.73	0.35	0.16	1.38 (1.25, 1.54)	<0.001
SGLT-2 Inhibitors	1,066,974	691,171.95	236.60	0.65	606	0.88	0.57				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	1,150,860	682,388.22	216.57	0.59	837	1.23	0.73	0.35	0.16	N/A	N/A
SGLT-2 Inhibitors	1,066,956	691,167.05	236.61	0.65	606	0.88	0.57				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	1,693,481	913,905.50	197.11	0.54	1,311	1.43	0.77	-0.10	-0.16	1.03 (0.51, 2.07)	N/A
SGLT-2 Inhibitors	1,177,087	718,593.45	222.98	0.61	1,105	1.54	0.94				
GLP-1RA or SGLT-2i Users, 0% truncation, Age Group: 18-24 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	5,975	2,682.01	163.95	0.45	*****	*****	*****	*****	*****	1.60 (0.79, 3.25)	0.195
SGLT-2 Inhibitors	2,964	1,313.43	161.85	0.44	*****	*****	*****				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	5,834	2,621.20	164.11	0.45	31	11.83	5.31	*****	*****	N/A	N/A
SGLT-2 Inhibitors	2,951	1,300.61	160.98	0.44	*****	*****	*****				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	5,986	2,714.57	165.64	0.45	38	14.11	6.40	-11.93	-4.47	0.51 (0.11, 2.34)	N/A

Table 2c. Effect Estimates for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Age Group

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference		Hazard Ratio (95% Confidence Interval)	Wald P-Value
								per 1,000 Person Years	per 1,000 New Users		
SGLT-2 Inhibitors	3,497	1,459.11	152.40	0.42	38	26.03	10.86				

GLP-1RA or SGLT-2i Users, 0% truncation, Age Group: 25-44 years

Site-Adjusted Analysis, Unweighted

GLP-1 Receptor Agonists	140,742	75,693.85	196.44	0.54	280	3.70	1.99	*****	*****	1.17 (0.96, 1.42)	0.125
SGLT-2 Inhibitors	90,390	51,621.52	208.59	0.57	*****	*****	*****				

Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed

GLP-1 Receptor Agonists	140,699	75,669.36	196.44	0.54	280	3.70	1.99	0.68	0.26	N/A	N/A
SGLT-2 Inhibitors	90,370	51,615.32	208.61	0.57	156	3.02	1.73				

Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²

GLP-1 Receptor Agonists	226,115	112,598.75	181.88	0.50	297	2.64	1.32	-1.23	-0.66	0.85 (0.59, 1.24)	N/A
SGLT-2 Inhibitors	107,715	54,996.82	186.49	0.51	213	3.87	1.98				

GLP-1RA or SGLT-2i Users, 0% truncation, Age Group: 45-64 years

Site-Adjusted Analysis, Unweighted

GLP-1 Receptor Agonists	486,421	295,815.17	222.13	0.61	396	1.34	0.81	0.20	0.07	1.11 (0.96, 1.29)	0.17
SGLT-2 Inhibitors	405,383	266,315.09	239.95	0.66	302	1.13	0.74				

Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed

GLP-1 Receptor Agonists	486,349	295,784.58	222.14	0.61	396	1.34	0.81	0.20	0.07	N/A	N/A
SGLT-2 Inhibitors	405,368	266,308.70	239.95	0.66	302	1.13	0.75				

Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²

Table 2c. Effect Estimates for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Age Group

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence		Incidence Rate		Risk		Hazard Ratio (95% Confidence Interval)	Wald P-Value
						Rate per 1,000 Person Years	Risk per 1,000 New Users	Difference per 1,000 Person Years	Difference per 1,000 New Users				
GLP-1 Receptor Agonists	700,840	397,858.11	207.35	0.57	448	1.13	0.64	-0.65	-0.43	0.69 (0.47, 1.03)	N/A		
SGLT-2 Inhibitors	447,081	270,831.24	221.26	0.61	480	1.77	1.07						
GLP-1RA or SGLT-2i Users, 0% truncation, Age Group: 65-79 years													
<i>Site-Adjusted Analysis, Unweighted</i>													
GLP-1 Receptor Agonists	473,273	284,106.92	219.26	0.60	121	0.43	0.26	0.08	0.02	1.19 (0.92, 1.53)	0.194		
SGLT-2 Inhibitors	485,381	326,420.71	245.63	0.67	114	0.35	0.23						
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>													
GLP-1 Receptor Agonists	473,248	284,101.51	219.27	0.60	121	0.43	0.26	0.08	0.02	N/A	N/A		
SGLT-2 Inhibitors	485,351	326,405.69	245.64	0.67	114	0.35	0.23						
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>													
GLP-1 Receptor Agonists	705,182	408,264.55	211.46	0.58	111	0.27	0.16	-0.08	-0.07	0.74 (0.53, 1.04)	N/A		
SGLT-2 Inhibitors	530,442	338,960.19	233.40	0.64	119	0.35	0.22						
GLP-1RA or SGLT-2i Users, 0% truncation, Age Group: ≥ 80 years													
<i>Site-Adjusted Analysis, Unweighted</i>													
GLP-1 Receptor Agonists	44,377	24,059.64	198.03	0.54	*****	*****	*****	*****	*****	0.50 (0.21, 1.24)	0.135		
SGLT-2 Inhibitors	82,805	45,469.41	200.56	0.55	*****	*****	*****						
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>													
GLP-1 Receptor Agonists	44,349	24,044.01	198.02	0.54	*****	*****	*****	*****	*****	N/A	N/A		
SGLT-2 Inhibitors	82,645	45,391.95	200.61	0.55	22	0.48	0.27						
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>													
GLP-1 Receptor Agonists	72,413	36,775.83	185.50	0.51	7	0.18	0.09	-0.28	-0.16	0.39 (0.13, 1.22)	N/A		
SGLT-2 Inhibitors	87,813	48,609.97	202.19	0.55	22	0.46	0.26						

Table 2c. Effect Estimates for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Age Group

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence		Incidence Rate		Hazard Ratio (95% Confidence Interval)	Wald P-Value
						Rate per 1,000 Person Years	Risk per 1,000 New Users	Difference per 1,000 Person Years	Difference per 1,000 New Users		

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

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

N/A: Not Applicable

Table 3a. Effect Estimates for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Site-Adjusted Analysis, Unweighted											
GLP-1 Receptor Agonists	1,150,899	682,408.22	216.57	0.59	837	1.23	0.73	0.35	0.16	1.38 (1.25, 1.54)	<0.001
SGLT-2 Inhibitors	1,066,974	691,171.95	236.60	0.65	606	0.88	0.57				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
GLP-1 Receptor Agonists	1,150,860	682,388.22	216.57	0.59	837	1.23	0.73	0.35	0.16	N/A	N/A
SGLT-2 Inhibitors	1,066,956	691,167.05	236.61	0.65	606	0.88	0.57				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²											
GLP-1 Receptor Agonists	1,143,720	680,915.27	217.45	0.60	775	1.14	0.68	-0.10	-0.09	0.93 (0.81, 1.08)	N/A
SGLT-2 Inhibitors	1,104,761	683,649.49	226.02	0.62	847	1.24	0.77				

¹All values in this section are weighted.

²ATEs = Average Treatment Effect, Stabilized.

N/A: Not Applicable

Table 3b. Effect Estimates for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Sex

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence	Incidence	Incidence	Risk	Hazard Ratio (95% Confidence Interval)	Wald P-Value
						Rate per 1,000 Person Years	Risk per 1,000 New Users	Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users		
GLP-1RA or SGLT-2i Users, 1 percent truncation											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	1,150,899	682,408.22	216.57	0.59	837	1.23	0.73	0.35	0.16	1.38 (1.25, 1.54)	<0.001
SGLT-2 Inhibitors	1,066,974	691,171.95	236.60	0.65	606	0.88	0.57				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	1,150,860	682,388.22	216.57	0.59	837	1.23	0.73	0.35	0.16	N/A	N/A
SGLT-2 Inhibitors	1,066,956	691,167.05	236.61	0.65	606	0.88	0.57				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	1,143,720	680,915.27	217.45	0.60	775	1.14	0.68	-0.10	-0.09	0.93 (0.81, 1.08)	N/A
SGLT-2 Inhibitors	1,104,761	683,649.49	226.02	0.62	847	1.24	0.77				
GLP-1RA or SGLT-2i Users, 1 percent truncation, Sex: Female											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	638,550	372,829.81	213.26	0.58	563	1.51	0.88	0.48	0.26	1.50 (1.30, 1.72)	<0.001
SGLT-2 Inhibitors	464,779	279,994.54	220.04	0.60	289	1.03	0.62				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	638,487	372,799.66	213.26	0.58	563	1.51	0.88	0.48	0.26	N/A	N/A
SGLT-2 Inhibitors	464,752	279,981.56	220.04	0.60	289	1.03	0.62				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	636,673	374,506.52	214.85	0.59	522	1.39	0.82	-0.22	-0.11	0.90 (0.75, 1.09)	N/A
SGLT-2 Inhibitors	478,517	275,464.37	210.26	0.58	444	1.61	0.93				
GLP-1RA or SGLT-2i Users, 1 percent truncation, Sex: Male											
<i>Site-Adjusted Analysis, Unweighted</i>											

Table 3b. Effect Estimates for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Sex

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence	Incidence	Incidence	Risk	Hazard Ratio (95% Confidence Interval)	Wald P-Value
						Rate per 1,000 Person Years	Risk per 1,000 New Users	Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users		
GLP-1 Receptor Agonists	512,310	309,558.41	220.70	0.60	274	0.89	0.53	*****	*****	1.13 (0.96, 1.33)	0.133
SGLT-2 Inhibitors	602,177	411,172.52	249.40	0.68	*****	*****	*****				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	512,278	309,540.46	220.70	0.60	274	0.89	0.53	0.12	0.01	N/A	N/A
SGLT-2 Inhibitors	602,153	411,165.40	249.40	0.68	316	0.77	0.52				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	510,014	307,432.01	220.17	0.60	262	0.85	0.51	-0.08	-0.10	0.93 (0.74, 1.15)	N/A
SGLT-2 Inhibitors	626,925	414,287.46	241.37	0.66	385	0.93	0.61				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

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

N/A: Not Applicable

Table 3c. Effect Estimates for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Age Group

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
GLP-1RA or SGLT-2i Users, 1 percent truncation											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	1,150,899	682,408.22	216.57	0.59	837	1.23	0.73	0.35	0.16	1.38 (1.25, 1.54)	<0.001
SGLT-2 Inhibitors	1,066,974	691,171.95	236.60	0.65	606	0.88	0.57				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	1,150,860	682,388.22	216.57	0.59	837	1.23	0.73	0.35	0.16	N/A	N/A
SGLT-2 Inhibitors	1,066,956	691,167.05	236.61	0.65	606	0.88	0.57				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	1,143,720	680,915.27	217.45	0.60	775	1.14	0.68	-0.10	-0.09	0.93 (0.81, 1.08)	N/A
SGLT-2 Inhibitors	1,104,761	683,649.49	226.02	0.62	847	1.24	0.77				
GLP-1RA or SGLT-2i Users, 1 percent truncation, Age Group: 18-24 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	5,975	2,682.01	163.95	0.45	*****	*****	*****	*****	*****	1.60 (0.79, 3.25)	0.195
SGLT-2 Inhibitors	2,964	1,313.43	161.85	0.44	*****	*****	*****				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	5,834	2,621.20	164.11	0.45	31	11.83	5.31	*****	*****	N/A	N/A
SGLT-2 Inhibitors	2,951	1,300.61	160.98	0.44	*****	*****	*****				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	5,726	2,600.62	165.88	0.45	32	12.24	5.56	1.51	0.92	1.10 (0.43, 2.84)	N/A
SGLT-2 Inhibitors	3,187	1,376.26	157.72	0.43	15	10.73	4.63				

Table 3c. Effect Estimates for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Age Group

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
GLP-1RA or SGLT-2i Users, 1 percent truncation, Age Group: 25-44 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	140,742	75,693.85	196.44	0.54	280	3.70	1.99	*****	*****	1.17 (0.96, 1.42)	0.125
SGLT-2 Inhibitors	90,390	51,621.52	208.59	0.57	*****	*****	*****				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	140,699	75,669.36	196.44	0.54	280	3.70	1.99	0.68	0.26	N/A	N/A
SGLT-2 Inhibitors	90,370	51,615.32	208.61	0.57	156	3.02	1.73				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	141,144	76,868.95	198.92	0.54	272	3.54	1.93	-0.14	-0.01	0.97 (0.76, 1.25)	N/A
SGLT-2 Inhibitors	93,577	49,218.42	192.11	0.53	181	3.69	1.94				
GLP-1RA or SGLT-2i Users, 1 percent truncation, Age Group: 45-64 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	486,421	295,815.17	222.13	0.61	396	1.34	0.81	0.20	0.07	1.11 (0.96, 1.29)	0.17
SGLT-2 Inhibitors	405,383	266,315.09	239.95	0.66	302	1.13	0.74				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	486,349	295,784.58	222.14	0.61	396	1.34	0.81	0.20	0.07	N/A	N/A
SGLT-2 Inhibitors	405,368	266,308.70	239.95	0.66	302	1.13	0.75				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	485,828	299,421.81	225.11	0.62	387	1.29	0.80	-0.24	-0.15	0.83 (0.68, 1.02)	N/A
SGLT-2 Inhibitors	417,555	257,862.21	225.56	0.62	395	1.53	0.95				
GLP-1RA or SGLT-2i Users, 1 percent truncation, Age Group: 65-79 years											
<i>Site-Adjusted Analysis, Unweighted</i>											

Table 3c. Effect Estimates for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Age Group

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence	Risk	Incidence	Risk	Hazard Ratio (95% Confidence Interval)	Wald P-Value
						Rate per 1,000 Person Years	per 1,000 New Users	Rate Difference per 1,000 Person Years	Difference per 1,000 New Users		
GLP-1 Receptor Agonists	473,273	284,106.92	219.26	0.60	121	0.43	0.26	0.08	0.02	1.19 (0.92, 1.53)	0.194
SGLT-2 Inhibitors	485,381	326,420.71	245.63	0.67	114	0.35	0.23				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	473,248	284,101.51	219.27	0.60	121	0.43	0.26	0.08	0.02	N/A	N/A
SGLT-2 Inhibitors	485,351	326,405.69	245.64	0.67	114	0.35	0.23				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	472,178	283,030.22	218.94	0.60	111	0.39	0.23	0.02	-0.00	1.04 (0.75, 1.44)	N/A
SGLT-2 Inhibitors	503,789	324,935.95	235.58	0.64	119	0.37	0.24				
GLP-1RA or SGLT-2i Users, 1 percent truncation, Age Group: ≥ 80 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	44,377	24,059.64	198.03	0.54	*****	*****	*****	*****	*****	0.50 (0.21, 1.24)	0.135
SGLT-2 Inhibitors	82,805	45,469.41	200.56	0.55	*****	*****	*****				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	44,349	24,044.01	198.02	0.54	*****	*****	*****	*****	*****	N/A	N/A
SGLT-2 Inhibitors	82,645	45,391.95	200.61	0.55	22	0.48	0.27				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	42,198	21,765.87	188.40	0.52	7	0.31	0.16	-0.17	-0.11	0.64 (0.21, 1.96)	N/A
SGLT-2 Inhibitors	85,105	47,263.75	202.85	0.56	22	0.47	0.26				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

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

N/A: Not Applicable

Table 4a. Effect Estimates for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Site-Adjusted Analysis, Unweighted											
GLP-1 Receptor Agonists	1,150,899	682,408.22	216.57	0.59	837	1.23	0.73	0.35	0.16	1.38 (1.25, 1.54)	<0.001
SGLT-2 Inhibitors	1,066,974	691,171.95	236.60	0.65	606	0.88	0.57				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
GLP-1 Receptor Agonists	1,150,860	682,388.22	216.57	0.59	837	1.23	0.73	0.35	0.16	N/A	N/A
SGLT-2 Inhibitors	1,066,956	691,167.05	236.61	0.65	606	0.88	0.57				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²											
GLP-1 Receptor Agonists	1,095,921	653,685.49	217.86	0.60	733	1.12	0.67	-0.05	-0.06	0.97 (0.86, 1.10)	N/A
SGLT-2 Inhibitors	1,052,754	656,337.52	227.71	0.62	767	1.17	0.73				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

N/A: Not Applicable

Table 4b. Effect Estimates for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Sex

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence	Risk per	Incidence	Risk	Hazard Ratio (95% Confidence Interval)	Wald P-Value
						Rate per 1,000 Person Years	1,000 New Users	Rate Difference per 1,000 Person Years	Difference per 1,000 New Users		
GLP-1RA or SGLT-2i Users, 2.5 percent truncation											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	1,150,899	682,408.22	216.57	0.59	837	1.23	0.73	0.35	0.16	1.38 (1.25, 1.54)	<0.001
SGLT-2 Inhibitors	1,066,974	691,171.95	236.60	0.65	606	0.88	0.57				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	1,150,860	682,388.22	216.57	0.59	837	1.23	0.73	0.35	0.16	N/A	N/A
SGLT-2 Inhibitors	1,066,956	691,167.05	236.61	0.65	606	0.88	0.57				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	1,095,921	653,685.49	217.86	0.60	733	1.12	0.67	-0.05	-0.06	0.97 (0.86, 1.10)	N/A
SGLT-2 Inhibitors	1,052,754	656,337.52	227.71	0.62	767	1.17	0.73				
GLP-1RA or SGLT-2i Users, 2.5 percent truncation, Sex: Female											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	638,550	372,829.81	213.26	0.58	563	1.51	0.88	0.48	0.26	1.50 (1.30, 1.72)	<0.001
SGLT-2 Inhibitors	464,779	279,994.54	220.04	0.60	289	1.03	0.62				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	638,487	372,799.66	213.26	0.58	563	1.51	0.88	0.48	0.26	N/A	N/A
SGLT-2 Inhibitors	464,752	279,981.56	220.04	0.60	289	1.03	0.62				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	617,647	363,711.76	215.08	0.59	501	1.38	0.81	-0.14	-0.07	0.95 (0.81, 1.13)	N/A
SGLT-2 Inhibitors	455,414	264,000.31	211.73	0.58	400	1.51	0.88				

Table 4b. Effect Estimates for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Sex

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence	Incidence	Incidence	Risk	Hazard Ratio (95% Confidence Interval)	Wald P-Value
						Rate per 1,000 Person Years	Risk per 1,000 New Users	Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users		
GLP-1RA or SGLT-2i Users, 2.5 percent truncation, Sex: Male											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	512,310	309,558.41	220.70	0.60	274	0.89	0.53	*****	*****	1.13 (0.96, 1.33)	0.133
SGLT-2 Inhibitors	602,177	411,172.52	249.40	0.68	*****	*****	*****				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	512,278	309,540.46	220.70	0.60	274	0.89	0.53	0.12	0.01	N/A	N/A
SGLT-2 Inhibitors	602,153	411,165.40	249.40	0.68	316	0.77	0.52				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	481,509	291,140.08	220.84	0.60	248	0.85	0.52	-0.05	-0.09	0.94 (0.77, 1.15)	N/A
SGLT-2 Inhibitors	600,622	399,218.96	242.77	0.66	361	0.91	0.60				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

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

N/A: Not Applicable

Table 4c. Effect Estimates for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Age Group

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
GLP-1RA or SGLT-2i Users, 2.5 percent truncation											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	1,150,899	682,408.22	216.57	0.59	837	1.23	0.73	0.35	0.16	1.38 (1.25, 1.54)	<0.001
SGLT-2 Inhibitors	1,066,974	691,171.95	236.60	0.65	606	0.88	0.57				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	1,150,860	682,388.22	216.57	0.59	837	1.23	0.73	0.35	0.16	N/A	N/A
SGLT-2 Inhibitors	1,066,956	691,167.05	236.61	0.65	606	0.88	0.57				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	1,095,921	653,685.49	217.86	0.60	733	1.12	0.67	-0.05	-0.06	0.97 (0.86, 1.10)	N/A
SGLT-2 Inhibitors	1,052,754	656,337.52	227.71	0.62	767	1.17	0.73				
GLP-1RA or SGLT-2i Users, 2.5 percent truncation, Age Group: 18-24 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	5,975	2,682.01	163.95	0.45	*****	*****	*****	*****	*****	1.60 (0.79, 3.25)	0.195
SGLT-2 Inhibitors	2,964	1,313.43	161.85	0.44	*****	*****	*****				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	5,834	2,621.20	164.11	0.45	31	11.83	5.31	*****	*****	N/A	N/A
SGLT-2 Inhibitors	2,951	1,300.61	160.98	0.44	*****	*****	*****				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	5,596	2,555.68	166.80	0.46	30	11.61	5.30	0.78	0.64	1.06 (0.45, 2.51)	N/A
SGLT-2 Inhibitors	2,868	1,235.85	157.37	0.43	13	10.83	4.67				

Table 4c. Effect Estimates for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Age Group

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
GLP-1RA or SGLT-2i Users, 2.5 percent truncation, Age Group: 25-44 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	140,742	75,693.85	196.44	0.54	280	3.70	1.99	*****	*****	1.17 (0.96, 1.42)	0.125
SGLT-2 Inhibitors	90,390	51,621.52	208.59	0.57	*****	*****	*****				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	140,699	75,669.36	196.44	0.54	280	3.70	1.99	0.68	0.26	N/A	N/A
SGLT-2 Inhibitors	90,370	51,615.32	208.61	0.57	156	3.02	1.73				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	135,717	74,102.88	199.43	0.55	264	3.56	1.94	-0.09	-0.00	0.99 (0.79, 1.24)	N/A
SGLT-2 Inhibitors	86,912	46,296.93	194.56	0.53	169	3.65	1.94				
GLP-1RA or SGLT-2i Users, 2.5 percent truncation, Age Group: 45-64 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	486,421	295,815.17	222.13	0.61	396	1.34	0.81	0.20	0.07	1.11 (0.96, 1.29)	0.17
SGLT-2 Inhibitors	405,383	266,315.09	239.95	0.66	302	1.13	0.74				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	486,349	295,784.58	222.14	0.61	396	1.34	0.81	0.20	0.07	N/A	N/A
SGLT-2 Inhibitors	405,368	266,308.70	239.95	0.66	302	1.13	0.75				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	467,595	288,219.28	225.14	0.62	370	1.29	0.79	-0.17	-0.12	0.87 (0.73, 1.03)	N/A
SGLT-2 Inhibitors	397,538	247,736.26	227.61	0.62	361	1.46	0.91				

Table 4c. Effect Estimates for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Age Group

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
GLP-1RA or SGLT-2i Users, 2.5 percent truncation, Age Group: 65-79 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	473,273	284,106.92	219.26	0.60	121	0.43	0.26	0.08	0.02	1.19 (0.92, 1.53)	0.194
SGLT-2 Inhibitors	485,381	326,420.71	245.63	0.67	114	0.35	0.23				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	473,248	284,101.51	219.27	0.60	121	0.43	0.26	0.08	0.02	N/A	N/A
SGLT-2 Inhibitors	485,351	326,405.69	245.64	0.67	114	0.35	0.23				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	448,984	270,270.13	219.87	0.60	109	0.40	0.24	0.03	0.00	1.07 (0.78, 1.45)	N/A
SGLT-2 Inhibitors	481,478	312,780.68	237.28	0.65	116	0.37	0.24				
GLP-1RA or SGLT-2i Users, 2.5 percent truncation, Age Group: ≥ 80 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	44,377	24,059.64	198.03	0.54	*****	*****	*****	*****	*****	0.50 (0.21, 1.24)	0.135
SGLT-2 Inhibitors	82,805	45,469.41	200.56	0.55	*****	*****	*****				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	44,349	24,044.01	198.02	0.54	*****	*****	*****	*****	*****	N/A	N/A
SGLT-2 Inhibitors	82,645	45,391.95	200.61	0.55	22	0.48	0.27				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	39,303	20,401.26	189.59	0.52	7	0.33	0.17	-0.16	-0.10	0.67 (0.22, 2.03)	N/A
SGLT-2 Inhibitors	82,575	45,912.19	203.08	0.56	22	0.49	0.27				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

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

N/A: Not Applicable

Table 5a. Effect Estimates for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type

Medical Product	Number of New Users	Person Years at Risk	Average	Average	Number of Events	Incidence	Risk per	Incidence	Risk	Hazard Ratio (95% Confidence Interval)	Wald P-Value
			Person Days at Risk	Person Years at Risk		Rate per 1,000 Person Years	1,000 New Users	Rate Difference per 1,000 Person Years	Difference per 1,000 New Users		
Site-Adjusted Analysis, Unweighted											
GLP-1 Receptor Agonists	1,139,505	675,163.03	216.41	0.59	824	1.22	0.72	0.15	-0.06	1.23 (1.12, 1.35)	<0.001
DPP-4 Inhibitors	1,390,017	1,019,211.66	267.81	0.73	1,087	1.07	0.78				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
GLP-1 Receptor Agonists	1,139,391	675,127.04	216.42	0.59	824	1.22	0.72	0.15	-0.06	N/A	N/A
DPP-4 Inhibitors	1,389,967	1,019,193.85	267.82	0.73	1,087	1.07	0.78				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²											
GLP-1 Receptor Agonists	1,301,898	758,676.78	212.85	0.58	1,915	2.52	1.47	1.02	0.49	1.90 (0.70, 5.18)	N/A
DPP-4 Inhibitors	1,530,694	998,862.85	238.35	0.65	1,504	1.51	0.98				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

N/A: Not Applicable

Table 5b. Effect Estimates for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Sex

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
GLP-1RA or DPP-4i Users, 0% truncation											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	1,139,505	675,163.03	216.41	0.59	824	1.22	0.72	0.15	-0.06	1.23 (1.12, 1.35)	<0.001
DPP-4 Inhibitors	1,390,017	1,019,211.66	267.81	0.73	1,087	1.07	0.78				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	1,139,391	675,127.04	216.42	0.59	824	1.22	0.72	0.15	-0.06	N/A	N/A
DPP-4 Inhibitors	1,389,967	1,019,193.85	267.82	0.73	1,087	1.07	0.78				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	1,301,898	758,676.78	212.85	0.58	1,915	2.52	1.47	1.02	0.49	1.90 (0.70, 5.18)	N/A
DPP-4 Inhibitors	1,530,694	998,862.85	238.35	0.65	1,504	1.51	0.98				
GLP-1RA or DPP-4i Users, 0% truncation, Sex: Female											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	630,804	368,450.85	213.34	0.58	552	1.50	0.88	0.30	0.01	1.33 (1.18, 1.49)	<0.001
DPP-4 Inhibitors	720,423	522,651.00	264.98	0.73	626	1.20	0.87				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	630,641	368,392.80	213.36	0.58	552	1.50	0.88	0.30	0.01	N/A	N/A
DPP-4 Inhibitors	720,398	522,641.57	264.99	0.73	626	1.20	0.87				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	675,132	401,953.97	217.46	0.60	1,162	2.89	1.72	1.12	0.58	1.87 (0.65, 5.37)	N/A
DPP-4 Inhibitors	780,825	503,782.53	235.66	0.65	891	1.77	1.14				

Table 5b. Effect Estimates for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Sex

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
GLP-1RA or DPP-4i Users, 0% truncation, Sex: Male											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	508,587	306,676.19	220.24	0.60	272	0.89	0.53	-0.04	-0.15	1.04 (0.89, 1.21)	0.64
DPP-4 Inhibitors	669,544	496,542.84	270.87	0.74	461	0.93	0.69				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	508,463	306,632.08	220.27	0.60	272	0.89	0.53	-0.04	-0.15	N/A	N/A
DPP-4 Inhibitors	669,463	496,507.83	270.89	0.74	461	0.93	0.69				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	576,038	349,834.93	221.82	0.61	452	1.29	0.79	0.09	-0.01	1.20 (0.65, 2.22)	N/A
DPP-4 Inhibitors	743,226	493,450.90	242.50	0.66	592	1.20	0.80				

¹All values in this section are weighted.

²ATEs = Average Treatment Effect, Stabilized.

N/A: Not Applicable

Table 5c. Effect Estimates for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Age Group

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
GLP-1RA or DPP-4i Users, 0% truncation											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	1,139,505	675,163.03 1,019,211.6	216.41	0.59	824	1.22	0.72	0.15	-0.06	1.23 (1.12, 1.35)	<0.001
DPP-4 Inhibitors	1,390,017	6	267.81	0.73	1,087	1.07	0.78				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	1,139,391	675,127.04 1,019,193.8	216.42	0.59	824	1.22	0.72	0.15	-0.06	N/A	N/A
DPP-4 Inhibitors	1,389,967	5	267.82	0.73	1,087	1.07	0.78				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	1,301,898	758,676.78	212.85	0.58	1,915	2.52	1.47	1.02	0.49	1.90 (0.70, 5.18)	N/A
DPP-4 Inhibitors	1,530,694	998,862.85	238.35	0.65	1,504	1.51	0.98				
GLP-1RA or DPP-4i Users, 0% truncation, Age Group: 18-24 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	5,951	2,683.39	164.70	0.45	*****	*****	*****	*****	*****	0.78 (0.47, 1.28)	0.322
DPP-4 Inhibitors	4,388	2,046.82	170.37	0.47	*****	*****	*****				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	5,725	2,607.83	166.38	0.46	29	11.12	5.07	-4.33	-2.11	N/A	N/A
DPP-4 Inhibitors	4,320	2,006.67	169.66	0.46	31	15.45	7.18				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	6,920	2,977.37	157.15	0.43	55	18.54	7.98	0.69	0.37	0.95 (0.28, 3.21)	N/A
DPP-4 Inhibitors	4,911	2,093.36	155.70	0.43	37	17.85	7.61				

Table 5c. Effect Estimates for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Age Group

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
GLP-1RA or DPP-4i Users, 0% truncation, Age Group: 25-44 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	139,859	75,251.79	196.52	0.54	276	3.67	1.97	0.26	-0.02	1.29 (1.08, 1.54)	0.005
DPP-4 Inhibitors	115,163	67,238.08	213.25	0.58	229	3.41	1.99				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	139,703	75,188.08	196.58	0.54	276	3.67	1.98	0.26	-0.01	N/A	N/A
DPP-4 Inhibitors	115,115	67,214.80	213.27	0.58	229	3.41	1.99				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	157,410	84,410.71	195.86	0.54	318	3.77	2.02	-0.68	-0.27	1.05 (0.73, 1.50)	N/A
DPP-4 Inhibitors	136,255	70,232.95	188.27	0.52	312	4.45	2.29				
GLP-1RA or DPP-4i Users, 0% truncation, Age Group: 45-64 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	483,894	294,171.41	222.04	0.61	391	1.33	0.81	-0.24	-0.28	0.92 (0.80, 1.05)	0.197
DPP-4 Inhibitors	500,865	346,199.73	252.46	0.69	543	1.57	1.08				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	483,766	294,130.53	222.07	0.61	391	1.33	0.81	-0.24	-0.28	N/A	N/A
DPP-4 Inhibitors	500,818	346,179.36	252.47	0.69	543	1.57	1.08				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	518,253	318,262.28	224.30	0.61	481	1.51	0.93	-0.30	-0.18	0.96 (0.66, 1.40)	N/A
DPP-4 Inhibitors	565,337	346,307.78	223.74	0.61	628	1.81	1.11				

Table 5c. Effect Estimates for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Age Group

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
GLP-1RA or DPP-4i Users, 0% truncation, Age Group: 65-79 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	467,704	280,230.07	218.84	0.60	118	0.42	0.25	-0.07	-0.14	0.77 (0.61, 0.96)	0.019
DPP-4 Inhibitors	596,096	475,169.62	291.15	0.80	235	0.49	0.39				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	467,658	280,218.27	218.86	0.60	118	0.42	0.25	-0.07	-0.14	N/A	N/A
DPP-4 Inhibitors	595,428	474,714.20	291.20	0.80	235	0.50	0.39				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	576,692	332,753.09	210.75	0.58	107	0.32	0.18	-0.08	-0.04	0.56 (0.42, 0.76)	N/A
DPP-4 Inhibitors	5,773,994	9	203.13	0.56	1,295	0.40	0.22				
GLP-1RA or DPP-4i Users, 0% truncation, Age Group: ≥ 80 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	41,791	22,702.31	198.42	0.54	*****	*****	*****	*****	*****	0.63 (0.27, 1.49)	0.294
DPP-4 Inhibitors	171,489	127,295.99	271.12	0.74	48	0.38	0.28				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	41,772	22,693.70	198.43	0.54	*****	*****	*****	*****	*****	N/A	N/A
DPP-4 Inhibitors	171,272	127,172.51	271.20	0.74	48	0.38	0.28				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	51,045	29,551.99	211.46	0.58	15	0.50	0.29	0.15	0.04	1.42 (0.42, 4.81)	N/A
DPP-4 Inhibitors	174,838	124,820.19	260.76	0.71	44	0.35	0.25				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

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

N/A: Not Applicable

Table 6a. Effect Estimates for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence	Risk	Incidence	Risk	Hazard Ratio (95% Confidence Interval)	Wald P-Value
						Rate per 1,000 Person Years	per 1,000 New Users	Difference per 1,000 Person Years	Difference per 1,000 New Users		
Site-Adjusted Analysis, Unweighted											
GLP-1 Receptor Agonists	1,139,505	675,163.03	216.41	0.59	824	1.22	0.72	0.15	-0.06	1.23 (1.12, 1.35)	<0.001
DPP-4 Inhibitors	1,390,017	1,019,211.66	267.81	0.73	1,087	1.07	0.78				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
GLP-1 Receptor Agonists	1,139,391	675,127.04	216.42	0.59	824	1.22	0.72	0.15	-0.06	N/A	N/A
DPP-4 Inhibitors	1,389,967	1,019,193.85	267.82	0.73	1,087	1.07	0.78				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²											
GLP-1 Receptor Agonists	1,064,766	665,376.33	228.25	0.62	754	1.13	0.71	-0.25	-0.22	0.93 (0.82, 1.07)	N/A
DPP-4 Inhibitors	1,402,713	945,001.67	246.07	0.67	1,304	1.38	0.93				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

N/A: Not Applicable

Table 6b. Effect Estimates for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Sex

Medical Product	Number of New Users	Person Years at Risk	Average	Average	Number of Events	Incidence	Risk per	Incidence	Risk	Hazard Ratio (95% Confidence Interval)	Wald P-Value
			Person Days at Risk	Person Years at Risk		Rate per 1,000 Person Years	per 1,000 New Users	Rate Difference per 1,000 Person Years	Difference per 1,000 New Users		
GLP-1RA or DPP-4i Users, 1 percent truncation											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	1,139,505	675,163.03	216.41	0.59	824	1.22	0.72	0.15	-0.06	1.23 (1.12, 1.35)	<0.001
DPP-4 Inhibitors	1,390,017	1,019,211.66	267.81	0.73	1,087	1.07	0.78				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	1,139,391	675,127.04	216.42	0.59	824	1.22	0.72	0.15	-0.06	N/A	N/A
DPP-4 Inhibitors	1,389,967	1,019,193.85	267.82	0.73	1,087	1.07	0.78				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	1,064,766	665,376.33	228.25	0.62	754	1.13	0.71	-0.25	-0.22	0.93 (0.82, 1.07)	N/A
DPP-4 Inhibitors	1,402,713	945,001.67	246.07	0.67	1,304	1.38	0.93				
GLP-1RA or DPP-4i Users, 1 percent truncation, Sex: Female											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	630,804	368,450.85	213.34	0.58	552	1.50	0.88	0.30	0.01	1.33 (1.18, 1.49)	<0.001
DPP-4 Inhibitors	720,423	522,651.00	264.98	0.73	626	1.20	0.87				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	630,641	368,392.80	213.36	0.58	552	1.50	0.88	0.30	0.01	N/A	N/A
DPP-4 Inhibitors	720,398	522,641.57	264.99	0.73	626	1.20	0.87				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	593,957	365,388.77	224.69	0.62	502	1.37	0.85	-0.20	-0.20	0.99 (0.84, 1.16)	N/A
DPP-4 Inhibitors	721,762	480,324.69	243.07	0.67	755	1.57	1.05				

Table 6b. Effect Estimates for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Sex

Medical Product	Number of New Users	Person Years at Risk	Average	Average	Number of Events	Incidence	Risk per	Incidence	Risk	Hazard Ratio (95% Confidence Interval)	Wald P-Value
			Person Days at Risk	Person Years at Risk		Rate per 1,000 Person Years	1,000 New Users	Rate Difference per 1,000 Person Years	Difference per 1,000 New Users		
GLP-1RA or DPP-4i Users, 1 percent truncation, Sex: Male											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	508,587	306,676.19	220.24	0.60	272	0.89	0.53	-0.04	-0.15	1.04 (0.89, 1.21)	0.64
DPP-4 Inhibitors	669,544	496,542.84	270.87	0.74	461	0.93	0.69				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	508,463	306,632.08	220.27	0.60	272	0.89	0.53	-0.04	-0.15	N/A	N/A
DPP-4 Inhibitors	669,463	496,507.83	270.89	0.74	461	0.93	0.69				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	470,755	299,580.55	232.44	0.64	248	0.83	0.53	-0.35	-0.28	0.80 (0.63, 1.00)	N/A
DPP-4 Inhibitors	681,343	465,728.31	249.66	0.68	547	1.17	0.80				

¹All values in this section are weighted.

²ATEs = Average Treatment Effect, Stabilized.

N/A: Not Applicable

Table 6c. Effect Estimates for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Age Group

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
GLP-1RA or DPP-4i Users, 1 percent truncation											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	1,139,505	675,163.03	216.41	0.59	824	1.22	0.72	0.15	-0.06	1.23 (1.12, 1.35)	<0.001
DPP-4 Inhibitors	1,390,017	1,019,211.66	267.81	0.73	1,087	1.07	0.78				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	1,139,391	675,127.04	216.42	0.59	824	1.22	0.72	0.15	-0.06	N/A	N/A
DPP-4 Inhibitors	1,389,967	1,019,193.85	267.82	0.73	1,087	1.07	0.78				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	1,064,766	665,376.33	228.25	0.62	754	1.13	0.71	-0.25	-0.22	0.93 (0.82, 1.07)	N/A
DPP-4 Inhibitors	1,402,713	945,001.67	246.07	0.67	1,304	1.38	0.93				
GLP-1RA or DPP-4i Users, 1 percent truncation, Age Group: 18-24 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	5,951	2,683.39	164.70	0.45	*****	*****	*****	*****	*****	0.78 (0.47, 1.28)	0.322
DPP-4 Inhibitors	4,388	2,046.82	170.37	0.47	*****	*****	*****				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	5,725	2,607.83	166.38	0.46	29	11.12	5.07	-4.33	-2.11	N/A	N/A
DPP-4 Inhibitors	4,320	2,006.67	169.66	0.46	31	15.45	7.18				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	5,535	2,605.56	171.93	0.47	29	11.06	5.21				
DPP-4 Inhibitors	4,508	1,987.91	161.08	0.44	37	18.80	8.29	-7.74	-3.09	0.59 (0.28, 1.24)	N/A
GLP-1RA or DPP-4i Users, 1 percent truncation, Age Group: 25-44 years											

Table 6c. Effect Estimates for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Age Group

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	139,859	75,251.79	196.52	0.54	276	3.67	1.97	0.26	-0.02	1.29 (1.08, 1.54)	0.005
DPP-4 Inhibitors	115,163	67,238.08	213.25	0.58	229	3.41	1.99				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	139,703	75,188.08	196.58	0.54	276	3.67	1.98	0.26	-0.01	N/A	N/A
DPP-4 Inhibitors	115,115	67,214.80	213.27	0.58	229	3.41	1.99				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	134,513	74,997.12	203.64	0.56	278	3.70	2.07	-0.56	-0.22	1.09 (0.85, 1.40)	N/A
DPP-4 Inhibitors	116,241	62,272.31	195.67	0.54	266	4.27	2.29				
GLP-1RA or DPP-4i Users, 1 percent truncation, Age Group: 45-64 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	483,894	294,171.41	222.04	0.61	391	1.33	0.81	-0.24	-0.28	0.92 (0.80, 1.05)	0.197
DPP-4 Inhibitors	500,865	346,199.73	252.46	0.69	543	1.57	1.08				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	483,766	294,130.53	222.07	0.61	391	1.33	0.81	-0.24	-0.28	N/A	N/A
DPP-4 Inhibitors	500,818	346,179.36	252.47	0.69	543	1.57	1.08				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	459,698	293,481.68	233.18	0.64	388	1.32	0.84	-0.44	-0.28	0.86 (0.72, 1.02)	N/A
DPP-4 Inhibitors	506,625	322,425.49	232.45	0.64	569	1.76	1.12				
GLP-1RA or DPP-4i Users, 1 percent truncation, Age Group: 65-79 years											
<i>Site-Adjusted Analysis, Unweighted</i>											

Table 6c. Effect Estimates for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Age Group

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
GLP-1 Receptor Agonists	467,704	280,230.07	218.84	0.60	118	0.42	0.25	-0.07	-0.14	0.77 (0.61, 0.96)	0.019
DPP-4 Inhibitors	596,096	475,169.62	291.15	0.80	235	0.49	0.39				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	467,658	280,218.27	218.86	0.60	118	0.42	0.25	-0.07	-0.14	N/A	N/A
DPP-4 Inhibitors	595,428	474,714.20	291.20	0.80	235	0.50	0.39				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	436,297	278,559.45	233.20	0.64	107	0.38	0.24	-0.04	0.00	0.67 (0.50, 0.88)	N/A
DPP-4 Inhibitors	5,333,882	3,030,245.66	207.50	0.57	1,291	0.43	0.24				
GLP-1RA or DPP-4i Users, 1 percent truncation, Age Group: ≥ 80 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	41,791	22,702.31	198.42	0.54	*****	*****	*****	*****	*****	0.63 (0.27, 1.49)	0.294
DPP-4 Inhibitors	171,489	127,295.99	271.12	0.74	48	0.38	0.28				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	41,772	22,693.70	198.43	0.54	*****	*****	*****	*****	*****	N/A	N/A
DPP-4 Inhibitors	171,272	127,172.51	271.20	0.74	48	0.38	0.28				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	34,716	20,251.61	213.07	0.58	11	0.56	0.32	0.20	0.07	1.52 (0.51, 4.54)	N/A
DPP-4 Inhibitors	171,805	123,508.35	262.57	0.72	44	0.35	0.25				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

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

N/A: Not Applicable

Table 7a. Effect Estimates for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type

Medical Product	Number of New Users	Person Years at Risk	Average	Average	Number of Events	Incidence	Risk per	Incidence	Risk	Hazard Ratio (95% Confidence Interval)	Wald P-Value
			Person Days at Risk	Person Years at Risk		Rate per 1,000 Person Years	1,000 New Users	Rate Difference per 1,000 Person Years	Difference per 1,000 New Users		
Site-Adjusted Analysis, Unweighted											
GLP-1 Receptor Agonists	1,139,505	675,163.03	216.41	0.59	824	1.22	0.72	0.15	-0.06	1.23 (1.12, 1.35)	<0.001
DPP-4 Inhibitors	1,390,017	1,019,211.66	267.81	0.73	1,087	1.07	0.78				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
GLP-1 Receptor Agonists	1,139,391	675,127.04	216.42	0.59	824	1.22	0.72	0.15	-0.06	N/A	N/A
DPP-4 Inhibitors	1,389,967	1,019,193.85	267.82	0.73	1,087	1.07	0.78				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²											
GLP-1 Receptor Agonists	1,023,420	640,497.20	228.59	0.63	704	1.10	0.69	-0.24	-0.23	0.94 (0.83, 1.05)	N/A
DPP-4 Inhibitors	1,332,906	911,189.11	249.69	0.68	1,219	1.34	0.91				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

N/A: Not Applicable

Table 7b. Effect Estimates for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Sex

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
GLP-1RA or DPP-4i Users, 2.5 percent truncation											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	1,139,505	675,163.03	216.41	0.59	824	1.22	0.72	0.15	-0.06	1.23 (1.12, 1.35)	<0.001
DPP-4 Inhibitors	1,390,017	1,019,211.66	267.81	0.73	1,087	1.07	0.78				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	1,139,391	675,127.04	216.42	0.59	824	1.22	0.72	0.15	-0.06	N/A	N/A
DPP-4 Inhibitors	1,389,967	1,019,193.85	267.82	0.73	1,087	1.07	0.78				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	1,023,420	640,497.20	228.59	0.63	704	1.10	0.69	-0.24	-0.23	0.94 (0.83, 1.05)	N/A
DPP-4 Inhibitors	1,332,906	911,189.11	249.69	0.68	1,219	1.34	0.91				
GLP-1RA or DPP-4i Users, 2.5 percent truncation, Sex: Female											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	630,804	368,450.85	213.34	0.58	552	1.50	0.88	0.30	0.01	1.33 (1.18, 1.49)	<0.001
DPP-4 Inhibitors	720,423	522,651.00	264.98	0.73	626	1.20	0.87				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	630,641	368,392.80	213.36	0.58	552	1.50	0.88	0.30	0.01	N/A	N/A
DPP-4 Inhibitors	720,398	522,641.57	264.99	0.73	626	1.20	0.87				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	572,966	352,837.51	224.92	0.62	478	1.35	0.83	-0.16	-0.19	1.01 (0.87, 1.16)	N/A
DPP-4 Inhibitors	687,956	464,492.37	246.61	0.68	705	1.52	1.02				

Table 7b. Effect Estimates for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Sex

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
GLP-1RA or DPP-4i Users, 2.5 percent truncation, Sex: Male											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	508,587	306,676.19	220.24	0.60	272	0.89	0.53	-0.04	-0.15	1.04 (0.89, 1.21)	0.64
DPP-4 Inhibitors	669,544	496,542.84	270.87	0.74	461	0.93	0.69				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	508,463	306,632.08	220.27	0.60	272	0.89	0.53	-0.04	-0.15	N/A	N/A
DPP-4 Inhibitors	669,463	496,507.83	270.89	0.74	461	0.93	0.69				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	450,497	287,269.08	232.91	0.64	228	0.79	0.51	-0.35	-0.28	0.79 (0.65, 0.97)	N/A
DPP-4 Inhibitors	645,753	447,842.92	253.31	0.69	510	1.14	0.79				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

N/A: Not Applicable

Table 7c. Effect Estimates for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Age Group

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
GLP-1RA or DPP-4i Users, 2.5 percent truncation											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	1,139,505	675,163.03	216.41	0.59	824	1.22	0.72	0.15	-0.06	1.23 (1.12, 1.35)	<0.001
DPP-4 Inhibitors	1,390,017	1,019,211.66	267.81	0.73	1,087	1.07	0.78				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	1,139,391	675,127.04	216.42	0.59	824	1.22	0.72	0.15	-0.06	N/A	N/A
DPP-4 Inhibitors	1,389,967	1,019,193.85	267.82	0.73	1,087	1.07	0.78				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	1,023,420	640,497.20	228.59	0.63	704	1.10	0.69	-0.24	-0.23	0.94 (0.83, 1.05)	N/A
DPP-4 Inhibitors	1,332,906	911,189.11	249.69	0.68	1,219	1.34	0.91				
GLP-1RA or DPP-4i Users, 2.5 percent truncation, Age Group: 18-24 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	5,951	2,683.39	164.70	0.45	*****	*****	*****	*****	*****	0.78 (0.47, 1.28)	0.322
DPP-4 Inhibitors	4,388	2,046.82	170.37	0.47	*****	*****	*****				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	5,725	2,607.83	166.38	0.46	29	11.12	5.07	-4.33	-2.11	N/A	N/A
DPP-4 Inhibitors	4,320	2,006.67	169.66	0.46	31	15.45	7.18				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	5,376	2,531.03	171.97	0.47	26	10.36	4.88	-9.46	-4.01	0.51 (0.26, 0.99)	N/A
DPP-4 Inhibitors	4,159	1,865.24	163.81	0.45	37	19.82	8.89				
GLP-1RA or DPP-4i Users, 2.5 percent truncation, Age Group: 25-44 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1RA or DPP-4i Users, 2.5 percent truncation, Age Group: 25-44 years											

Table 7c. Effect Estimates for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Age Group

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence		Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
						Rate per 1,000 Person Years	Risk per 1,000 New Users				
GLP-1 Receptor Agonists	139,859	75,251.79	196.52	0.54	276	3.67	1.97	0.26	-0.02	1.29 (1.08, 1.54)	0.005
DPP-4 Inhibitors	115,163	67,238.08	213.25	0.58	229	3.41	1.99				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	139,703	75,188.08	196.58	0.54	276	3.67	1.98	0.26	-0.01	N/A	N/A
DPP-4 Inhibitors	115,115	67,214.80	213.27	0.58	229	3.41	1.99				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	130,327	72,742.73	203.87	0.56	263	3.62	2.02	-0.54	-0.24	1.11 (0.90, 1.38)	N/A
DPP-4 Inhibitors	108,407	58,948.05	198.61	0.54	245	4.16	2.26				
GLP-1RA or DPP-4i Users, 2.5 percent truncation, Age Group: 45-64 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	483,894	294,171.41	222.04	0.61	391	1.33	0.81	-0.24	-0.28	0.92 (0.80, 1.05)	0.197
DPP-4 Inhibitors	500,865	346,199.73	252.46	0.69	543	1.57	1.08				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	483,766	294,130.53	222.07	0.61	391	1.33	0.81	-0.24	-0.28	N/A	N/A
DPP-4 Inhibitors	500,818	346,179.36	252.47	0.69	543	1.57	1.08				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	446,457	285,060.44	233.21	0.64	372	1.30	0.83	-0.46	-0.31	0.85 (0.72, 1.00)	N/A
DPP-4 Inhibitors	479,411	309,209.12	235.58	0.64	546	1.76	1.14				
GLP-1RA or DPP-4i Users, 2.5 percent truncation, Age Group: 65-79 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1RA or DPP-4i Users, 2.5 percent truncation, Age Group: 65-79 years											
GLP-1 Receptor Agonists	467,704	280,230.07	218.84	0.60	118	0.42	0.25	-0.07	-0.14	0.77 (0.61, 0.96)	0.019
DPP-4 Inhibitors	596,096	475,169.62	291.15	0.80	235	0.49	0.39				

Table 7c. Effect Estimates for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Analysis Type and Age Group

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence		Incidence Rate Difference per 1,000 Person Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
						Rate per 1,000 Person Years	Risk per 1,000 New Users				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	467,658	280,218.27	218.86	0.60	118	0.42	0.25	-0.07	-0.14	N/A	N/A
DPP-4 Inhibitors	595,428	474,714.20	291.20	0.80	235	0.50	0.39				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	416,448	266,653.72	233.87	0.64	106	0.40	0.26	-0.04	0.00	0.69 (0.53, 0.91)	N/A
DPP-4 Inhibitors	5,049,663	2,903,935.32	210.05	0.58	1,282	0.44	0.25				
GLP-1RA or DPP-4i Users, 2.5 percent truncation, Age Group: ≥ 80 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
GLP-1 Receptor Agonists	41,791	22,702.31	198.42	0.54	*****	*****	*****	*****	*****	0.63 (0.27, 1.49)	0.294
DPP-4 Inhibitors	171,489	127,295.99	271.12	0.74	48	0.38	0.28				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
GLP-1 Receptor Agonists	41,772	22,693.70	198.43	0.54	*****	*****	*****	*****	*****	N/A	N/A
DPP-4 Inhibitors	171,272	127,172.51	271.20	0.74	48	0.38	0.28				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
GLP-1 Receptor Agonists	31,612	18,456.86	213.26	0.58	9	0.46	0.27	0.10	0.01	1.24 (0.45, 3.41)	N/A
DPP-4 Inhibitors	168,999	122,124.17	263.94	0.72	44	0.36	0.26				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

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

N/A: Not Applicable

Table 8. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	GLP-1RA or SGLT-2i Users, 0% truncation				GLP-1RA or SGLT-2i Users, 1% truncation			
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		GLP-1 Receptor Agonists		SGLT-2 Inhibitors	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Members meeting enrollment and demographic requirements								
Enrolled at any point during the query period	3,482,482	N/A	3,482,482	N/A	3,482,482	N/A	3,482,482	N/A
Had required coverage type (medical and/or drug coverage)	3,482,482	0	3,482,482	0	3,482,482	0	3,482,482	0
Enrolled during specified age range	3,482,482	0	3,482,482	0	3,482,482	0	3,482,482	0
Had requestable medical charts	3,482,482	0	3,482,482	0	3,482,482	0	3,482,482	0
Met demographic requirements (sex, race, and Hispanic origin)	3,482,482	0	3,482,482	0	3,482,482	0	3,482,482	0
Members with a valid index event								
Had any cohort-defining claim during the query period	1,609,696	1,872,786	1,532,456	1,950,026	1,609,696	1,872,786	1,532,456	1,950,026
Claim recorded during specified age range	1,609,679	17	*****	*****	1,609,679	17	*****	*****
Episode defining index claim recorded during the query period	1,606,883	2,796	1,526,623	*****	1,606,883	2,796	1,526,623	*****
Members with required pre-index history								
Had sufficient pre-index continuous enrollment	1,586,072	20,811	1,497,054	29,569	1,586,072	20,811	1,497,054	29,569
Met inclusion and exclusion criteria ¹	1,195,638	390,434	1,102,792	394,262	1,195,638	390,434	1,102,792	394,262
<i>Evidence of dpp_washout</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Evidence of gest_diabetes</i>	N/A	166	N/A	132	N/A	166	N/A	132
<i>Evidence of glp_washout</i>	N/A	118,471	N/A	N/A	N/A	118,471	N/A	N/A
<i>Evidence of insulin_noad</i>	N/A	32,452	N/A	27,311	N/A	32,452	N/A	27,311
<i>Evidence of no_glpdpp</i>	N/A	N/A	N/A	363,457	N/A	N/A	N/A	363,457
<i>Evidence of no_glpsgt</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Evidence of no_sglt dpp</i>	N/A	358,926	N/A	N/A	N/A	358,926	N/A	N/A
<i>Evidence of pregnancy</i>	N/A	5,789	N/A	5,476	N/A	5,789	N/A	5,476
<i>Evidence of secondary_diabetes</i>	N/A	25,276	N/A	24,789	N/A	25,276	N/A	24,789
<i>Evidence of sgtl_washout</i>	N/A	N/A	N/A	101,934	N/A	N/A	N/A	101,934
<i>Evidence of type1_diabetes</i>	N/A	16,384	N/A	15,480	N/A	16,384	N/A	15,480
<i>No evidence of type2_Diabetes</i>	N/A	75,113	N/A	71,301	N/A	75,113	N/A	71,301
Met event incidence criteria	1,195,638	0	1,102,792	0	1,195,638	0	1,102,792	0
Had sufficient post-index continuous enrollment	1,195,638	0	1,102,792	0	1,195,638	0	1,102,792	0
Had minimum days' supply on index date	1,195,638	0	1,102,792	0	1,195,638	0	1,102,792	0
Had index episode of at least required length	1,195,638	0	1,102,792	0	1,195,638	0	1,102,792	0
Members with required pre-index history								
Had index episode longer than blackout period	1,195,439	199	1,102,599	193	1,195,439	199	1,102,599	193

Table 8. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	GLP-1RA or SGLT-2i Users, 0% truncation				GLP-1RA or SGLT-2i Users, 1% truncation			
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		GLP-1 Receptor Agonists		SGLT-2 Inhibitors	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Did not have an event during blackout period	1,195,410	29	1,102,564	35	1,195,410	29	1,102,564	35
Final cohort								
Number of members	1,195,410	N/A	1,102,564	N/A	1,195,410	N/A	1,102,564	N/A
Number of episodes	1,195,410	N/A	1,102,564	N/A	1,195,410	N/A	1,102,564	N/A
Members meeting comparative cohort eligibility requirements								
Excluded due to same-day initiation of both exposure groups	1,195,410	0	1,102,564	0	1,195,410	0	1,102,564	0
Excluded due to prior initiation of other exposure group	1,150,899	44,511	1,066,974	35,590	1,150,899	44,511	1,066,974	35,590
Excluded due to propensity score trimming	1,150,860	39	1,066,956	18	1,150,860	39	1,066,956	18
Included in comparative analysis	1,150,860	0	1,066,956	0	1,150,860	0	1,066,956	0
Additional information								
Number of events in comparative analysis	837	N/A	606	N/A	837	N/A	606	N/A
Number of patients with a truncated inverse probability of treatment weight	N/A	N/A	N/A	N/A	14,536	N/A	29,822	N/A

Table 8. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	GLP-1RA or SGLT-2i Users, 2.5% truncation				GLP-1RA or DPP-4i Users, 0% truncation			
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		GLP-1 Receptor Agonists		DPP-4 Inhibitors	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Members meeting enrollment and demographic requirements								
Enrolled at any point during the query period	3,482,482	N/A	3,482,482	N/A	3,482,482	N/A	3,482,482	N/A
Had required coverage type (medical and/or drug coverage)	3,482,482	0	3,482,482	0	3,482,482	0	3,482,482	0
Enrolled during specified age range	3,482,482	0	3,482,482	0	3,482,482	0	3,482,482	0
Had requestable medical charts	3,482,482	0	3,482,482	0	3,482,482	0	3,482,482	0
Met demographic requirements (sex, race, and Hispanic origin)	3,482,482	0	3,482,482	0	3,482,482	0	3,482,482	0
Members with a valid index event								
Had any cohort-defining claim during the query period	1,609,696	1,872,786	1,532,456	1,950,026	1,609,696	1,872,786	1,633,369	1,849,113
Claim recorded during specified age range	1,609,679	17	*****	*****	1,609,679	17	1,633,348	21
Episode defining index claim recorded during the query period	1,606,883	2,796	1,526,623	*****	1,606,883	2,796	1,612,808	20,540
Members with required pre-index history								
Had sufficient pre-index continuous enrollment	1,586,072	20,811	1,497,054	29,569	1,586,072	20,811	1,572,333	40,475
Met inclusion and exclusion criteria ¹	1,195,638	390,434	1,102,792	394,262	1,195,638	390,434	1,404,948	167,385
<i>Evidence of dpp_washout</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	59,690
<i>Evidence of gest_diabetes</i>	N/A	166	N/A	132	N/A	166	N/A	100
<i>Evidence of glp_washout</i>	N/A	118,471	N/A	N/A	N/A	118,471	N/A	N/A
<i>Evidence of insulin_noad</i>	N/A	32,452	N/A	27,311	N/A	32,452	N/A	8,209
<i>Evidence of no_glpdpp</i>	N/A	N/A	N/A	363,457	N/A	N/A	N/A	N/A
<i>Evidence of no_glpsglit</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	127,979
<i>Evidence of no_sgltdpp</i>	N/A	358,926	N/A	N/A	N/A	358,926	N/A	N/A
<i>Evidence of pregnancy</i>	N/A	5,789	N/A	5,476	N/A	5,789	N/A	3,454
<i>Evidence of secondary_diabetes</i>	N/A	25,276	N/A	24,789	N/A	25,276	N/A	14,002
<i>Evidence of sglit_washout</i>	N/A	N/A	N/A	101,934	N/A	N/A	N/A	N/A
<i>Evidence of type1_diabetes</i>	N/A	16,384	N/A	15,480	N/A	16,384	N/A	9,052
<i>No evidence of type2_Diabetes</i>	N/A	75,113	N/A	71,301	N/A	75,113	N/A	32,202
Met event incidence criteria	1,195,638	0	1,102,792	0	1,195,638	0	1,404,948	0
Had sufficient post-index continuous enrollment	1,195,638	0	1,102,792	0	1,195,638	0	1,404,948	0
Had minimum days' supply on index date	1,195,638	0	1,102,792	0	1,195,638	0	1,404,948	0
Had index episode of at least required length	1,195,638	0	1,102,792	0	1,195,638	0	1,404,948	0

Table 8. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	GLP-1RA or SGLT-2i Users, 2.5% truncation				GLP-1RA or DPP-4i Users, 0% truncation			
	GLP-1 Receptor Agonists		SGLT-2 Inhibitors		GLP-1 Receptor Agonists		DPP-4 Inhibitors	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Members with required pre-index history								
Had index episode longer than blackout period	1,195,439	199	1,102,599	193	1,195,439	199	*****	*****
Did not have an event during blackout period	1,195,410	29	1,102,564	35	1,195,410	29	1,404,808	*****
Final cohort								
Number of members	1,195,410	N/A	1,102,564	N/A	1,195,410	N/A	1,404,808	N/A
Number of episodes	1,195,410	N/A	1,102,564	N/A	1,195,410	N/A	1,404,808	N/A
Members meeting comparative cohort eligibility requirements								
Excluded due to same-day initiation of both exposure groups	1,195,410	0	1,102,564	0	1,195,410	0	1,404,808	0
Excluded due to prior initiation of other exposure group	1,150,899	44,511	1,066,974	35,590	1,139,505	55,905	1,390,017	14,791
Excluded due to propensity score trimming	1,150,860	39	1,066,956	18	1,139,391	114	1,389,967	50
Included in comparative analysis	1,150,860	0	1,066,956	0	1,139,391	0	1,389,967	0
Additional information								
Number of events in comparative analysis	837	N/A	606	N/A	824	N/A	1,087	N/A
Number of patients with a truncated inverse probability of treatment weight	35,255	N/A	75,636	N/A	N/A	N/A	N/A	N/A

Table 8. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	GLP-1RA or DPP-4i Users, 1% truncation				GLP-1RA or DPP-4i Users, 2.5% truncation			
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		GLP-1 Receptor Agonists		DPP-4 Inhibitors	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Members meeting enrollment and demographic requirements								
Enrolled at any point during the query period	3,482,482	N/A	3,482,482	N/A	3,482,482	N/A	3,482,482	N/A
Had required coverage type (medical and/or drug coverage)	3,482,482	0	3,482,482	0	3,482,482	0	3,482,482	0
Enrolled during specified age range	3,482,482	0	3,482,482	0	3,482,482	0	3,482,482	0
Had requestable medical charts	3,482,482	0	3,482,482	0	3,482,482	0	3,482,482	0
Met demographic requirements (sex, race, and Hispanic origin)	3,482,482	0	3,482,482	0	3,482,482	0	3,482,482	0
Members with a valid index event								
Had any cohort-defining claim during the query period	1,609,696	1,872,786	1,633,369	1,849,113	1,609,696	1,872,786	1,633,369	1,849,113
Claim recorded during specified age range	1,609,679	17	1,633,348	21	1,609,679	17	1,633,348	21
Episode defining index claim recorded during the query period	1,606,883	2,796	1,612,808	20,540	1,606,883	2,796	1,612,808	20,540
Members with required pre-index history								
Had sufficient pre-index continuous enrollment	1,586,072	20,811	1,572,333	40,475	1,586,072	20,811	1,572,333	40,475
Met inclusion and exclusion criteria ¹	1,195,638	390,434	1,404,948	167,385	1,195,638	390,434	1,404,948	167,385
<i>Evidence of dpp_washout</i>	N/A	N/A	N/A	59,690	N/A	N/A	N/A	59,690
<i>Evidence of gest_diabetes</i>	N/A	166	N/A	100	N/A	166	N/A	100
<i>Evidence of glp_washout</i>	N/A	118,471	N/A	N/A	N/A	118,471	N/A	N/A
<i>Evidence of insulin_noad</i>	N/A	32,452	N/A	8,209	N/A	32,452	N/A	8,209
<i>Evidence of no_glpdpp</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Evidence of no_glpsglit</i>	N/A	N/A	N/A	127,979	N/A	N/A	N/A	127,979
<i>Evidence of no_sgltdpp</i>	N/A	358,926	N/A	N/A	N/A	358,926	N/A	N/A
<i>Evidence of pregnancy</i>	N/A	5,789	N/A	3,454	N/A	5,789	N/A	3,454
<i>Evidence of secondary_diabetes</i>	N/A	25,276	N/A	14,002	N/A	25,276	N/A	14,002
<i>Evidence of sglit_washout</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Evidence of type1_diabetes</i>	N/A	16,384	N/A	9,052	N/A	16,384	N/A	9,052
<i>No evidence of type2_Diabetes</i>	N/A	75,113	N/A	32,202	N/A	75,113	N/A	32,202
Met event incidence criteria	1,195,638	0	1,404,948	0	1,195,638	0	1,404,948	0
Had sufficient post-index continuous enrollment	1,195,638	0	1,404,948	0	1,195,638	0	1,404,948	0
Had minimum days' supply on index date	1,195,638	0	1,404,948	0	1,195,638	0	1,404,948	0
Members with required pre-index history								

Table 8. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

	GLP-1RA or DPP-4i Users, 1% truncation				GLP-1RA or DPP-4i Users, 2.5% truncation			
	GLP-1 Receptor Agonists		DPP-4 Inhibitors		GLP-1 Receptor Agonists		DPP-4 Inhibitors	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Had index episode of at least required length	1,195,638	0	1,404,948	0	1,195,638	0	1,404,948	0
Had index episode longer than blackout period	1,195,439	199	*****	*****	1,195,439	199	*****	*****
Did not have an event during blackout period	1,195,410	29	1,404,808	*****	1,195,410	29	1,404,808	*****
Final cohort								
Number of members	1,195,410	N/A	1,404,808	N/A	1,195,410	N/A	1,404,808	N/A
Number of episodes	1,195,410	N/A	1,404,808	N/A	1,195,410	N/A	1,404,808	N/A
Members meeting comparative cohort eligibility requirements								
Excluded due to same-day initiation of both exposure groups	1,195,410	0	1,404,808	0	1,195,410	0	1,404,808	0
Excluded due to prior initiation of other exposure group	1,139,505	55,905	1,390,017	14,791	1,139,505	55,905	1,390,017	14,791
Excluded due to propensity score trimming	1,139,391	114	1,389,967	50	1,139,391	114	1,389,967	50
Included in comparative analysis	1,139,391	0	1,389,967	0	1,139,391	0	1,389,967	0
Additional information								
Number of events in comparative analysis	824	N/A	1,087	N/A	824	N/A	1,087	N/A
Number of patients with a truncated inverse probability of treatment weight	25,230	N/A	25,356	N/A	63,198	N/A	63,273	N/A

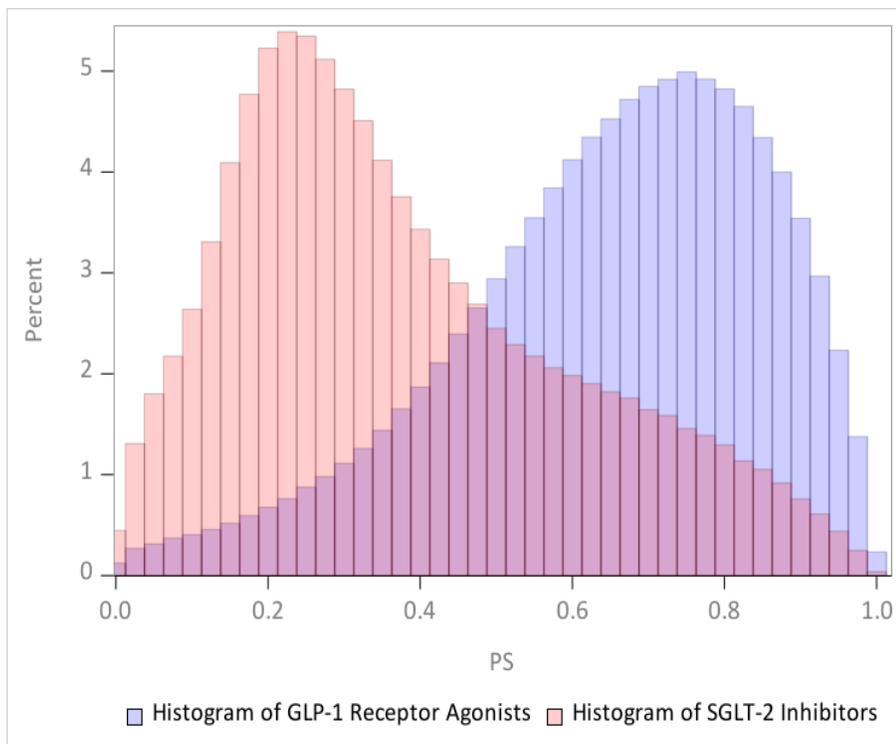
¹Patients can meet multiple inclusion and/or exclusion criteria; therefore, the total number of patients excluded overall may not equal the sum of all patients in each criterion.

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

N/A: Not Applicable

Figure 1a. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

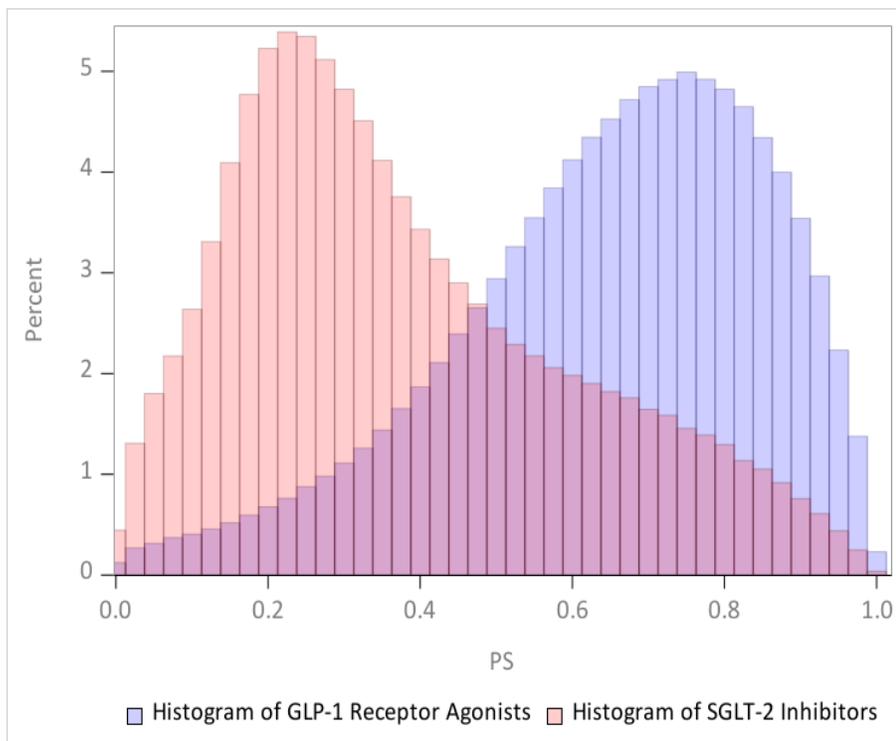


Figure 1a. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

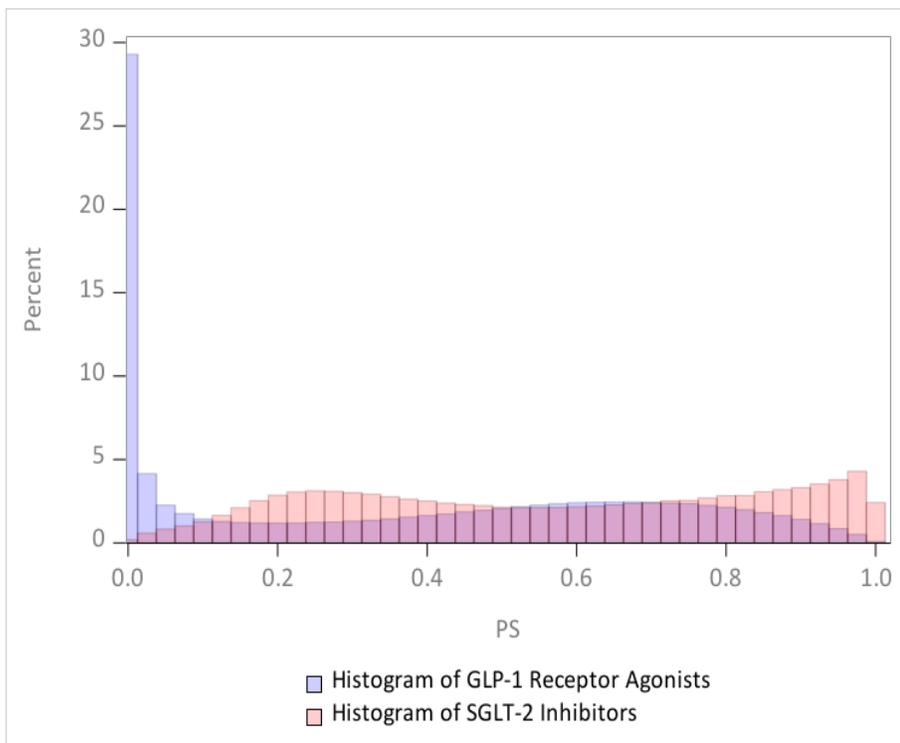
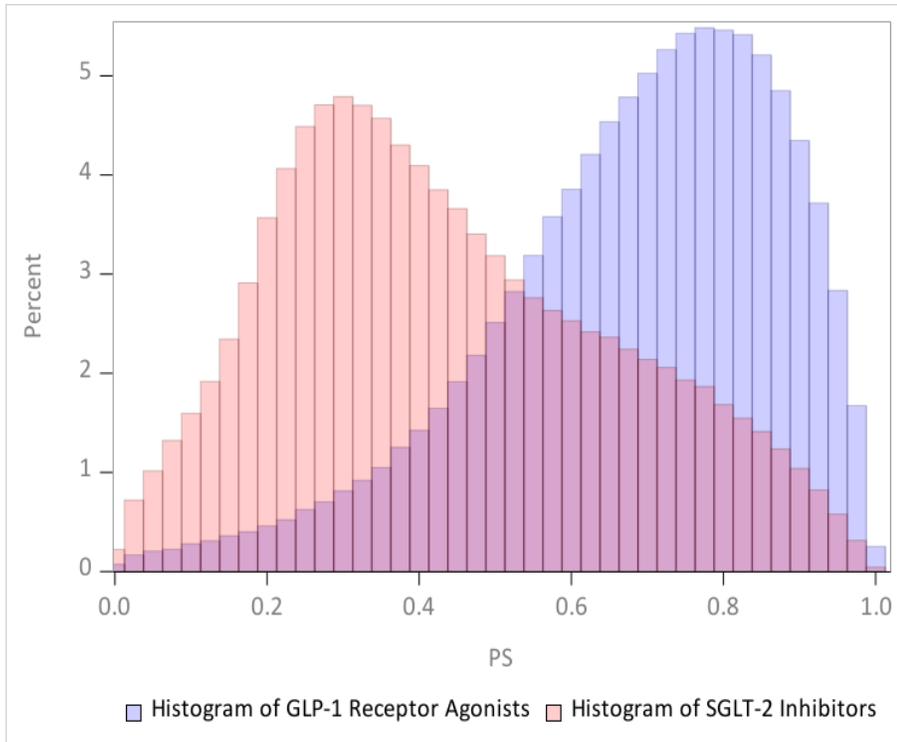


Figure 1b. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

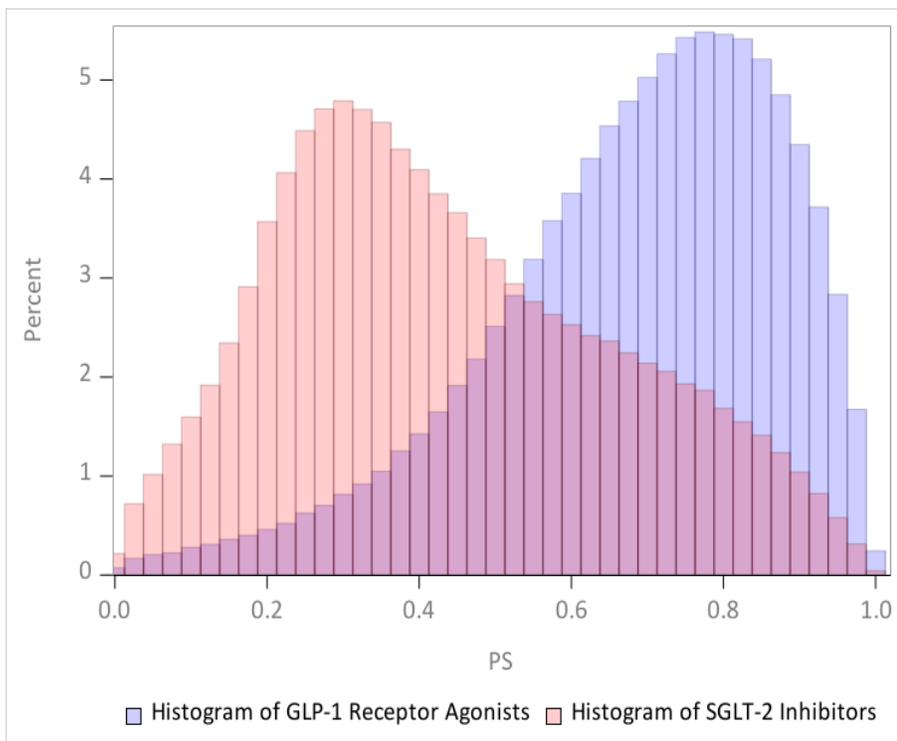


Figure 1b. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

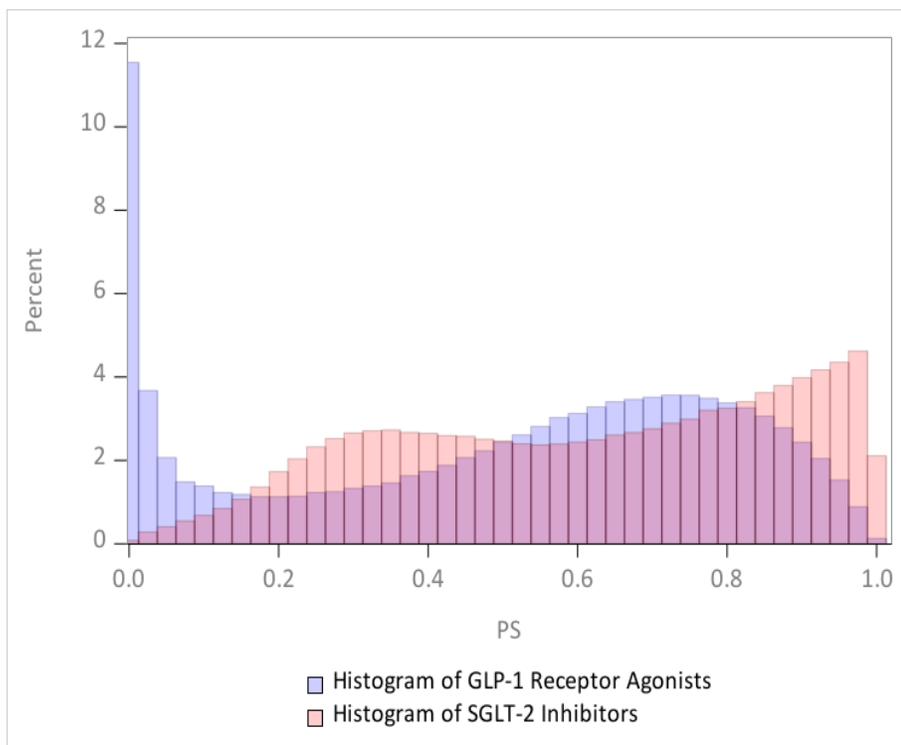
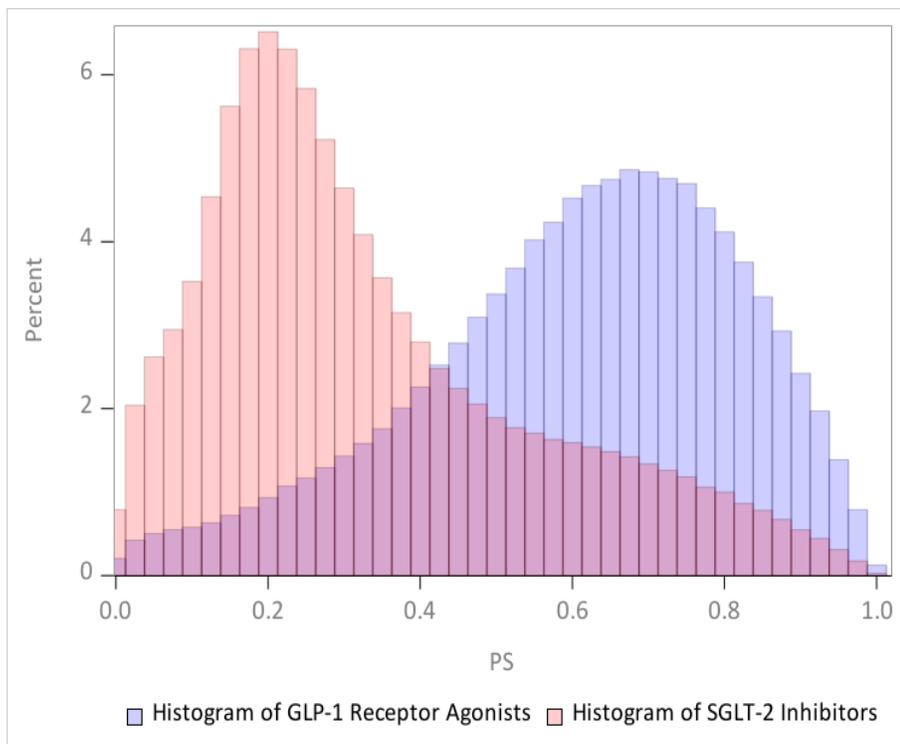


Figure 1c. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

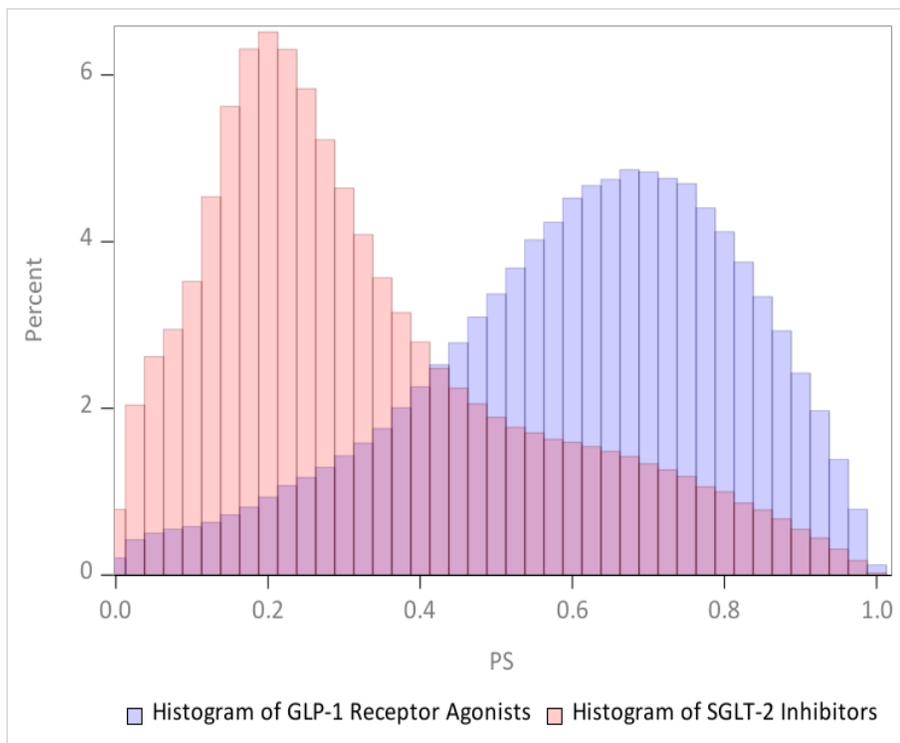


Figure 1c. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

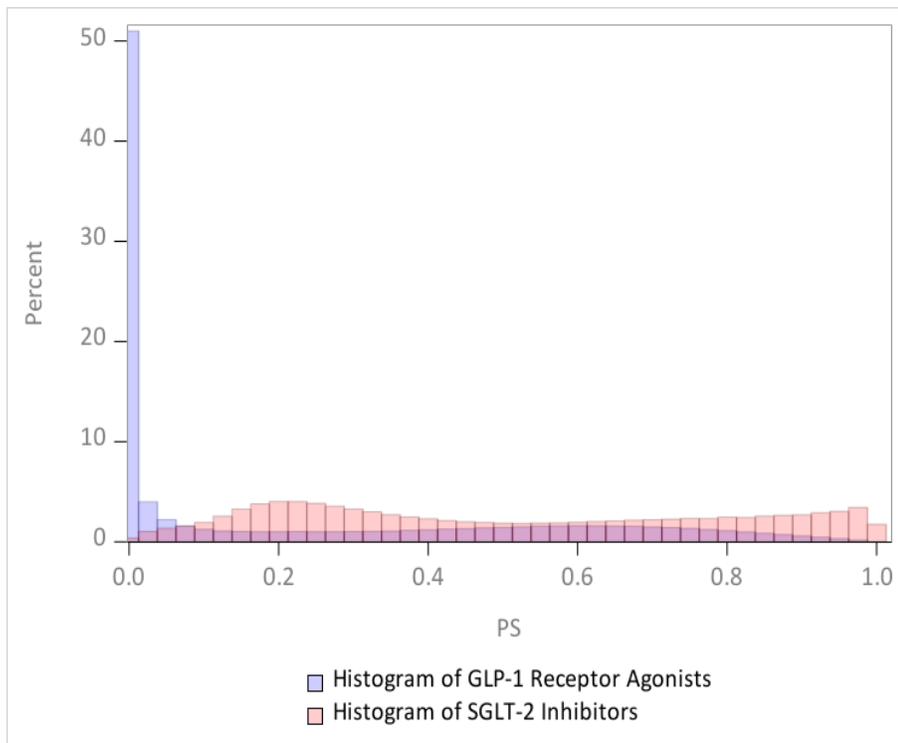
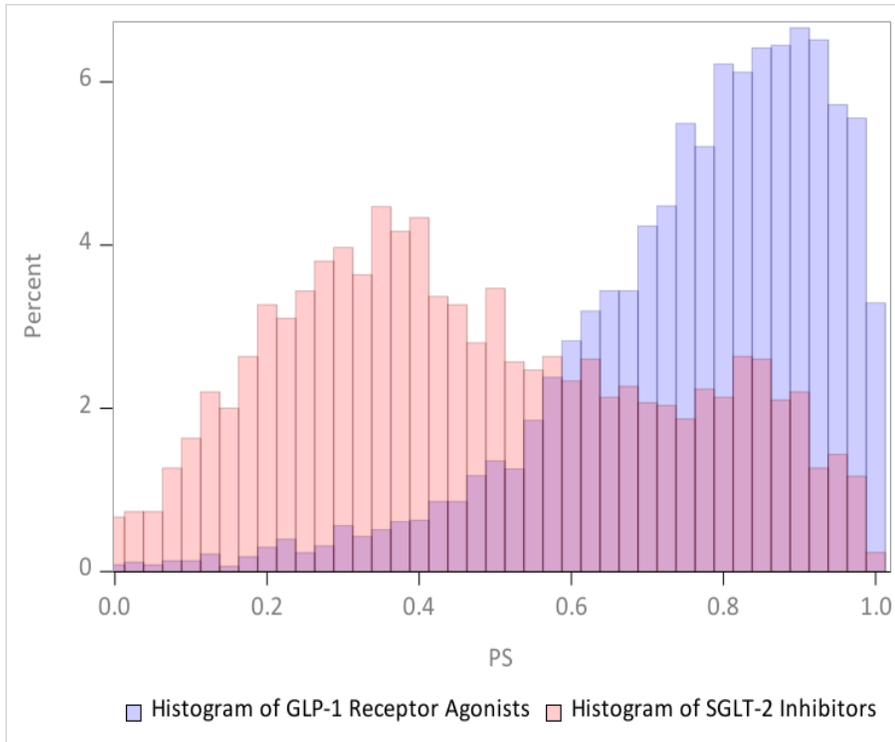


Figure 1d. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

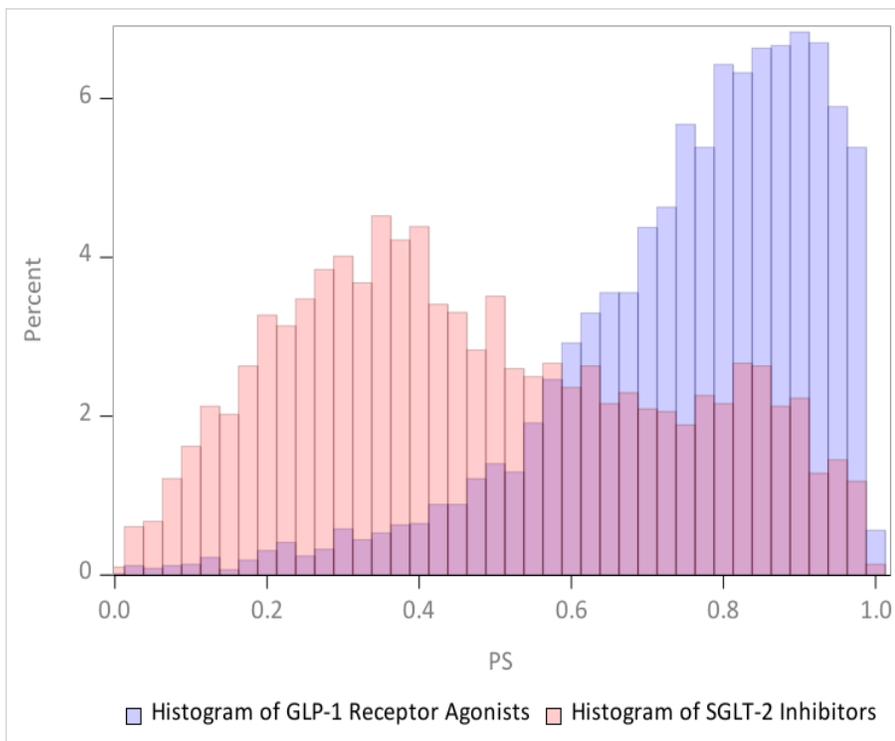


Figure 1d. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

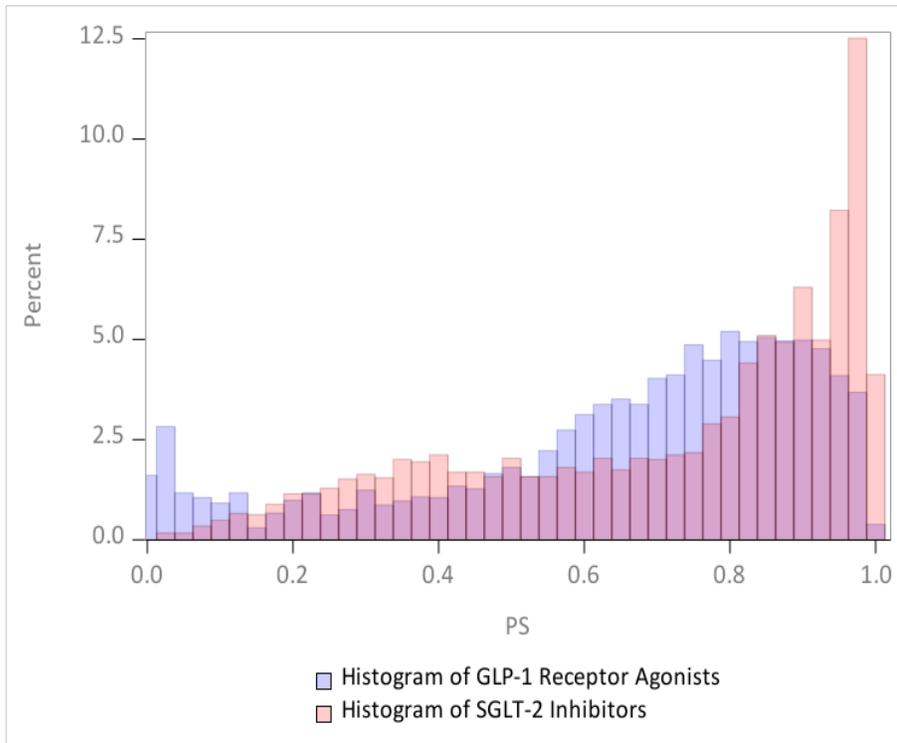
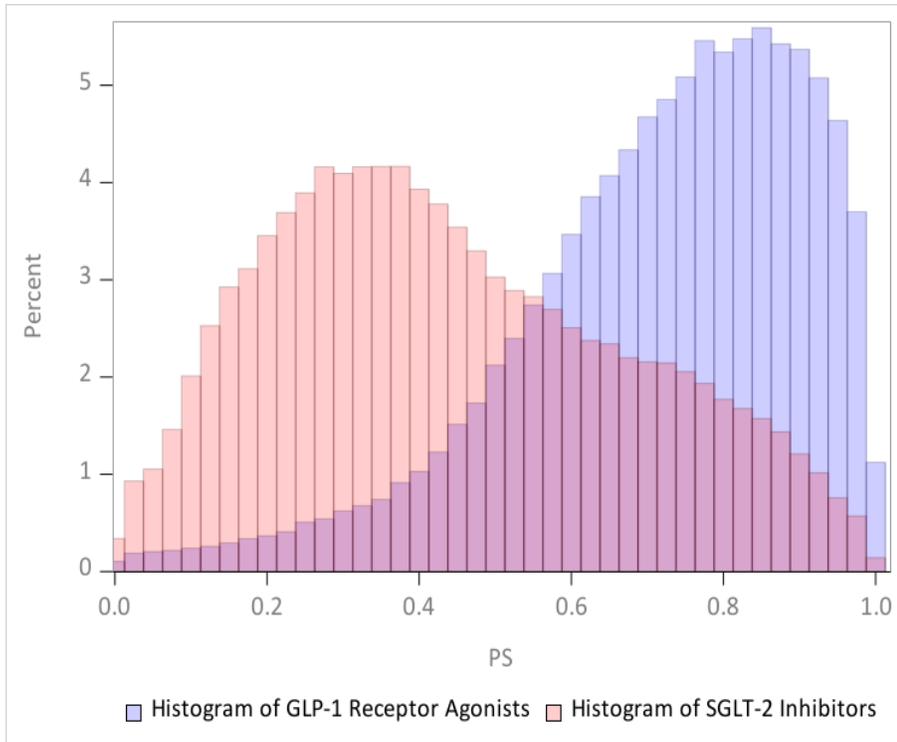


Figure 1e. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

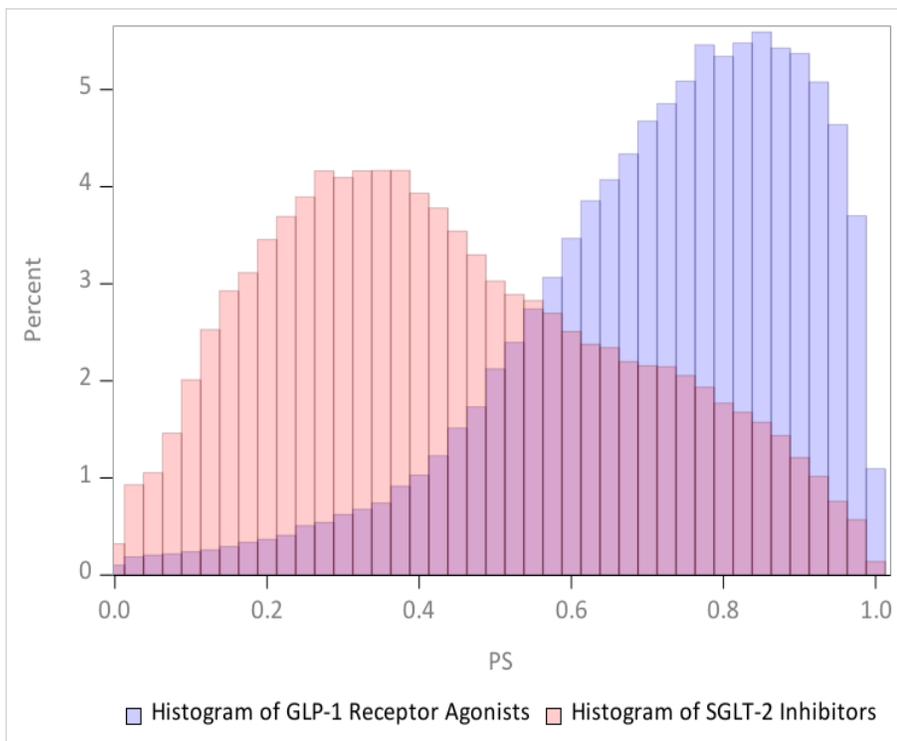


Figure 1e. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

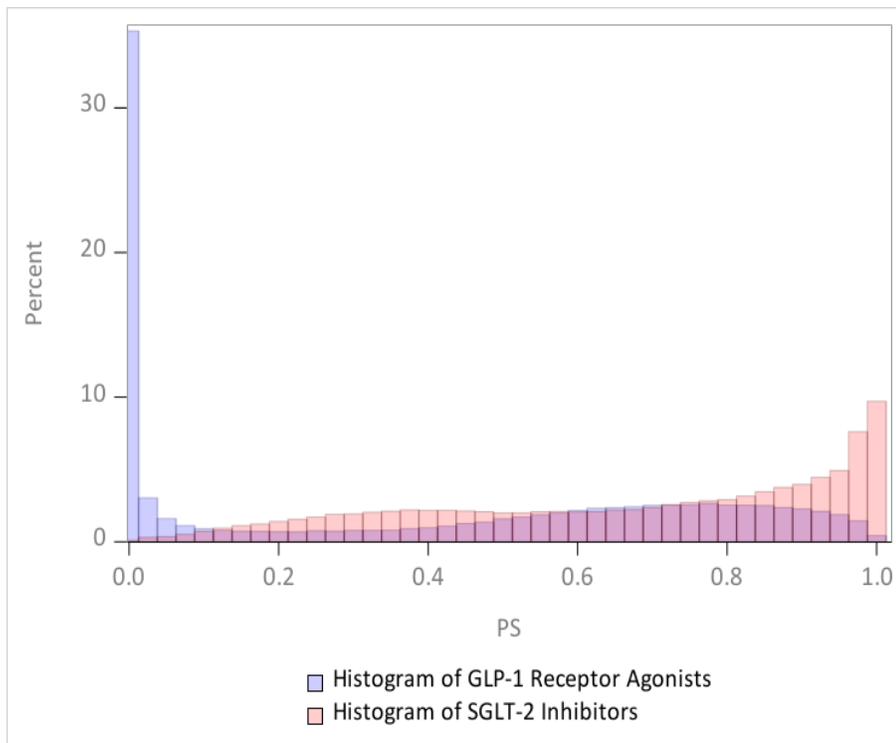
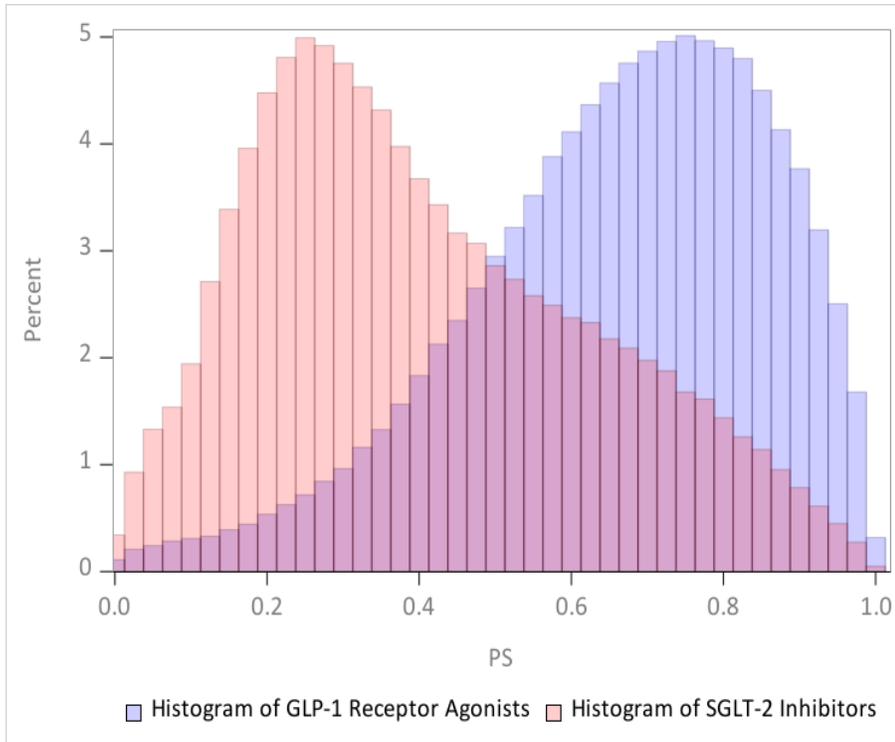


Figure 1f. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

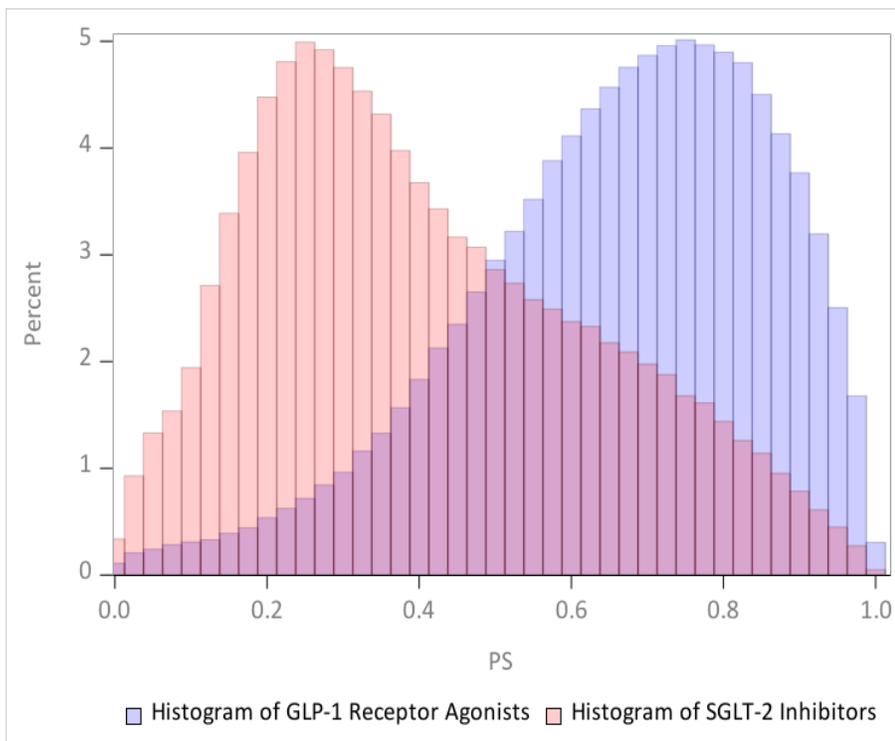


Figure 1f. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

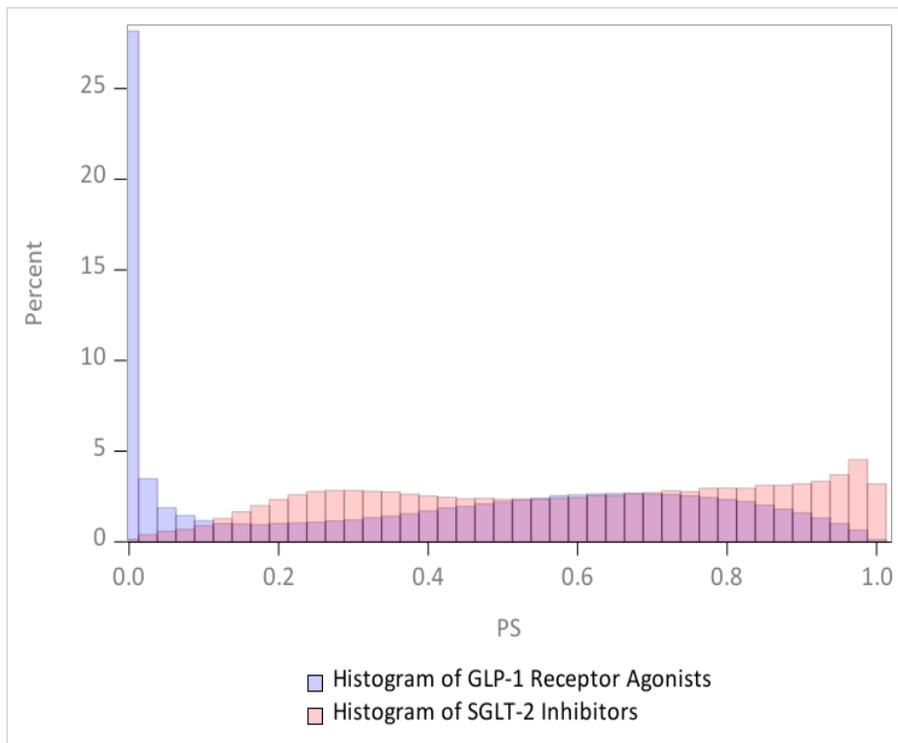
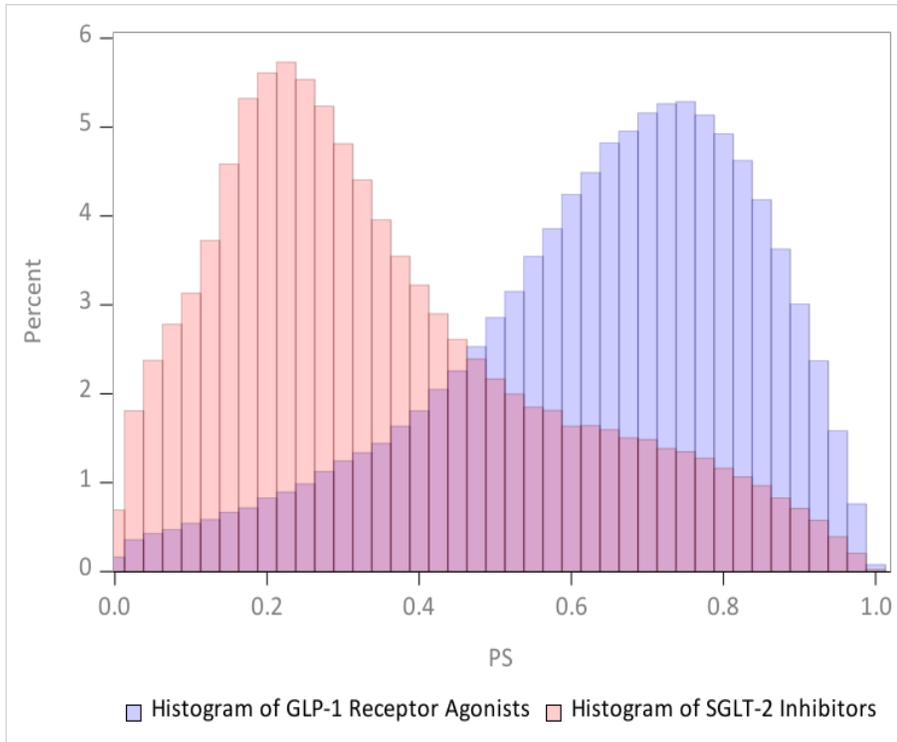


Figure 1g. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

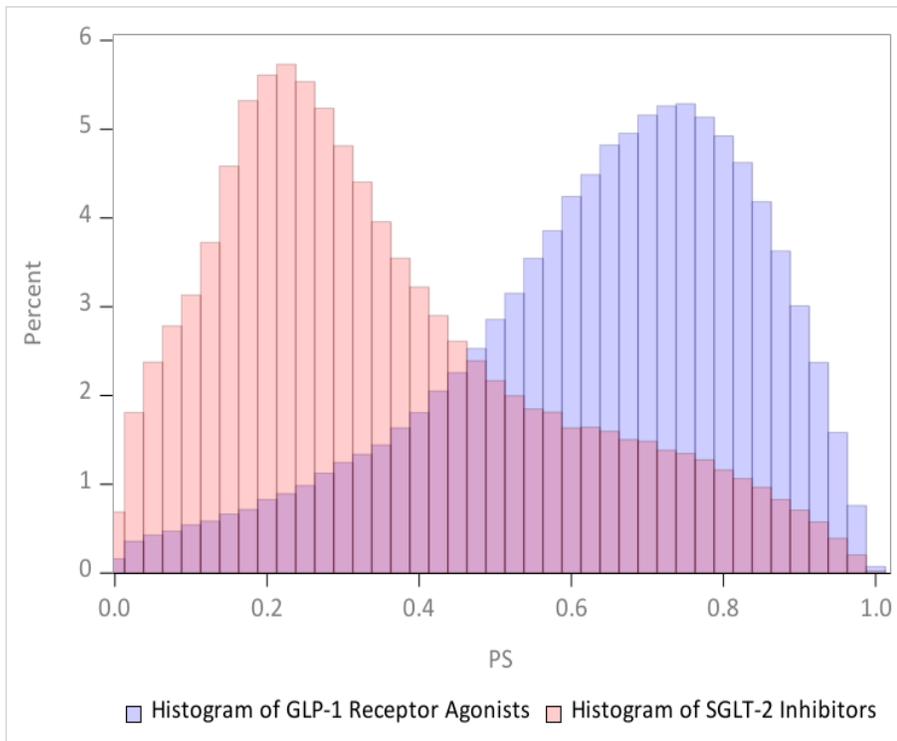


Figure 1g. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

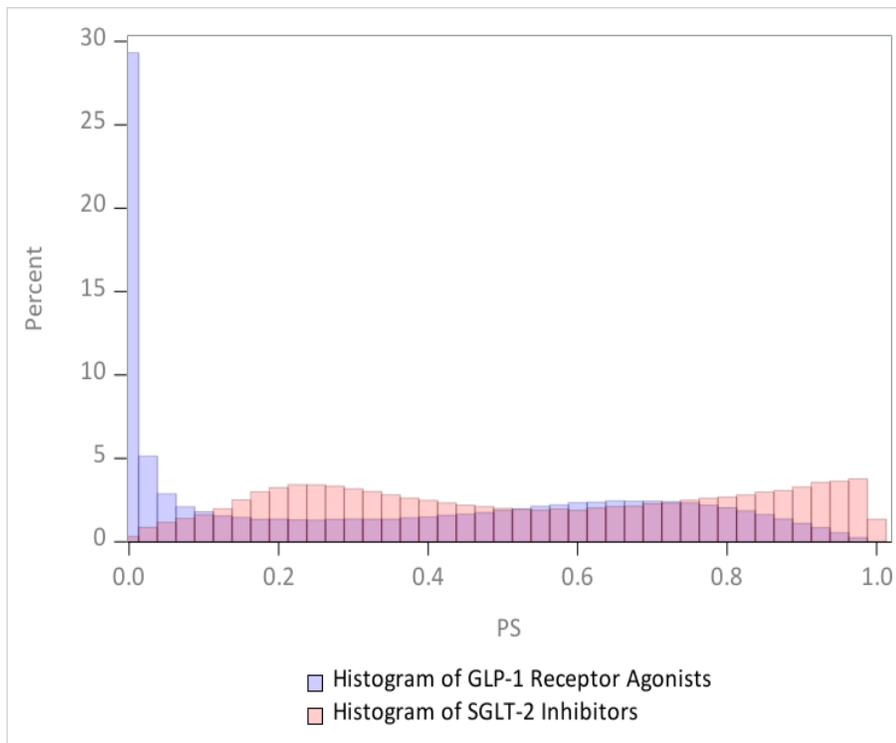
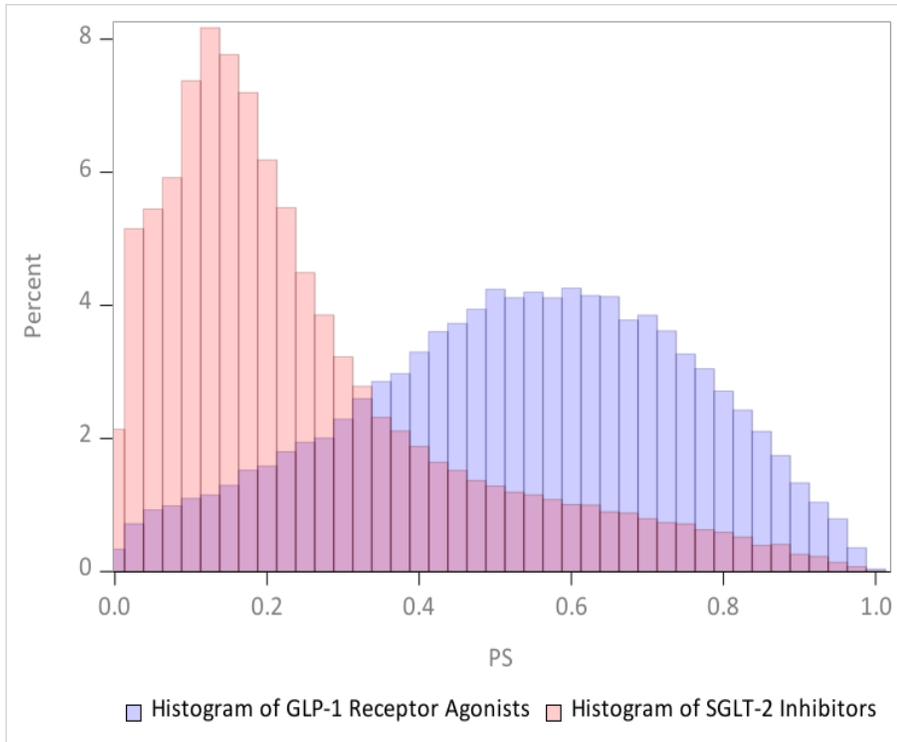


Figure 1h. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

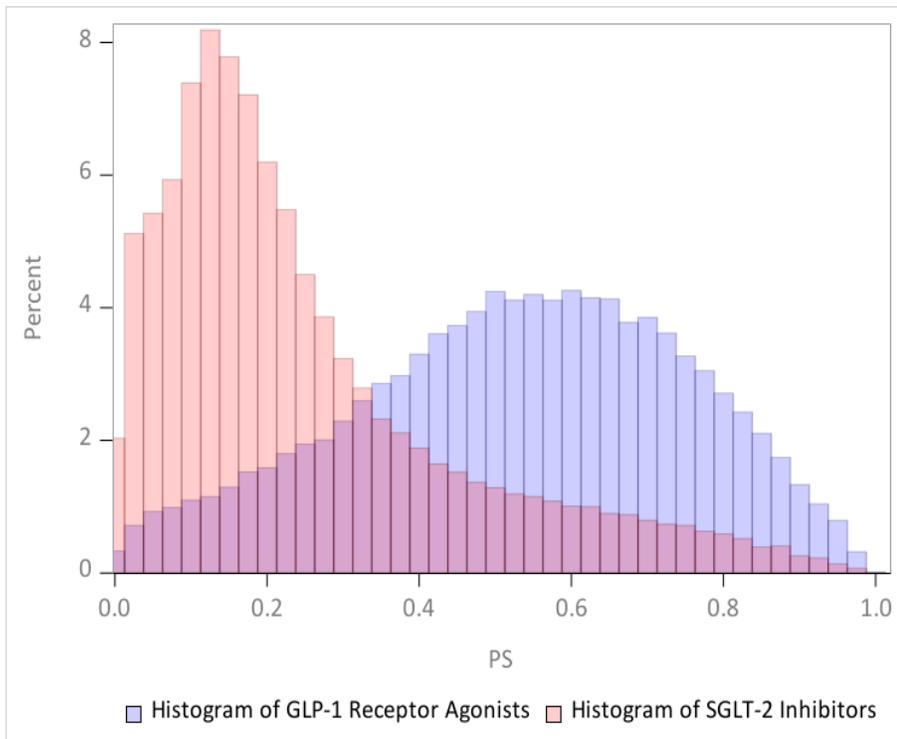


Figure 1h. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

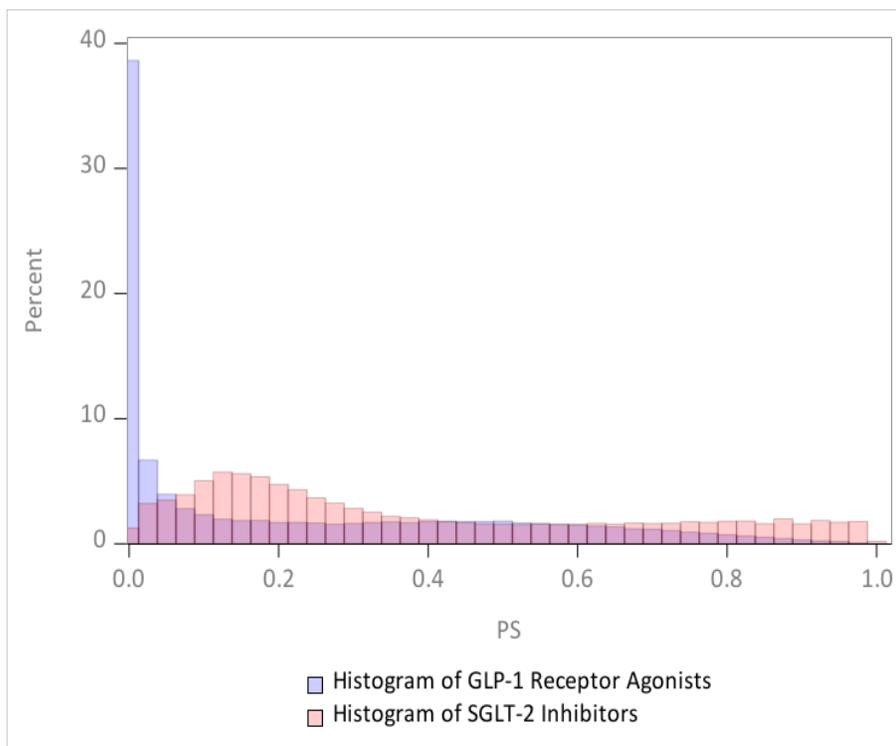
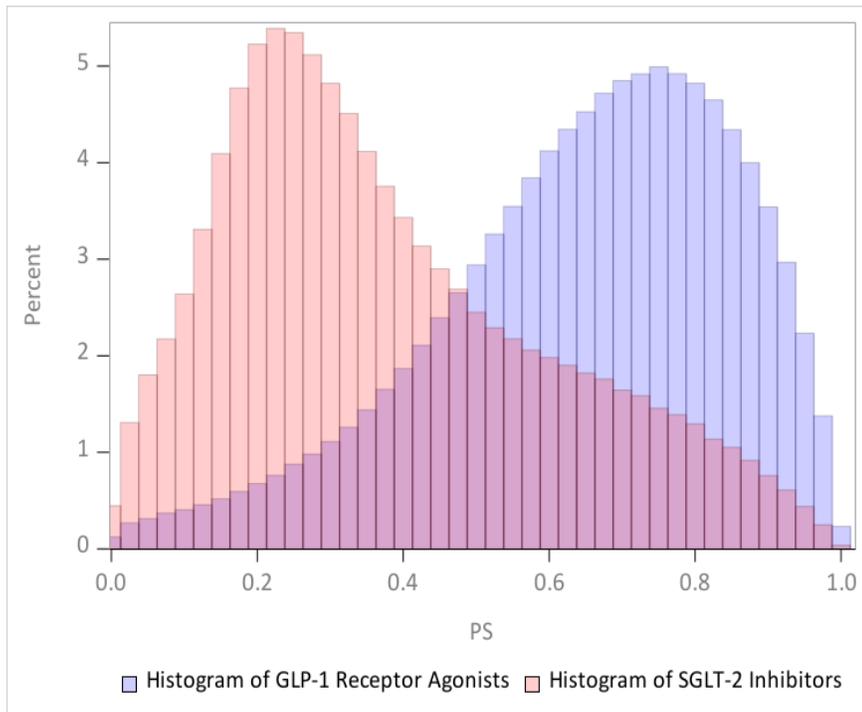


Figure 2a. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

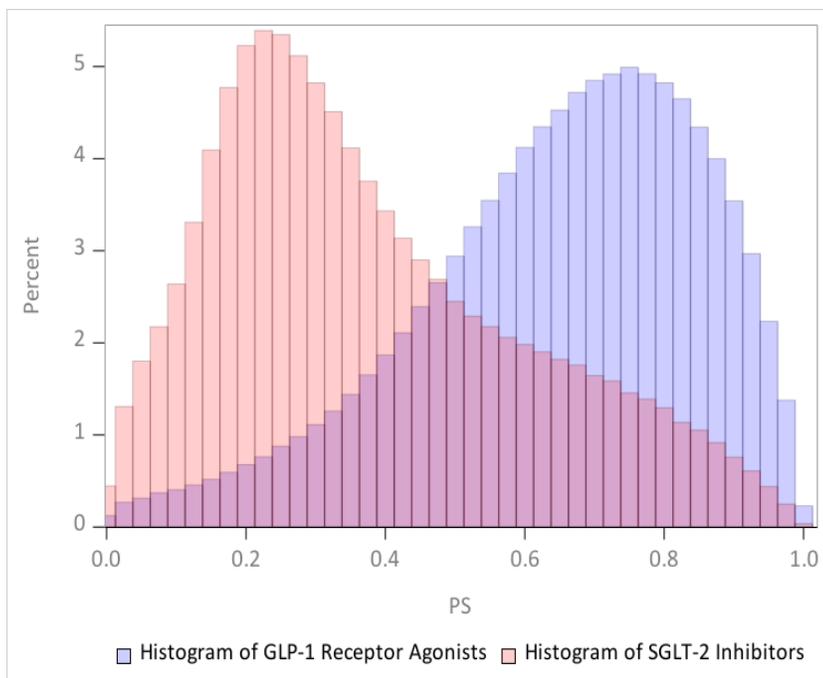


Figure 2a. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

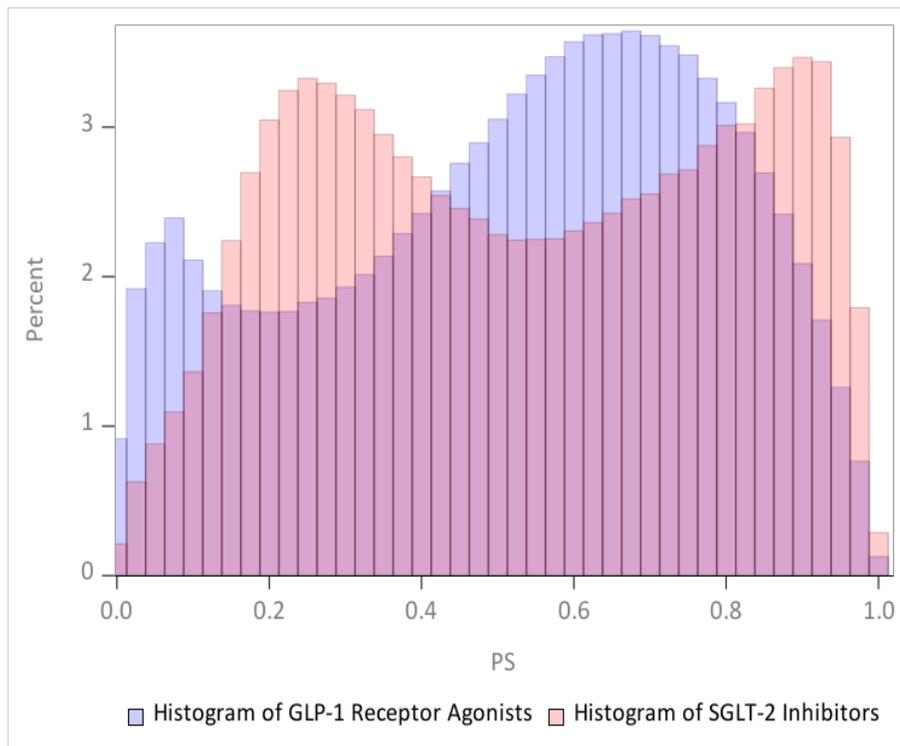
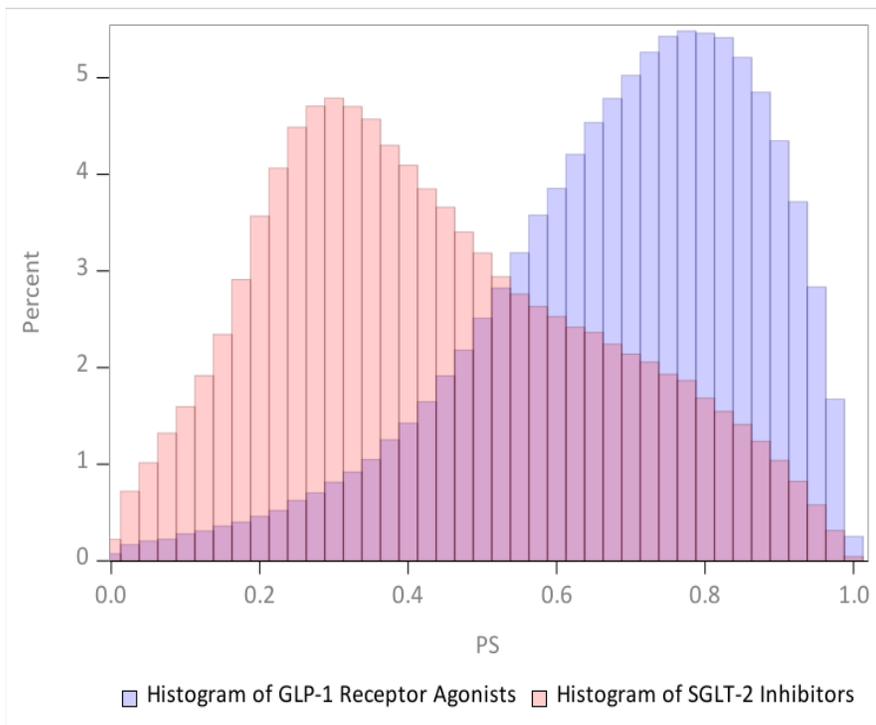


Figure 2b. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

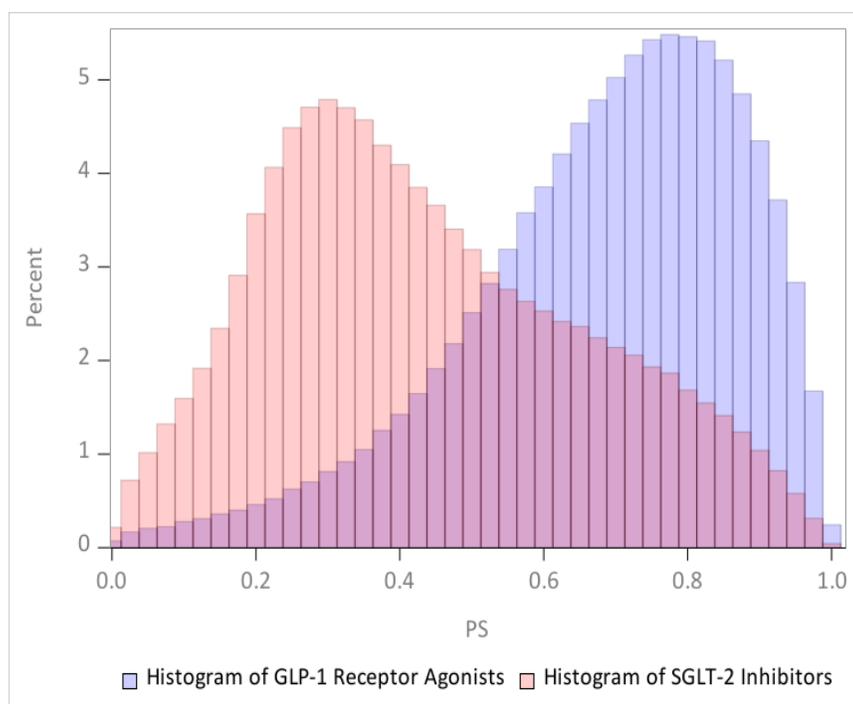


Figure 2b. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

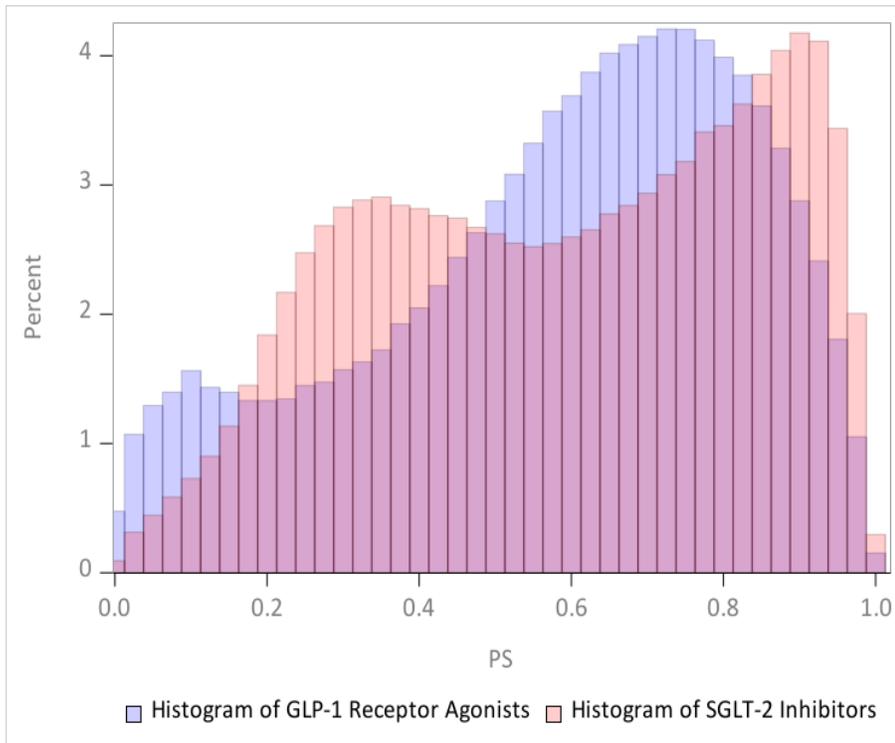
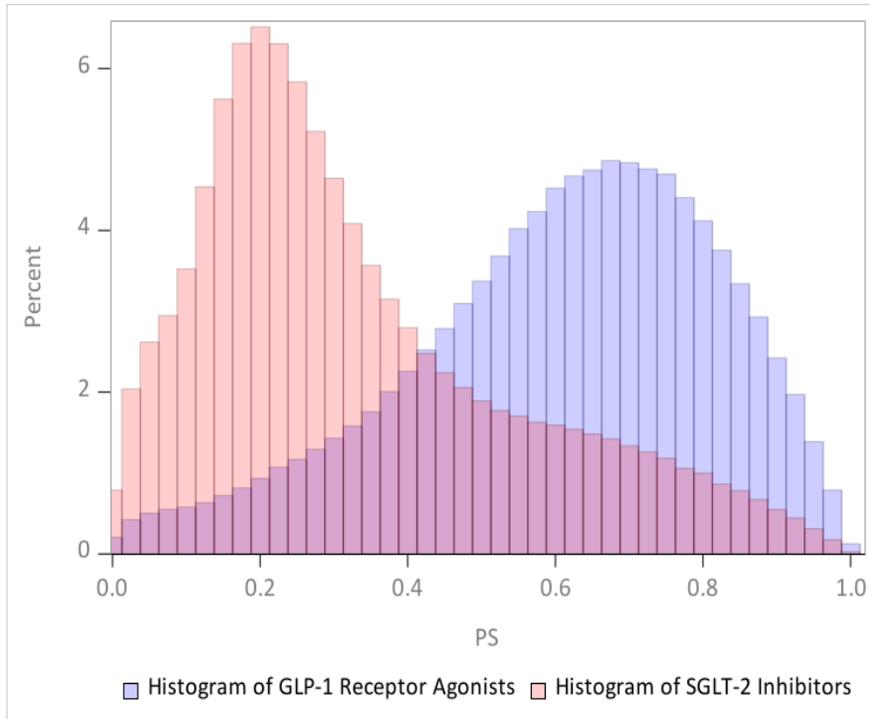


Figure 2c. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

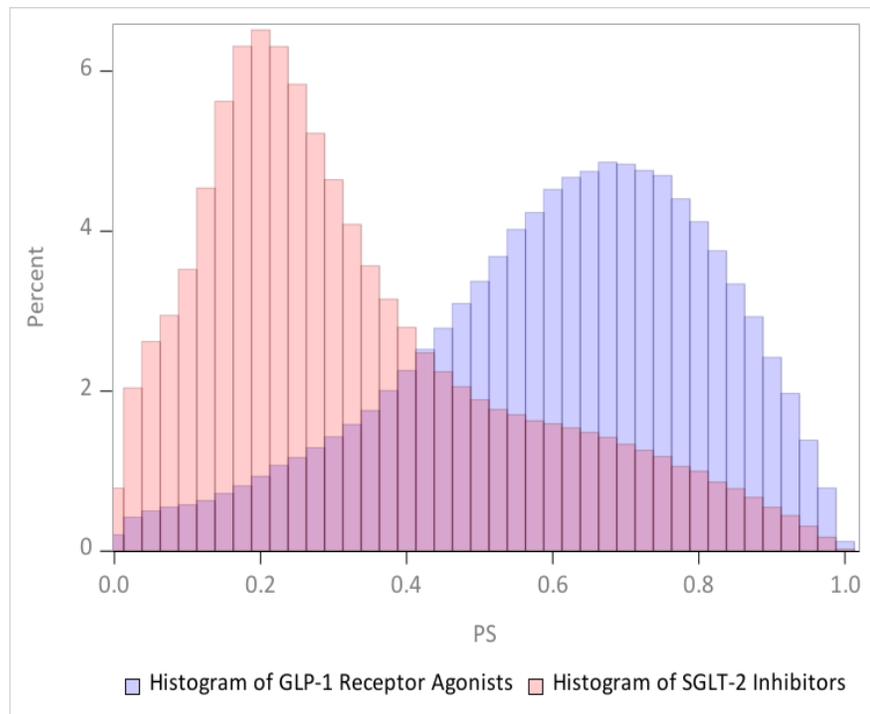


Figure 2c. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

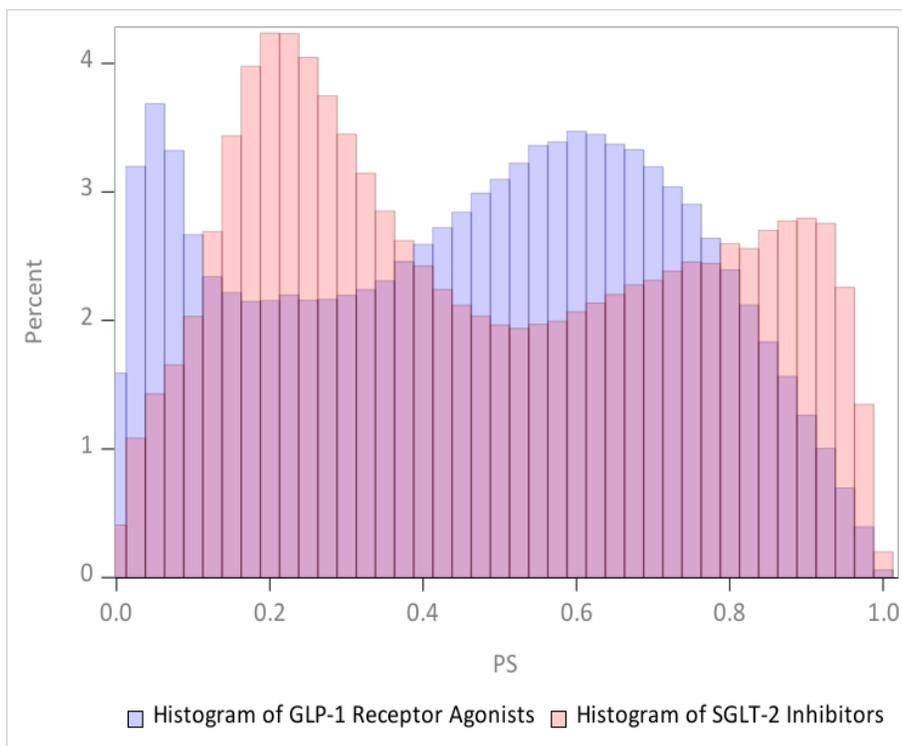
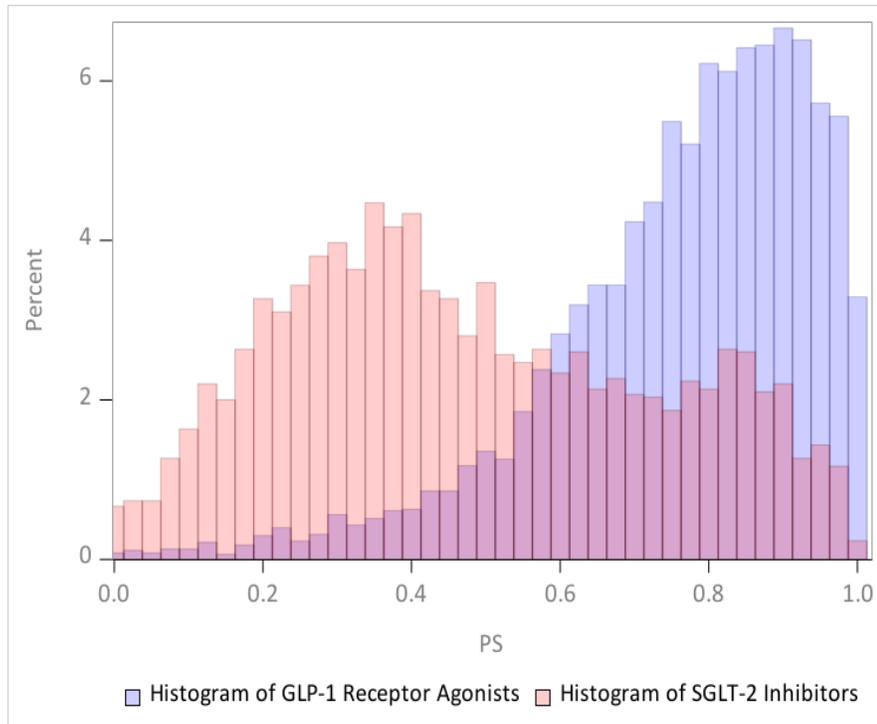


Figure 2d. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

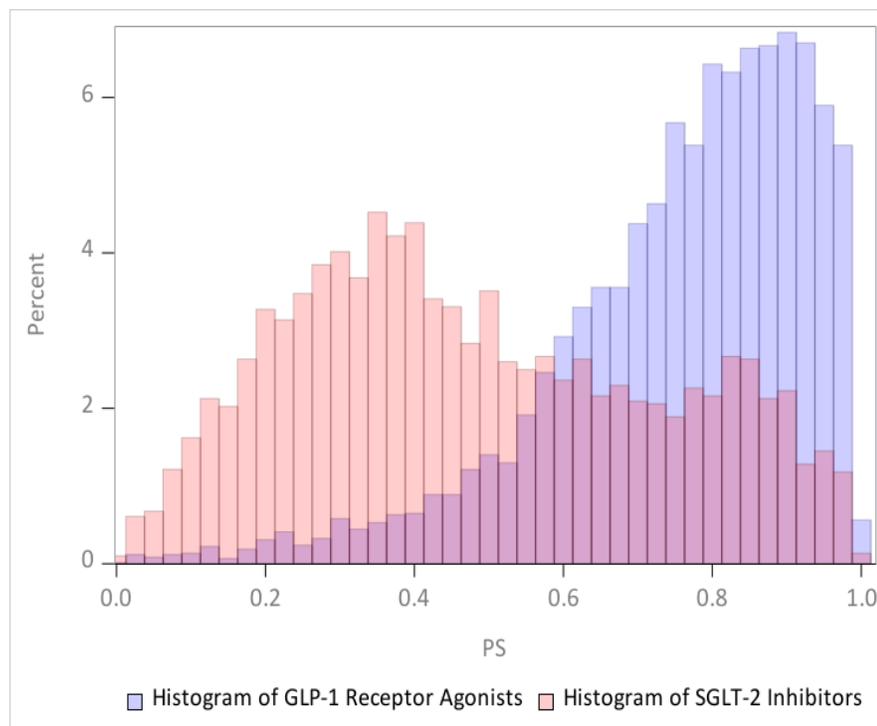


Figure 2d. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

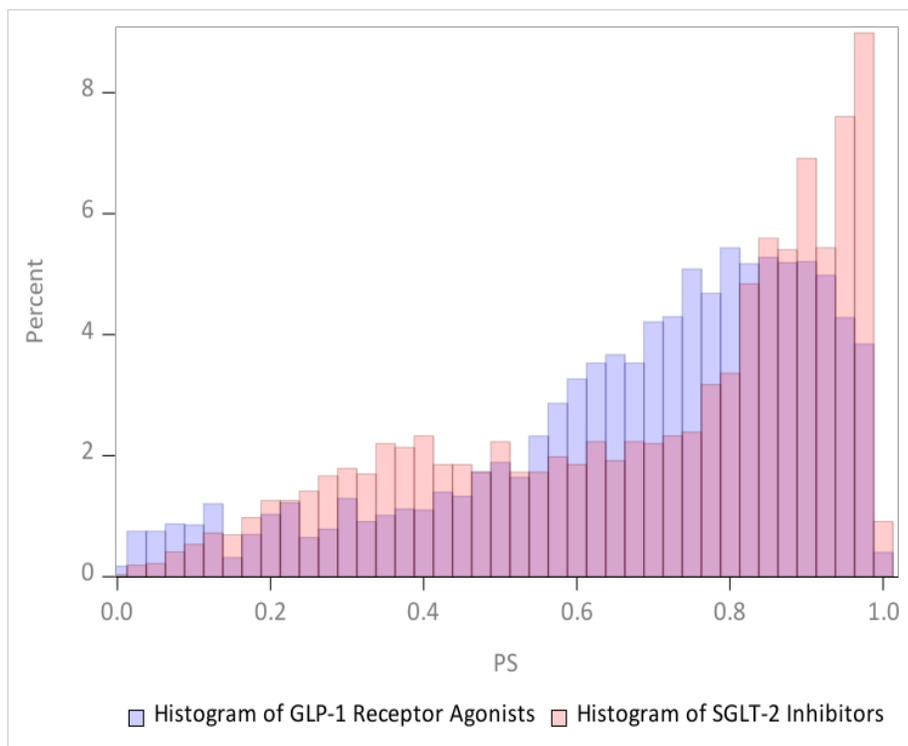
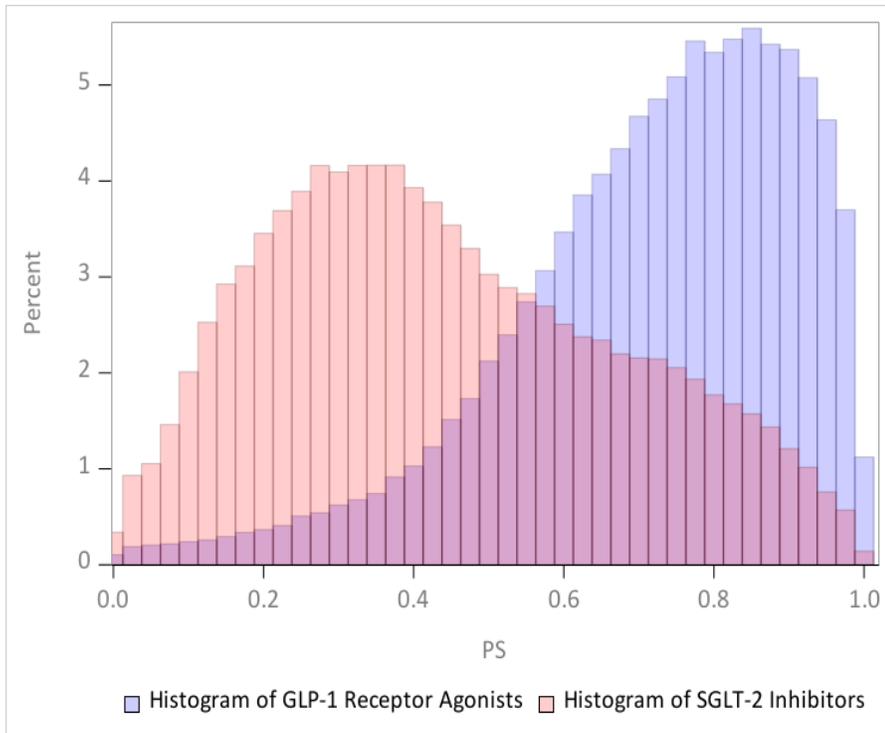


Figure 2e. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

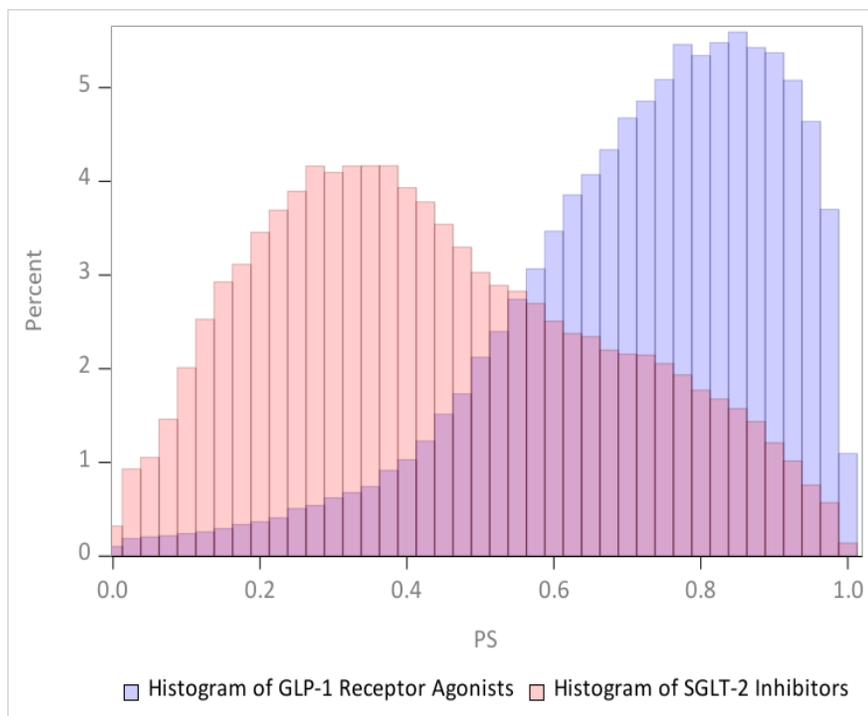


Figure 2e. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

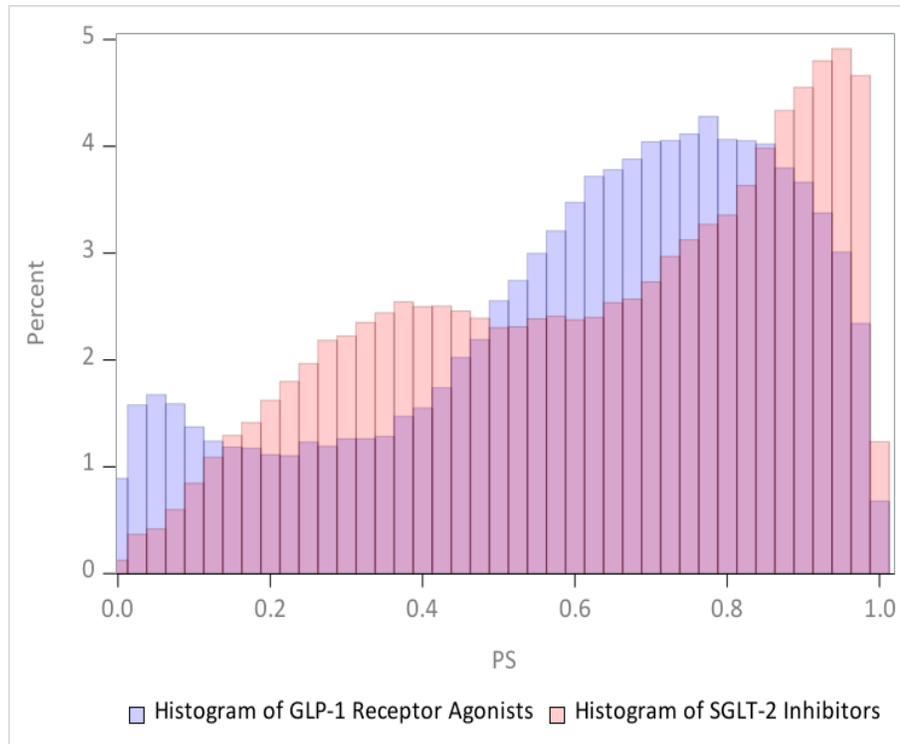
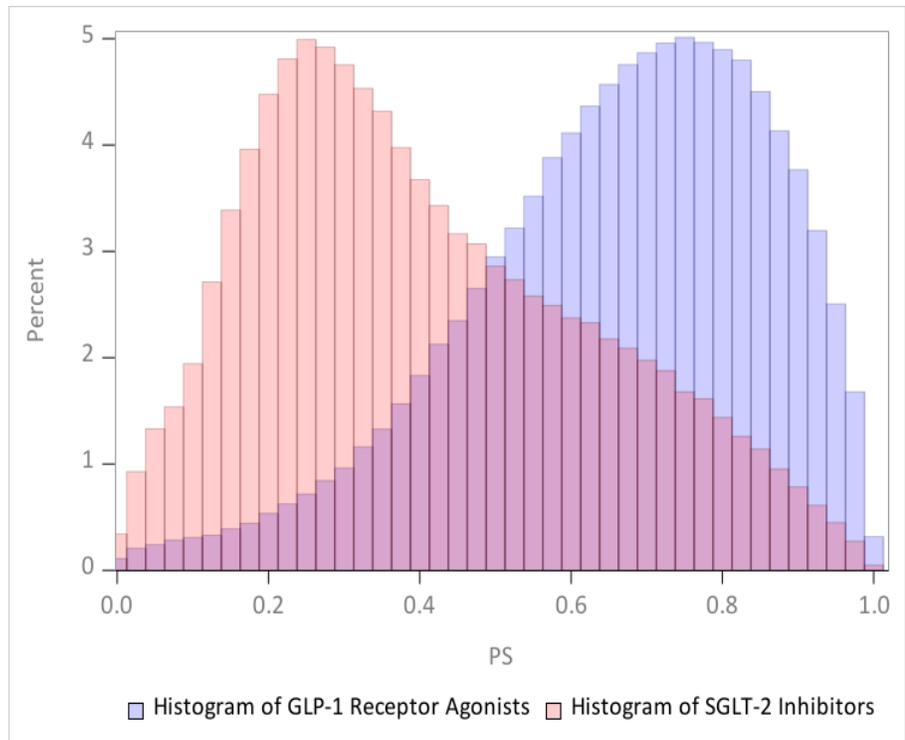


Figure 2f. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

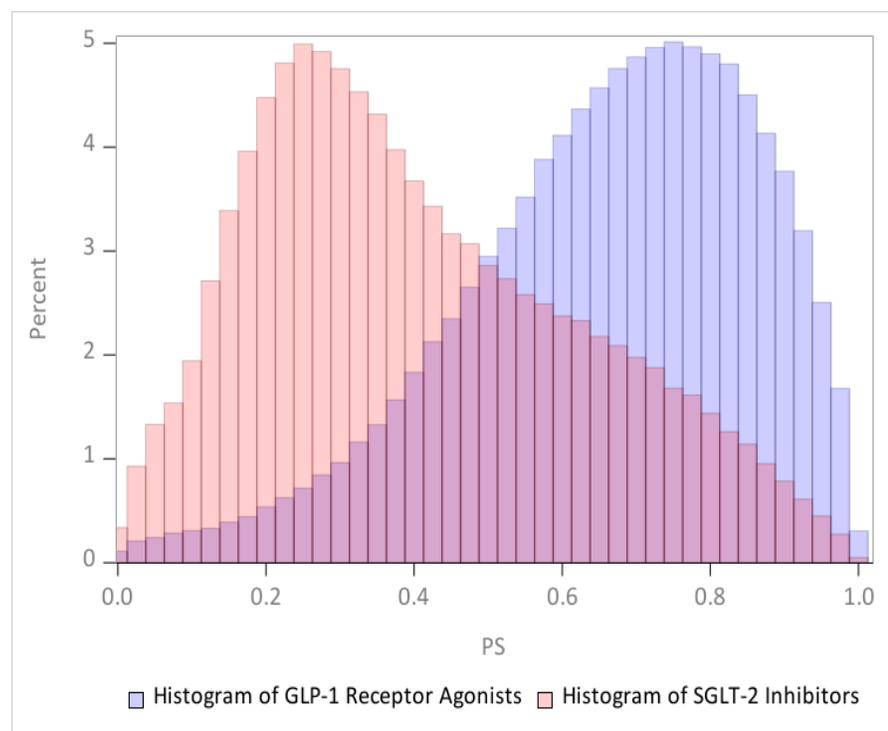


Figure 2f. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

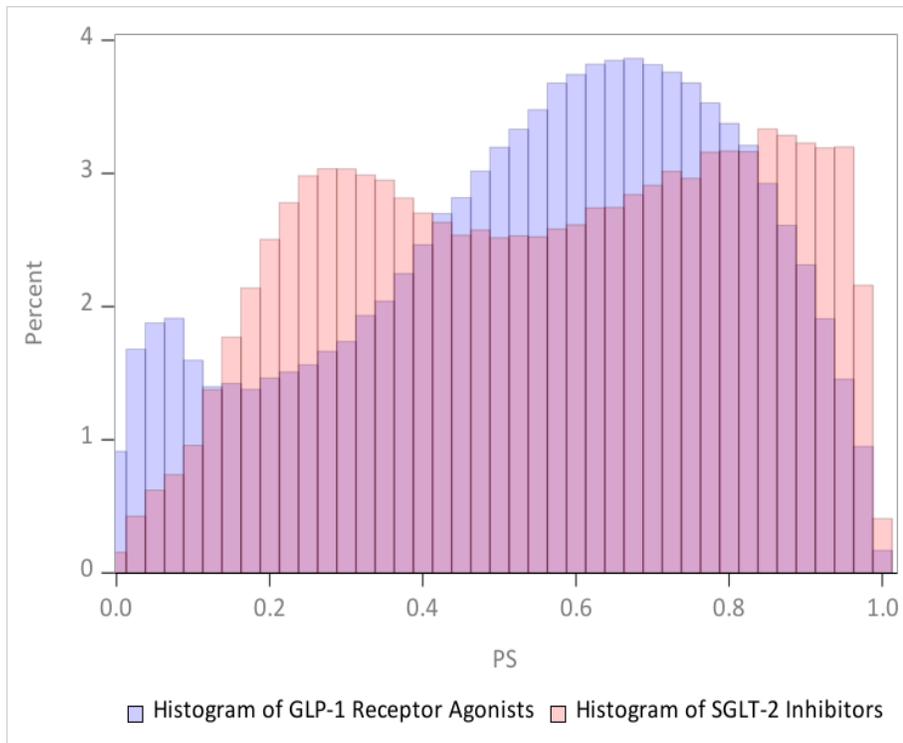
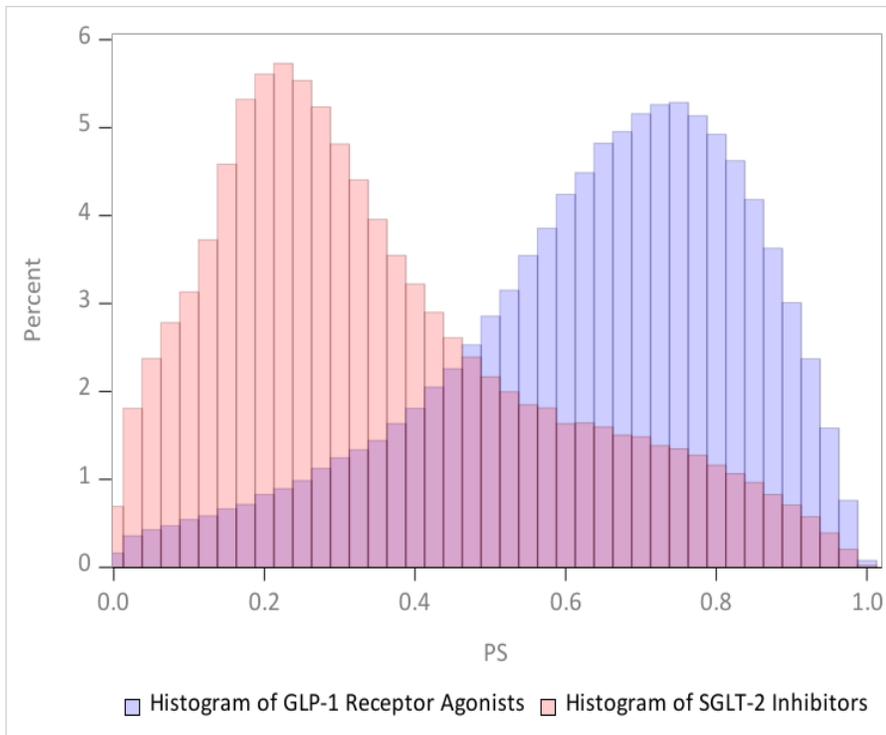


Figure 2g. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

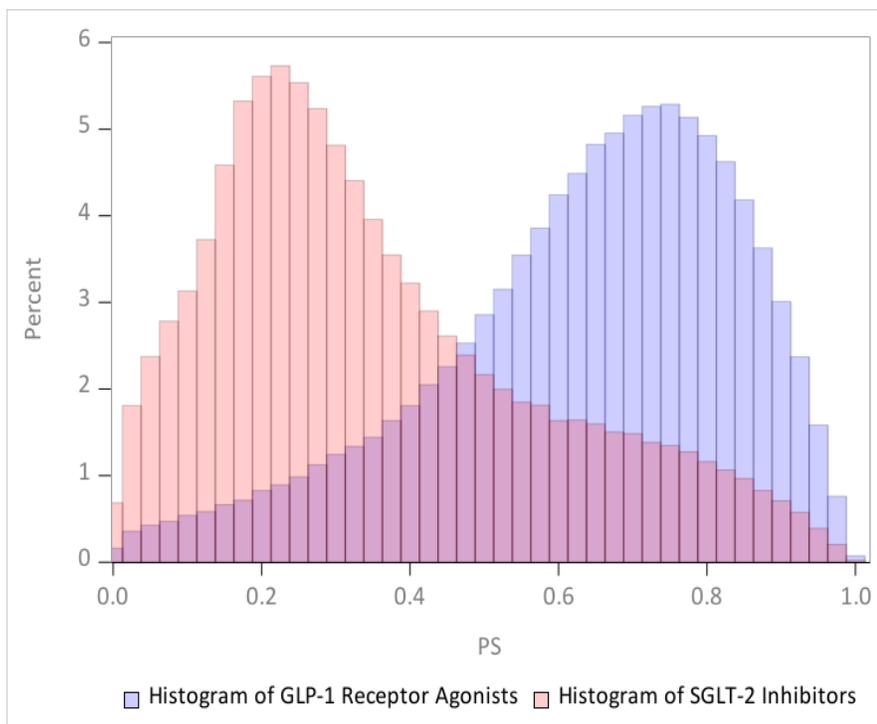


Figure 2g. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

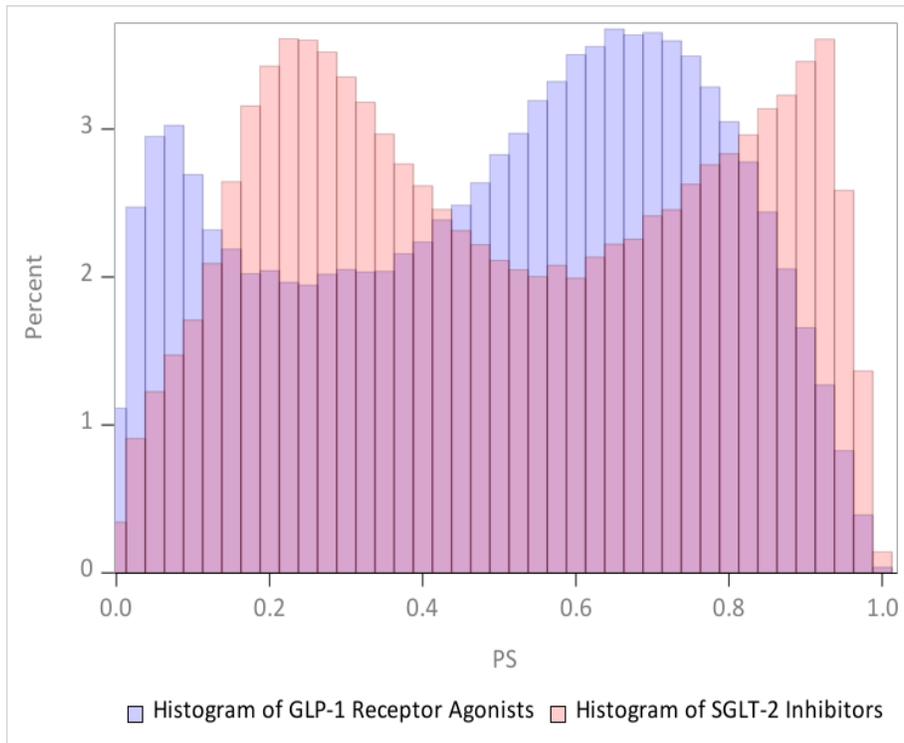
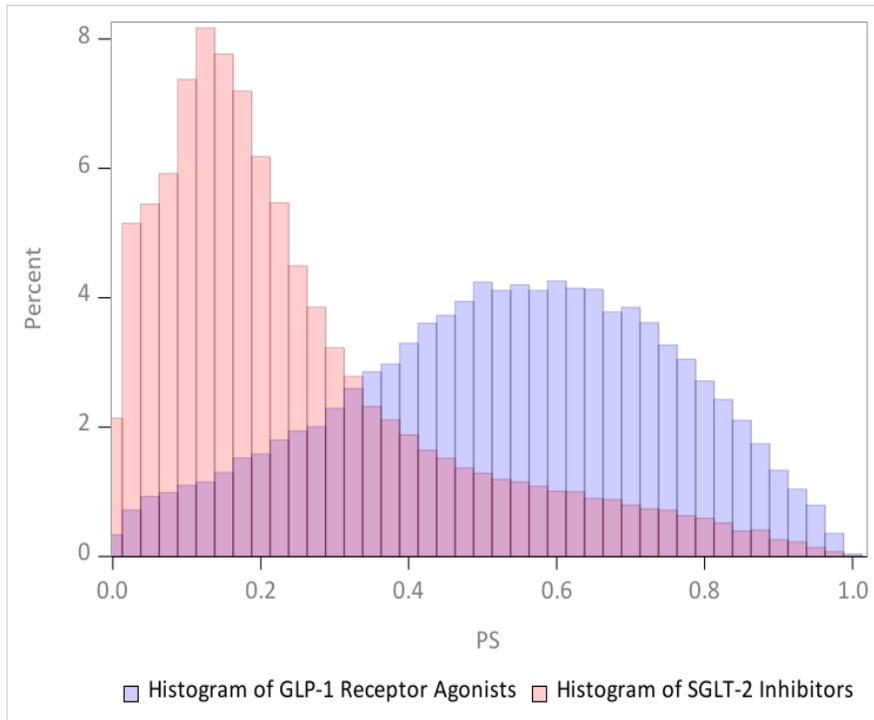


Figure 2h. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

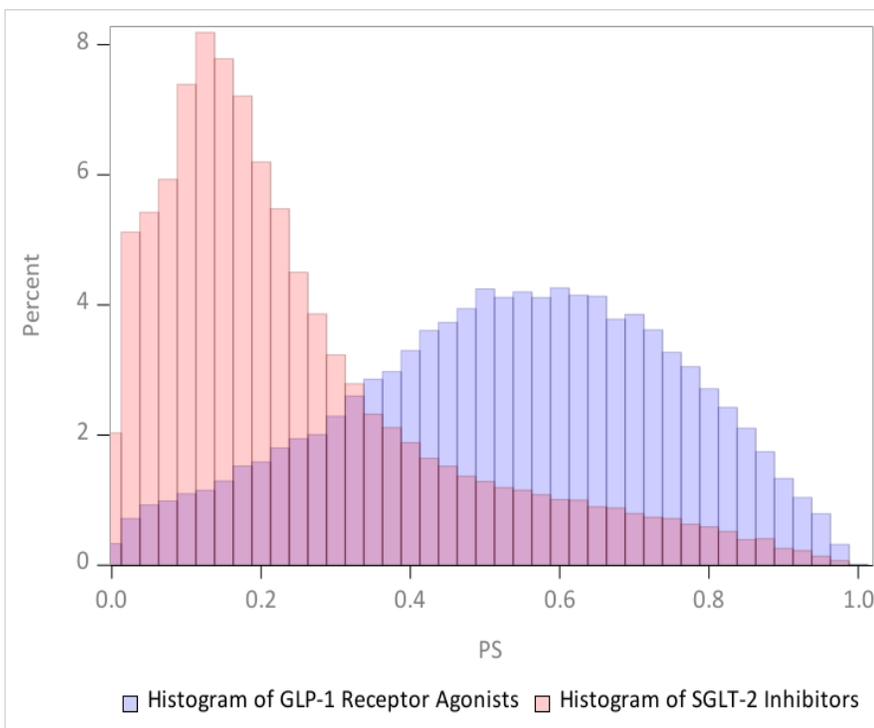


Figure 2h. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

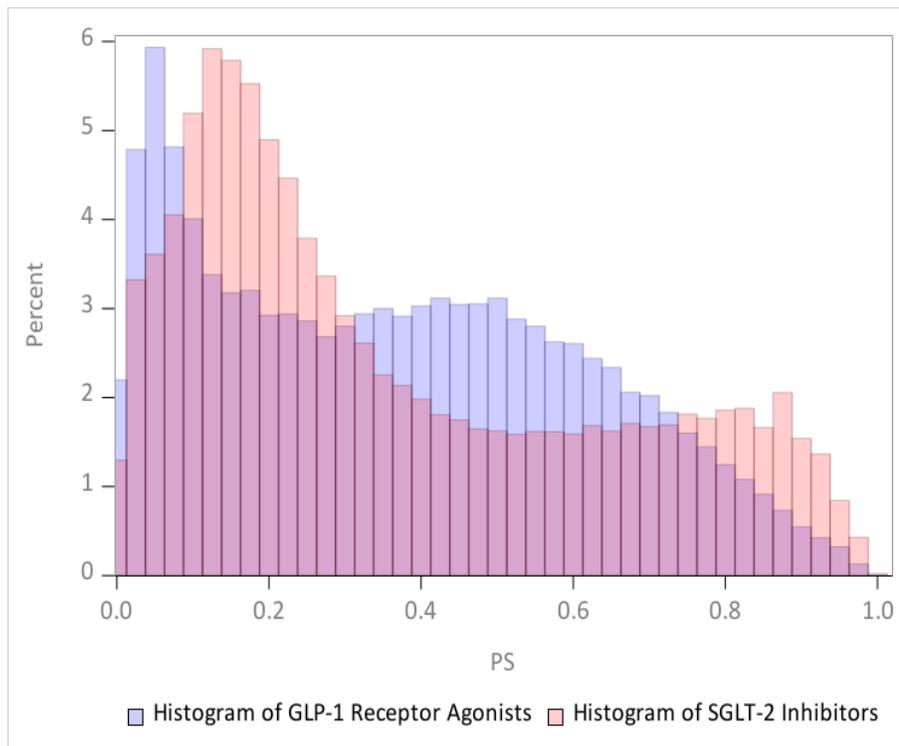
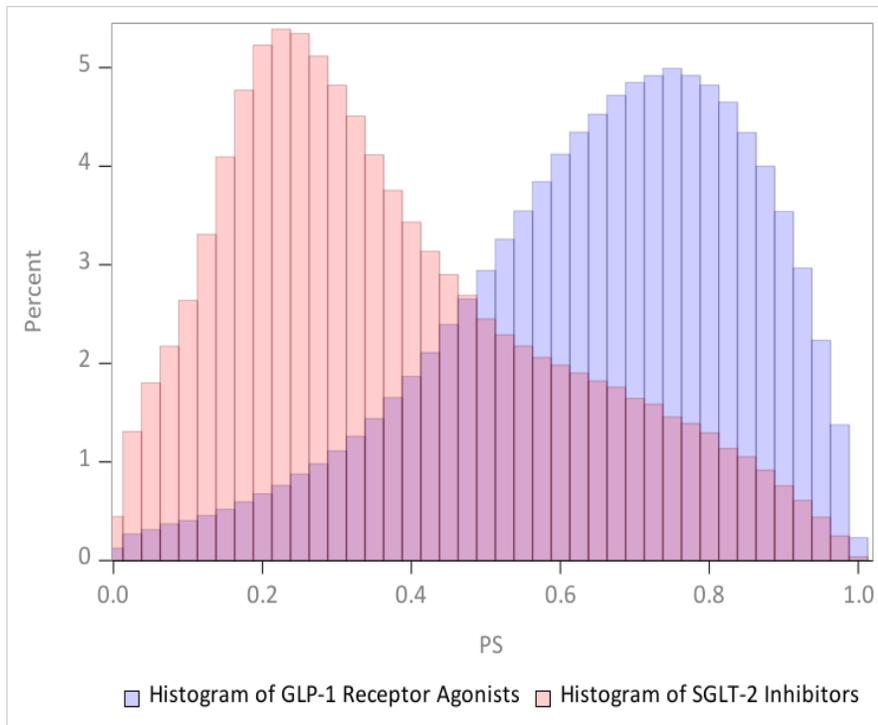


Figure 3a. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

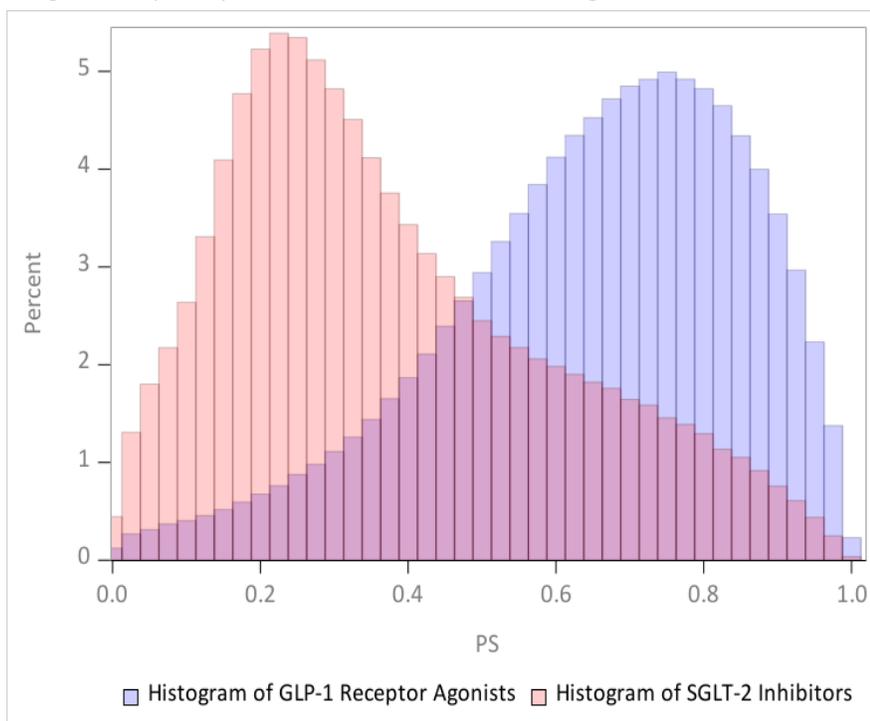


Figure 3a. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

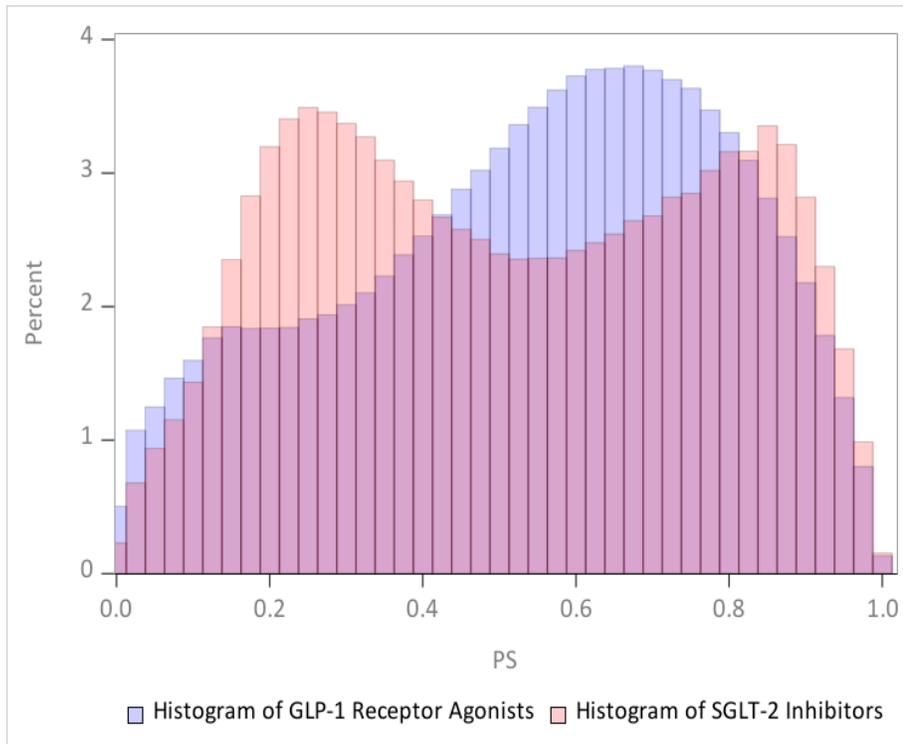
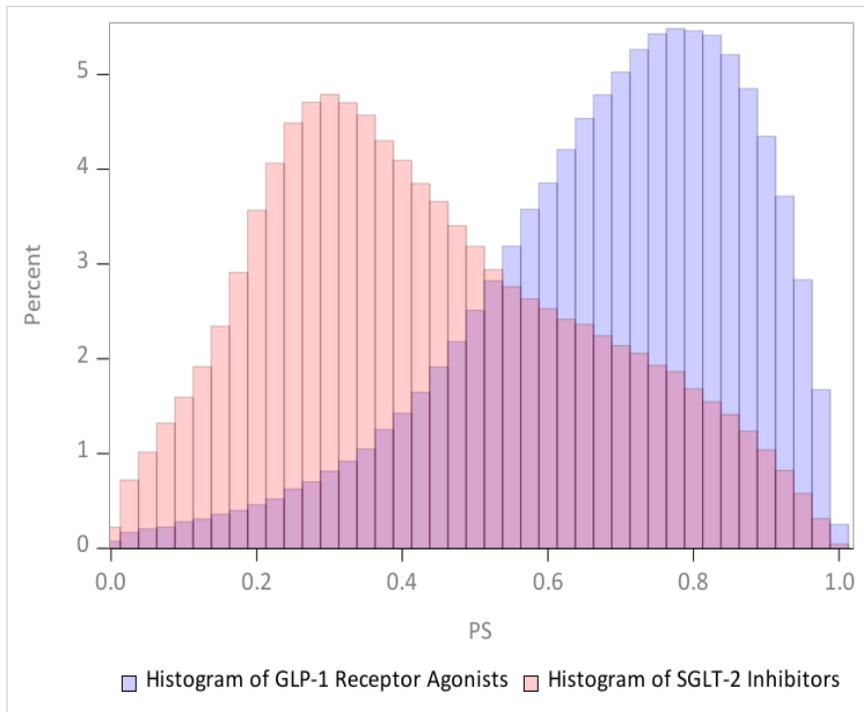


Figure 3b. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

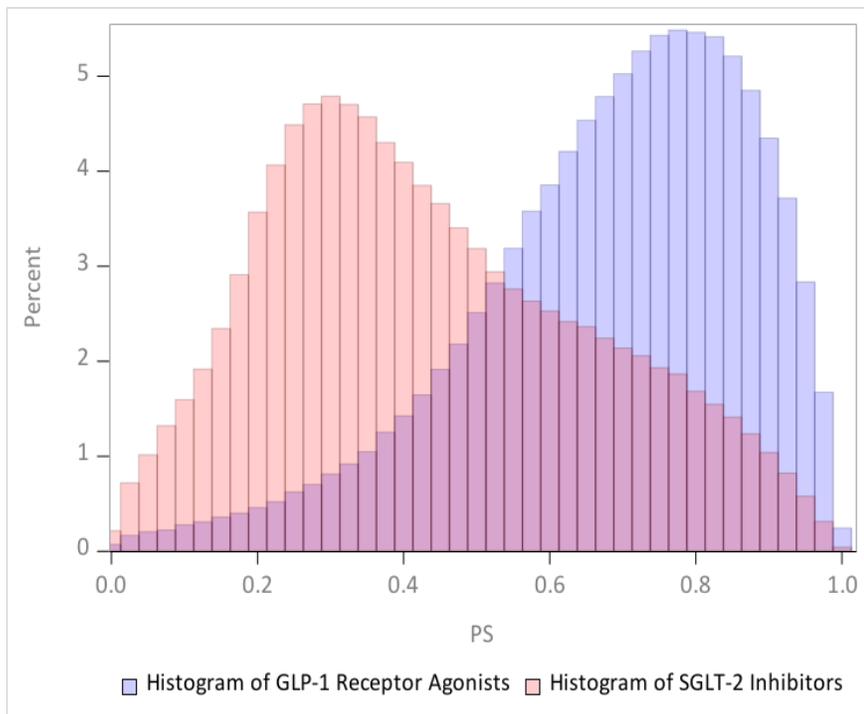


Figure 3b. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

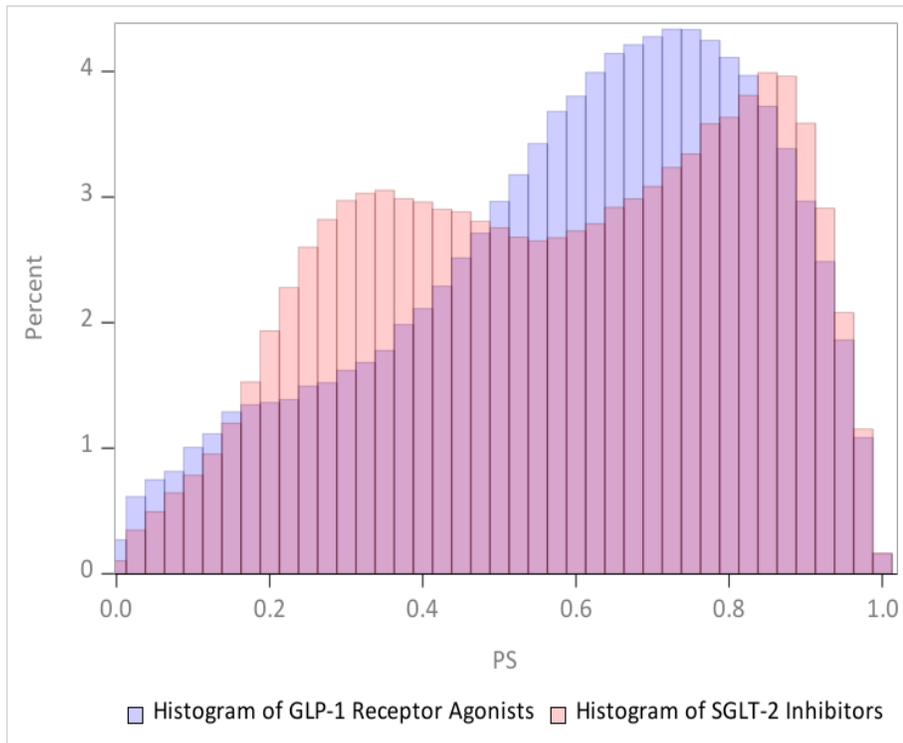
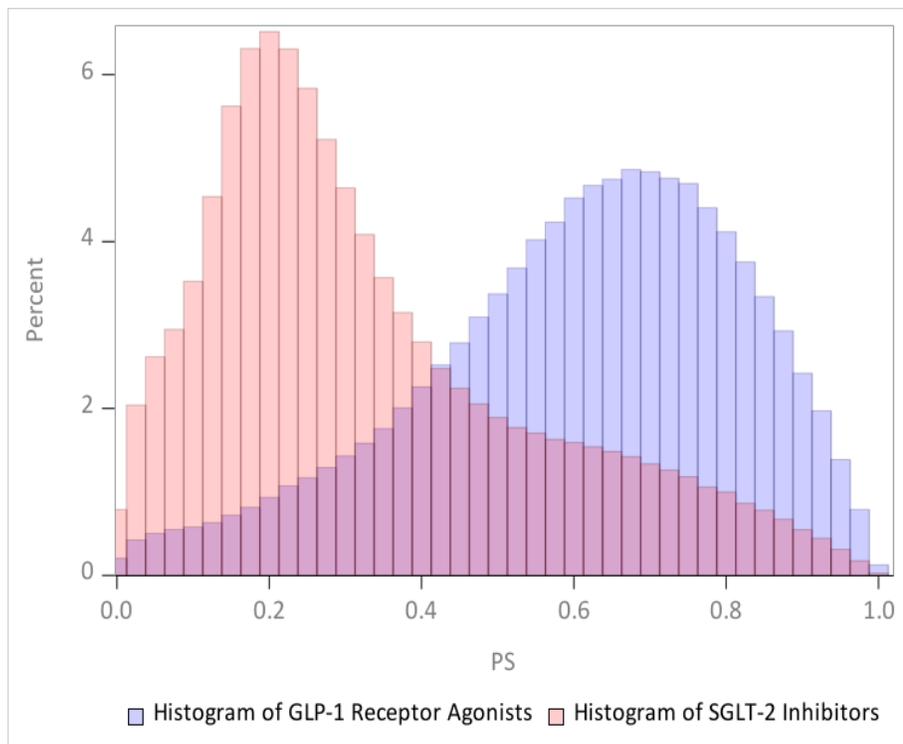


Figure 3c. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

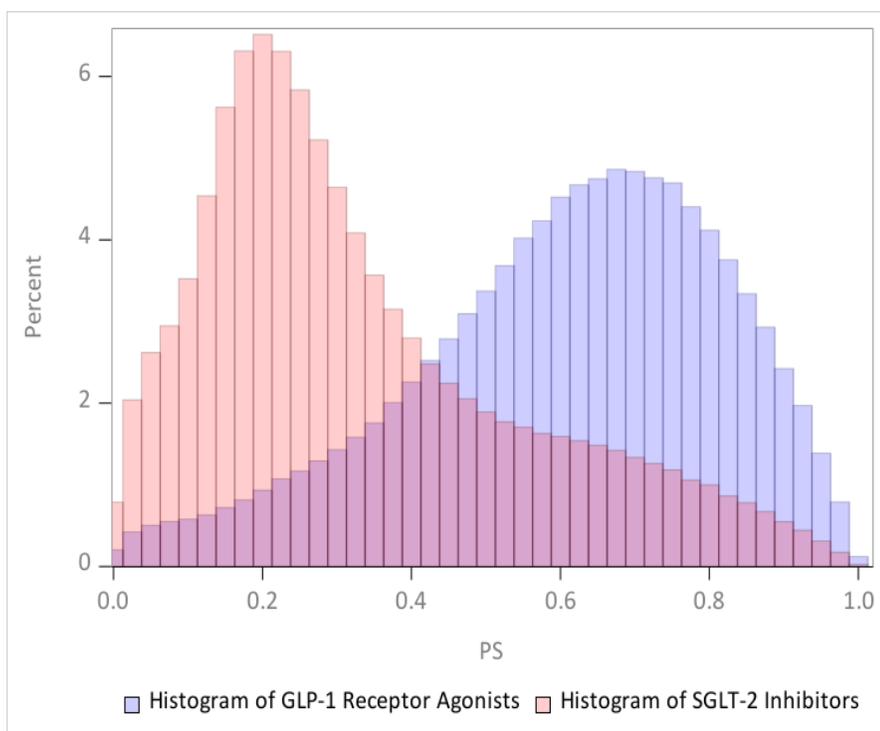


Figure 3c. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

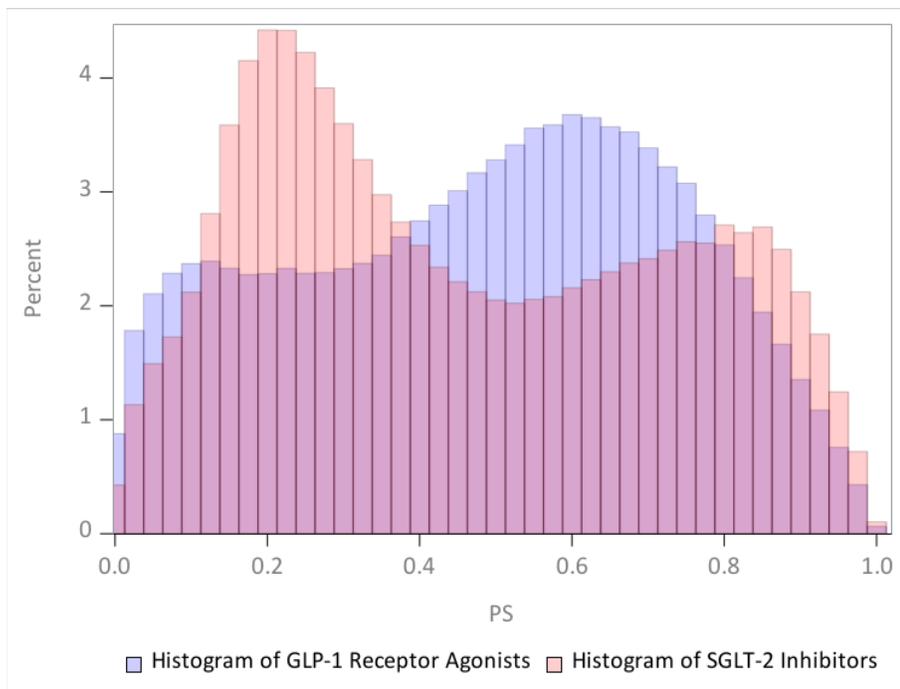
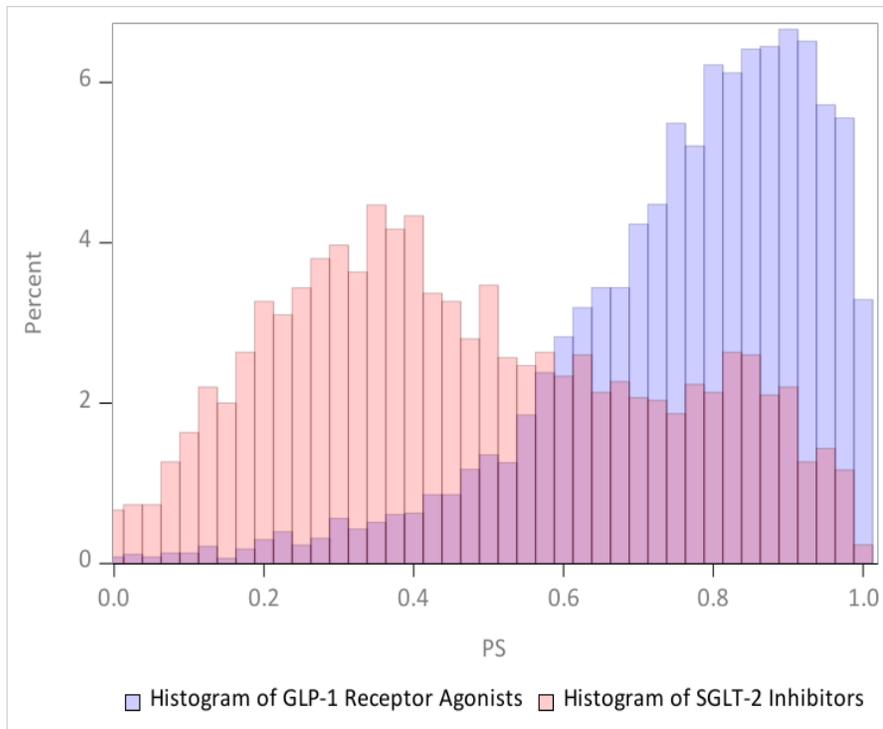


Figure 3d. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

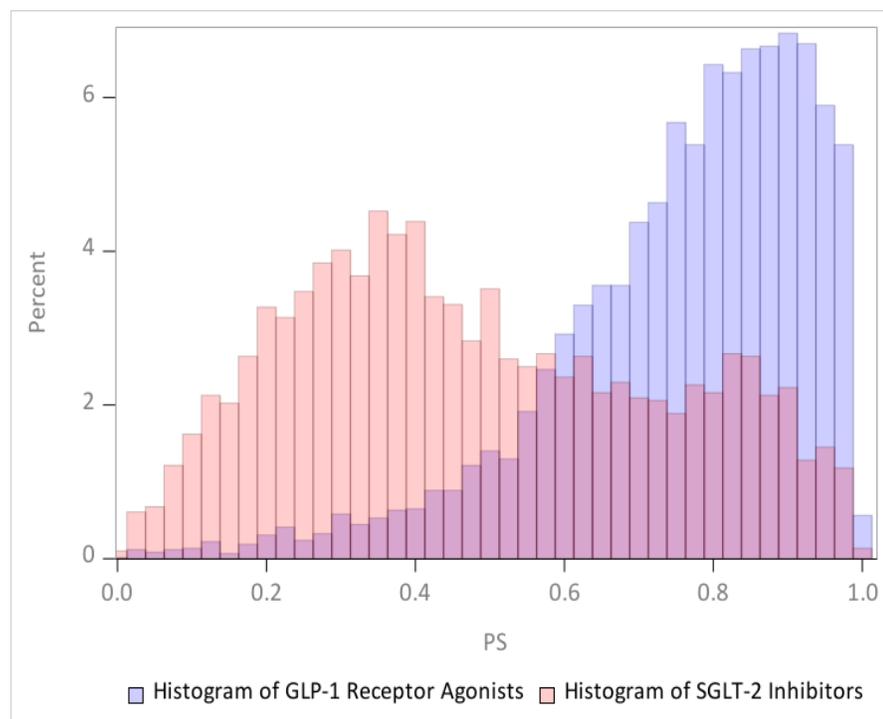


Figure 3d. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

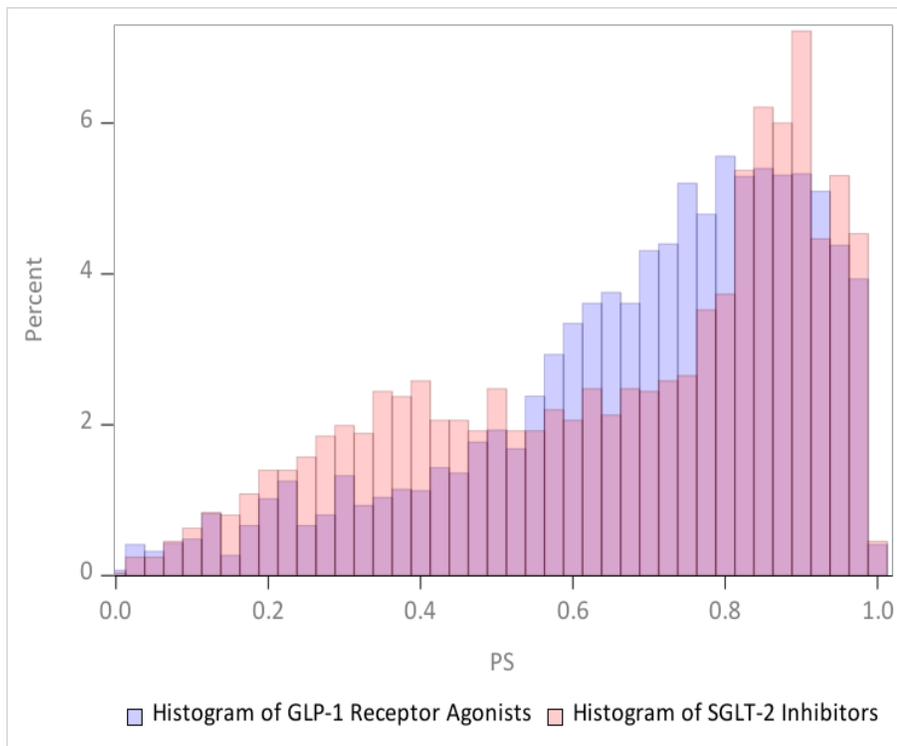
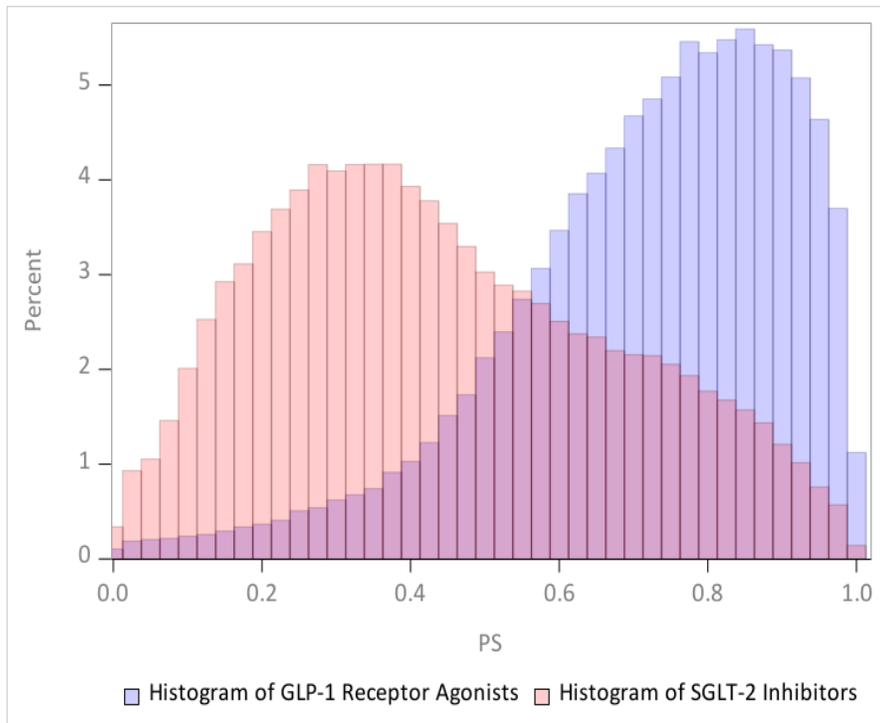


Figure 3e. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

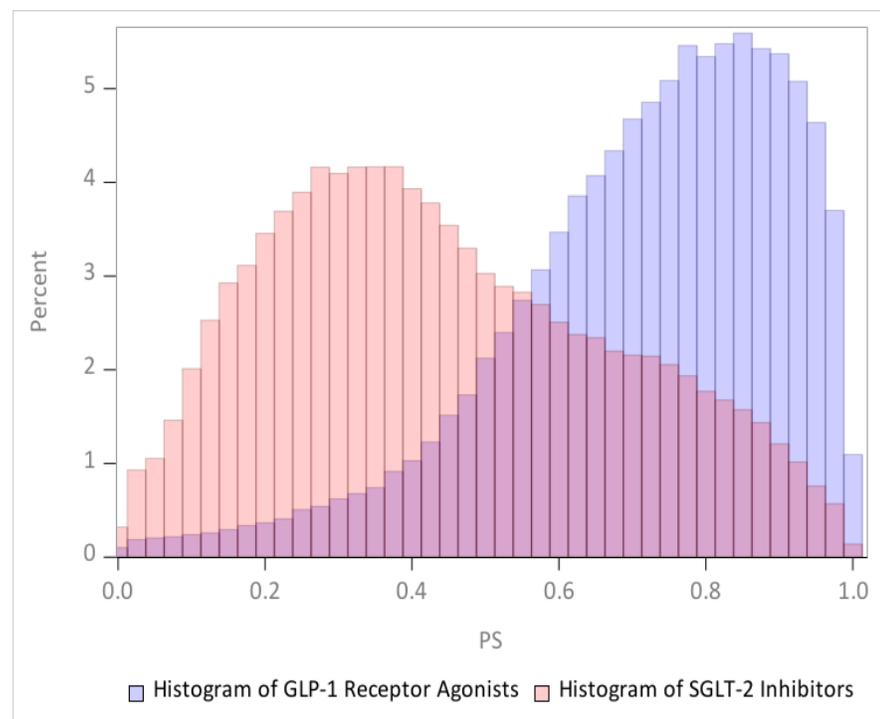


Figure 3e. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

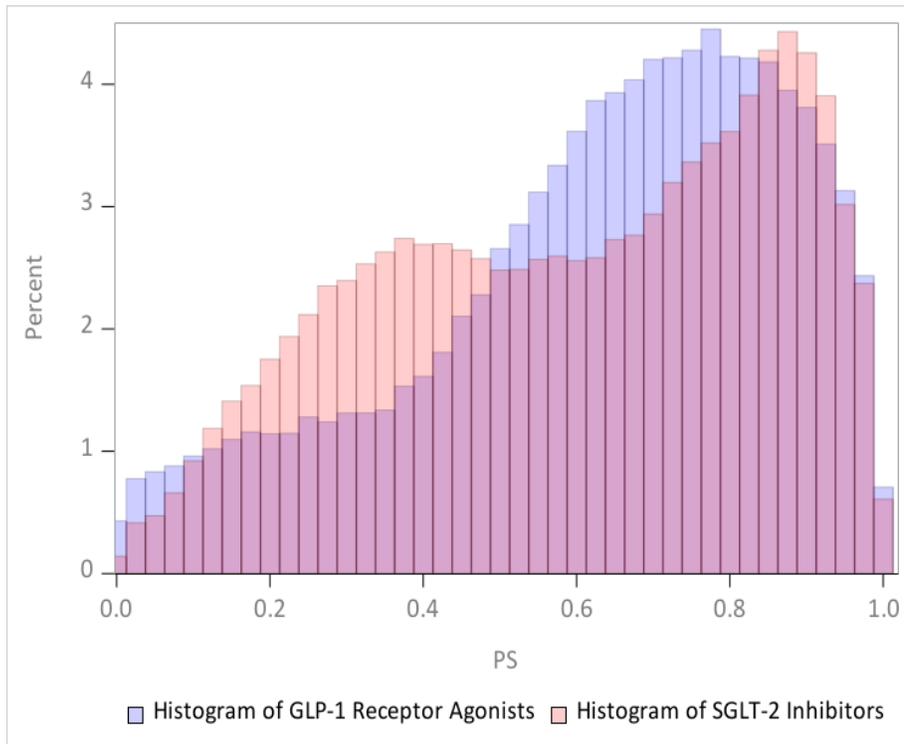
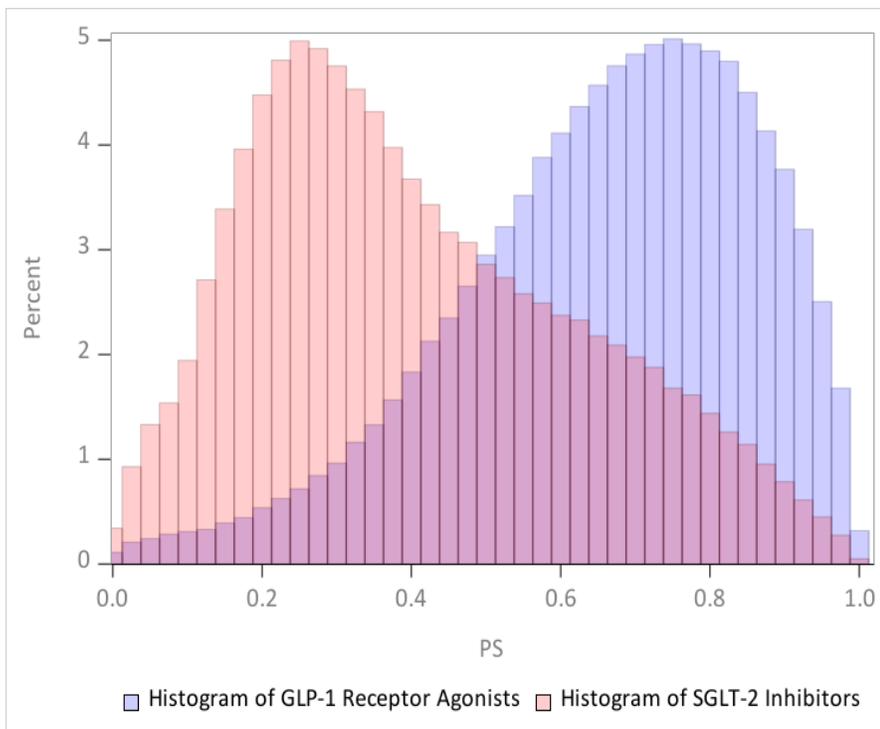


Figure 3f. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

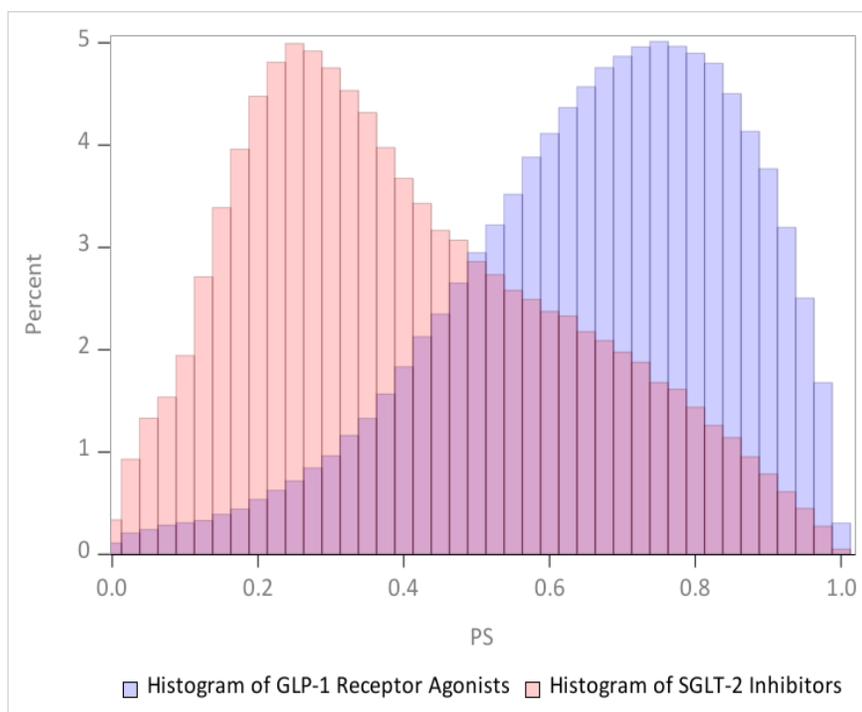


Figure 3f. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

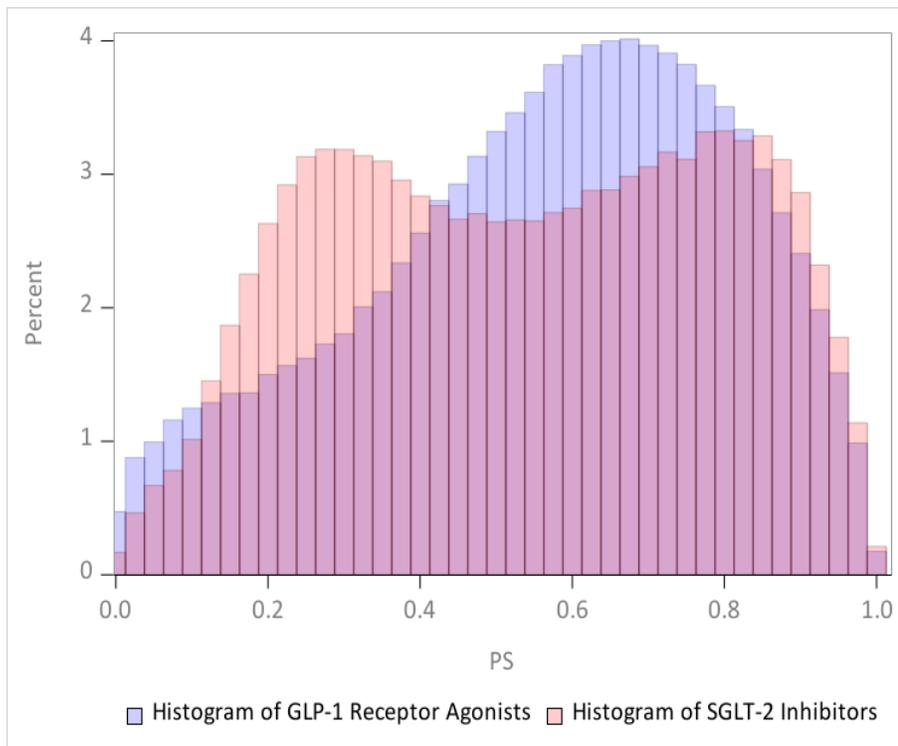
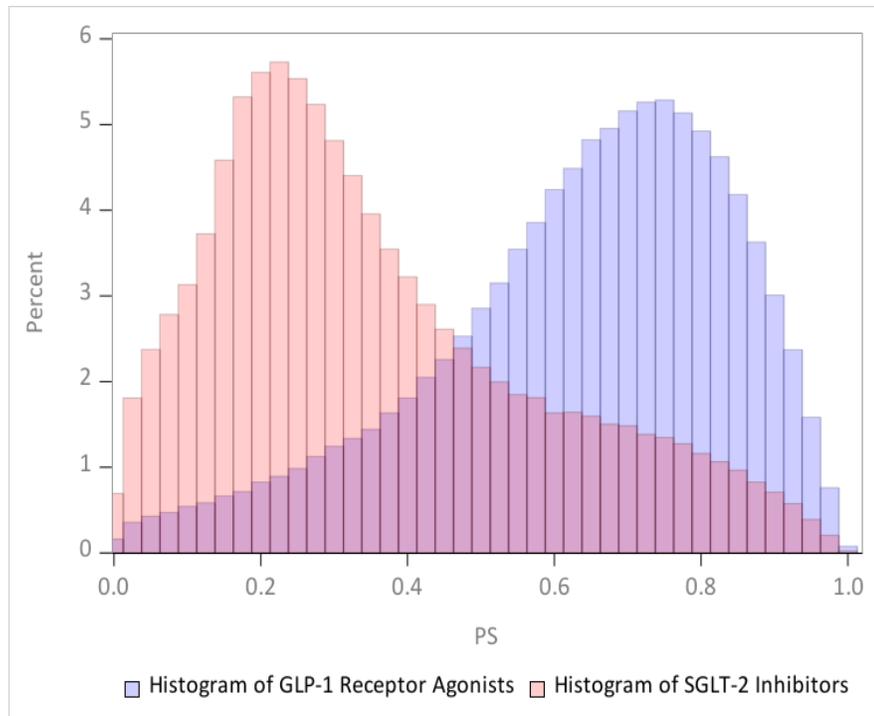


Figure 3g. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

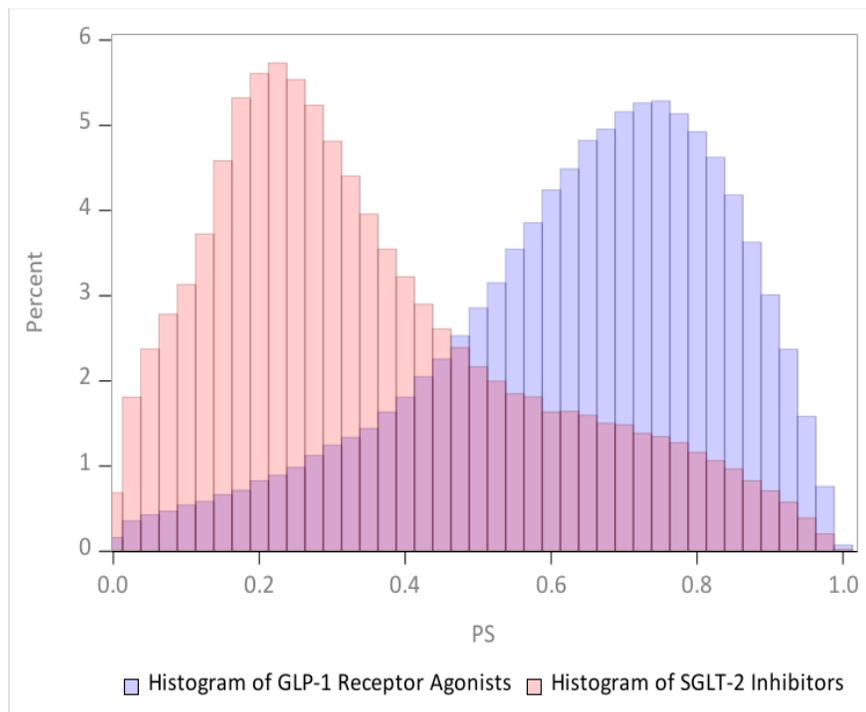


Figure 3g. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

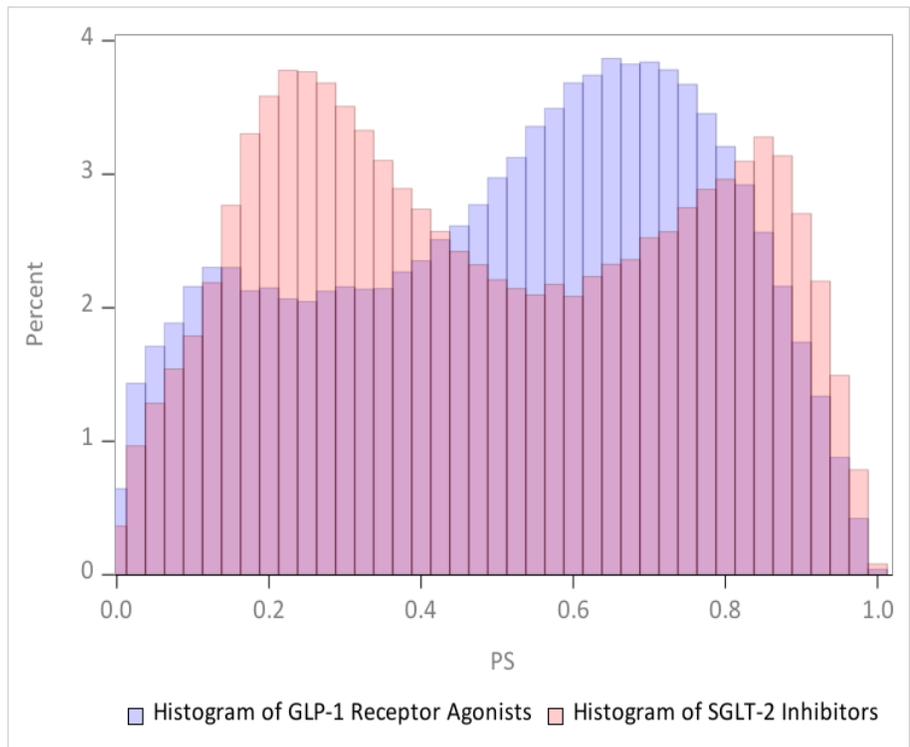
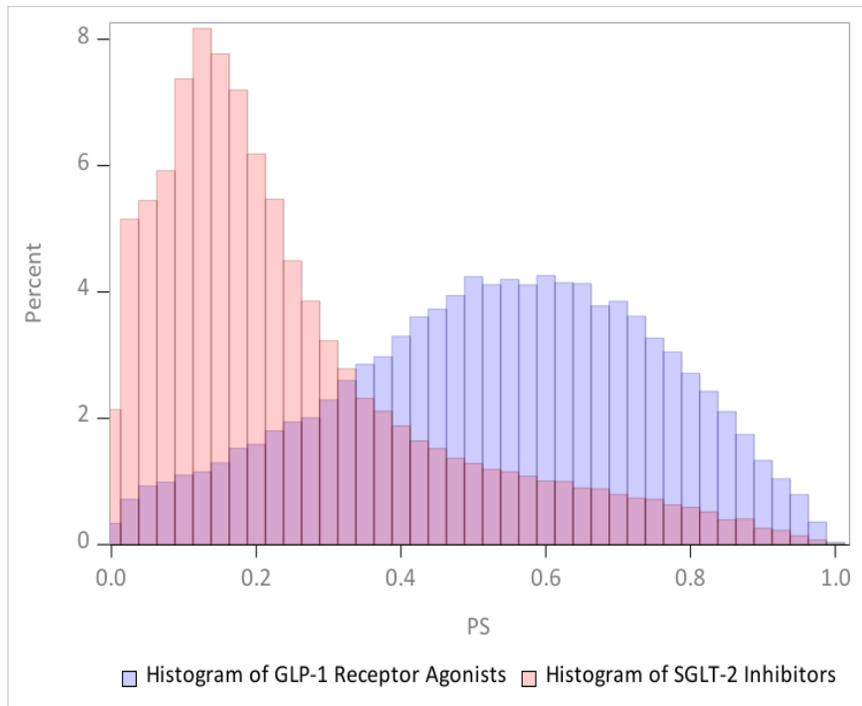


Figure 3h. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

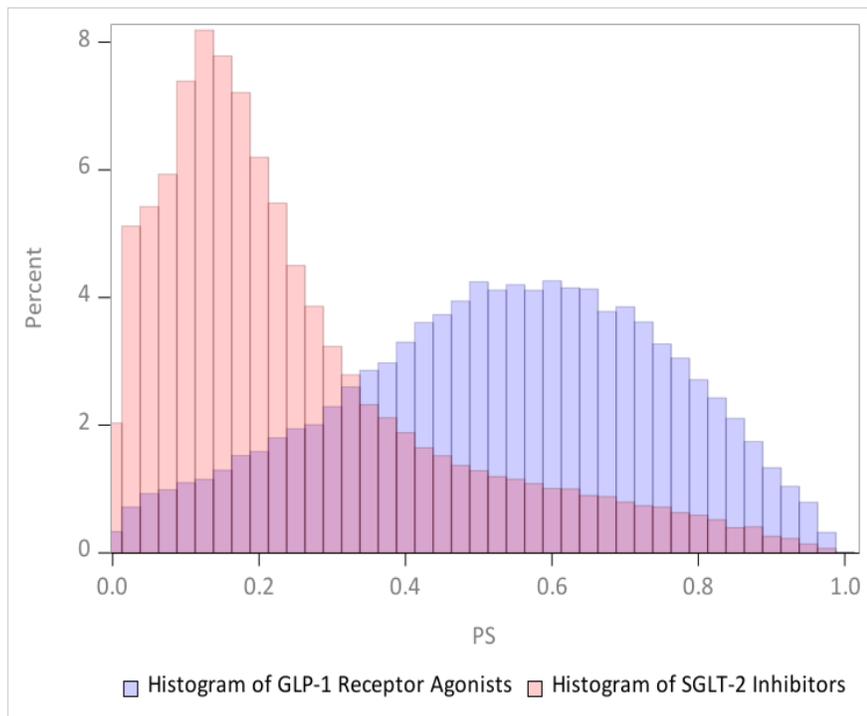


Figure 3h. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

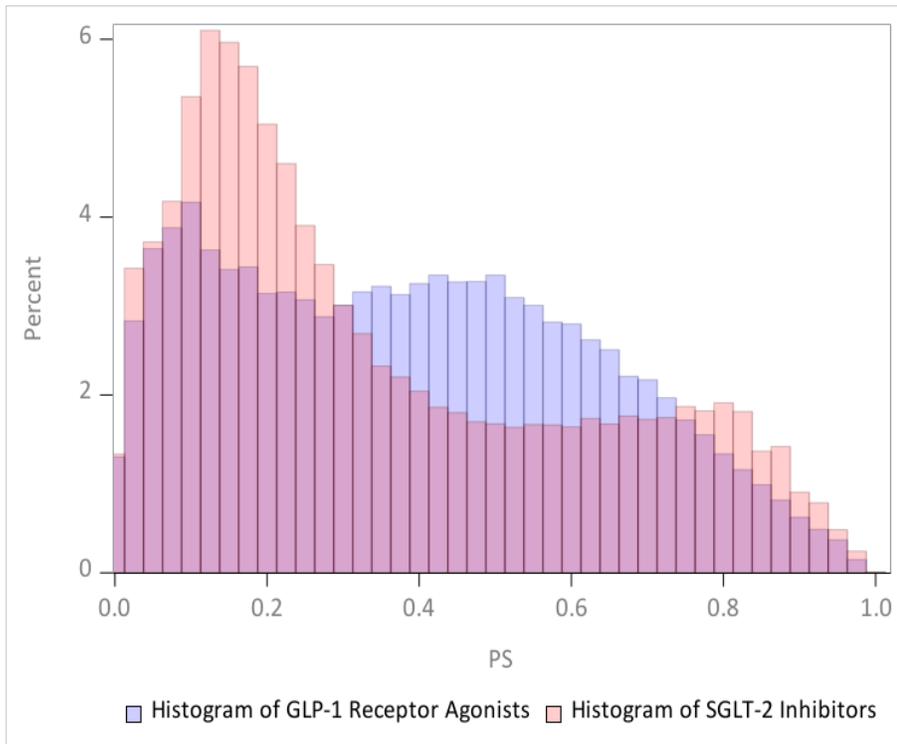
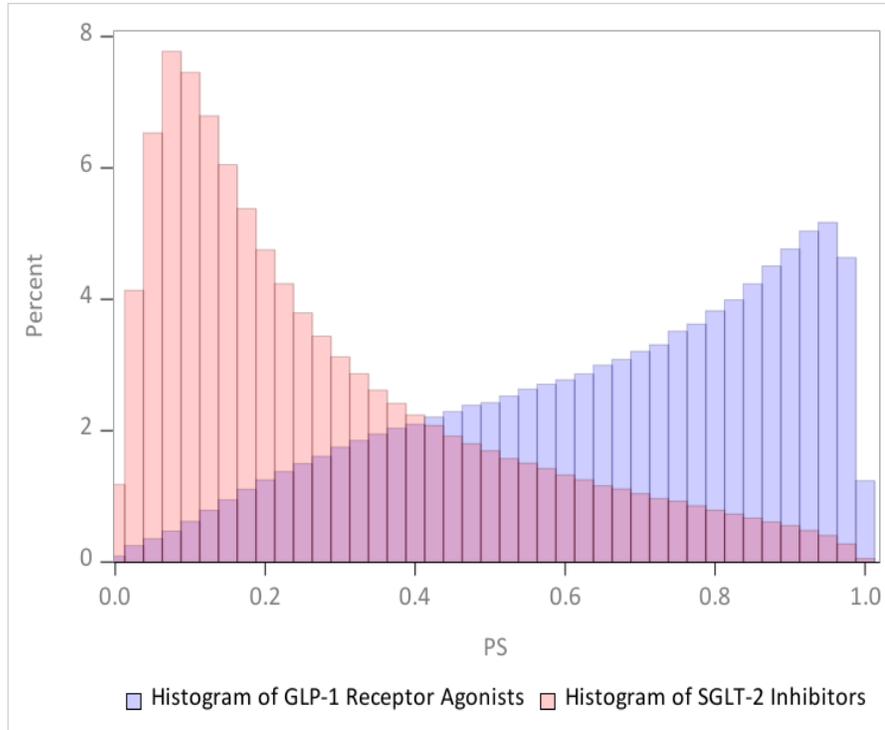


Figure 4a. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

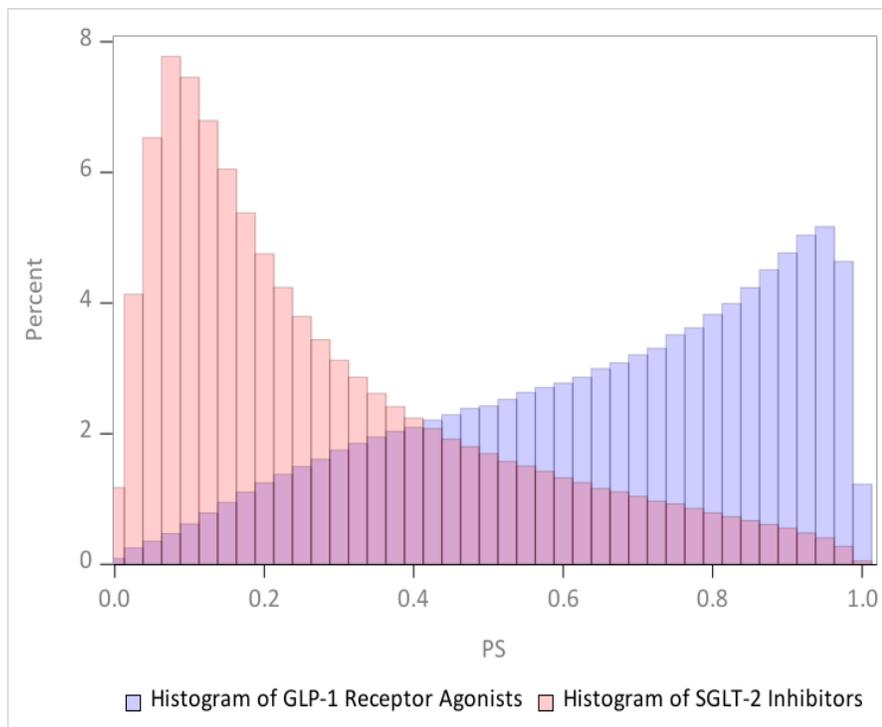


Figure 4a. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

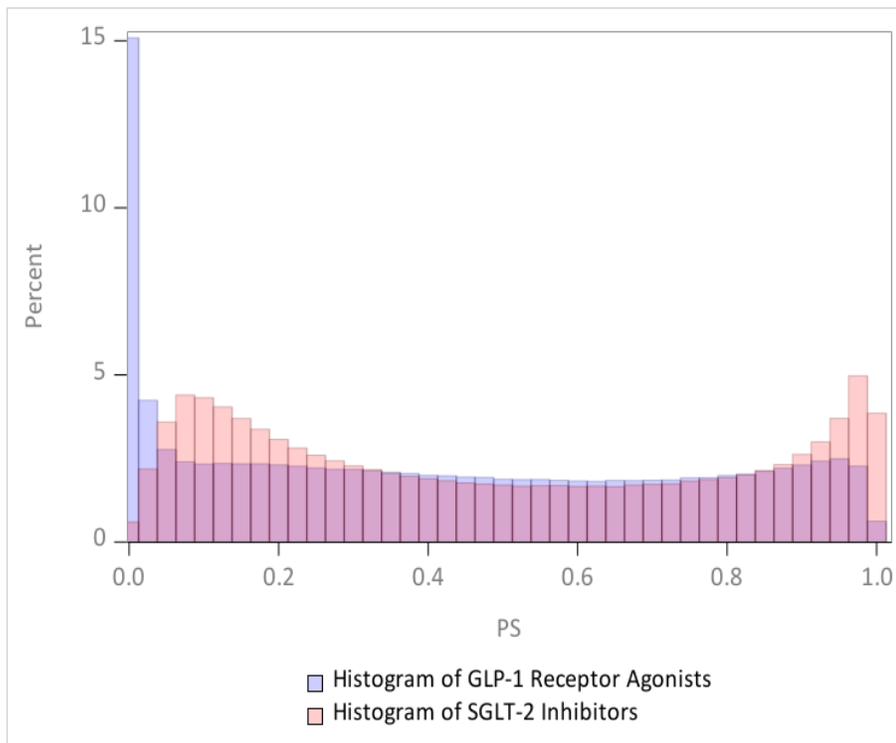
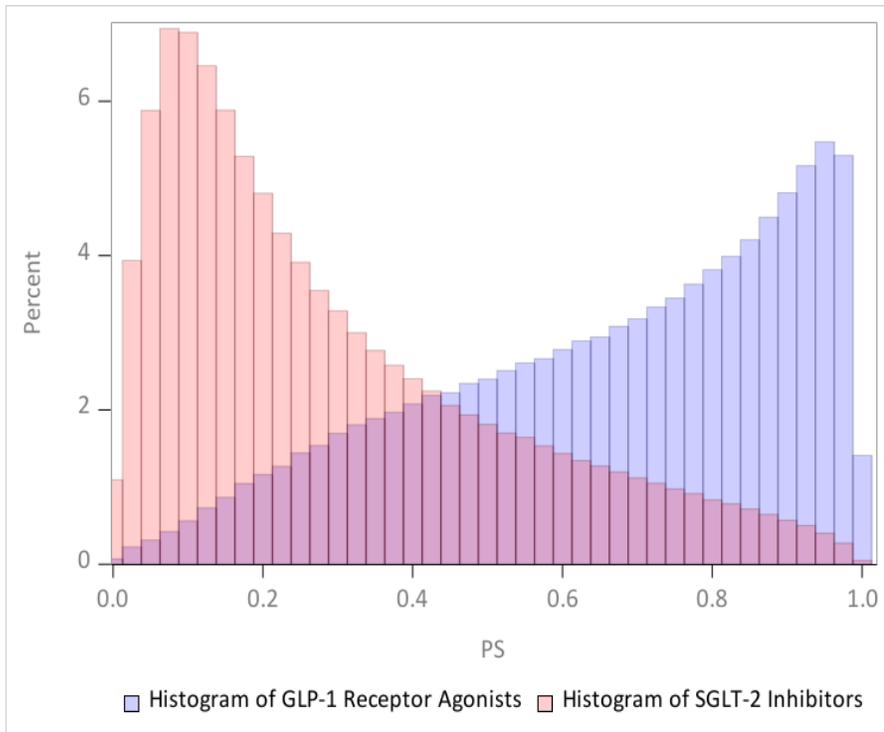


Figure 4b. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

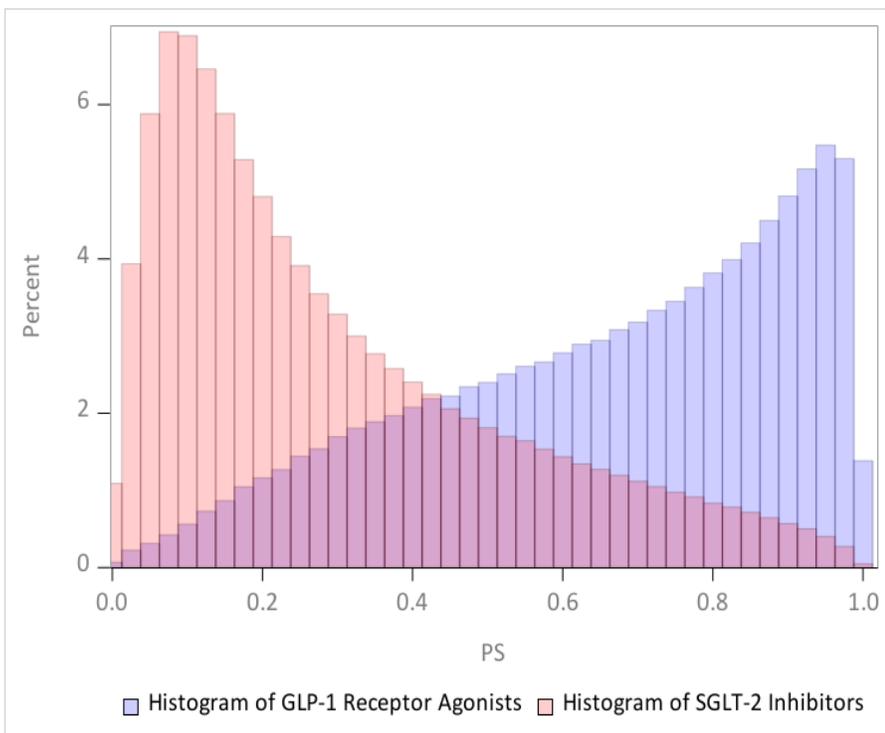


Figure 4b. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

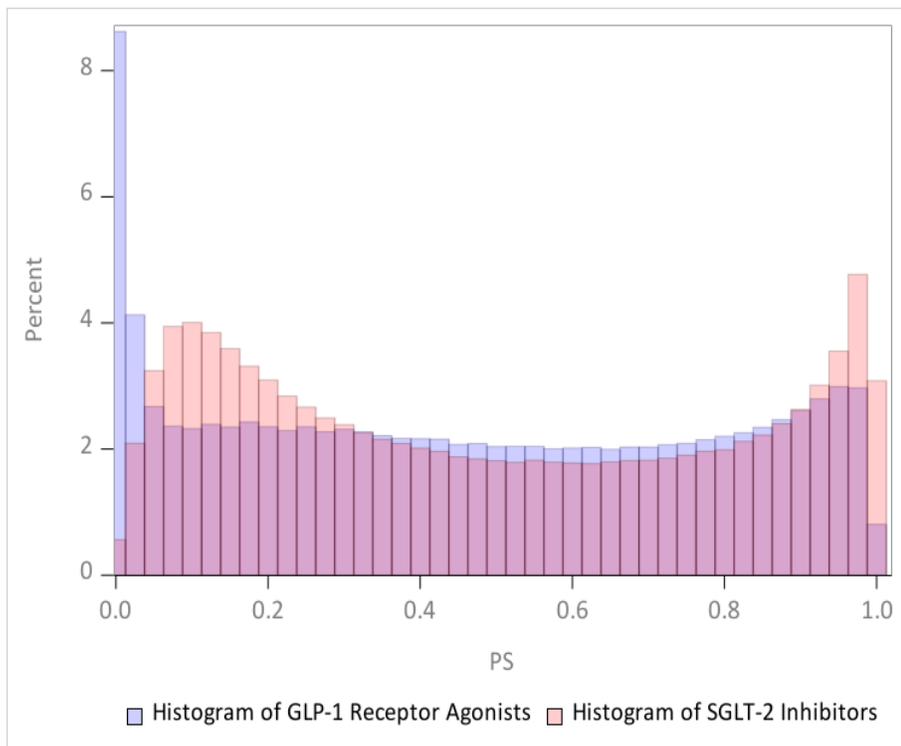
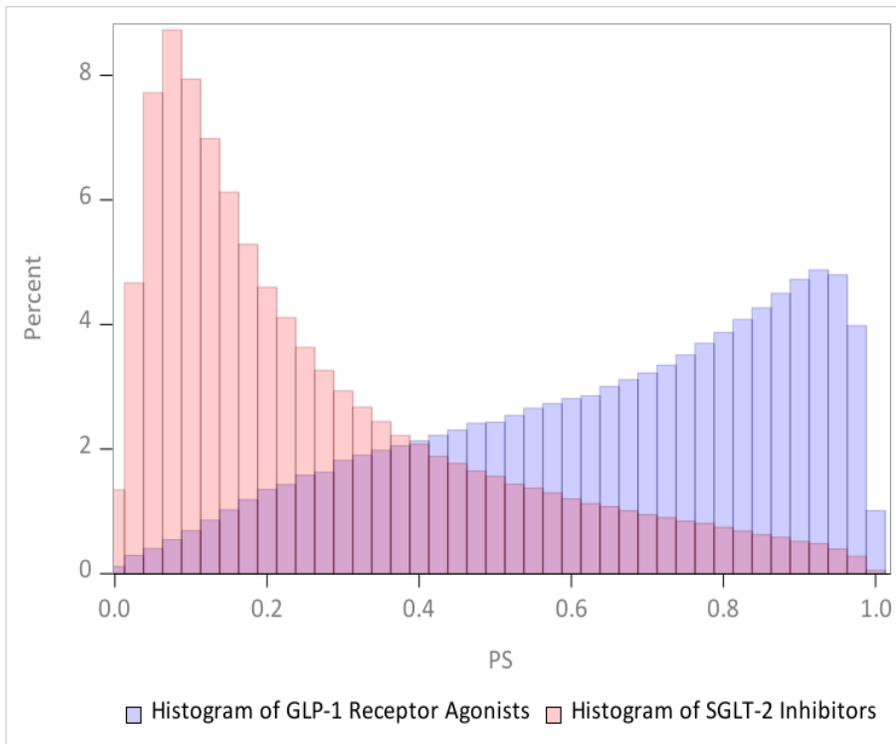


Figure 4c. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

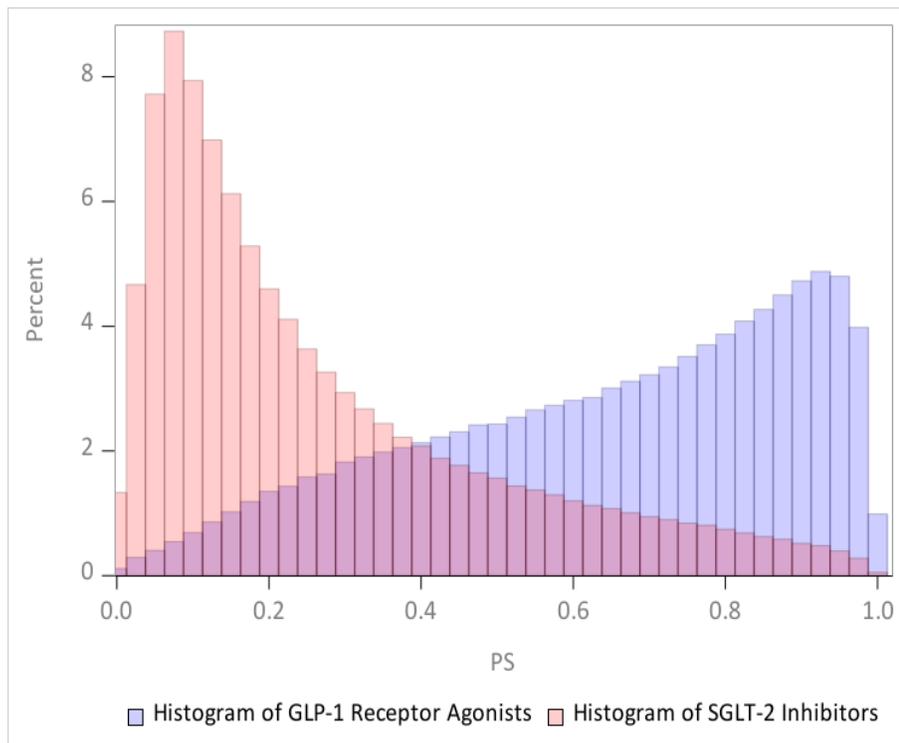


Figure 4c. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

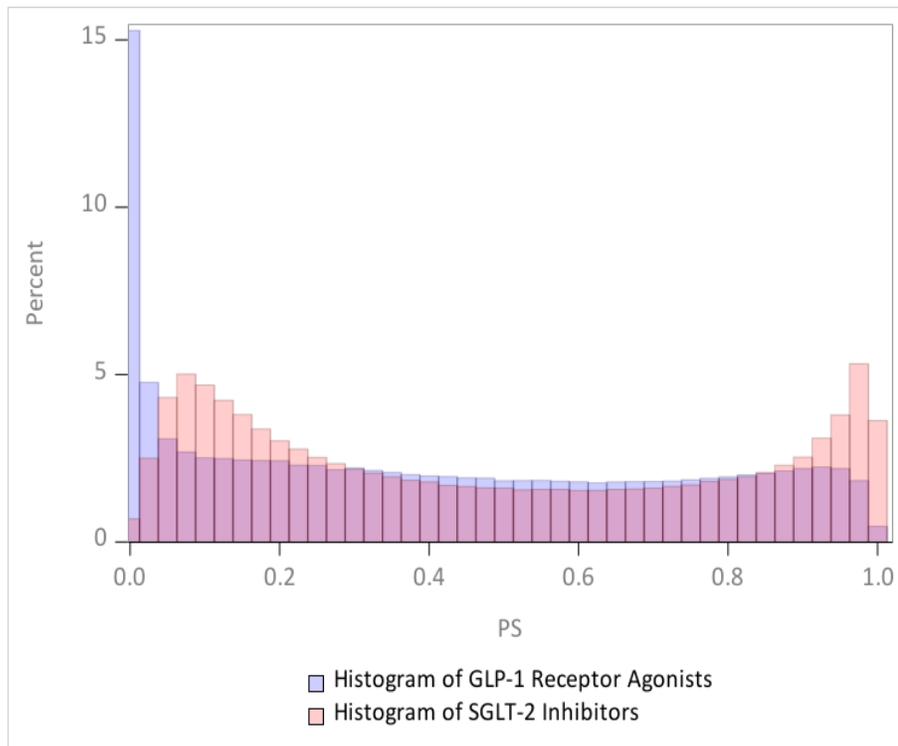
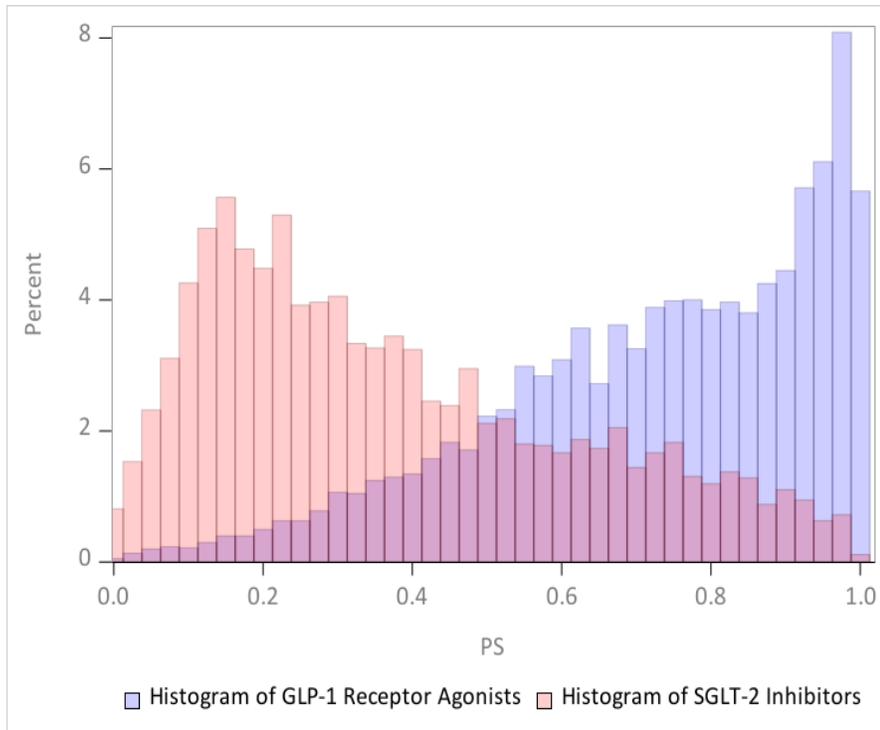


Figure 4d. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

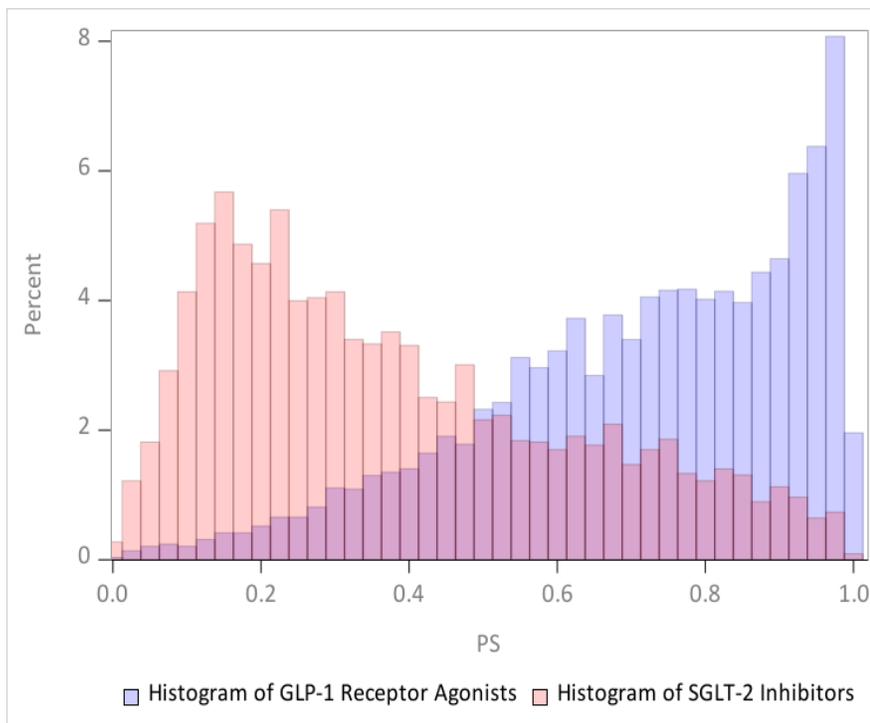


Figure 4d. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

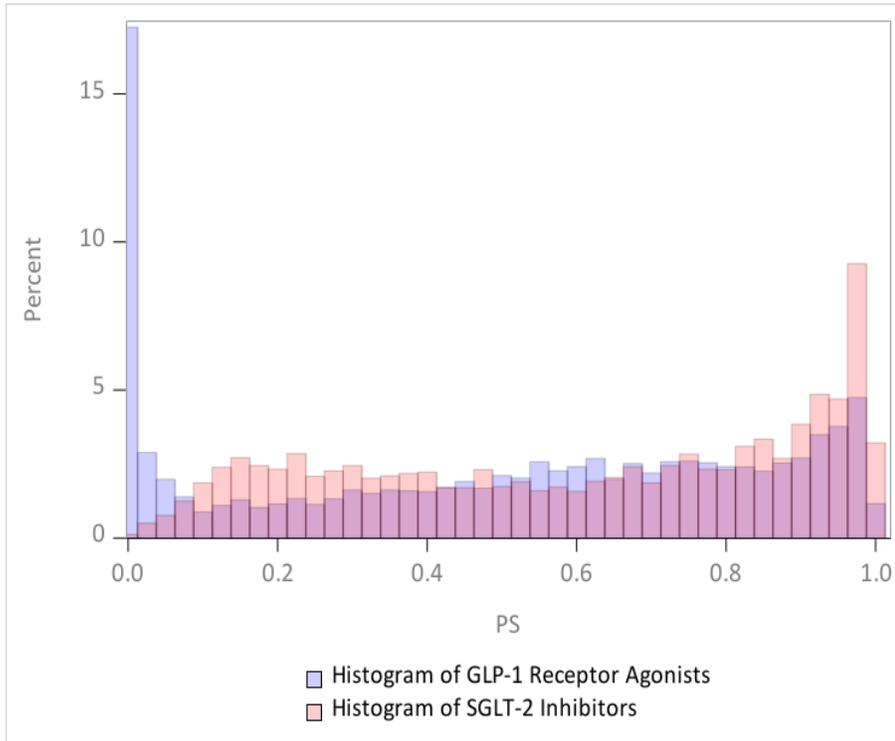
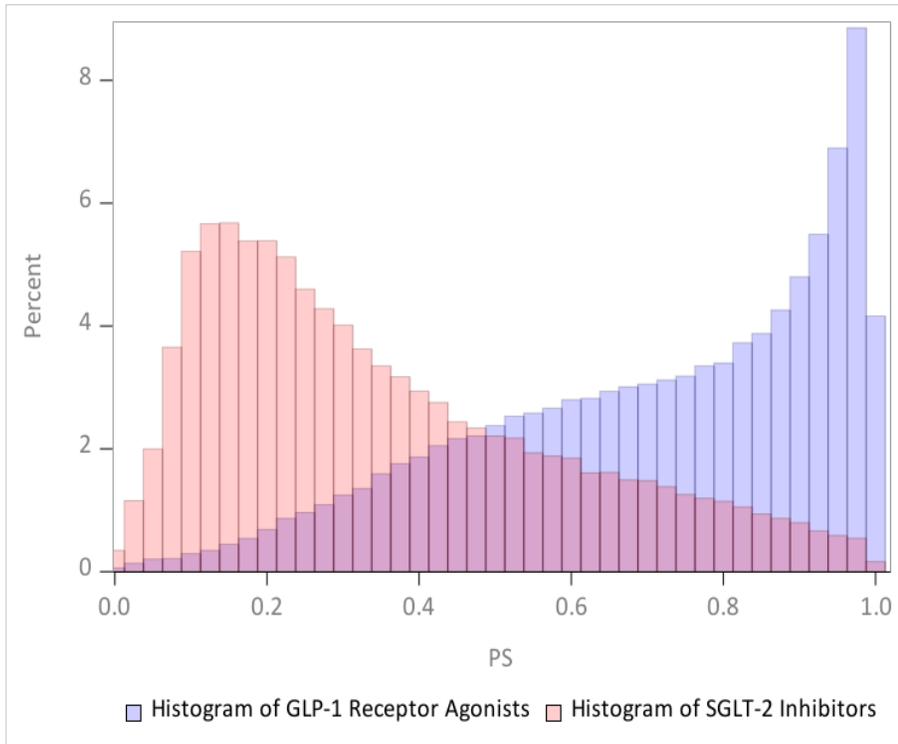


Figure 4e. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

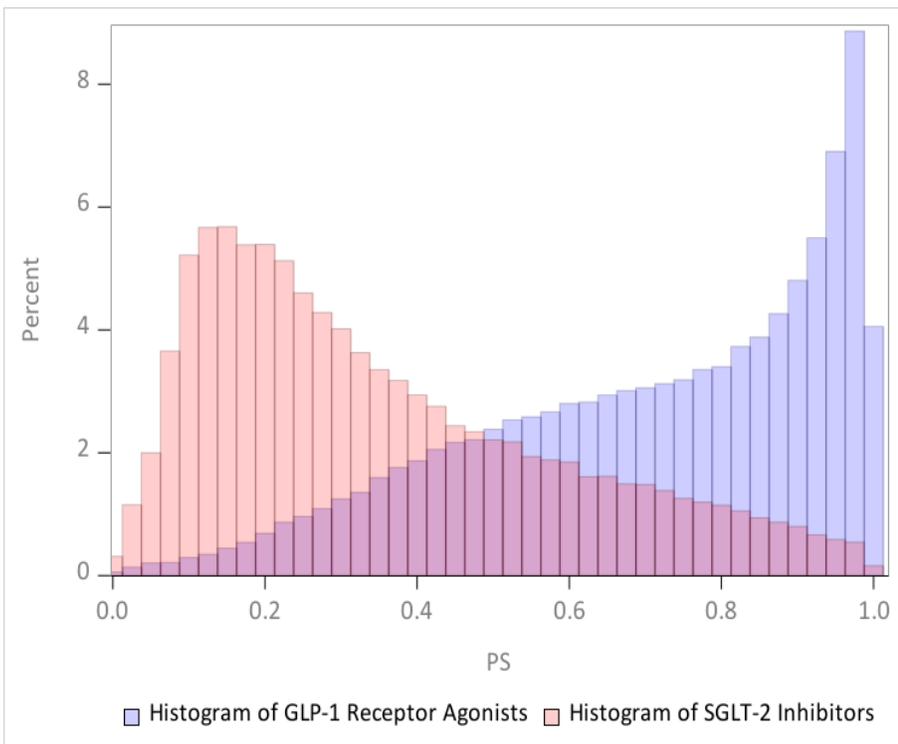


Figure 4e. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

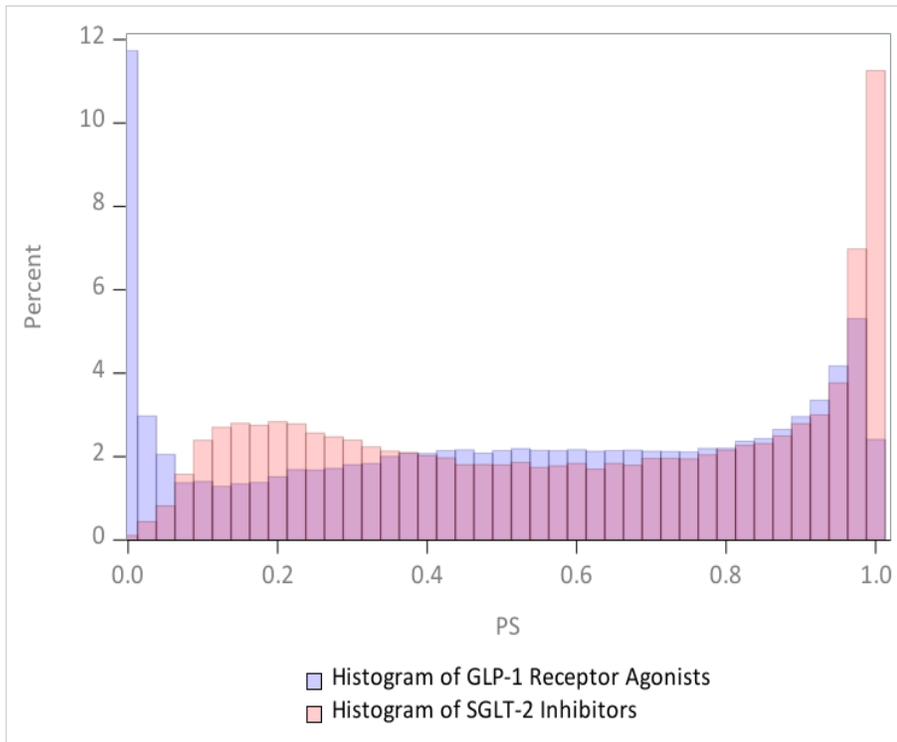
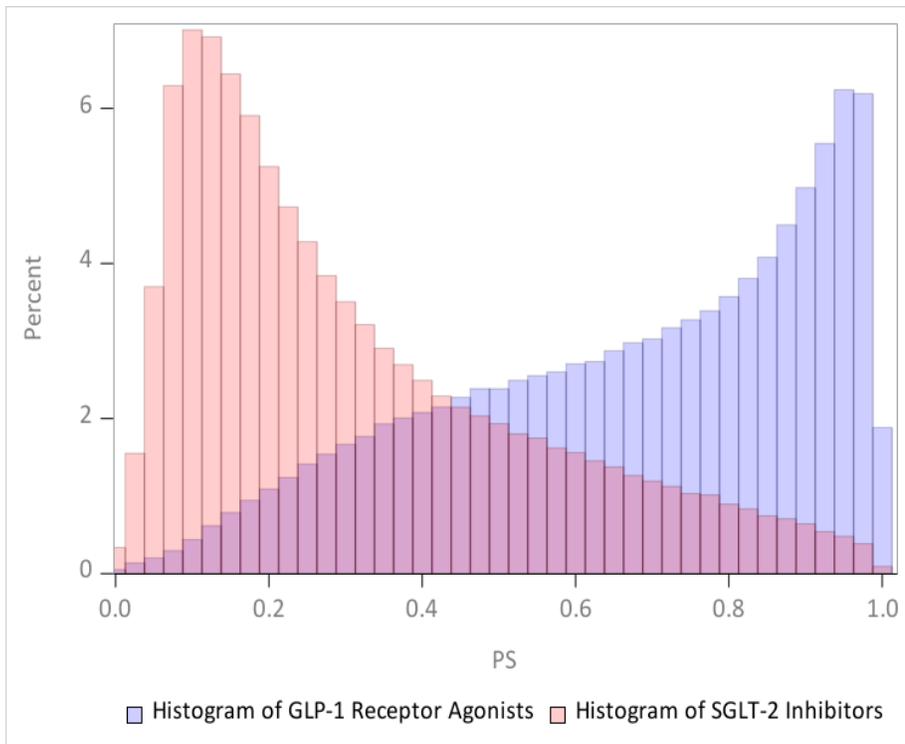


Figure 4f. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

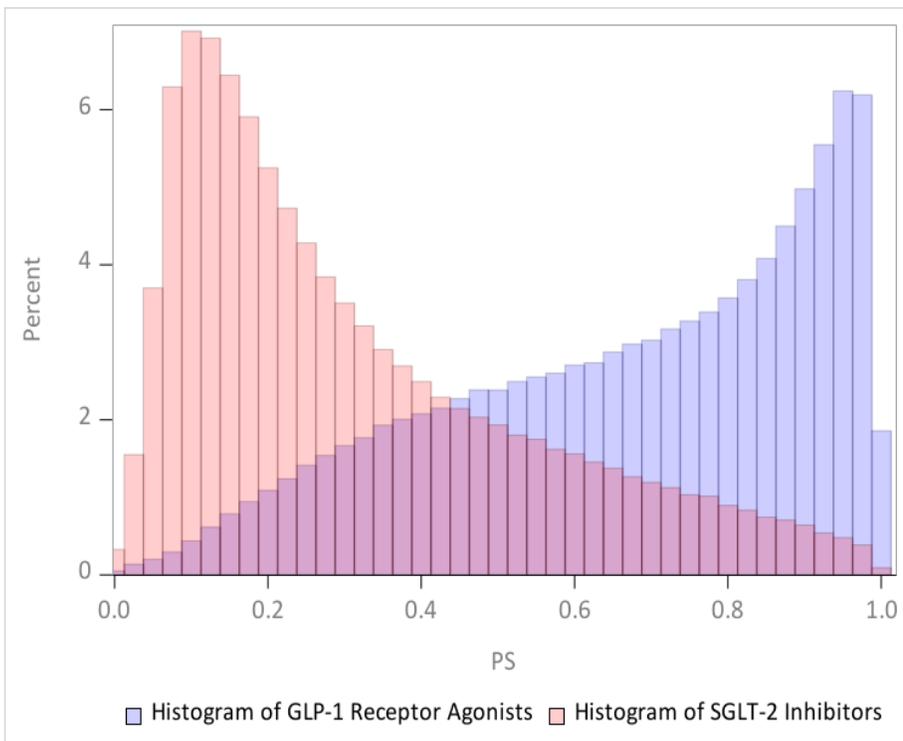


Figure 4f. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

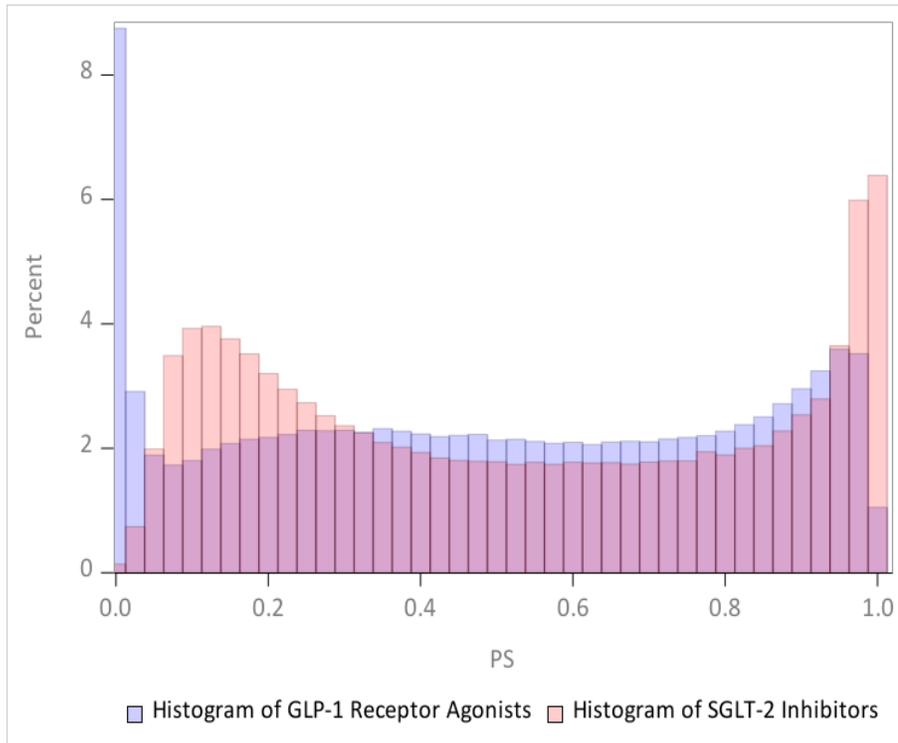
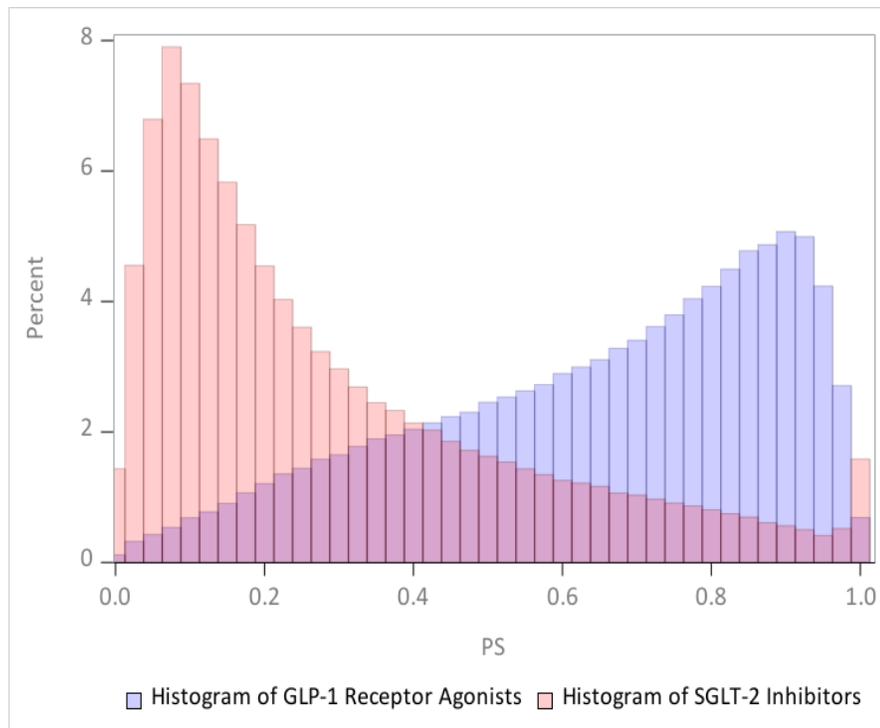


Figure 4g. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

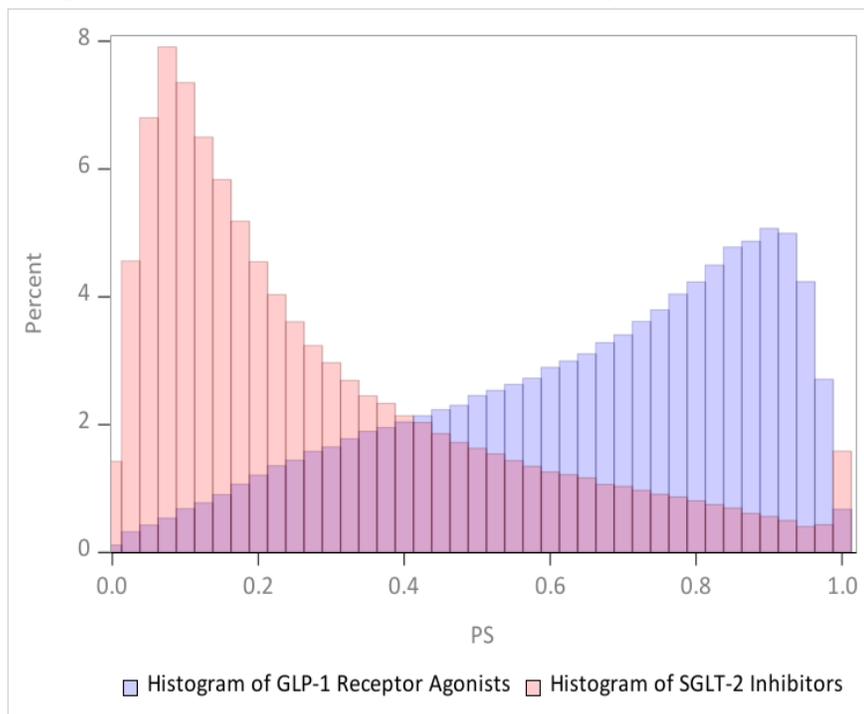


Figure 4g. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

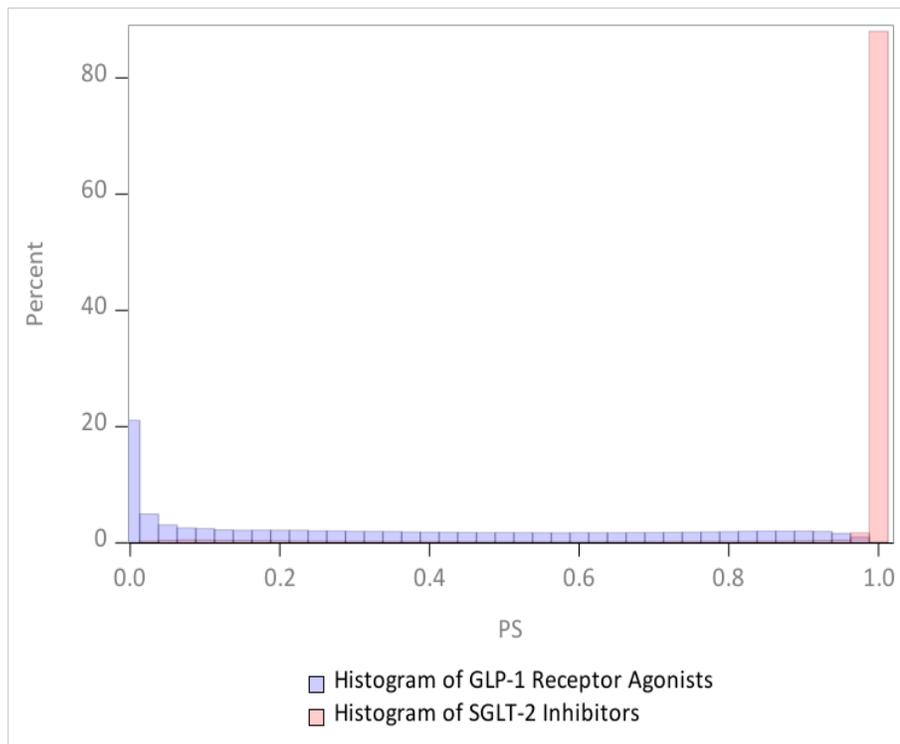
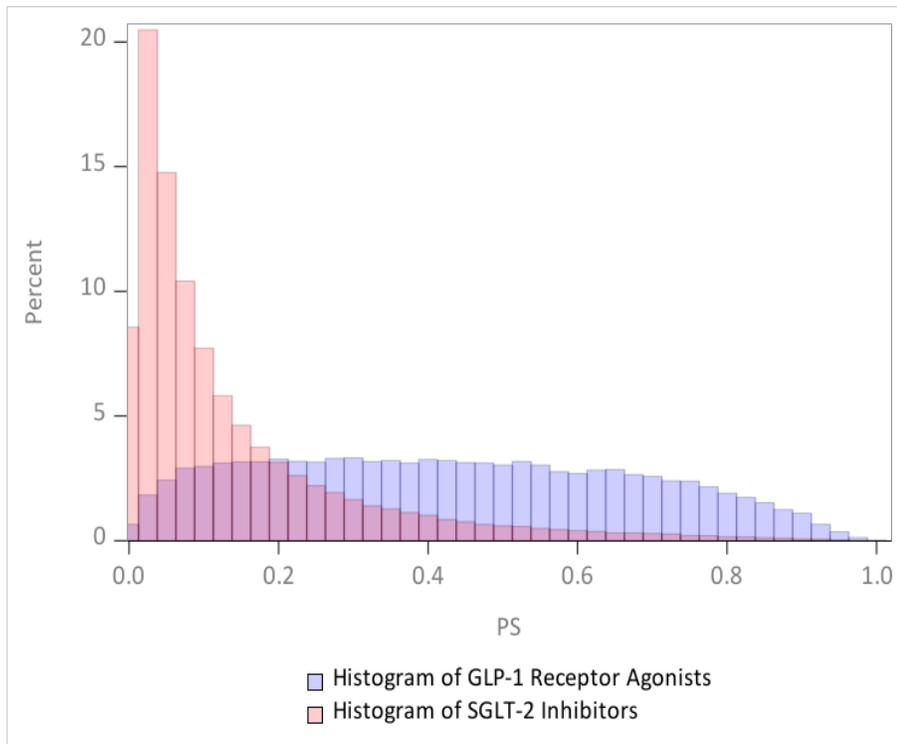


Figure 4h. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

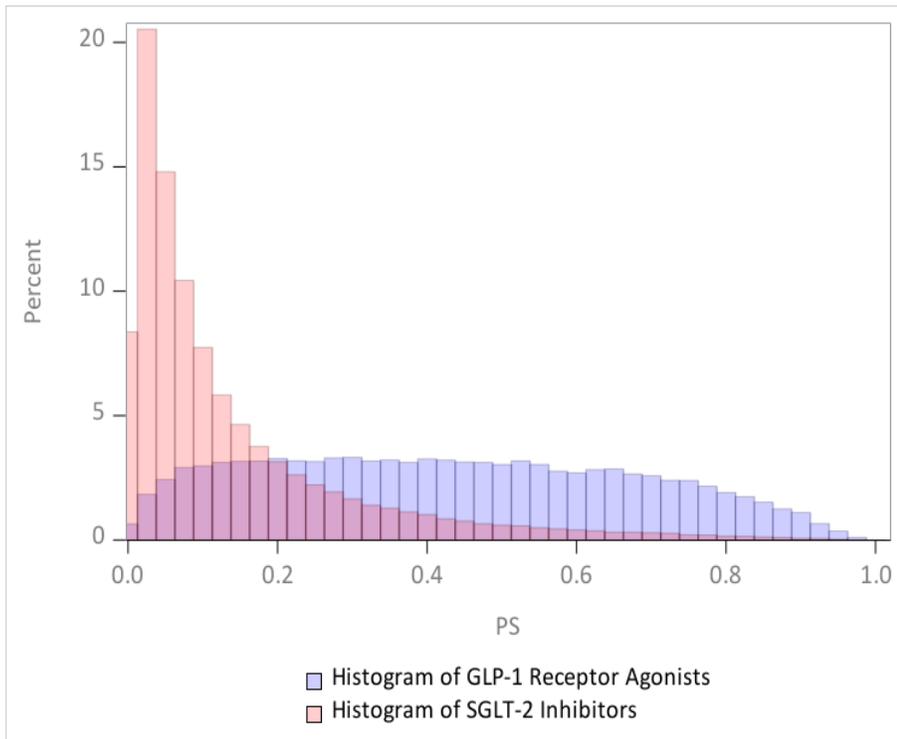


Figure 4h. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

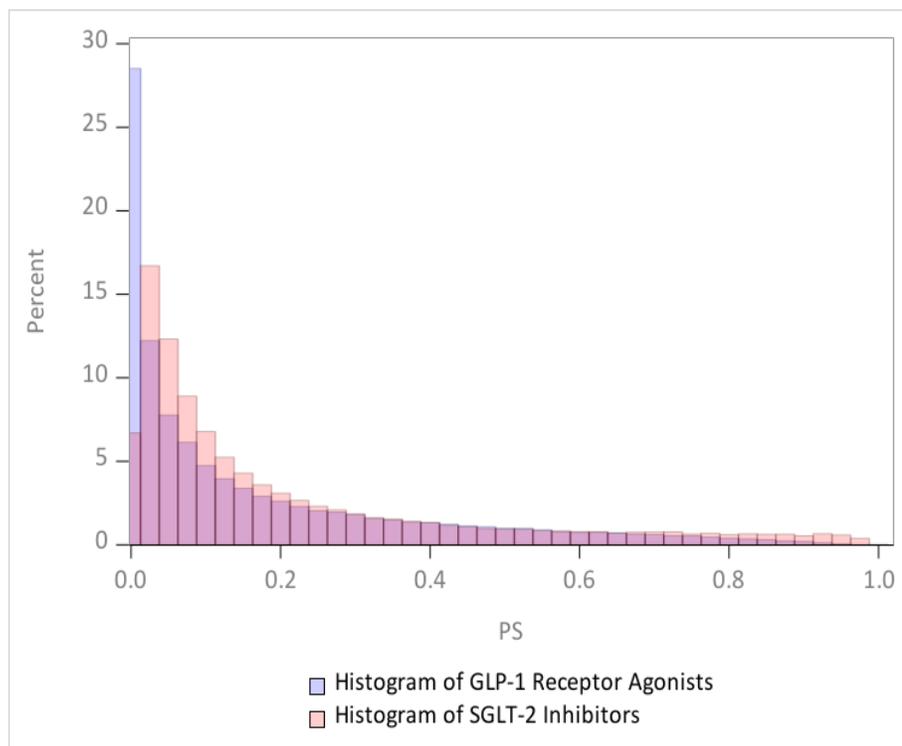
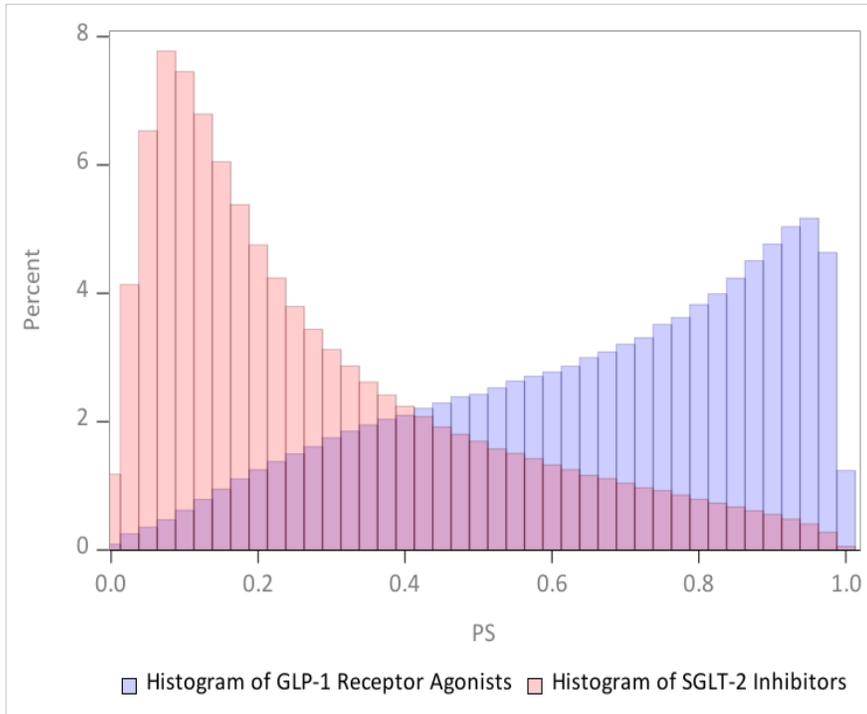


Figure 5a. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

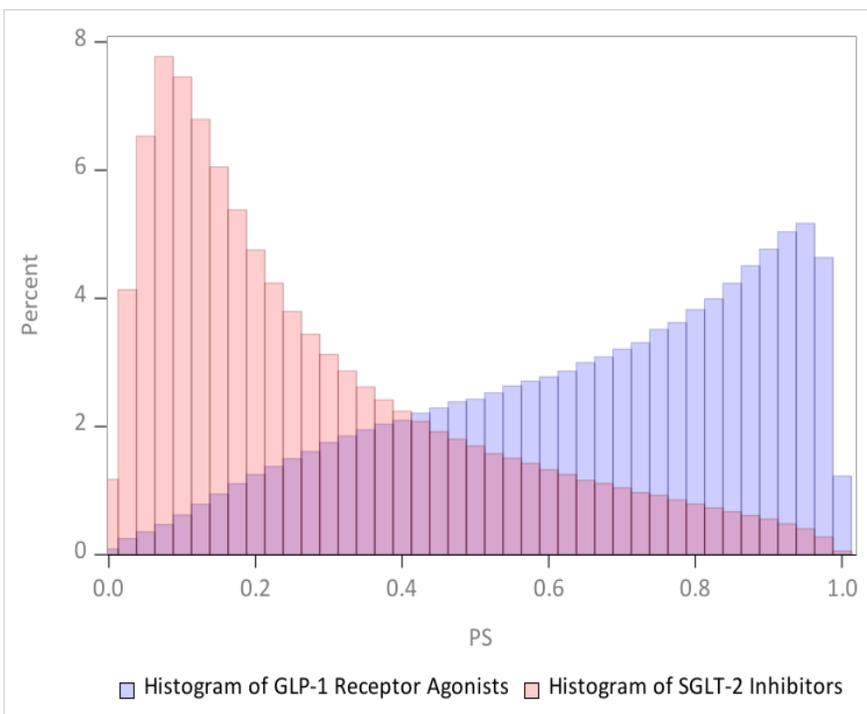


Figure 5a. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

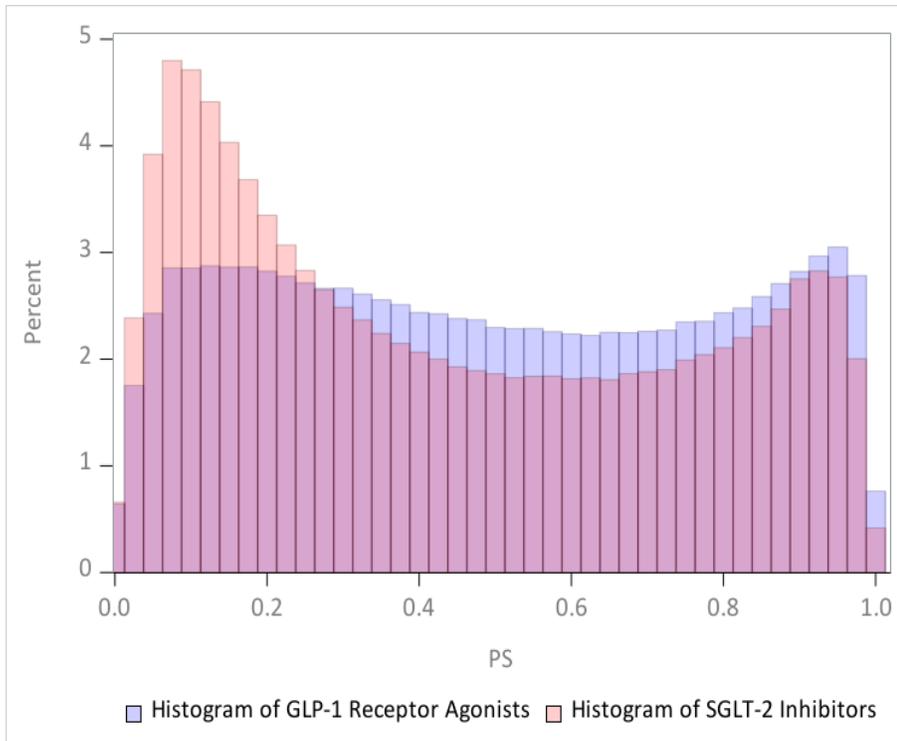
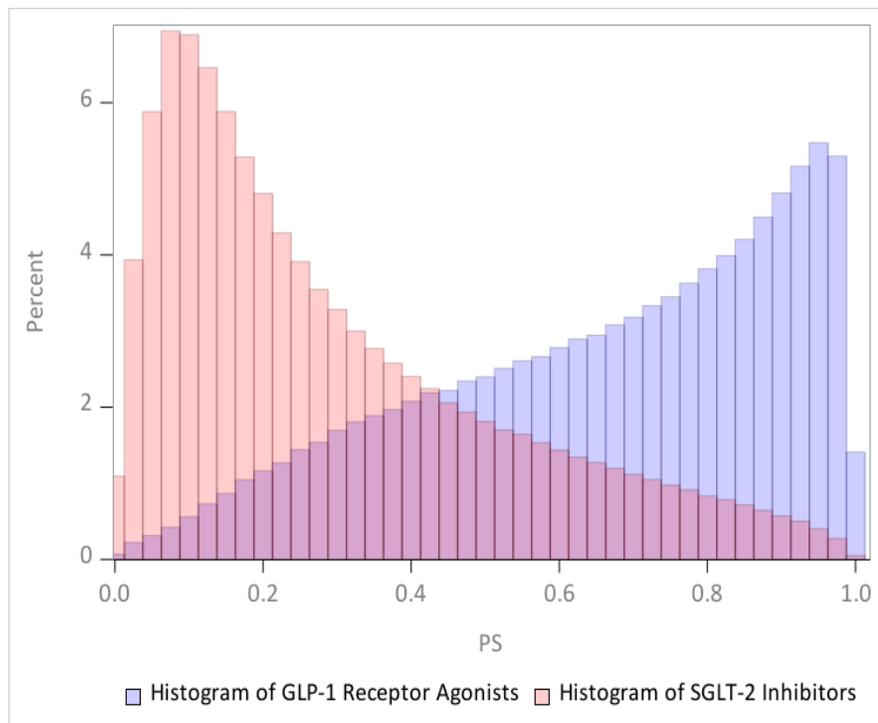


Figure 5b. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

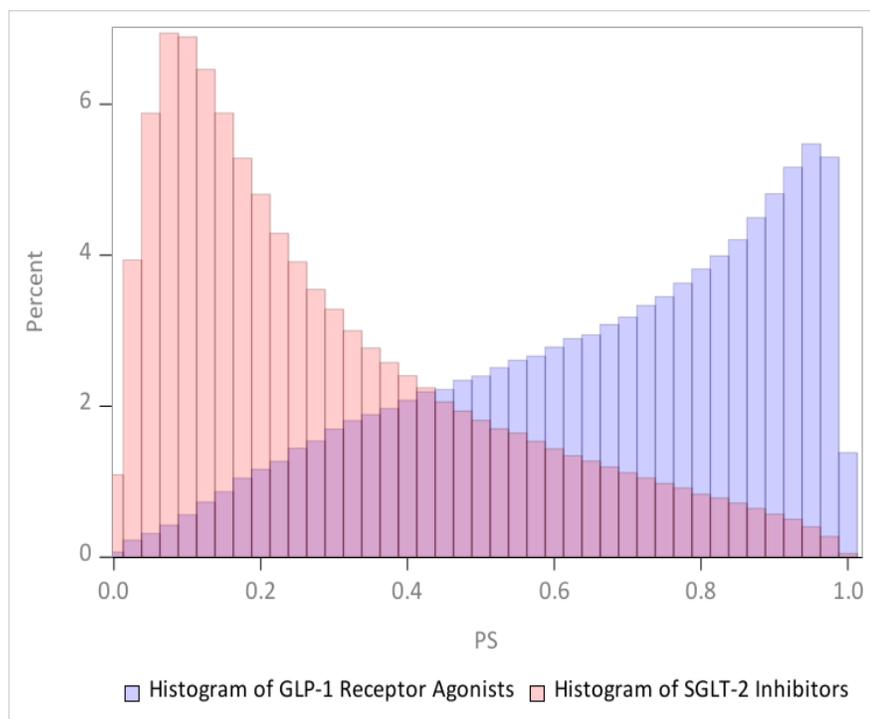


Figure 5b. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

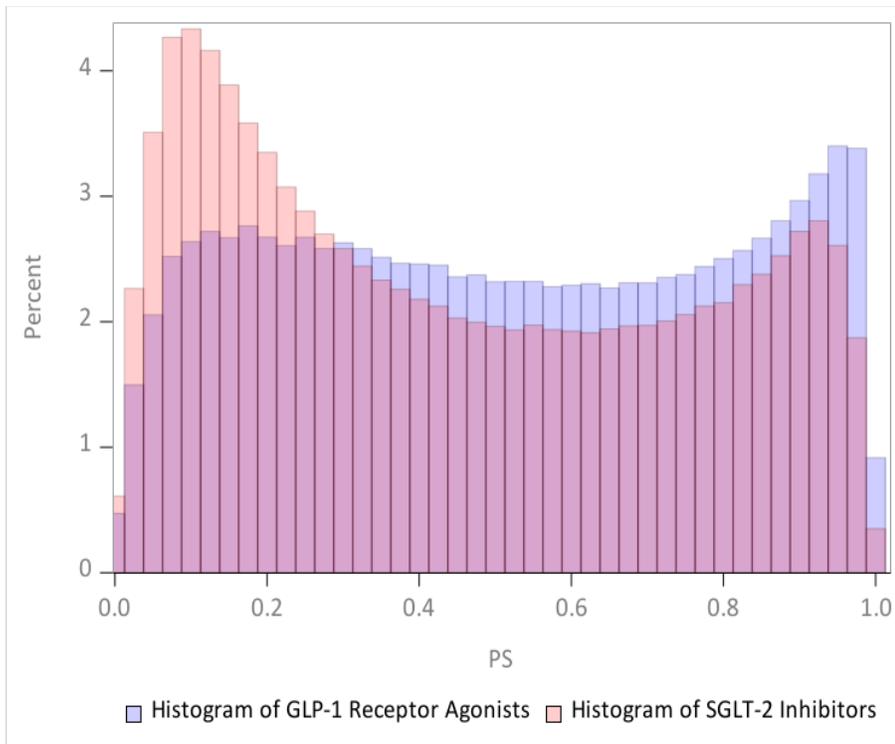
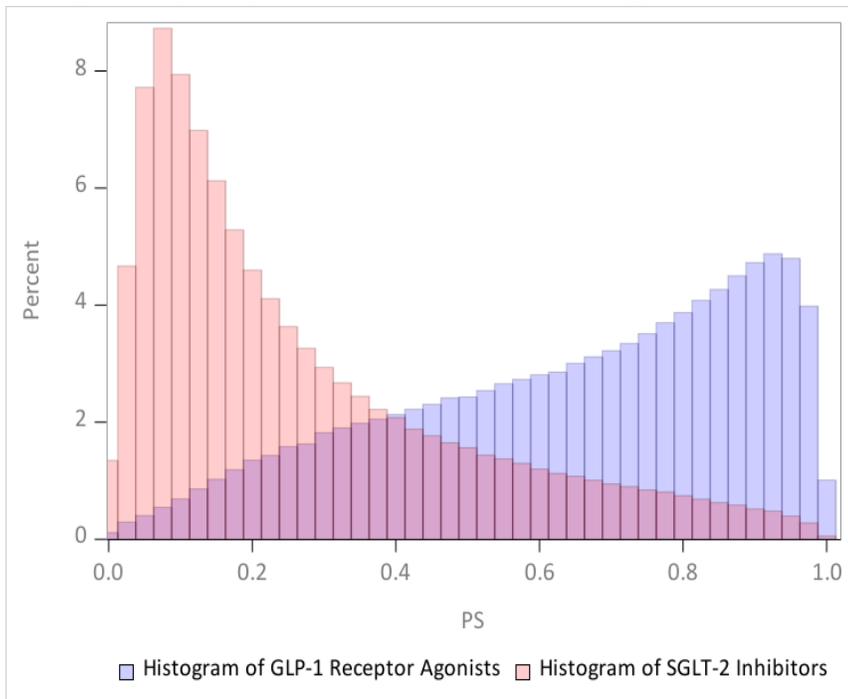


Figure 5c. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

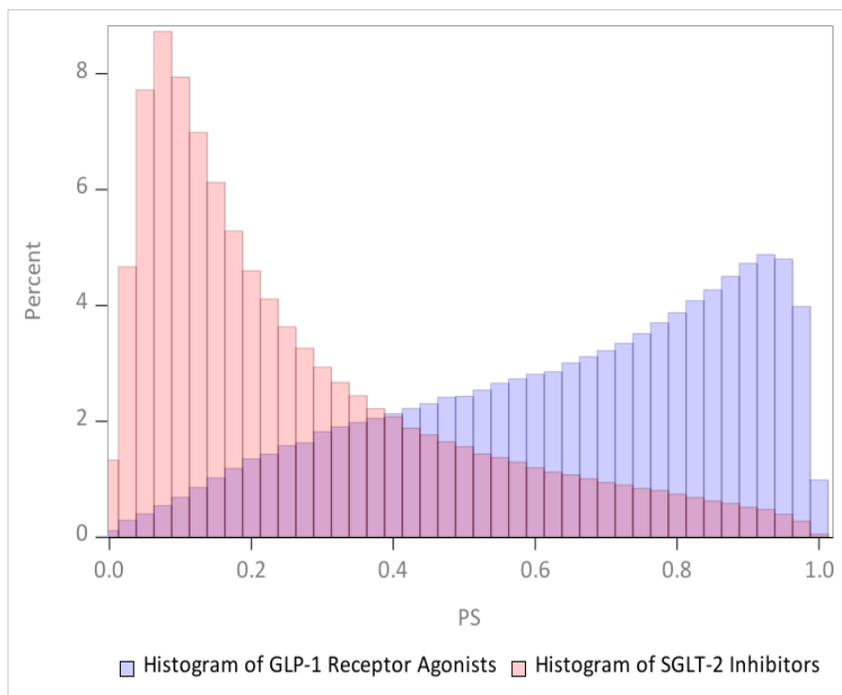


Figure 5c. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

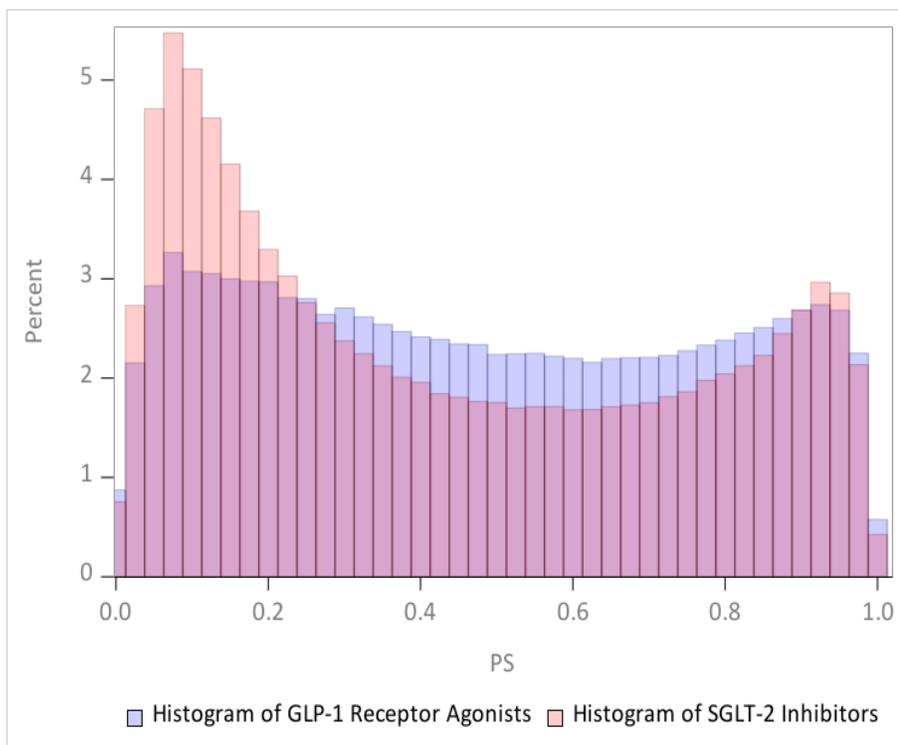
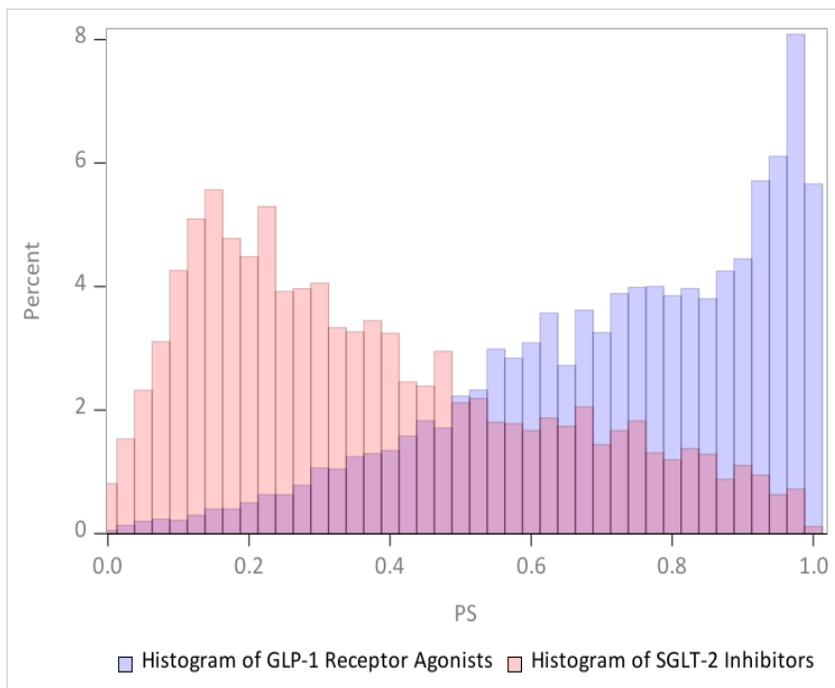


Figure 5d. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

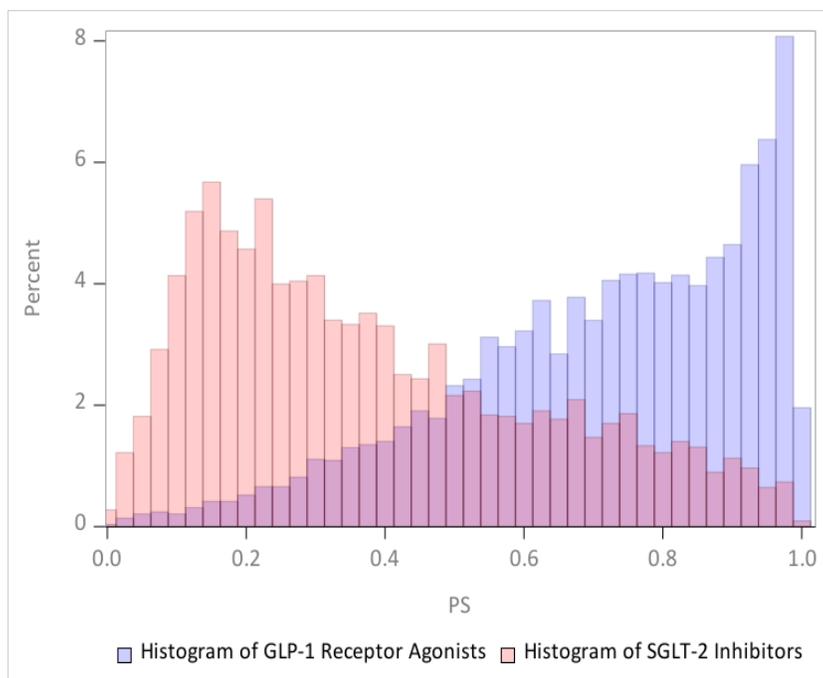


Figure 5d. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

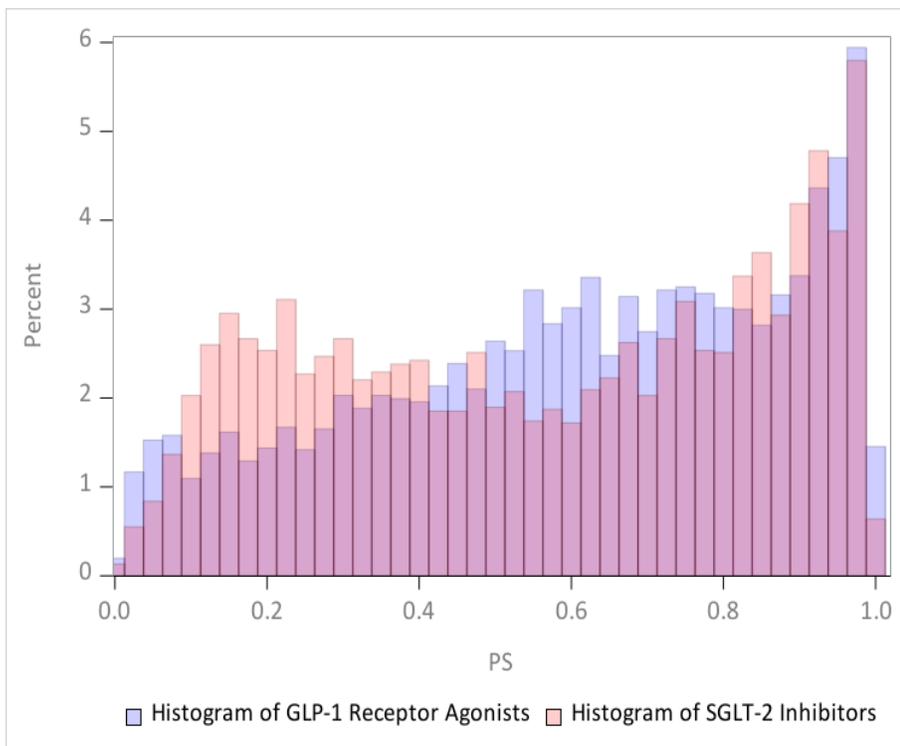
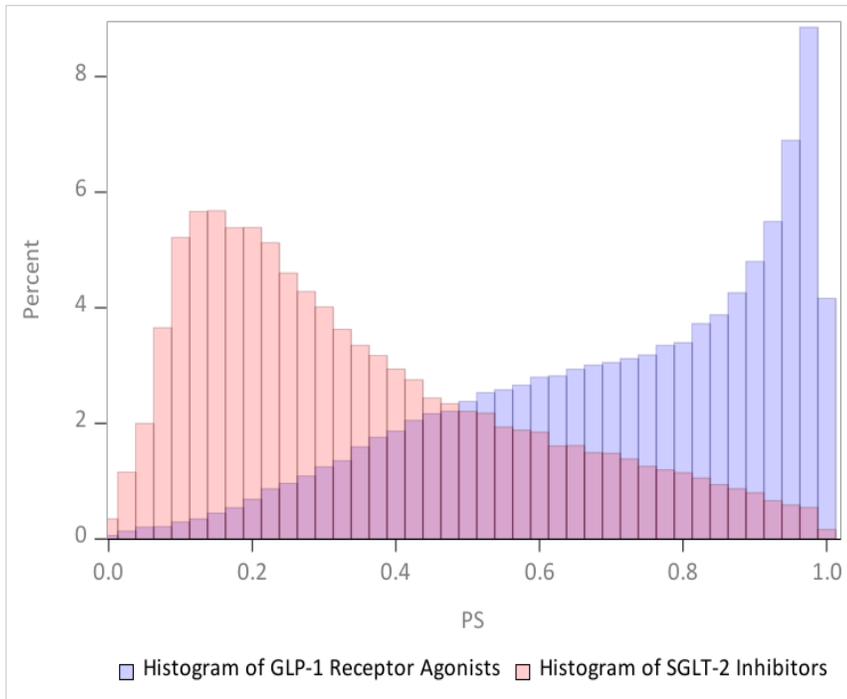


Figure 5e. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

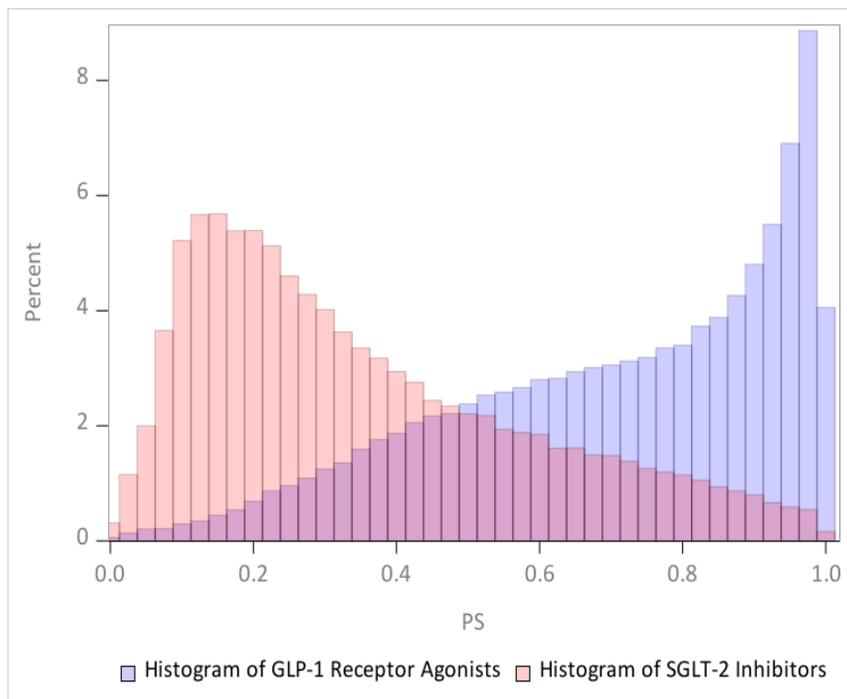


Figure 5e. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

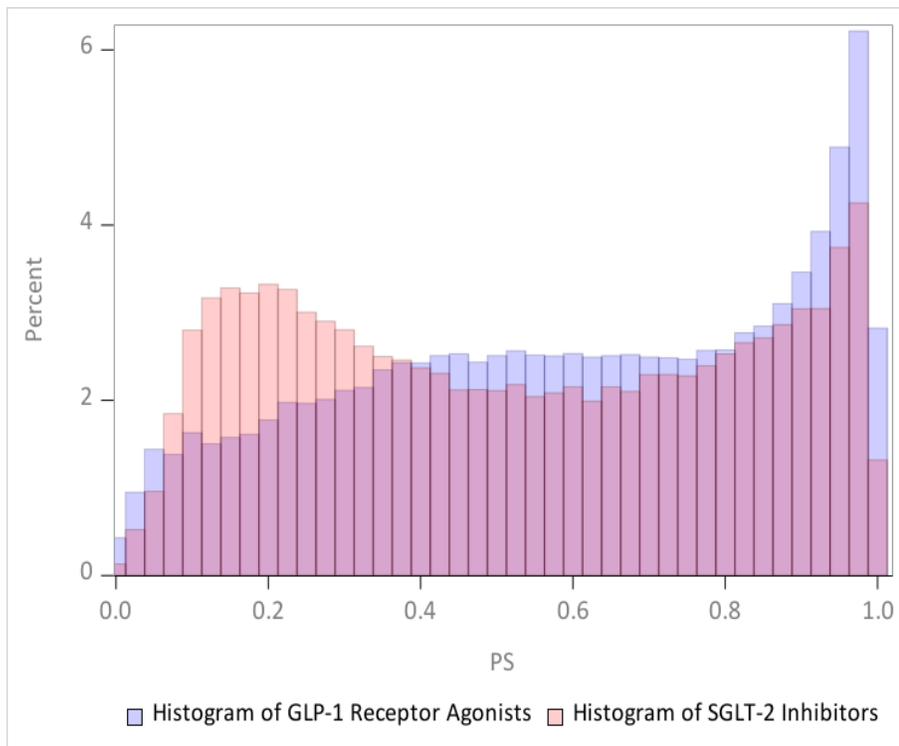
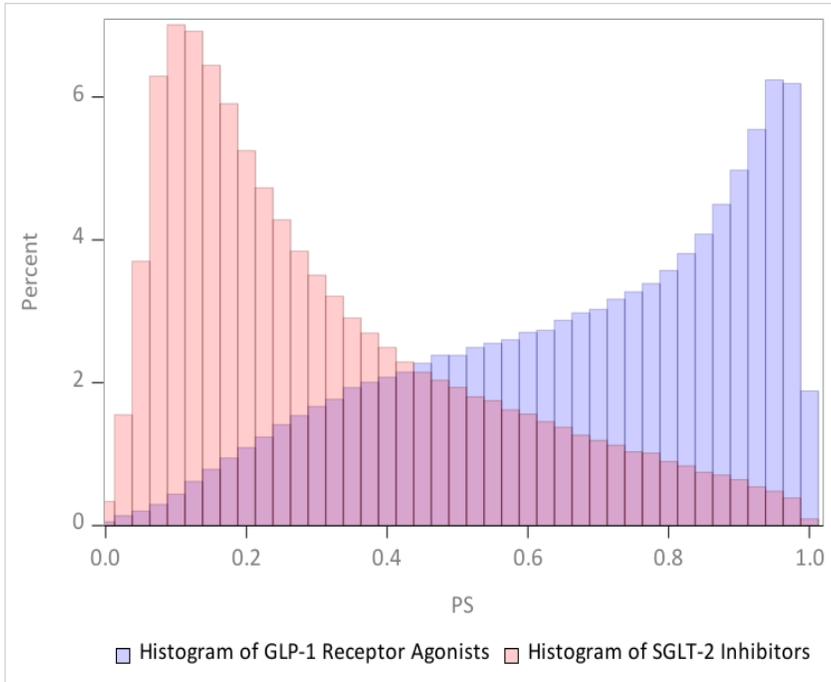


Figure 5f. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

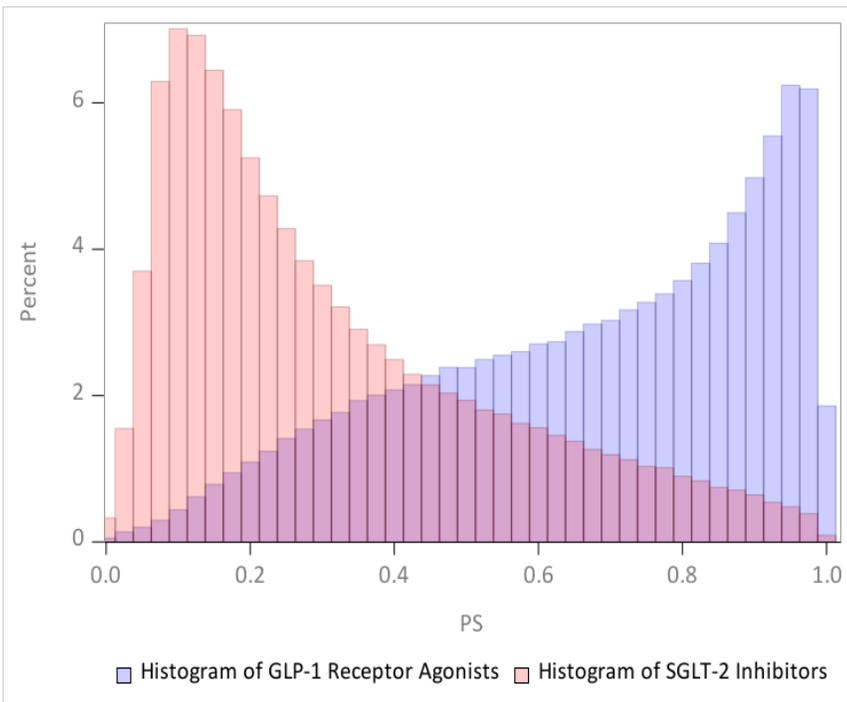


Figure 5f. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

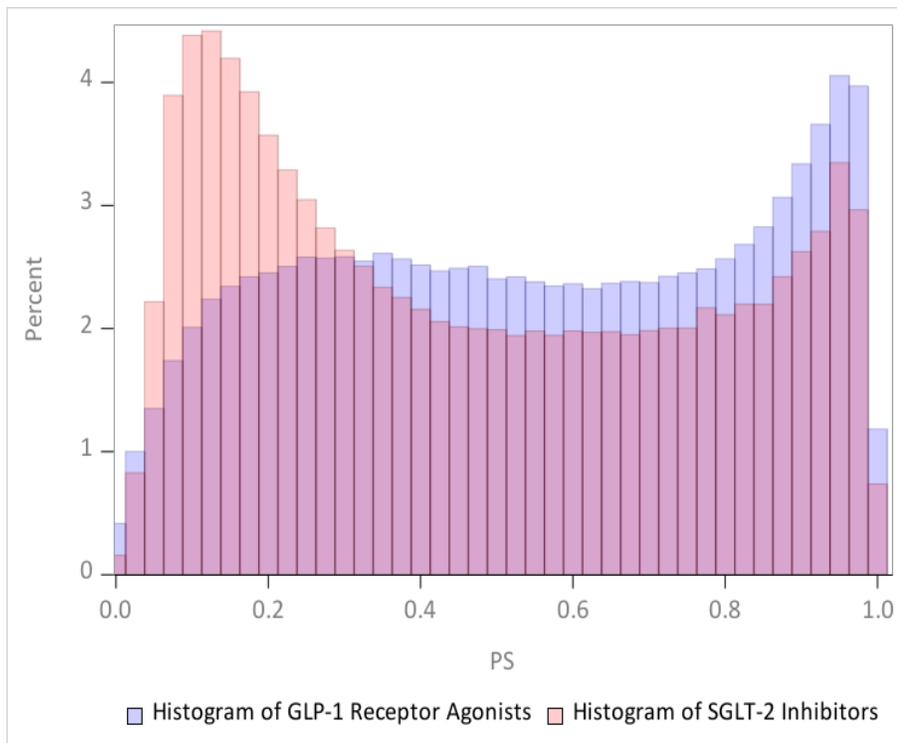
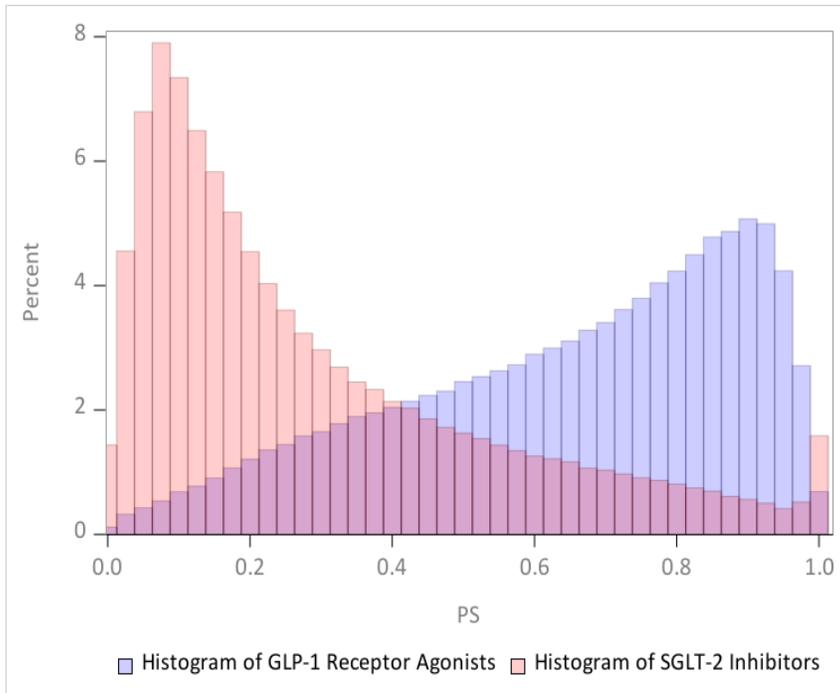


Figure 5g. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

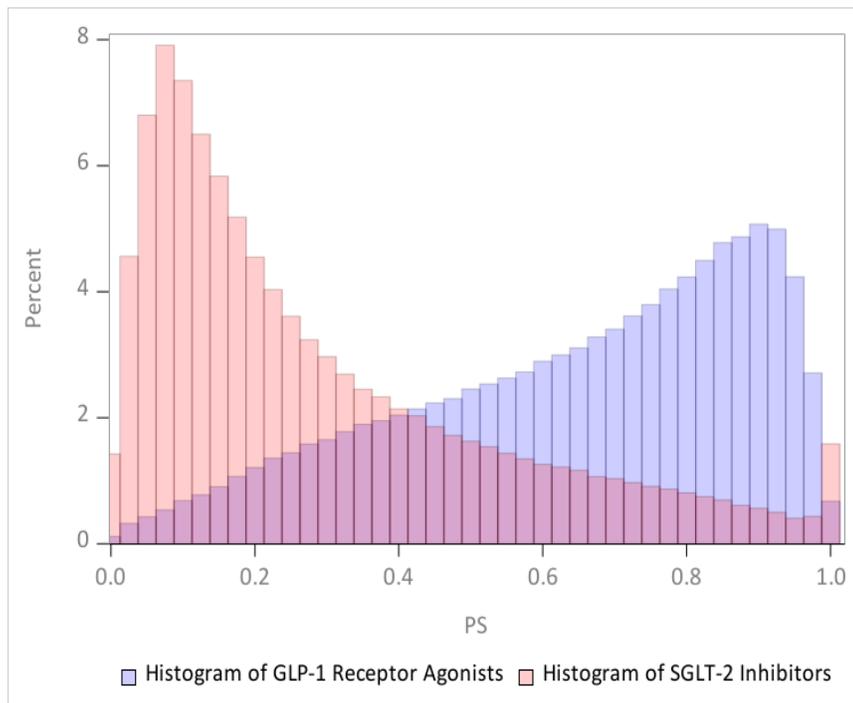


Figure 5g. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

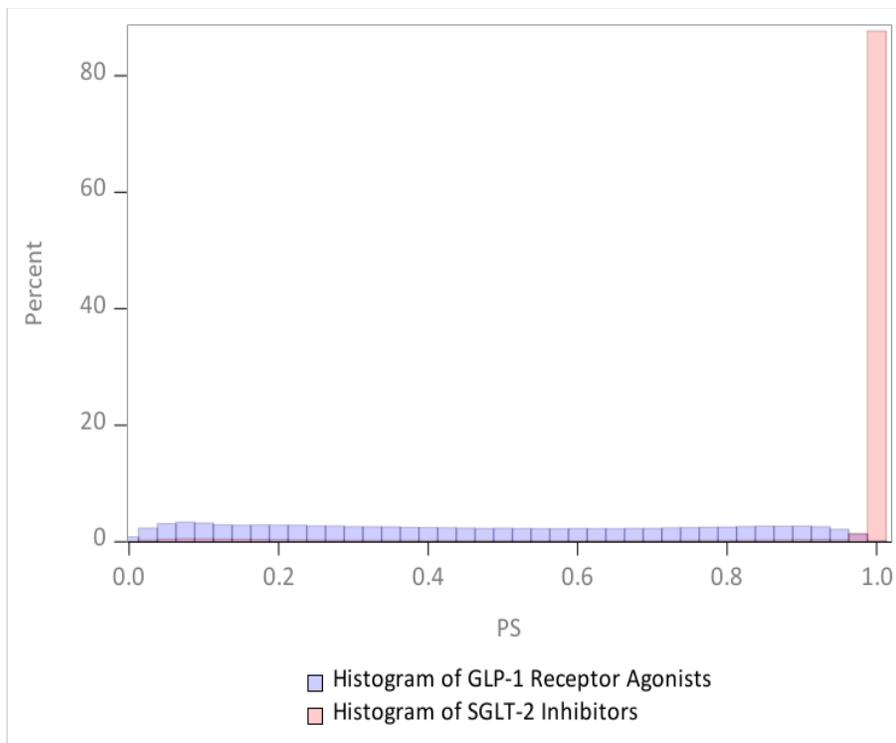
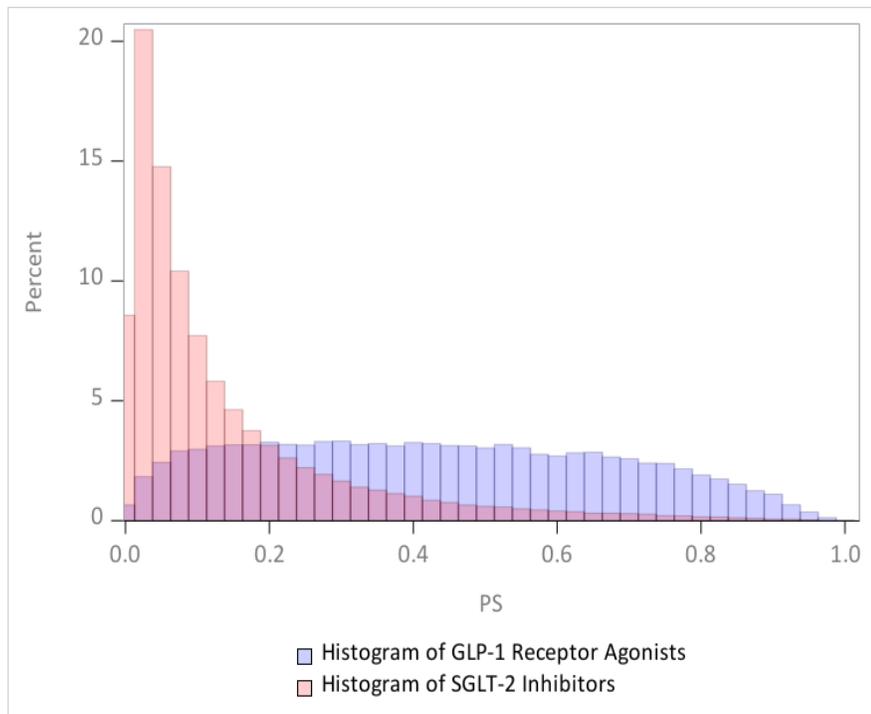


Figure 5h. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

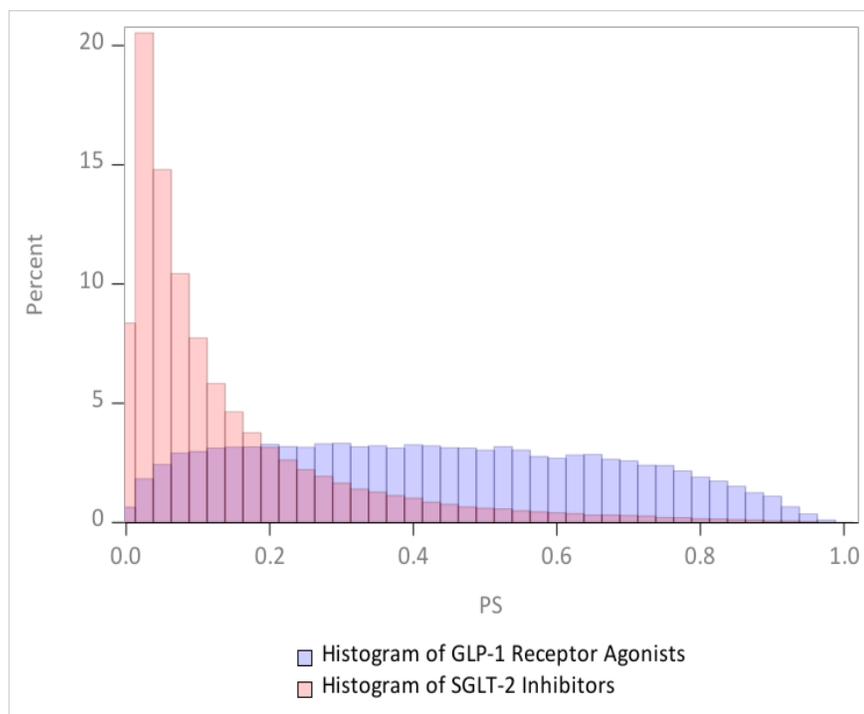


Figure 5h. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

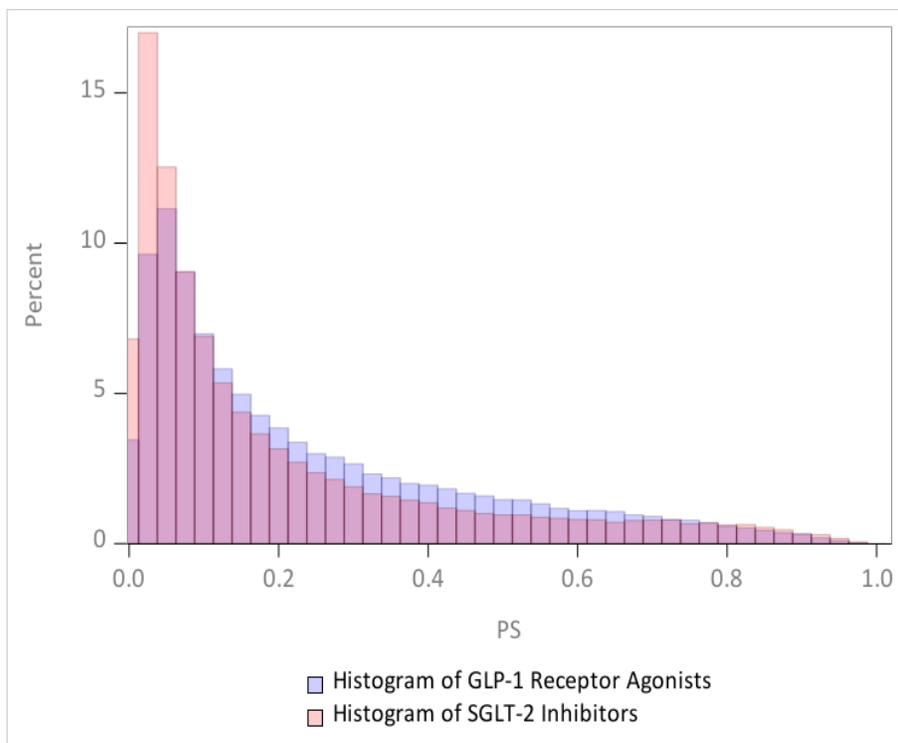
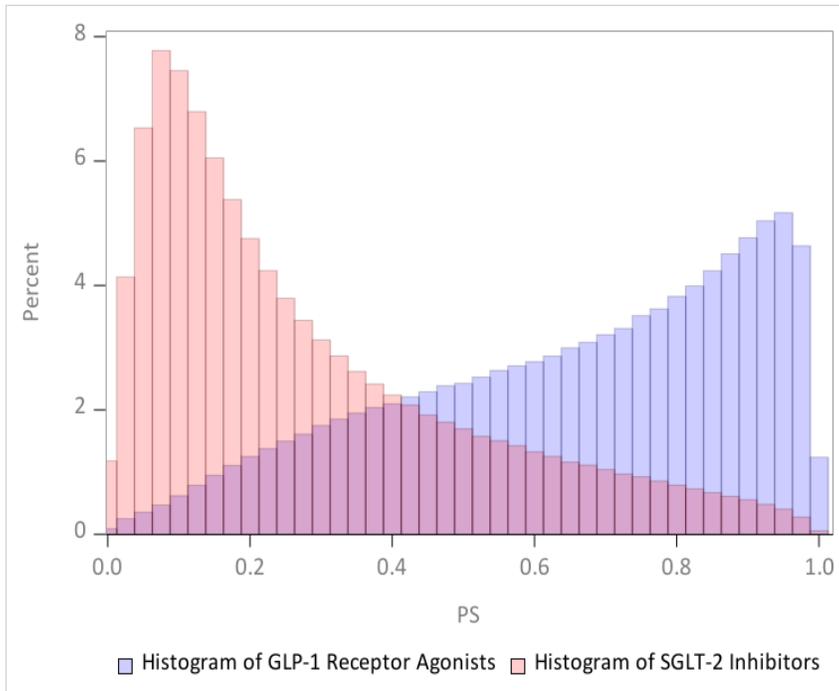


Figure 6a. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

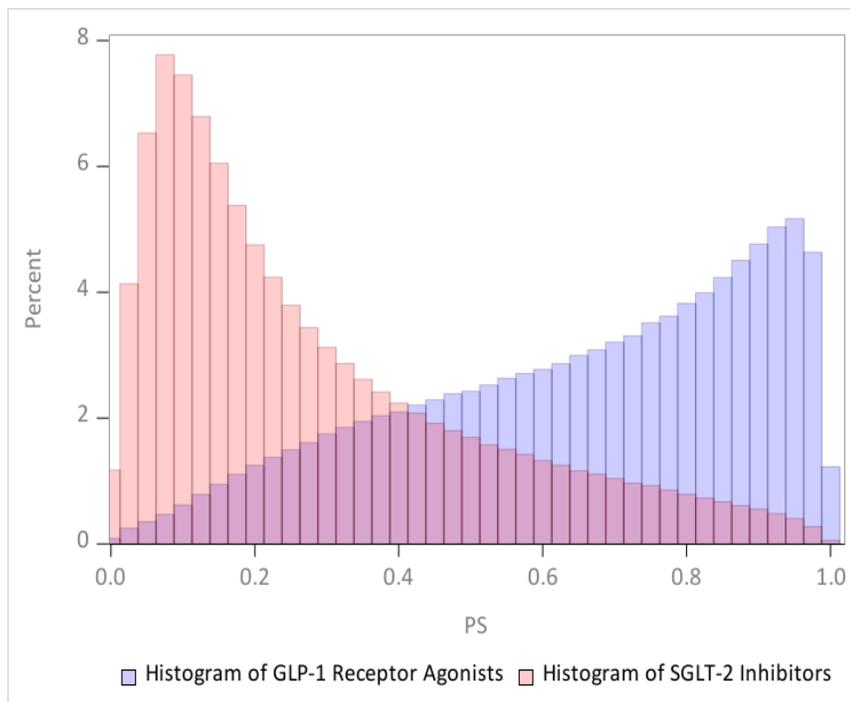


Figure 6a. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

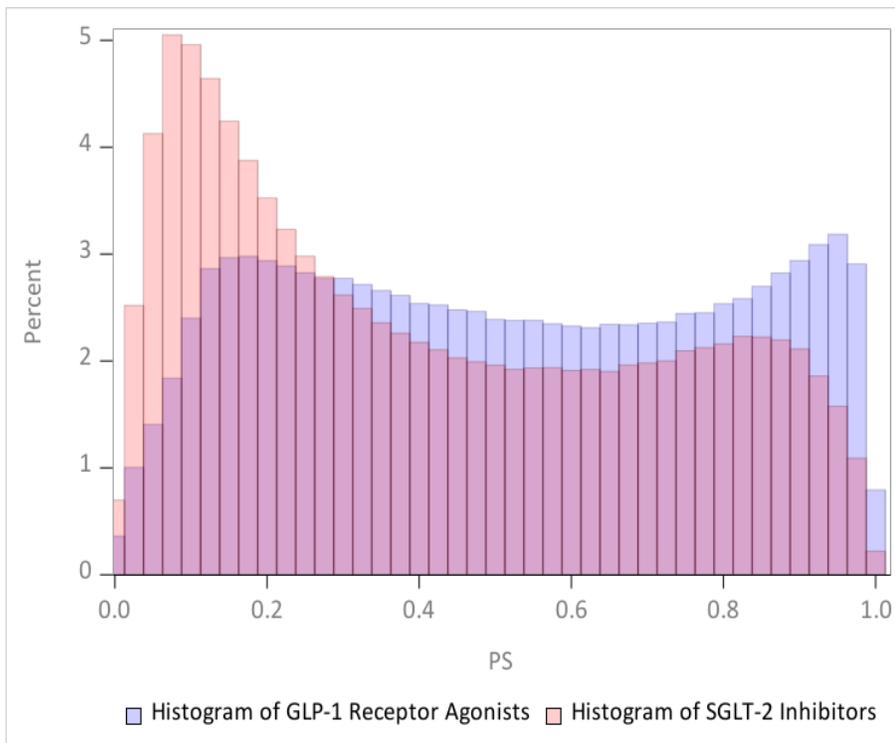
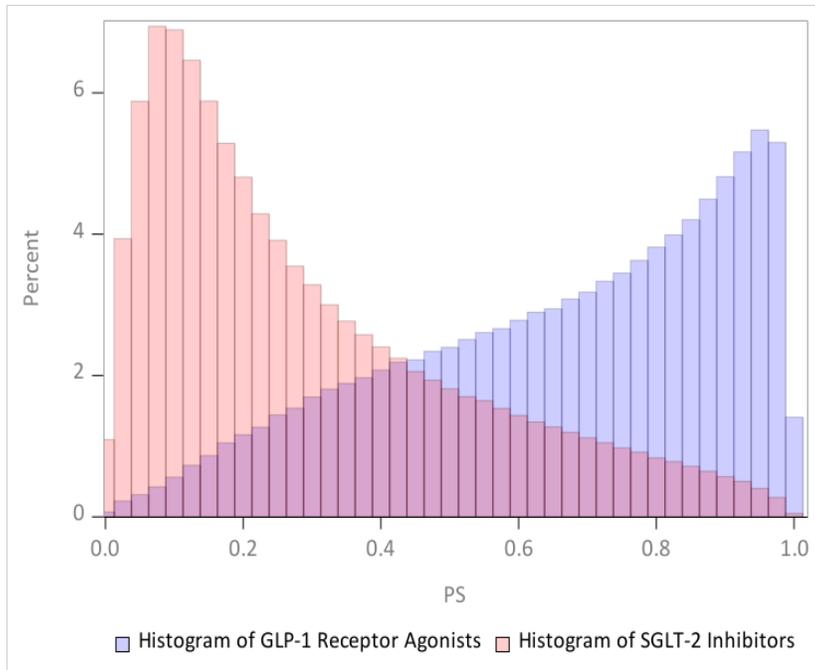


Figure 6b. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

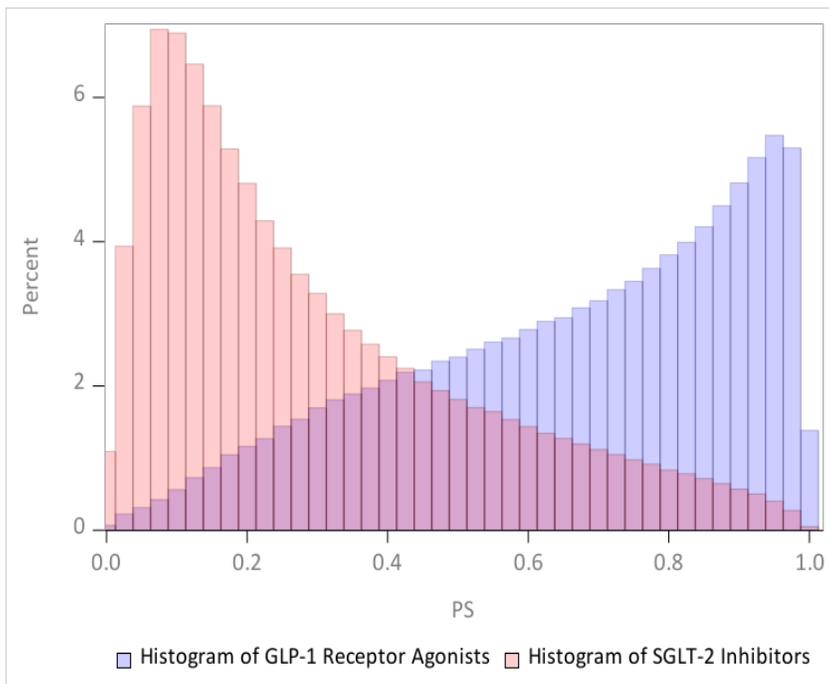


Figure 6b. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

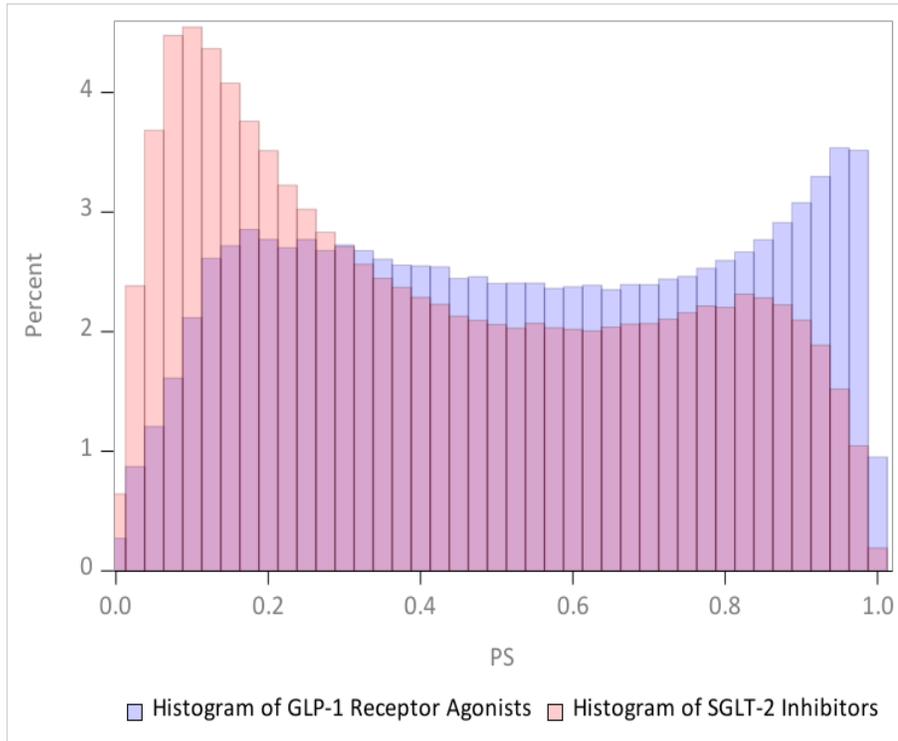
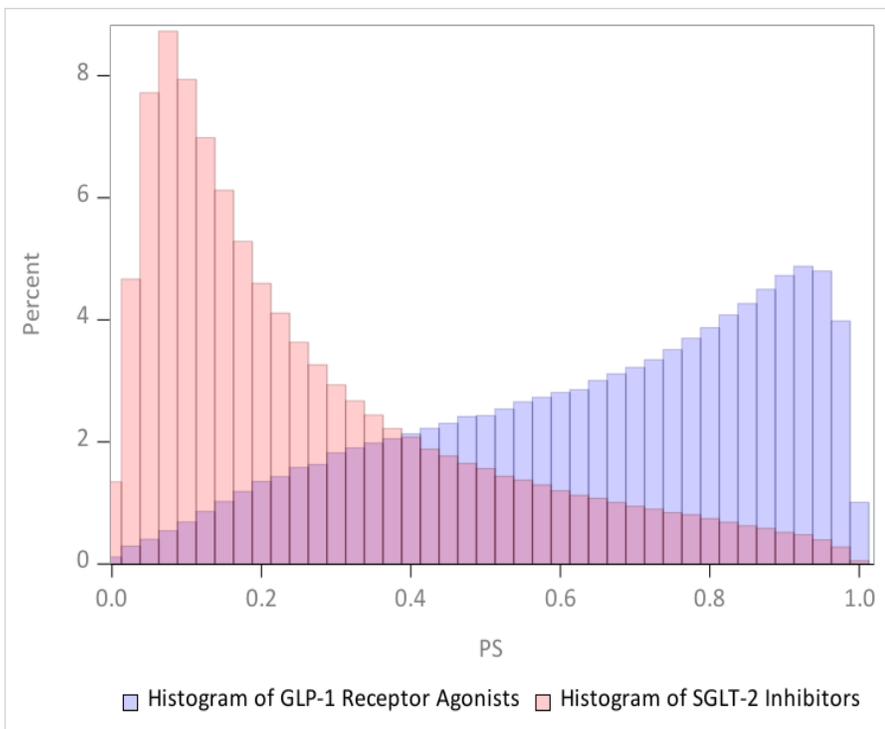


Figure 6c. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

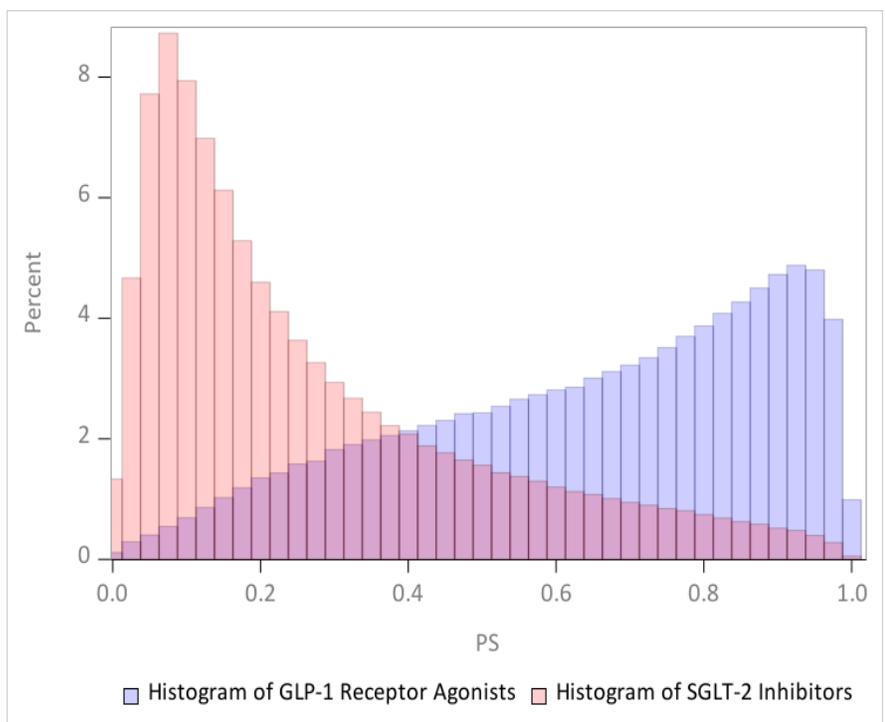


Figure 6c. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

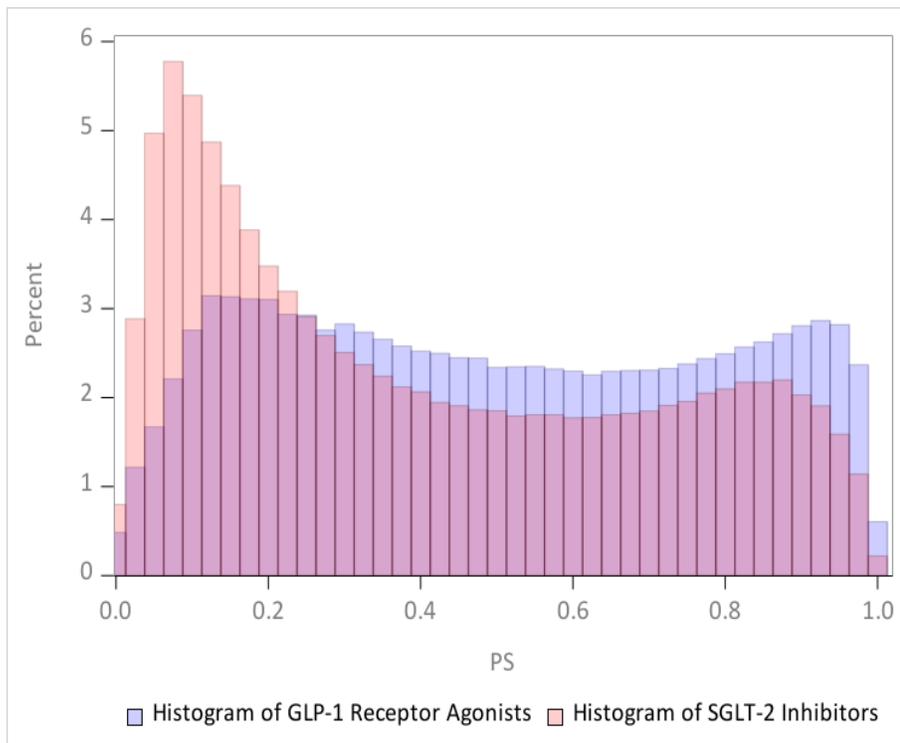
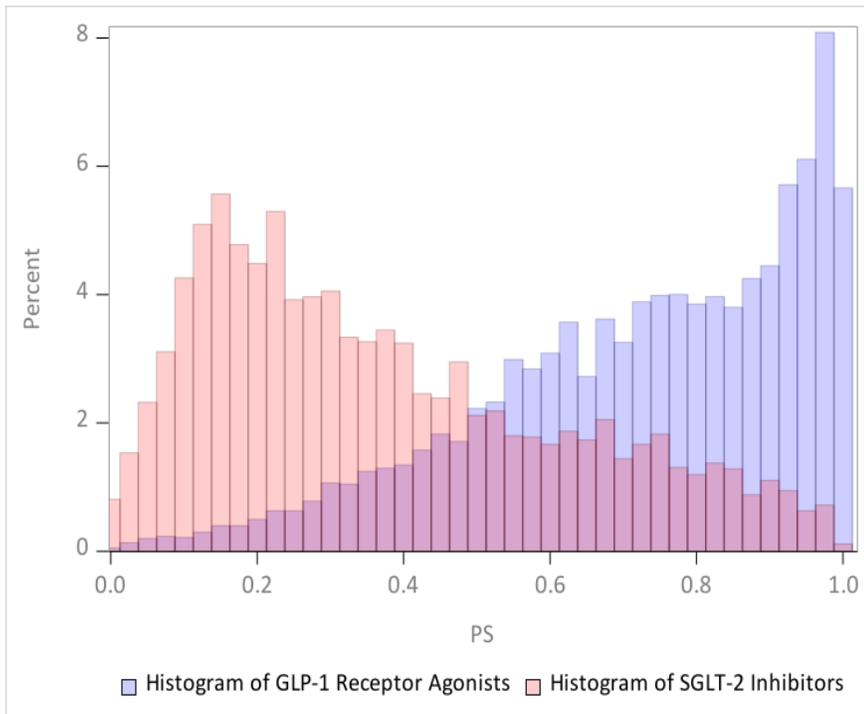


Figure 6d. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

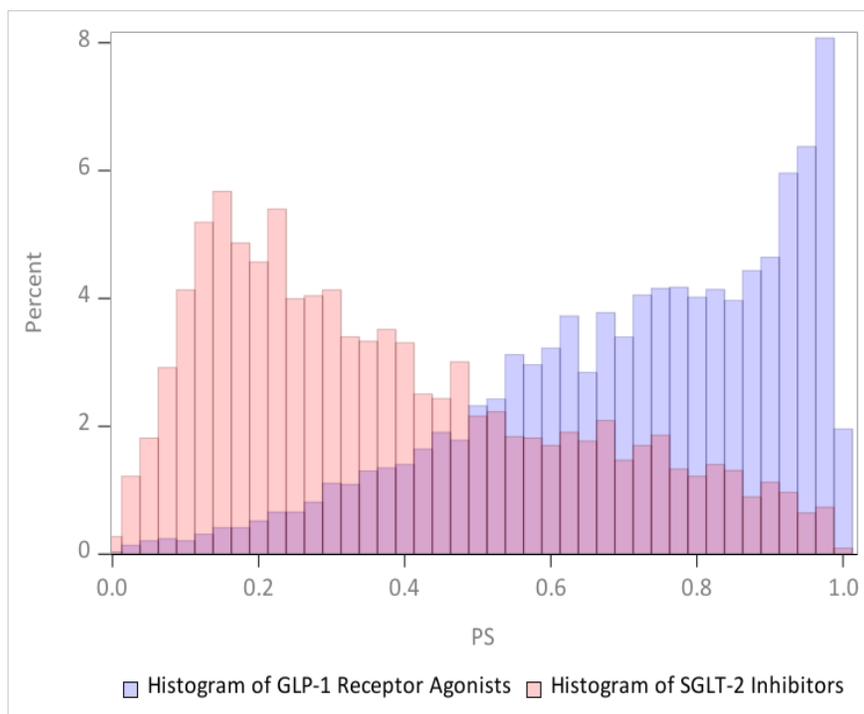


Figure 6d. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

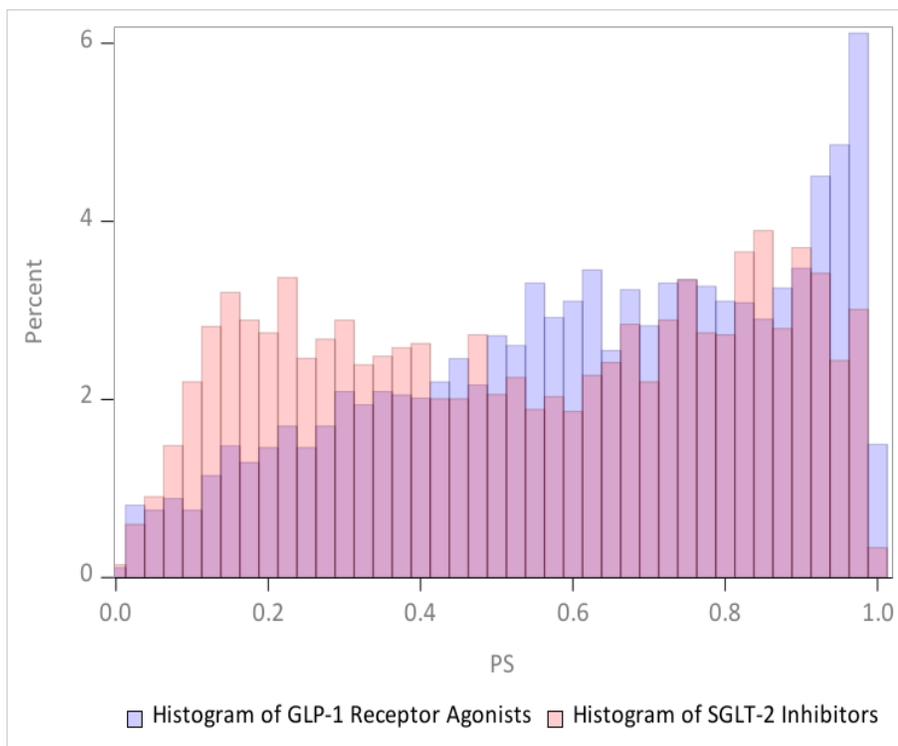
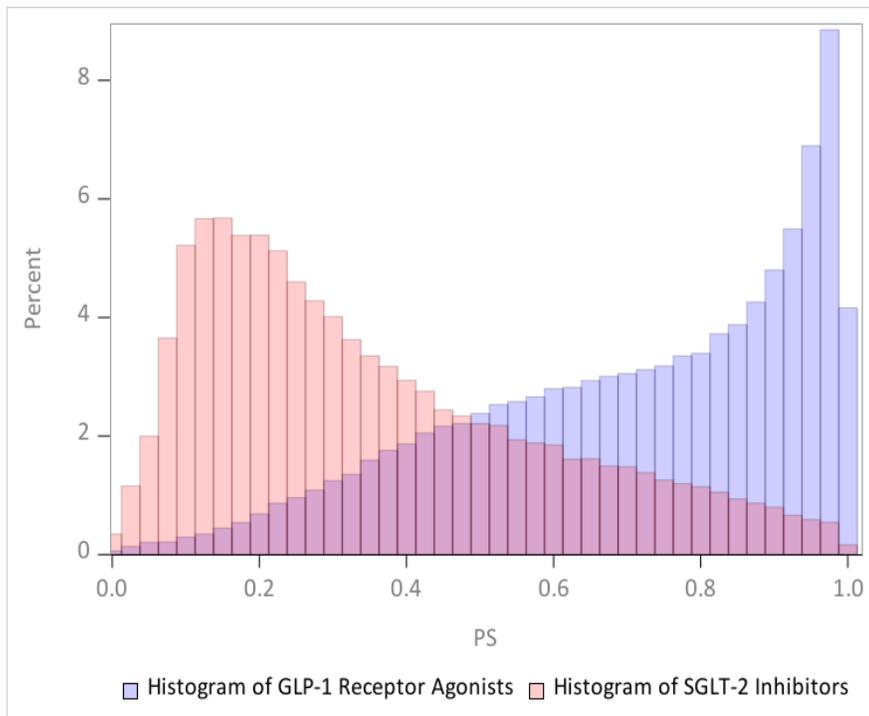


Figure 6e. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

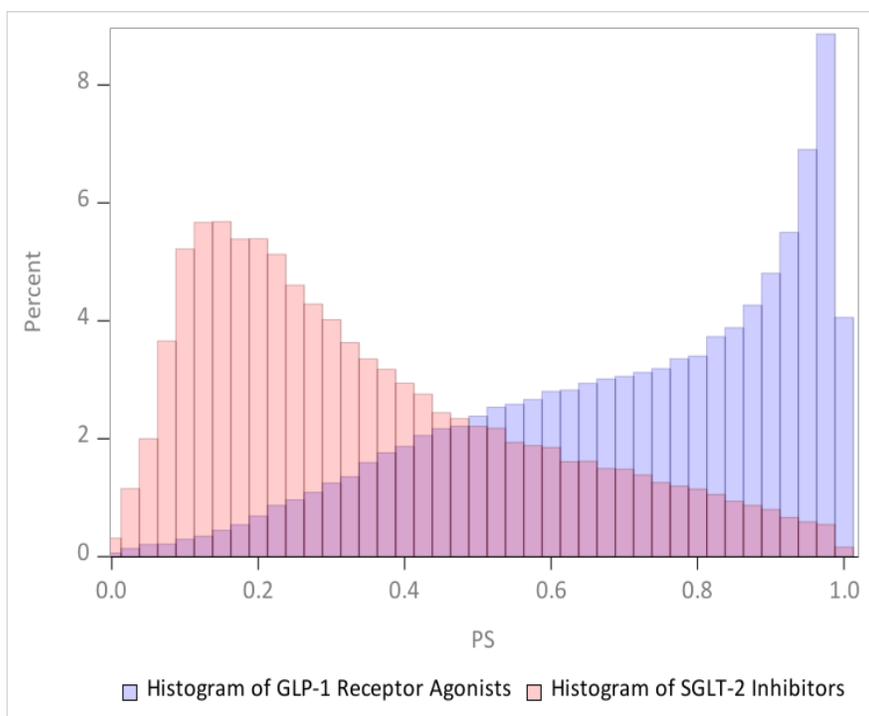


Figure 6e. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

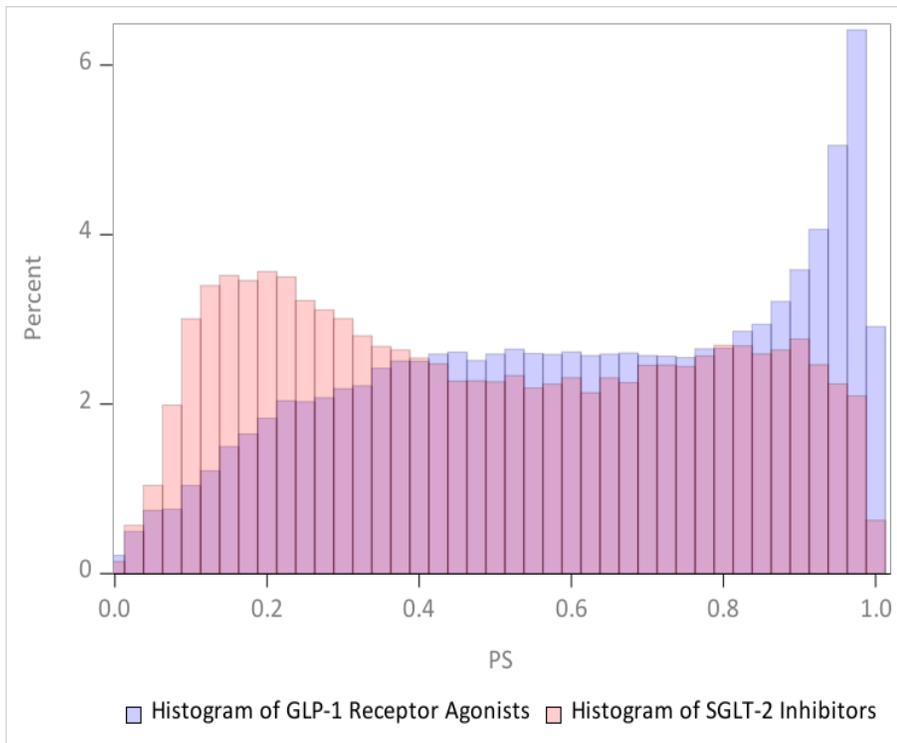
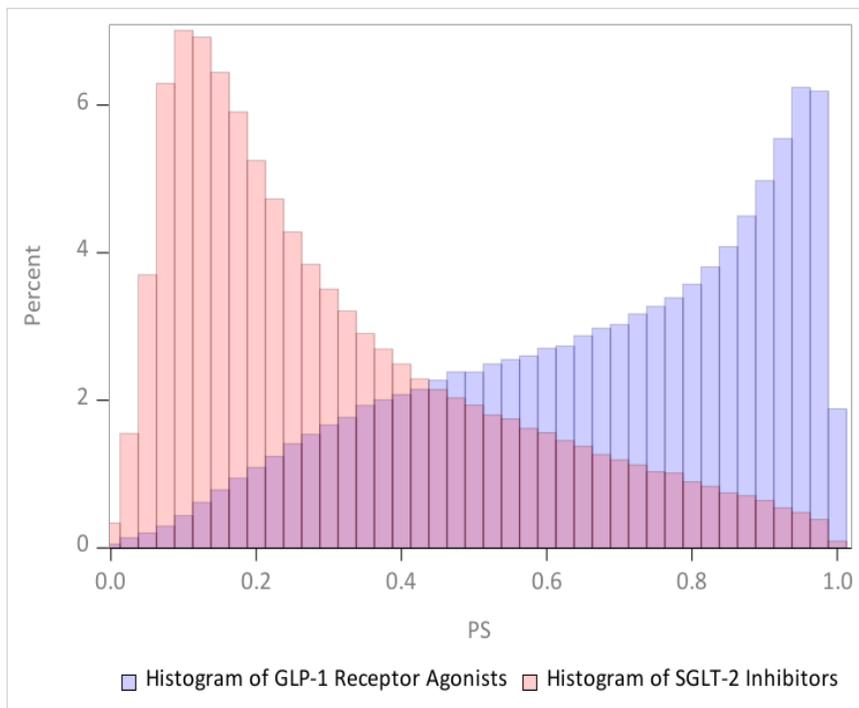


Figure 6f. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

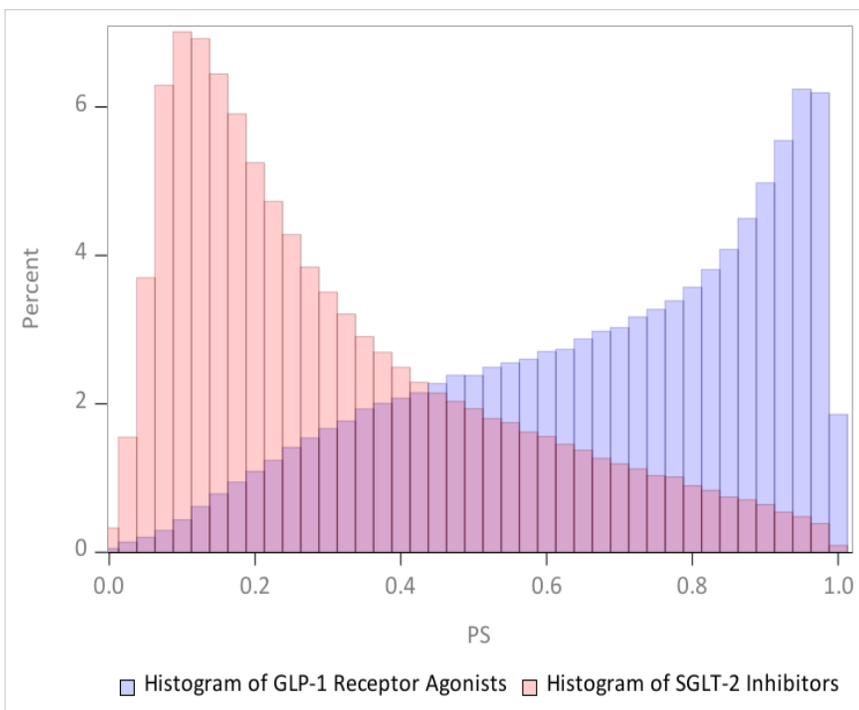


Figure 6f. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

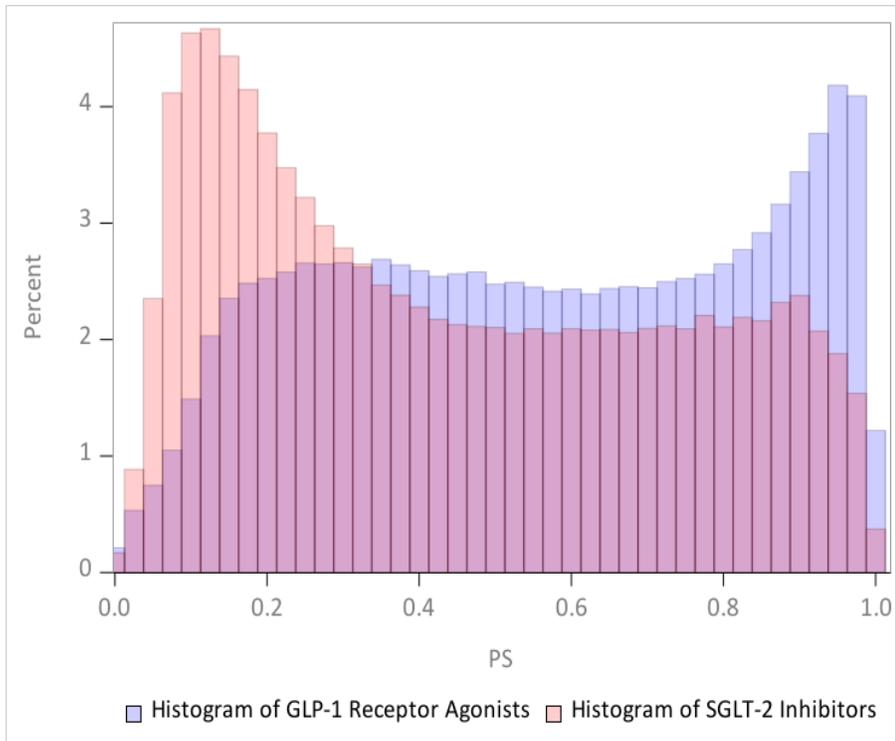
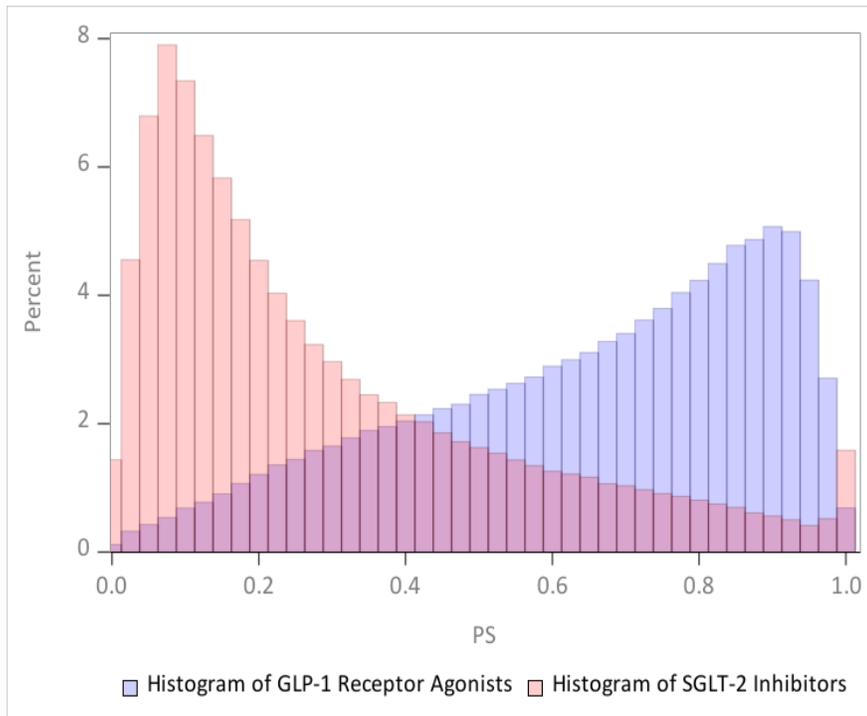


Figure 6g. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

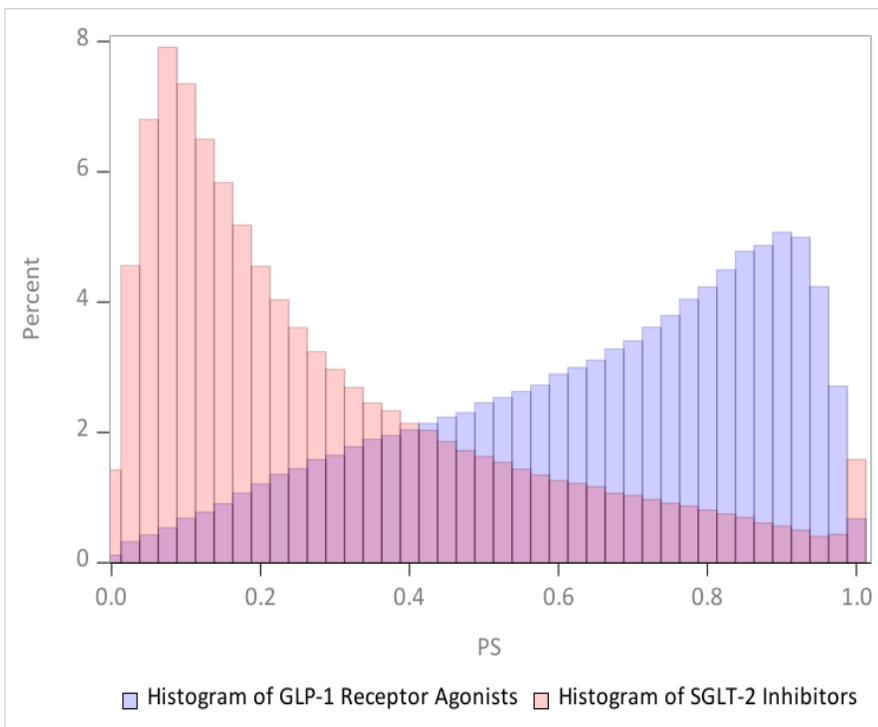


Figure 6g. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

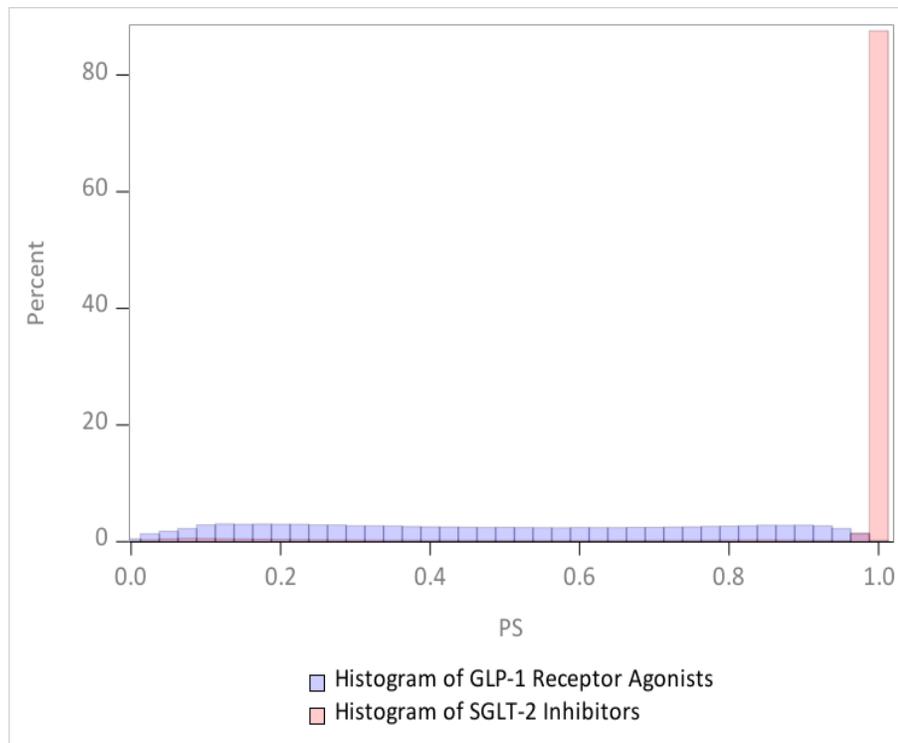
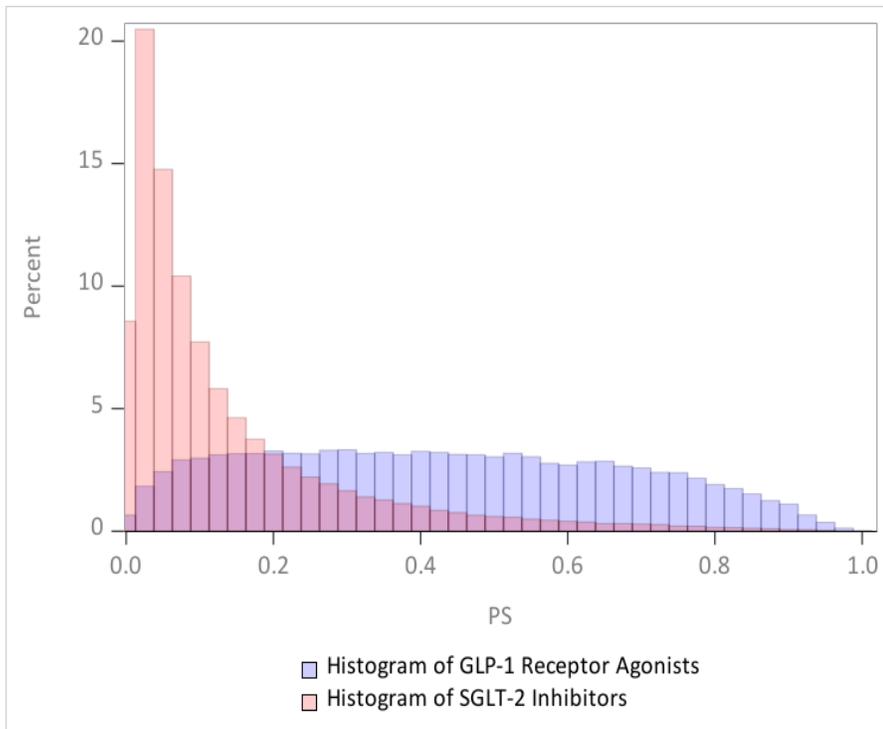


Figure 6h. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming

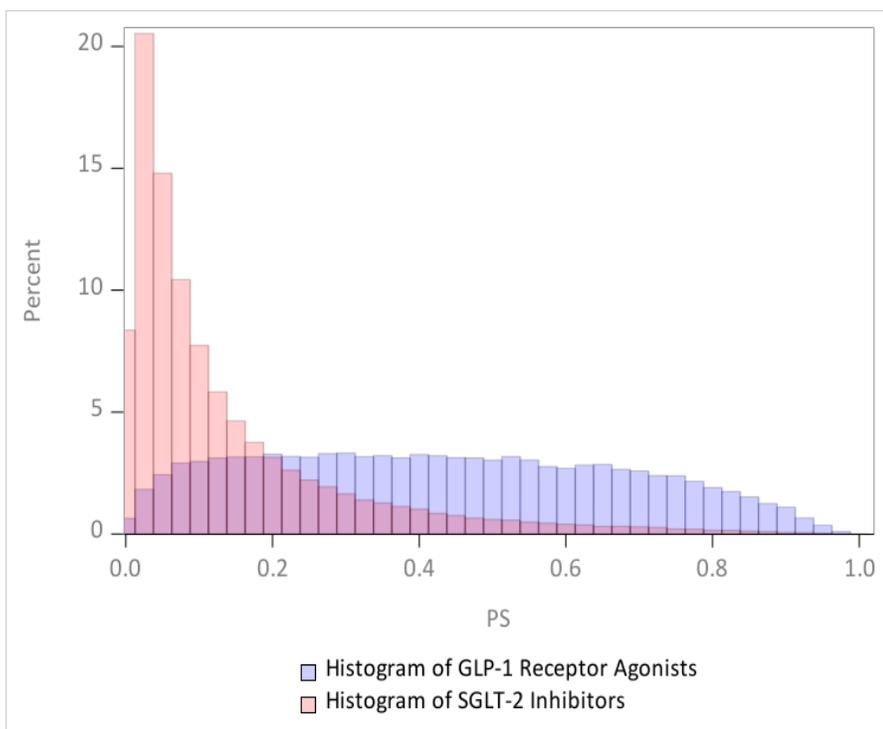


Figure 6h. Histograms Depicting Propensity Score Distributions Before and After Adjustment for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

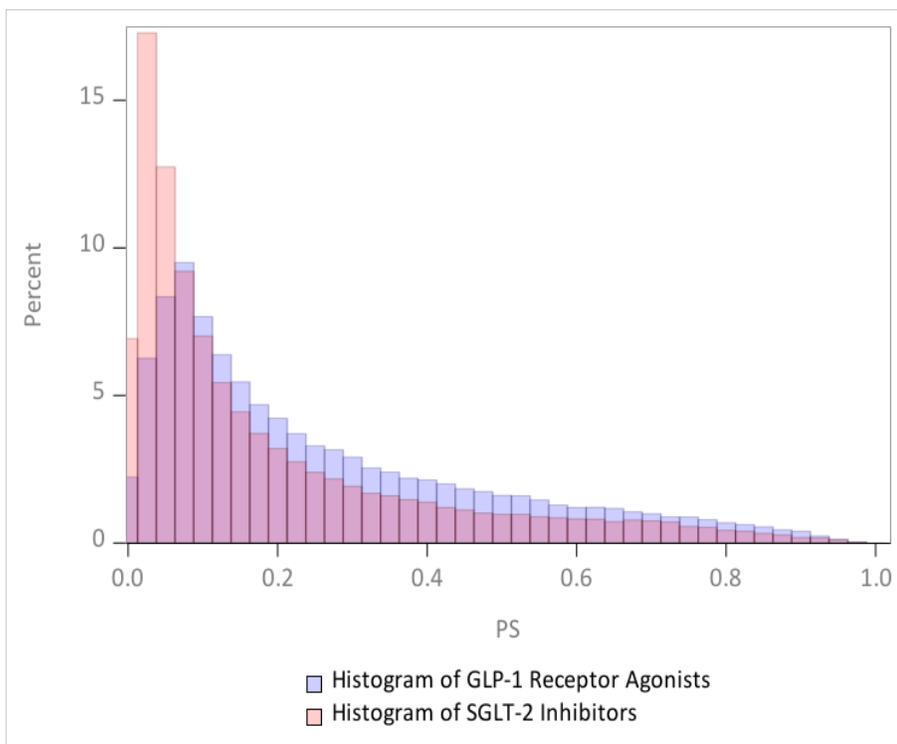


Figure 7a. Forest Plot of Hazard Ratios (HR) and 95% Confidence Intervals (CI) for Site-Adjusted Analyses in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

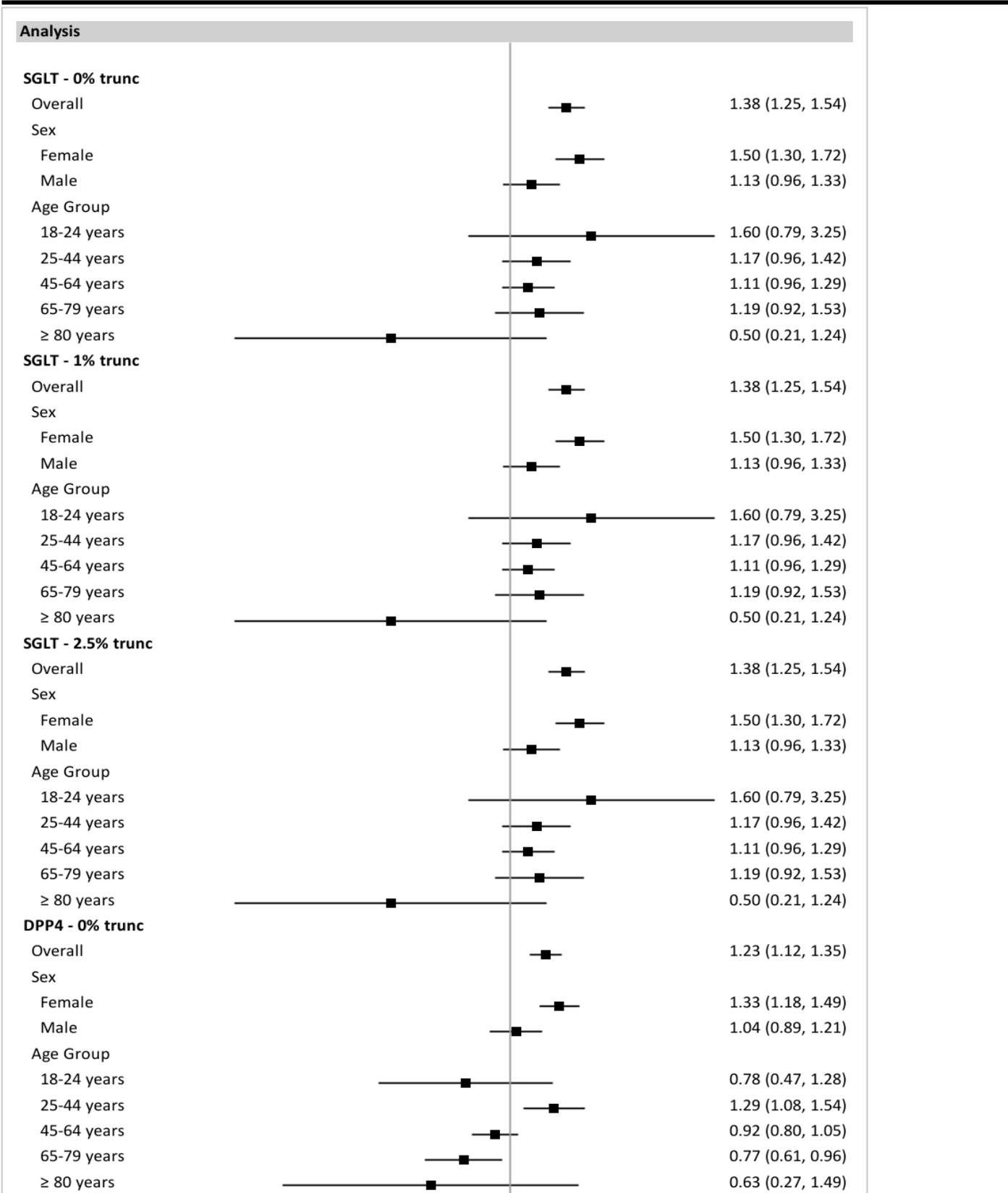


Figure 7a. Forest Plot of Hazard Ratios (HR) and 95% Confidence Intervals (CI) for Site-Adjusted Analyses in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

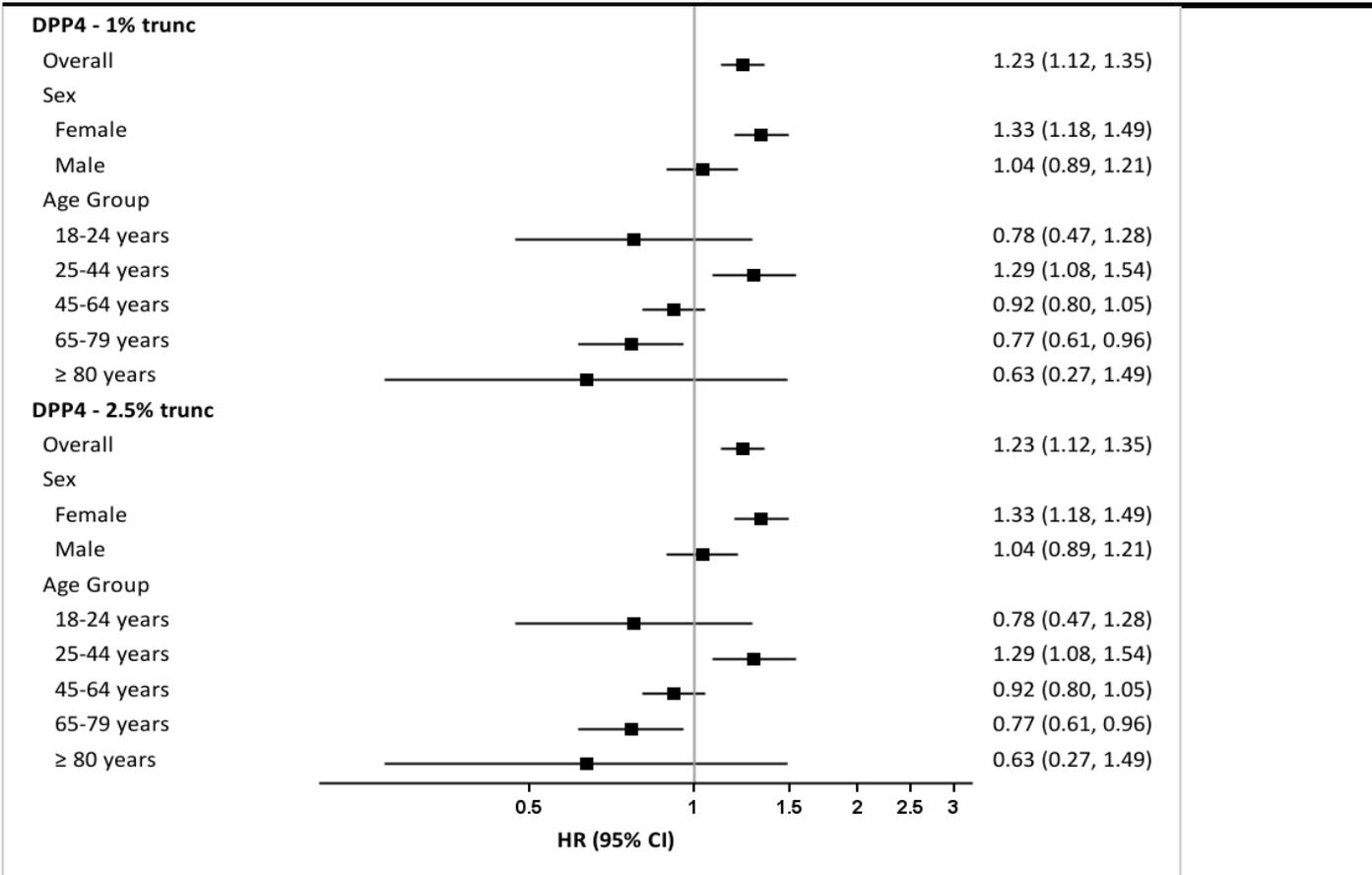


Figure 7b. Forest Plot of Hazard Ratios (HR) and 95% Confidence Intervals (CI) for Inverse Probability of Treatment Weighted Analyses in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

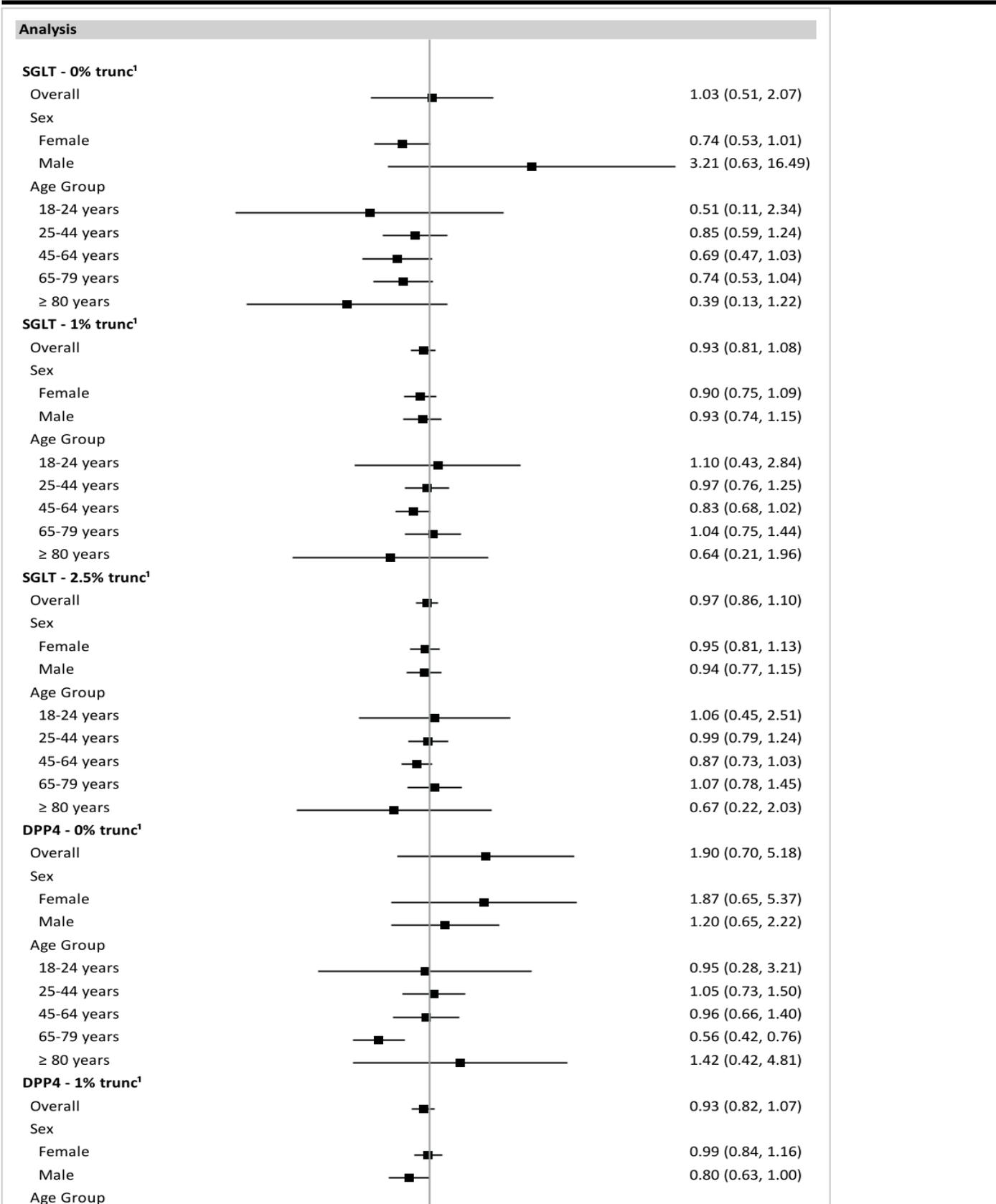
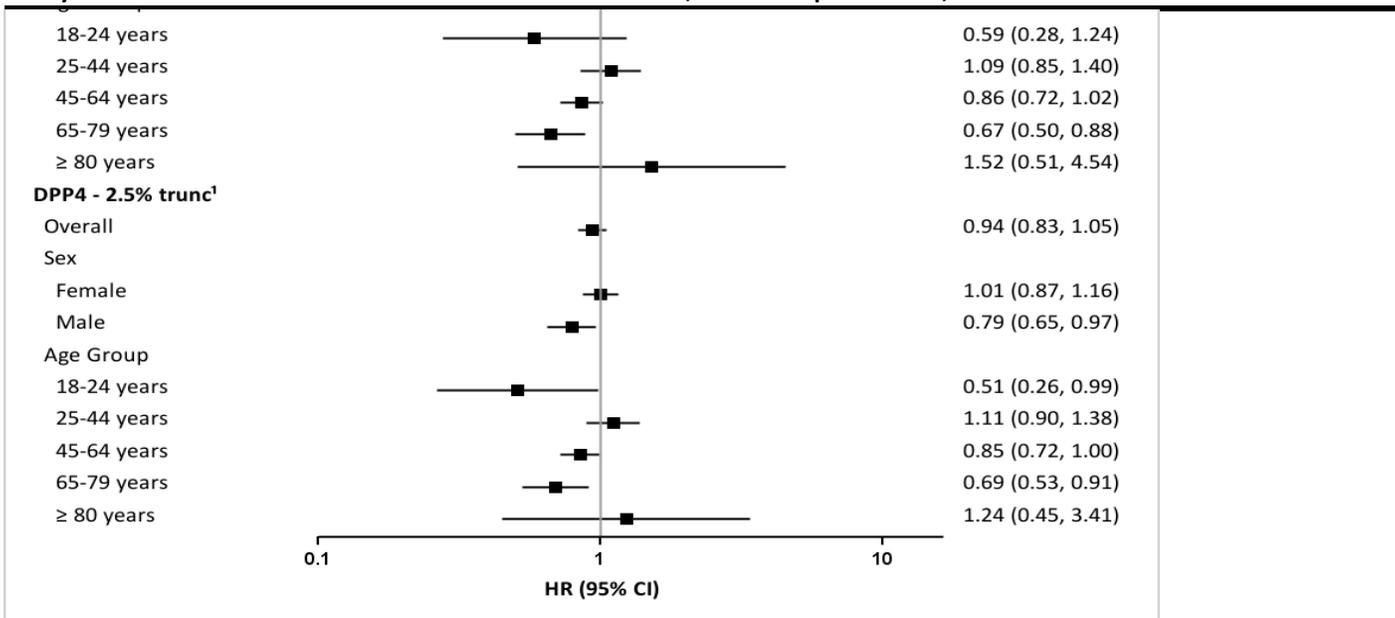


Figure 7b. Forest Plot of Hazard Ratios (HR) and 95% Confidence Intervals (CI) for Inverse Probability of Treatment Weighted Analyses in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023



¹Weighted using Average Treatment Effect, Stabilized, (ATES)

Figure 8a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

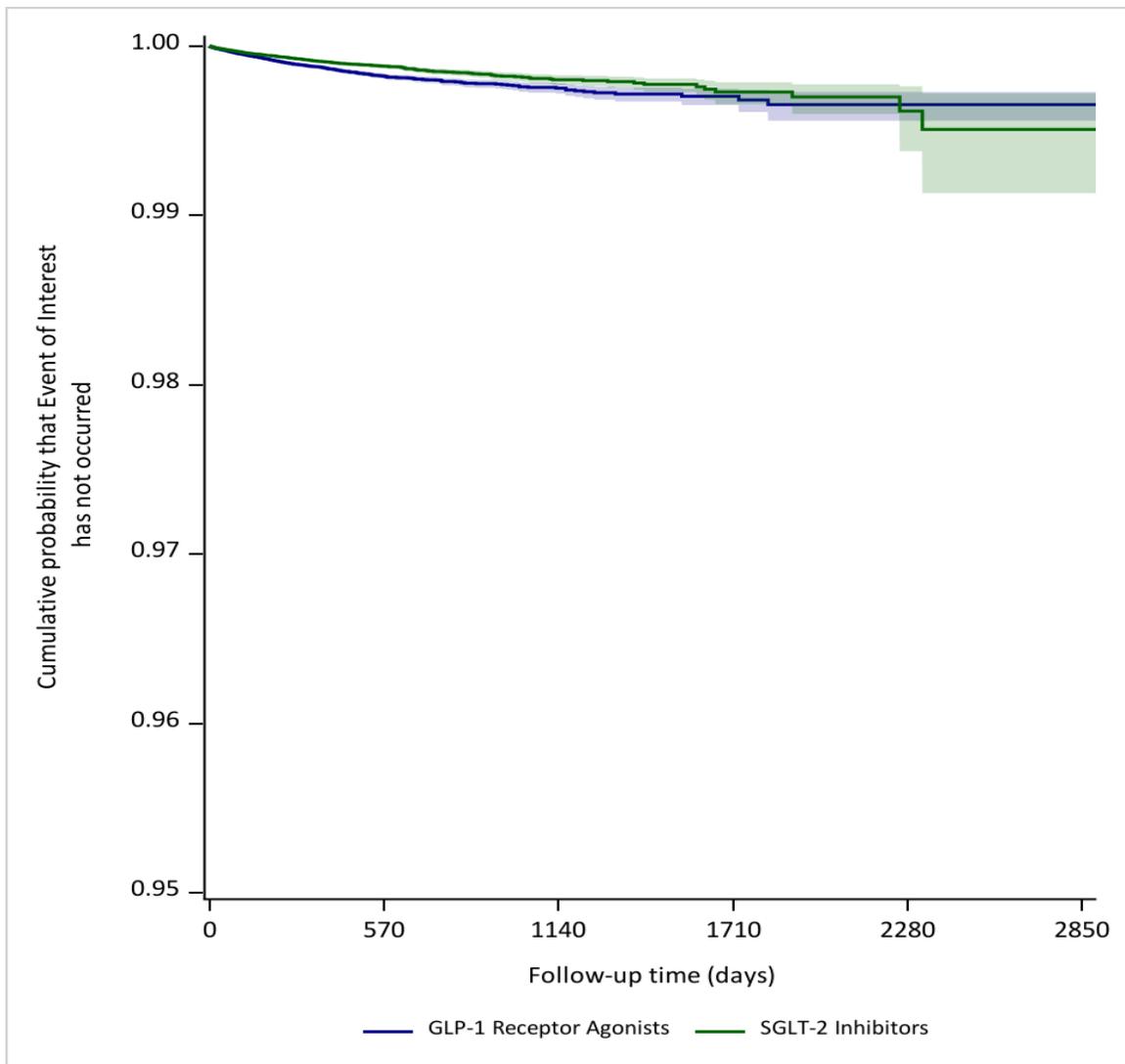


Figure 8b. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

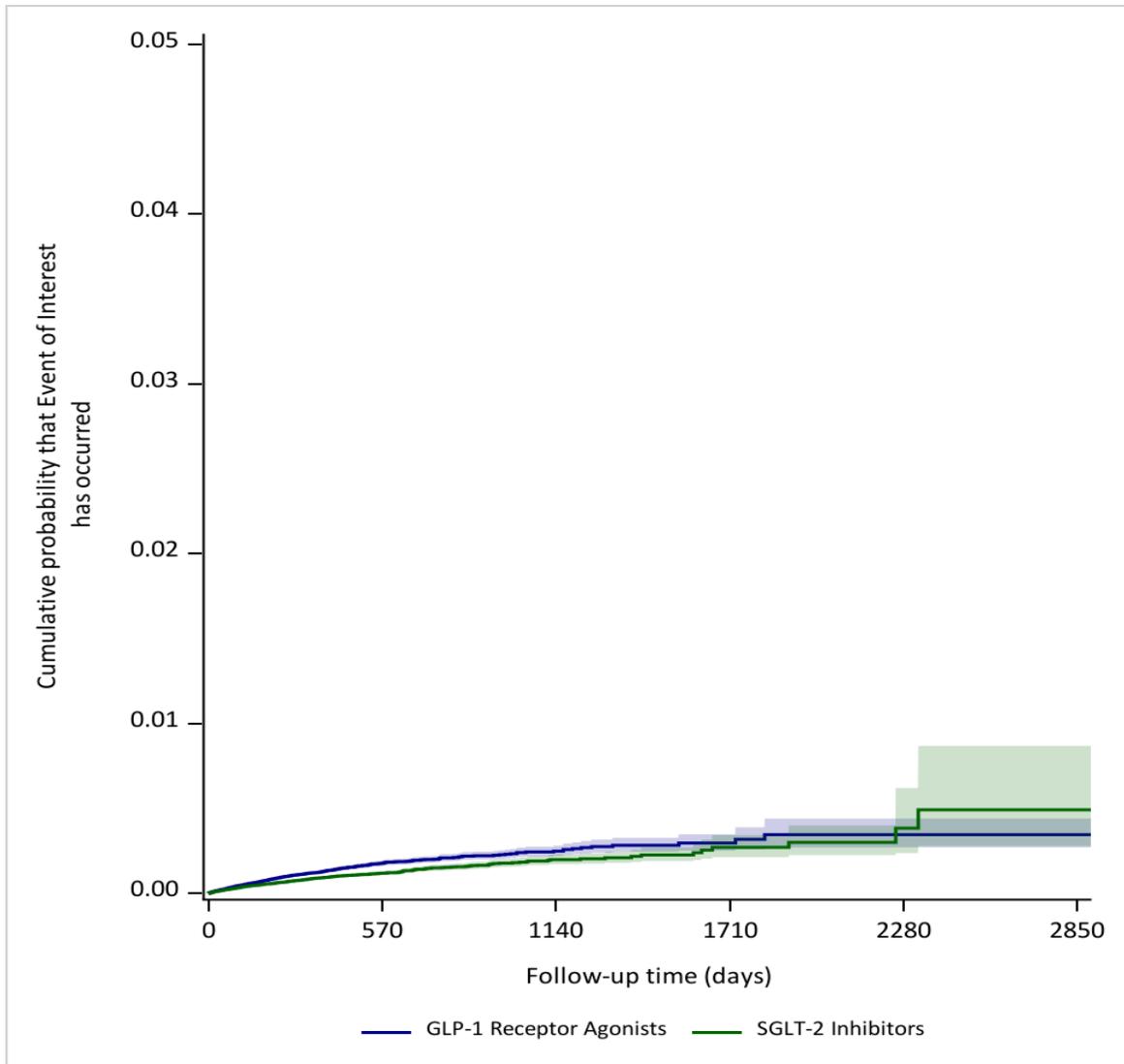


Figure 8c. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

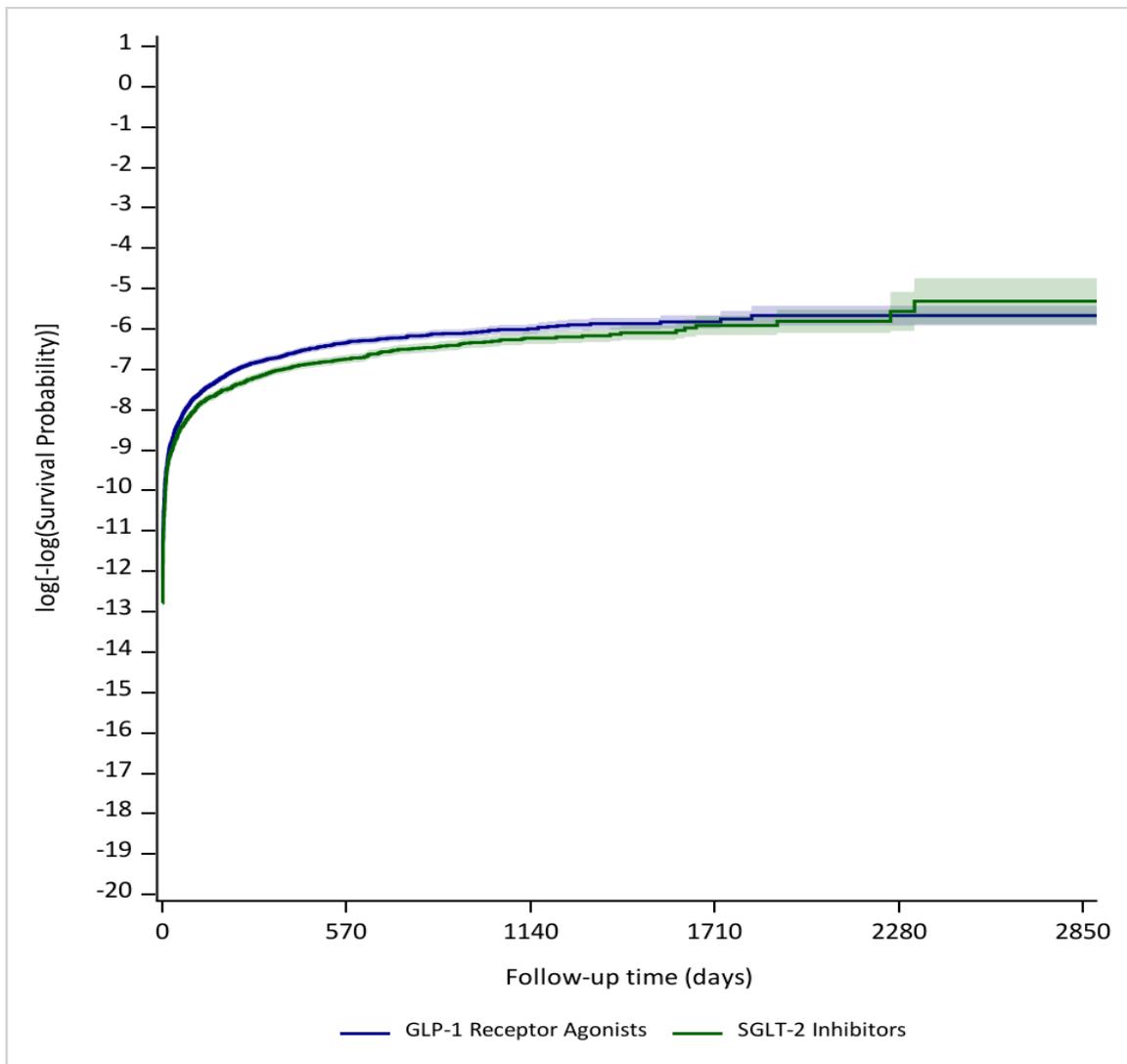


Figure 8d. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

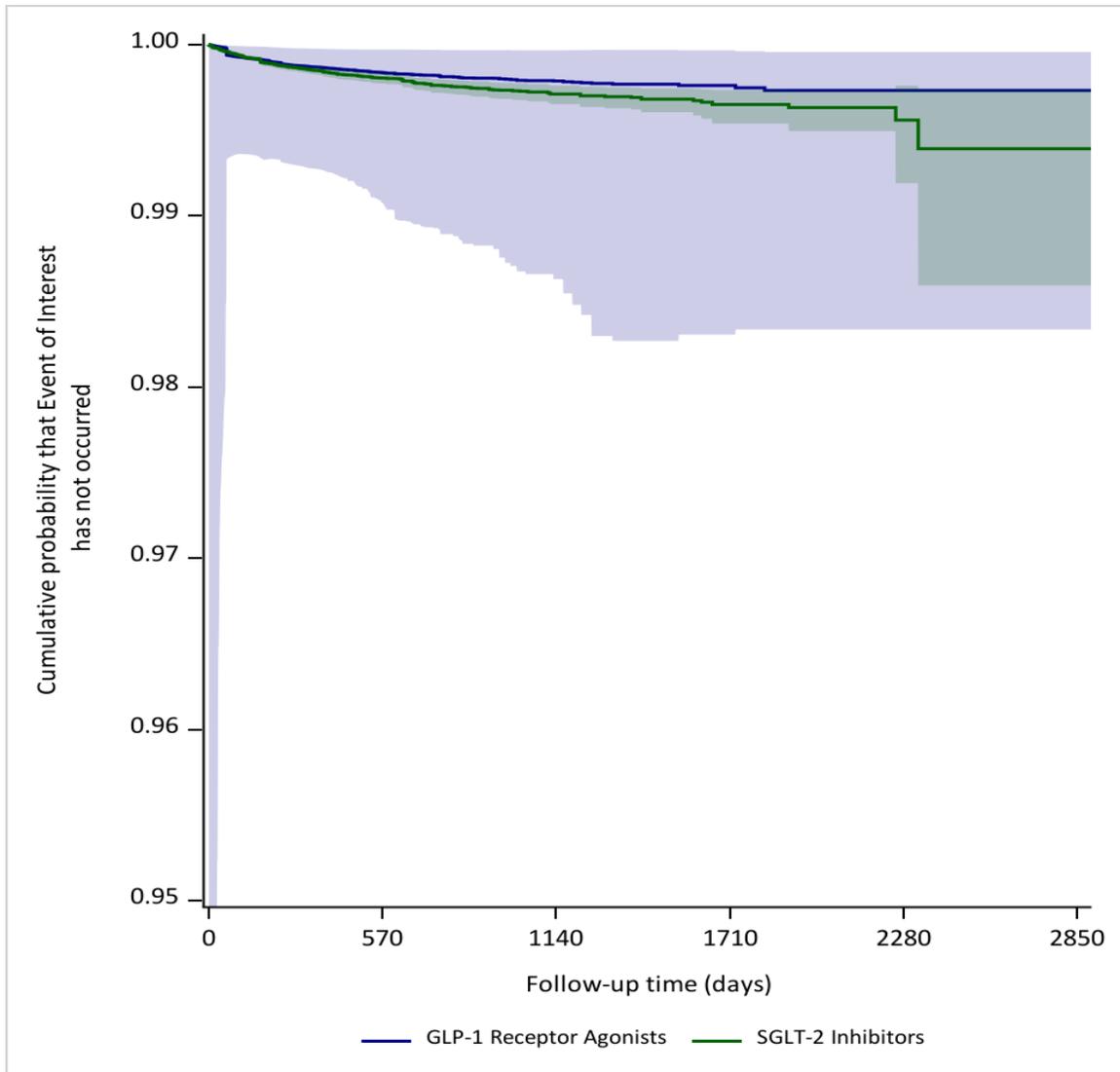


Figure 8e. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

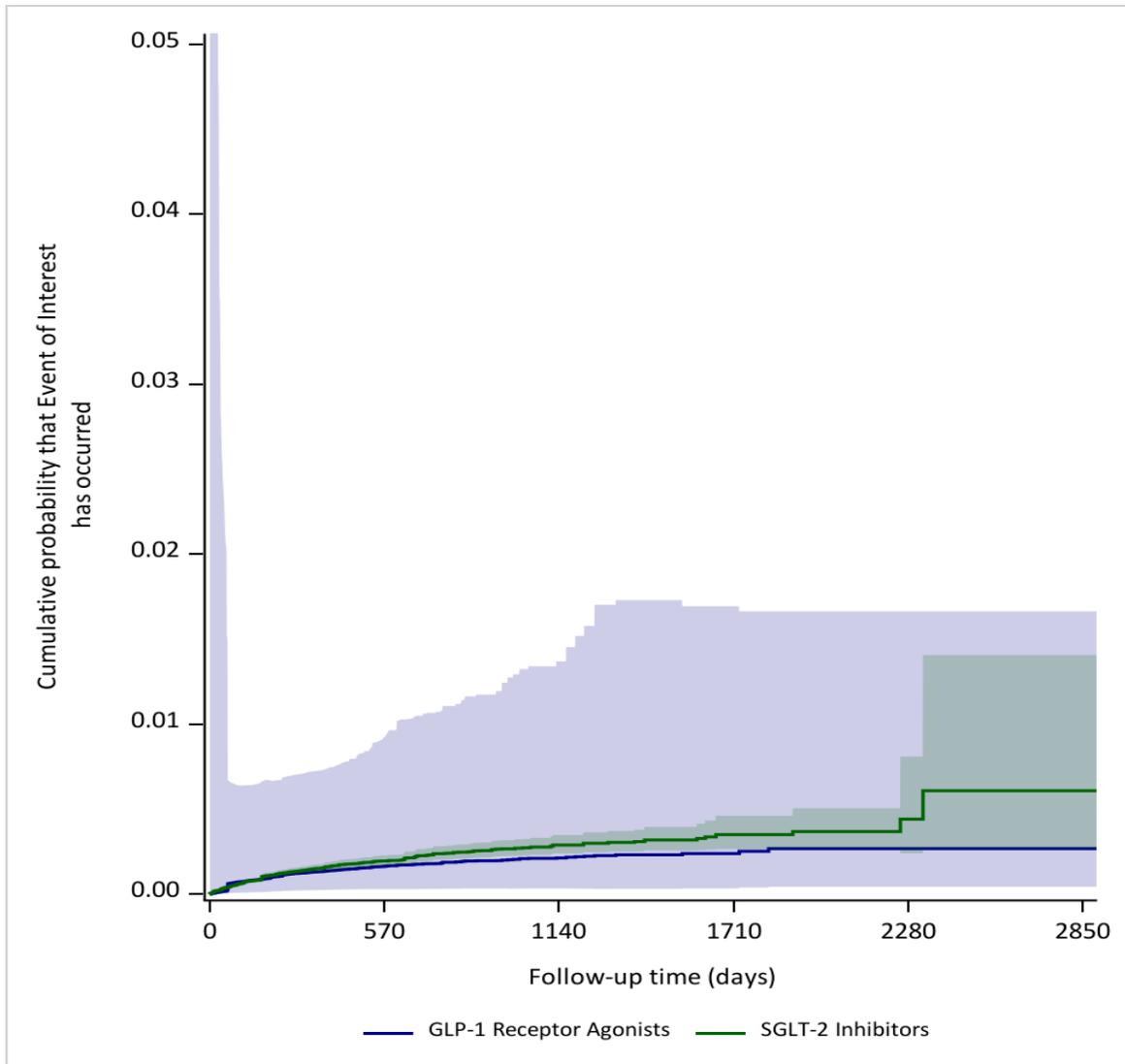


Figure 8f. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

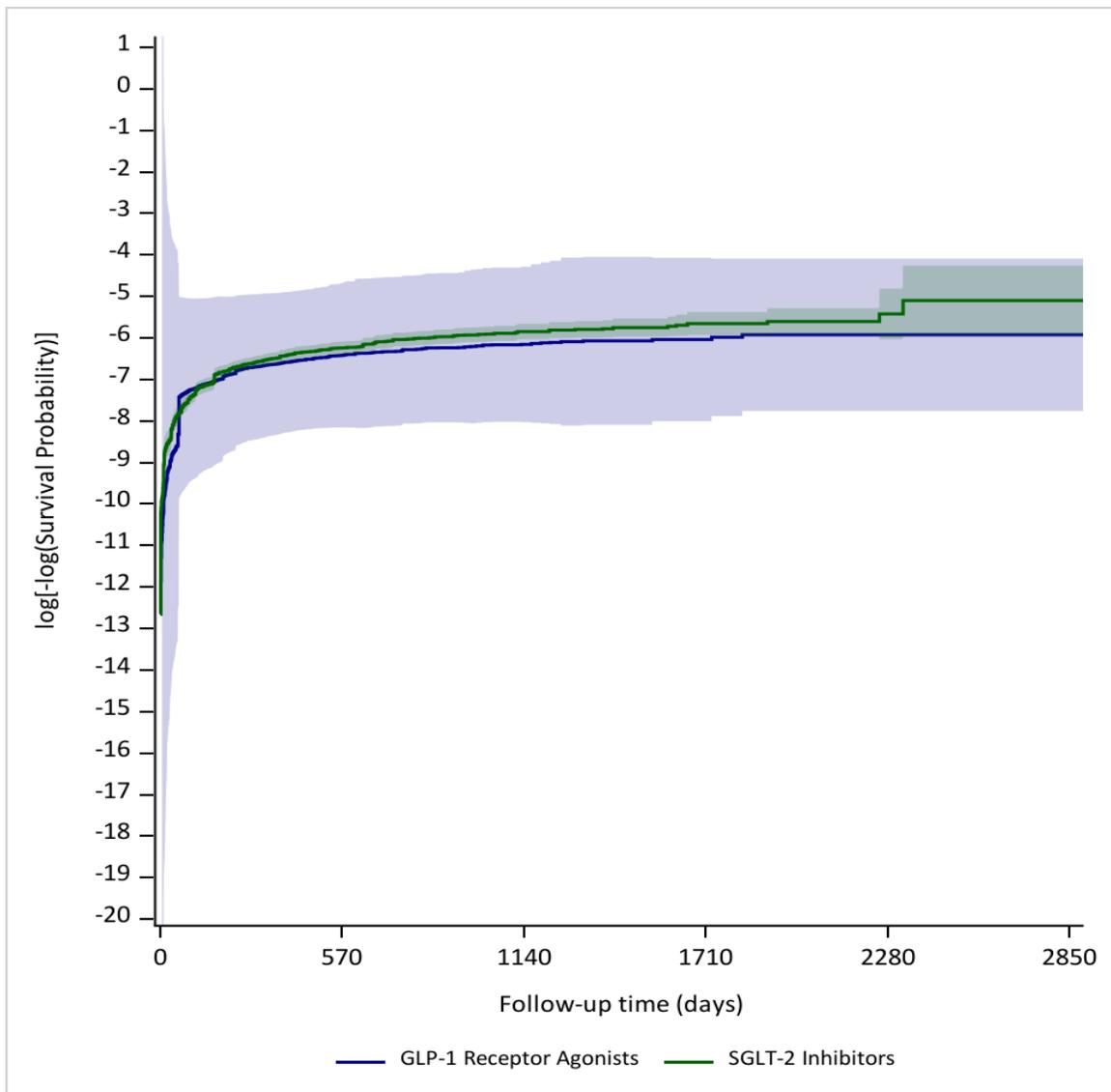


Figure 8g. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

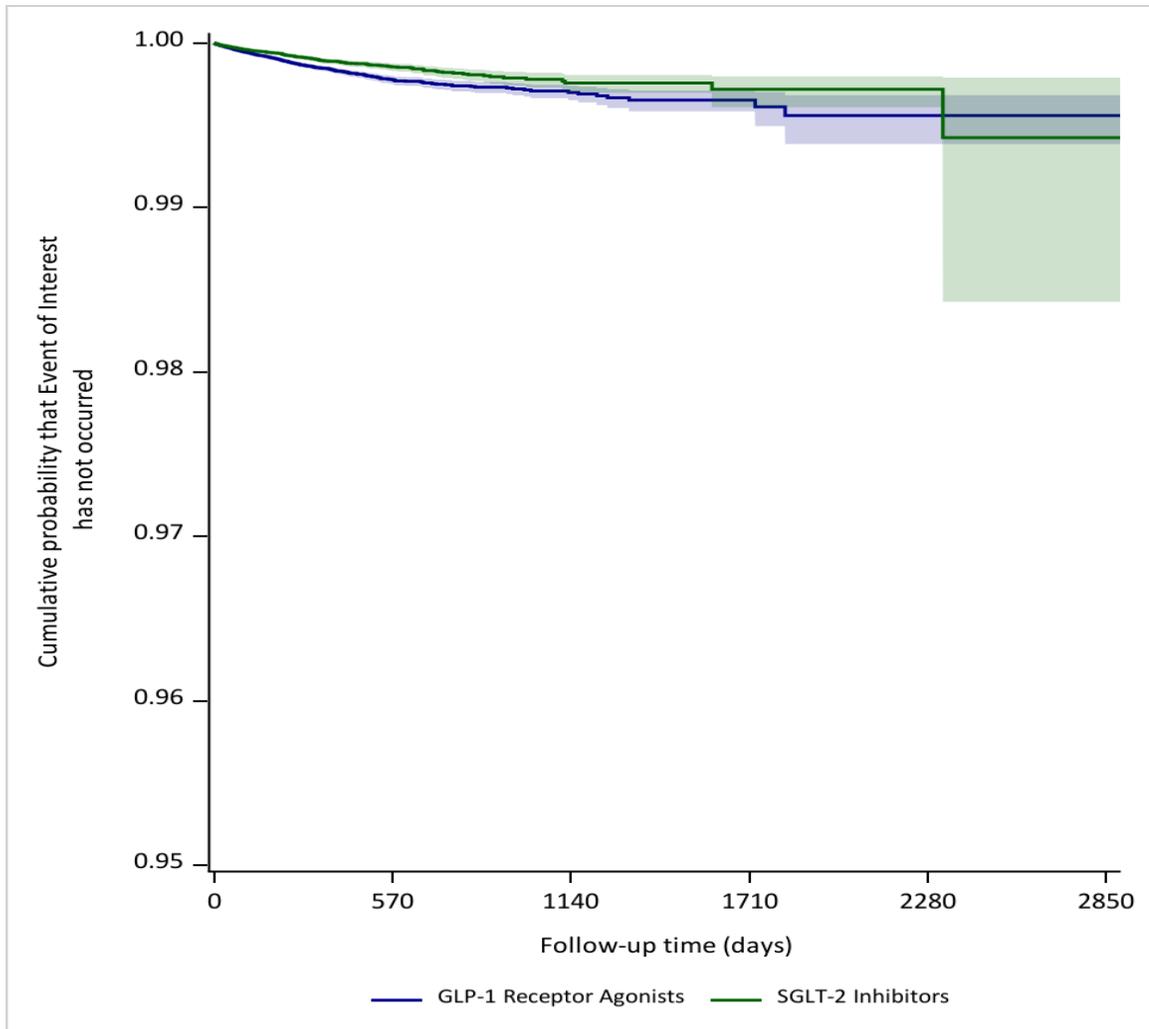


Figure 8h. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

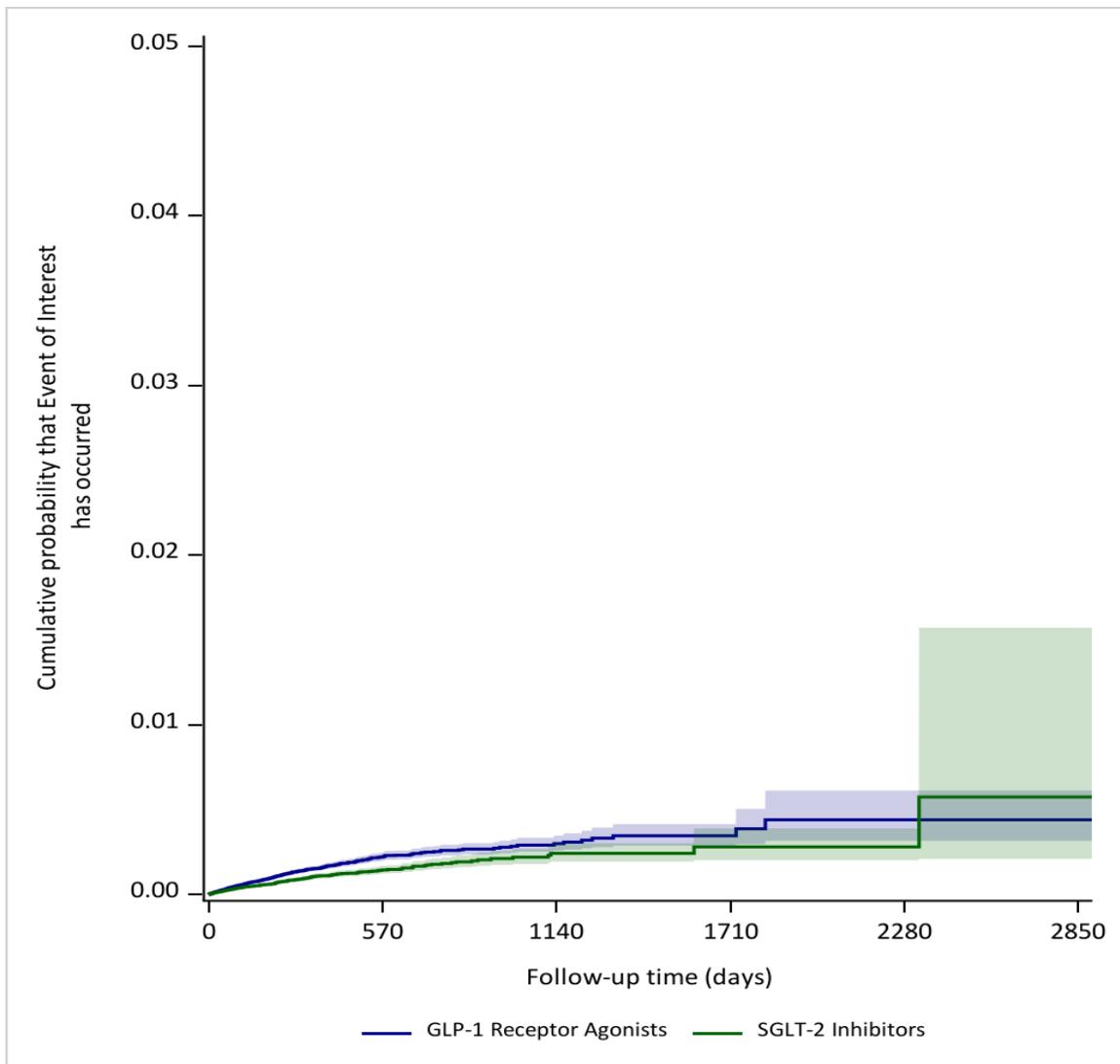


Figure 8i. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

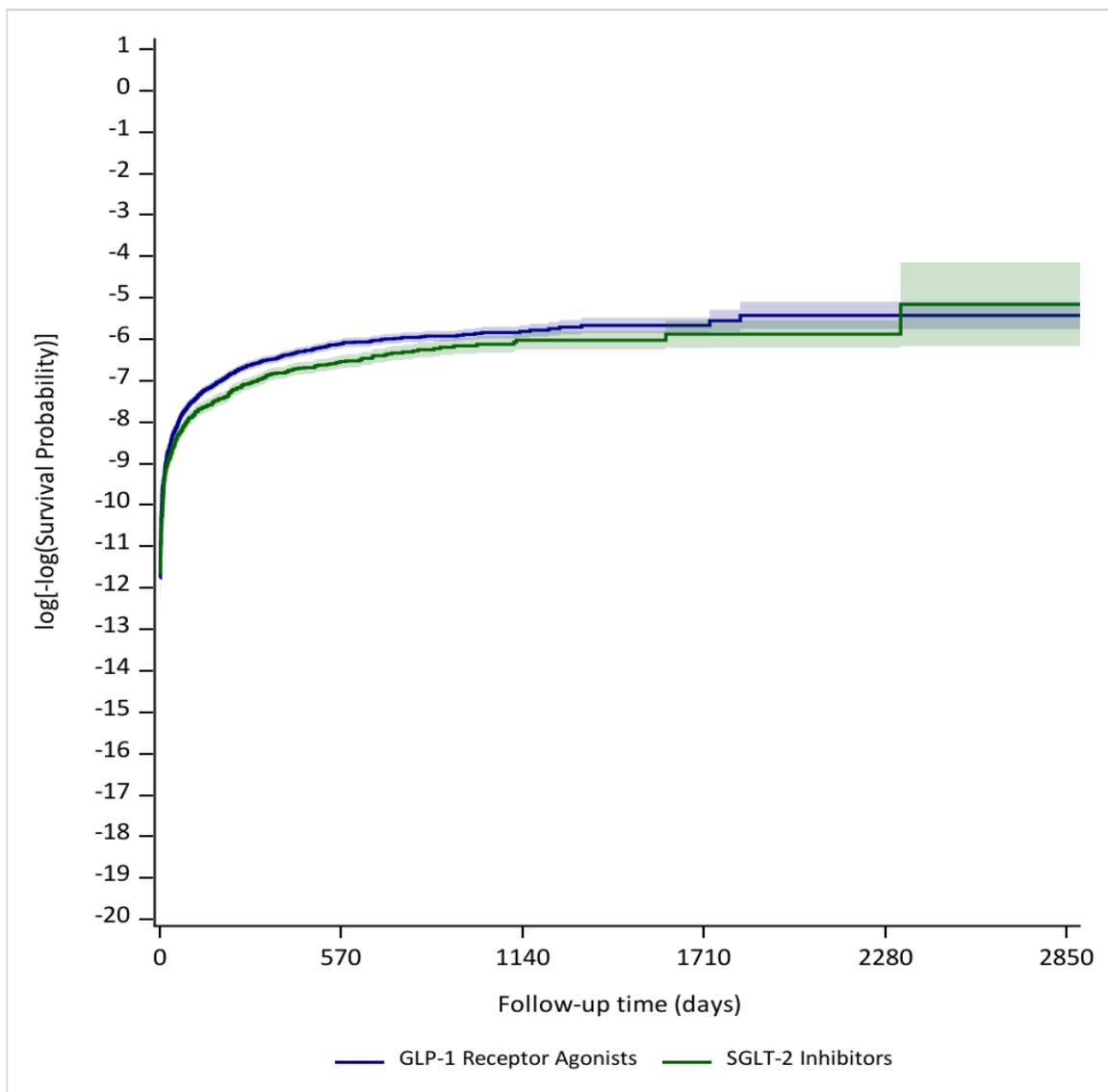


Figure 8j. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

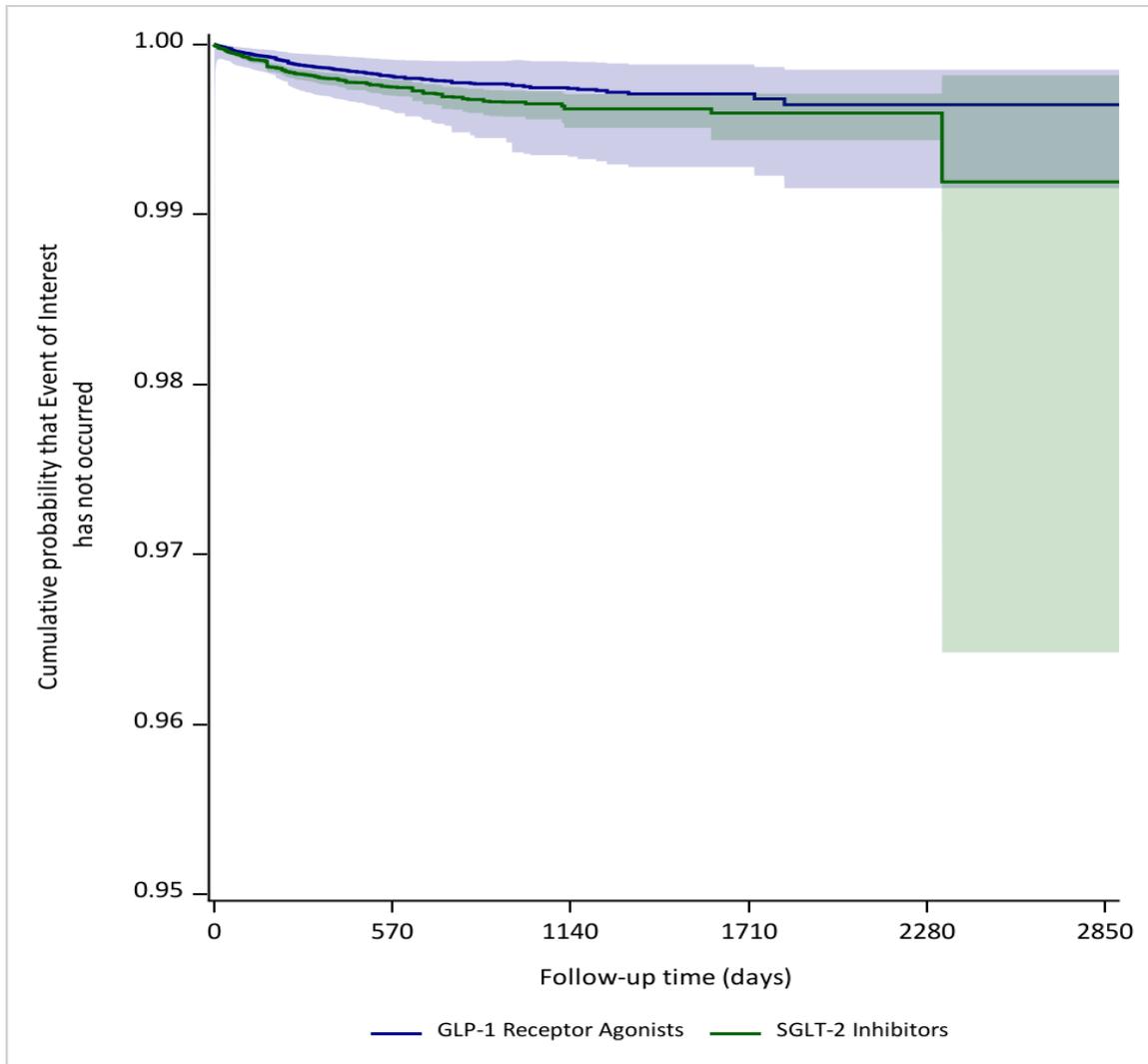


Figure 8k. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

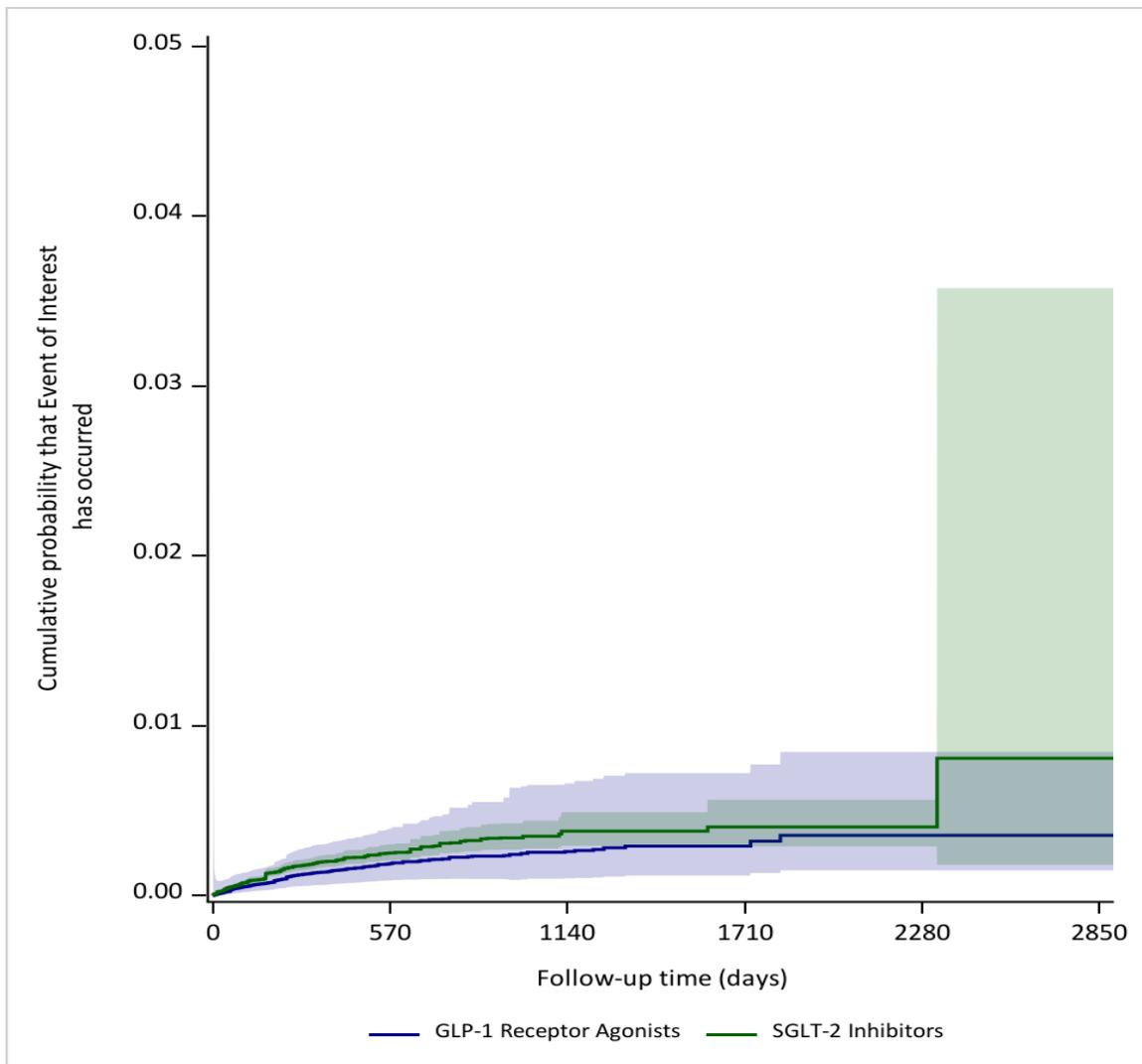


Figure 8I. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

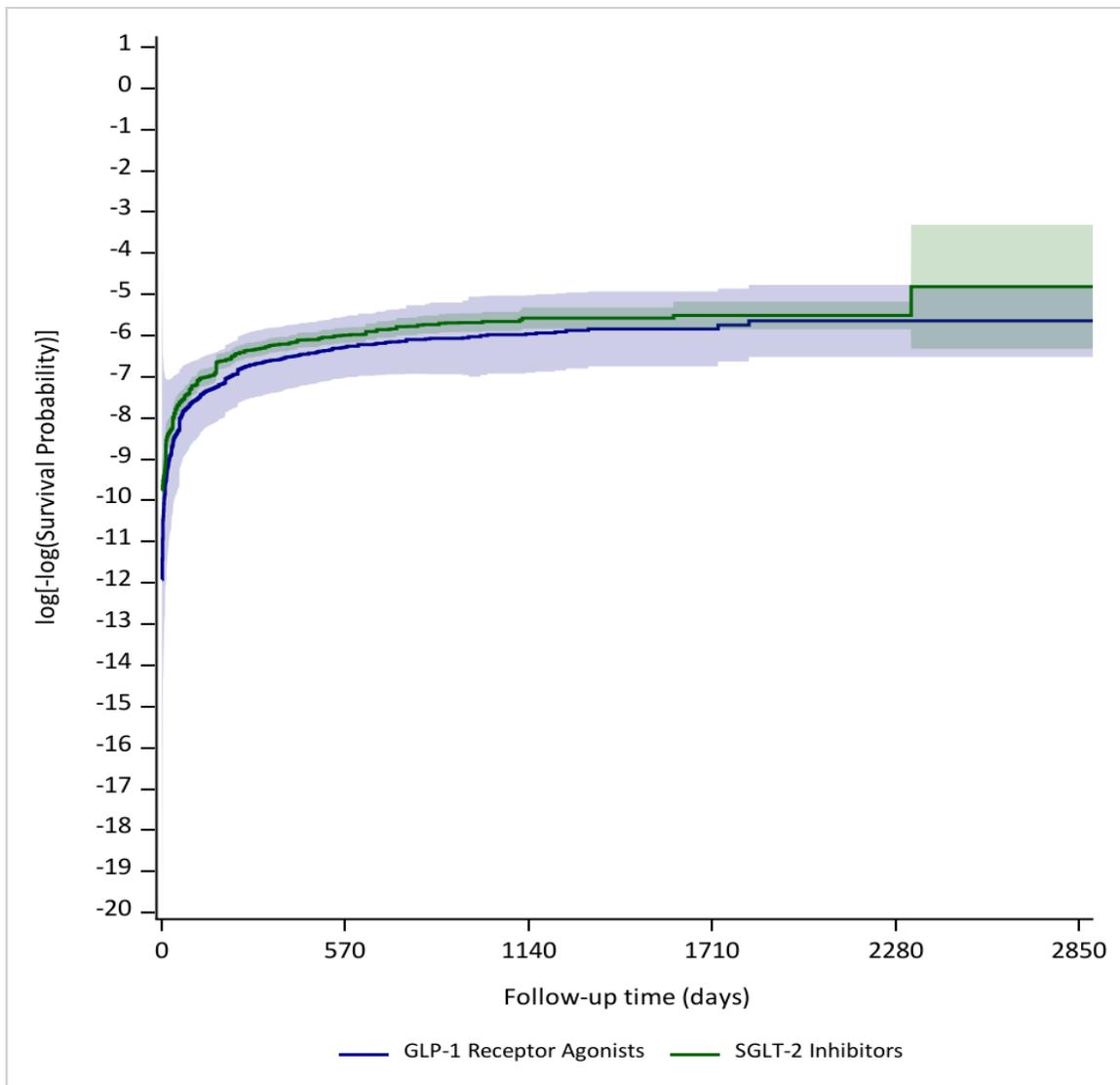


Figure 8m. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

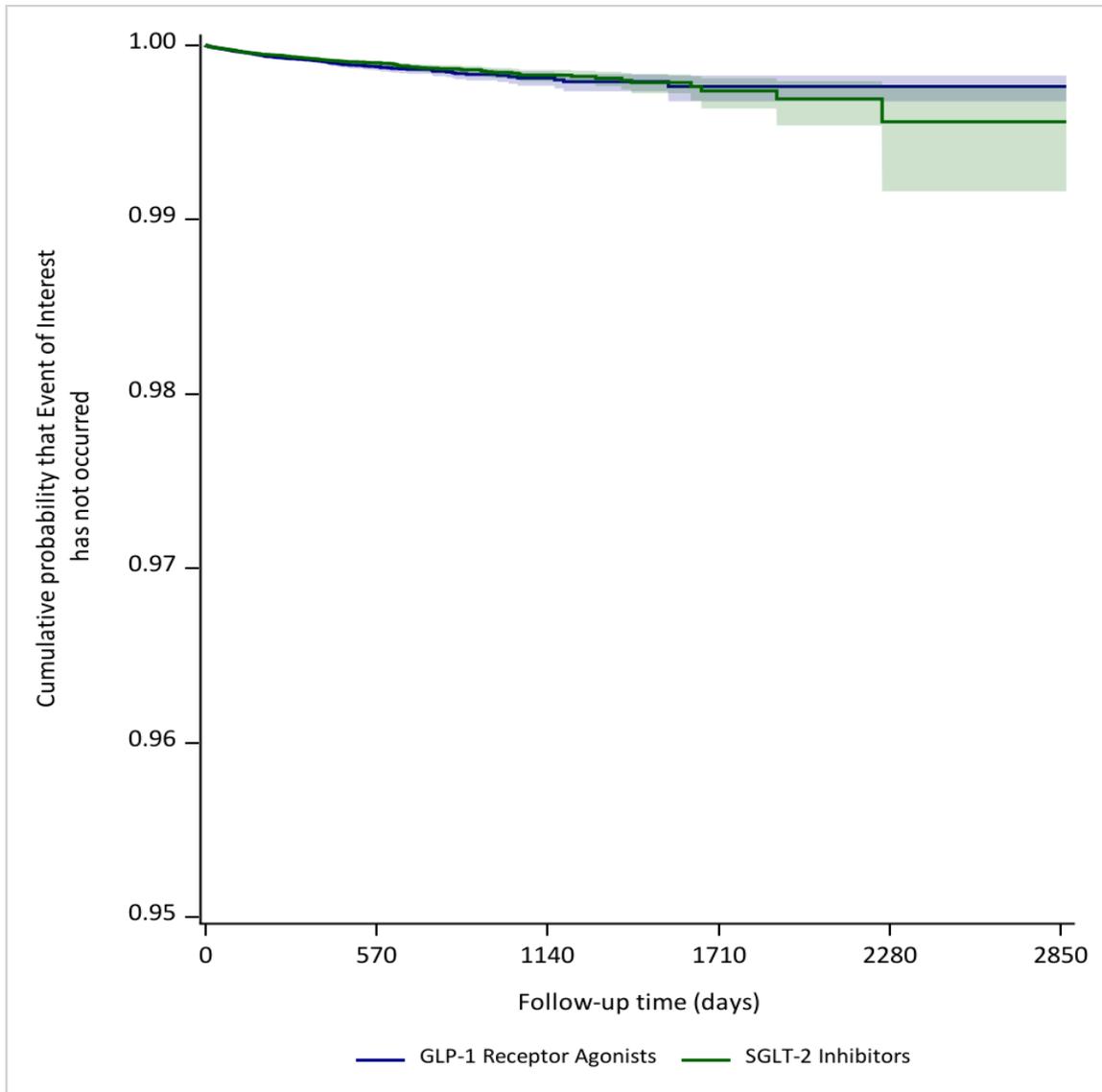


Figure 8n. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

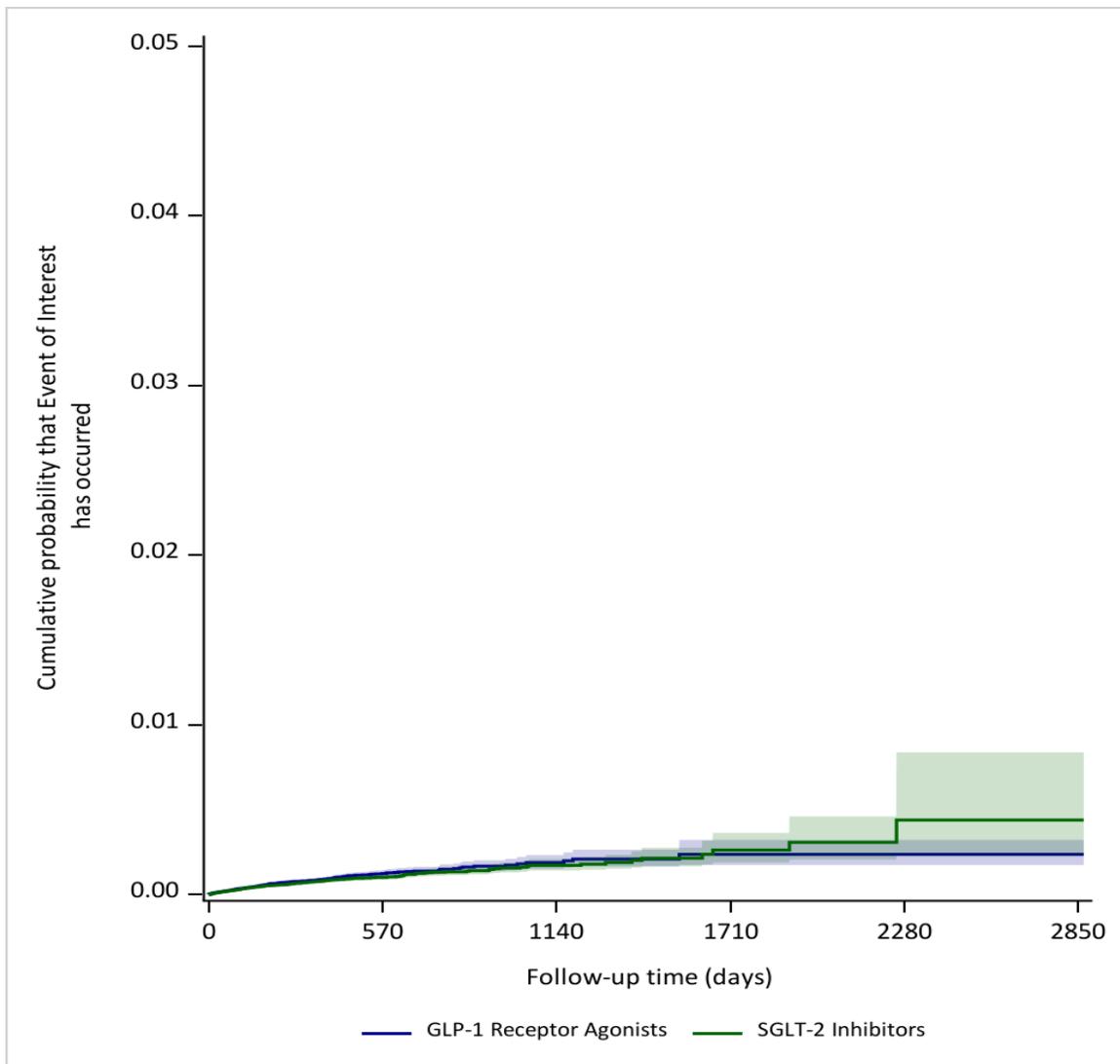


Figure 8o. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

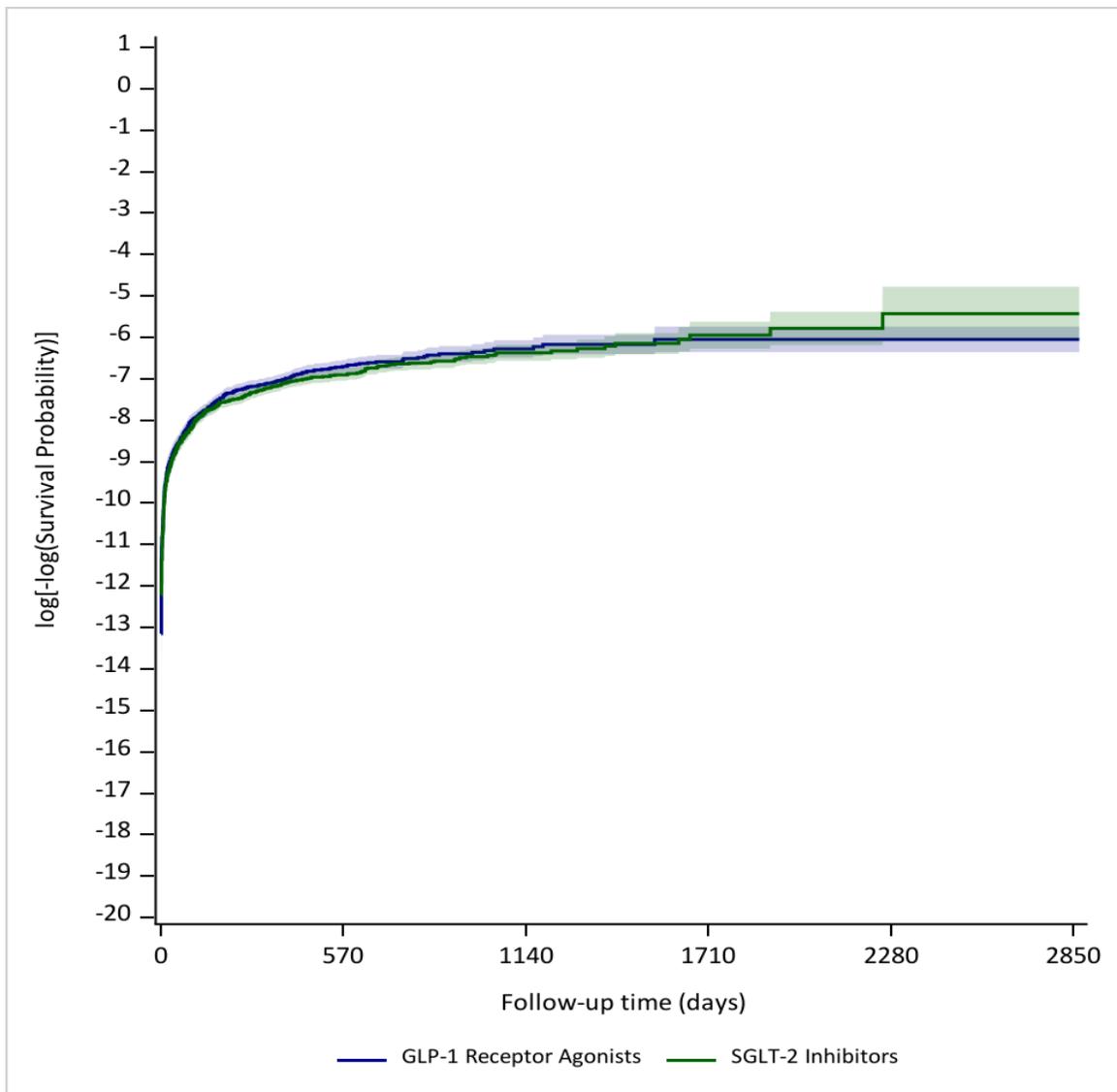


Figure 8p. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

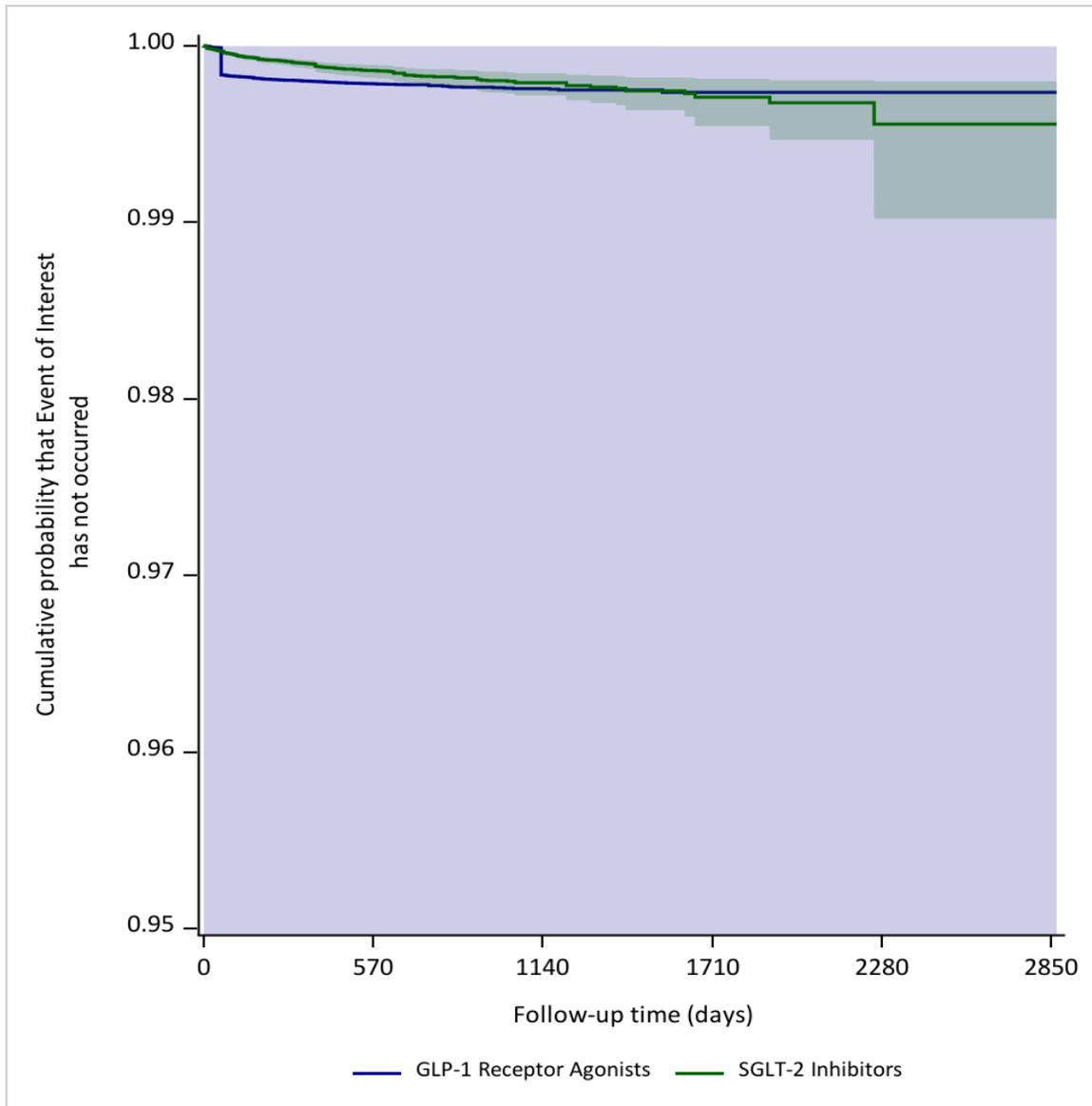


Figure 8q. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

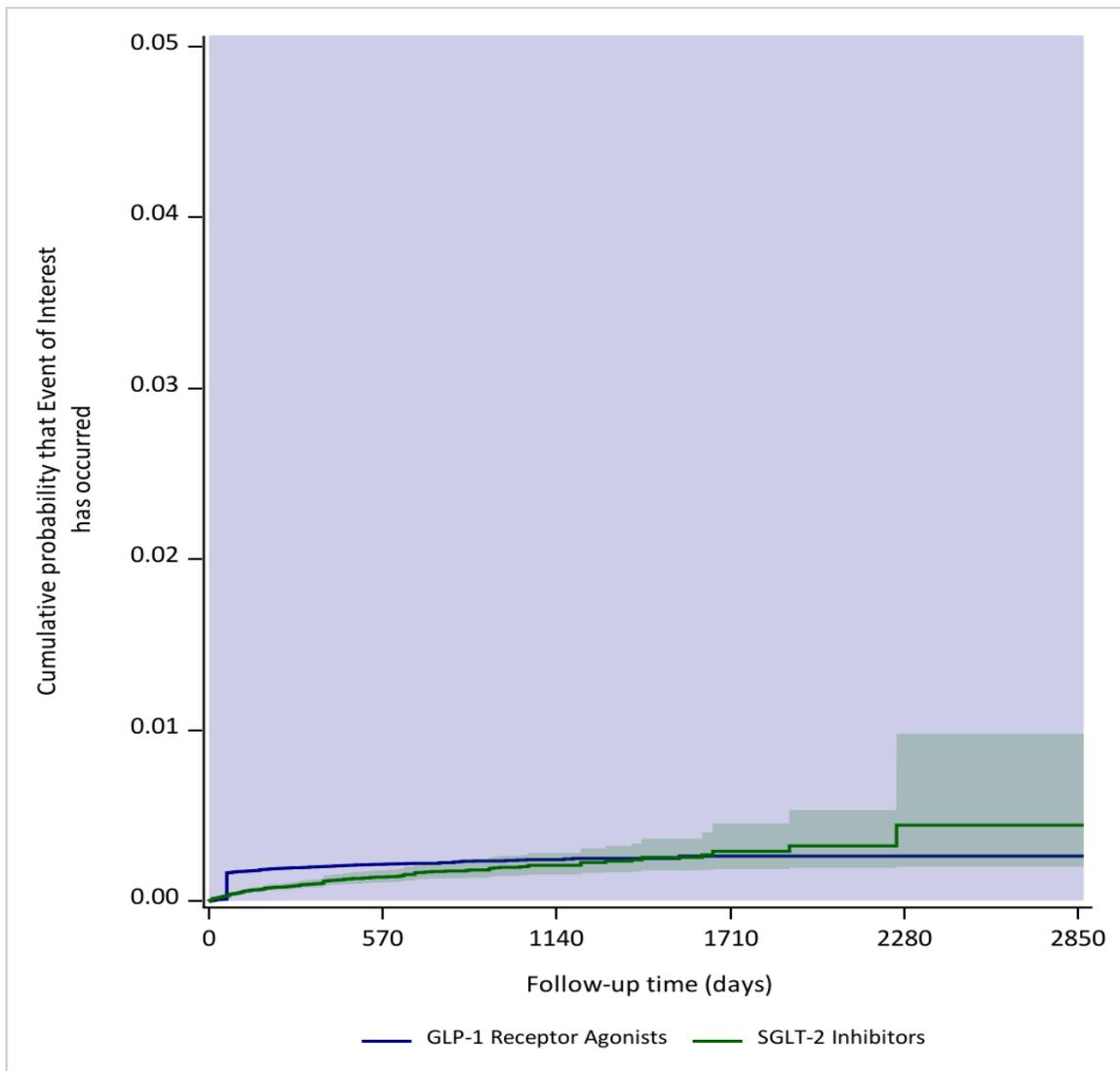


Figure 8r. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

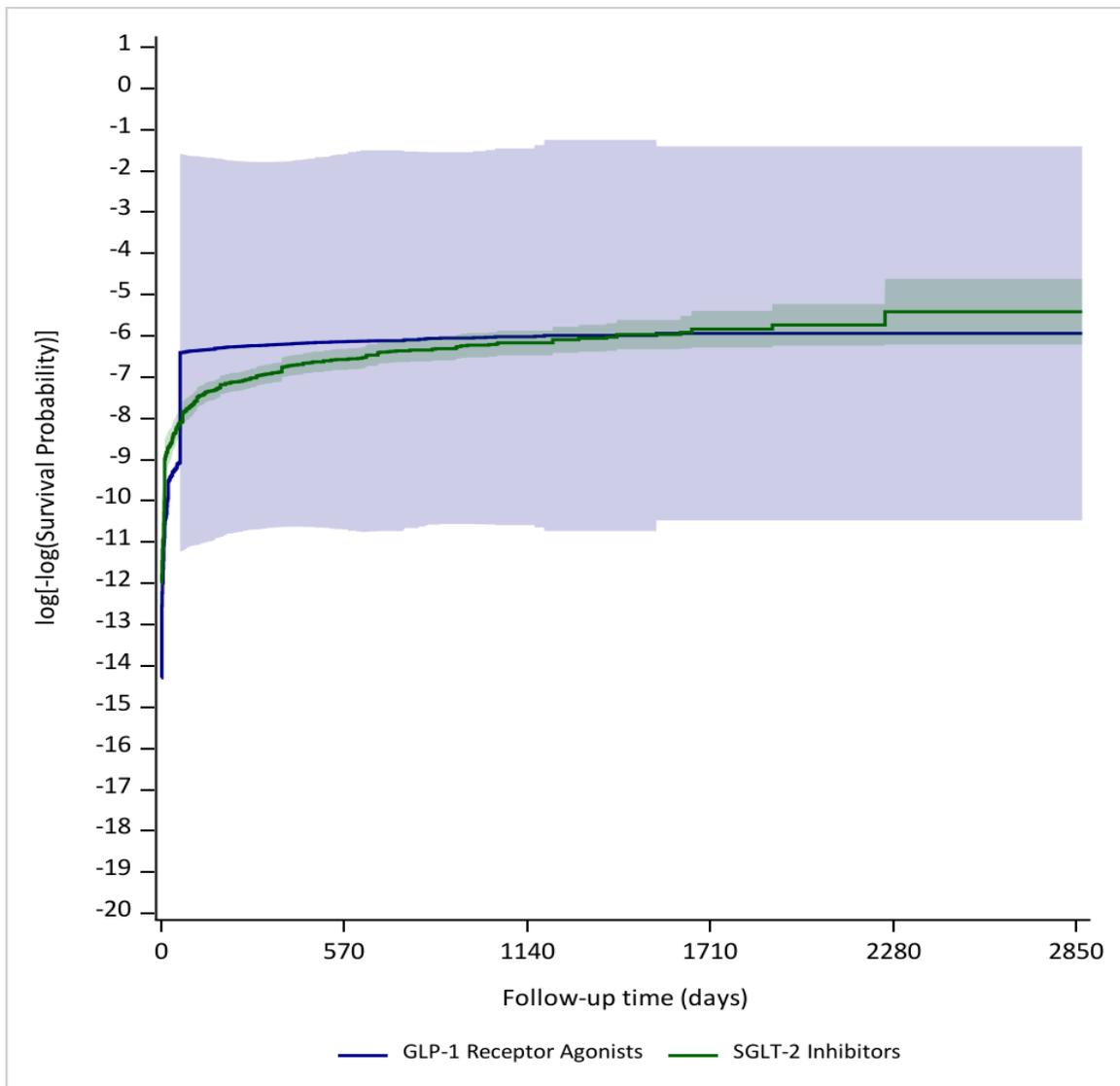


Figure 8s. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

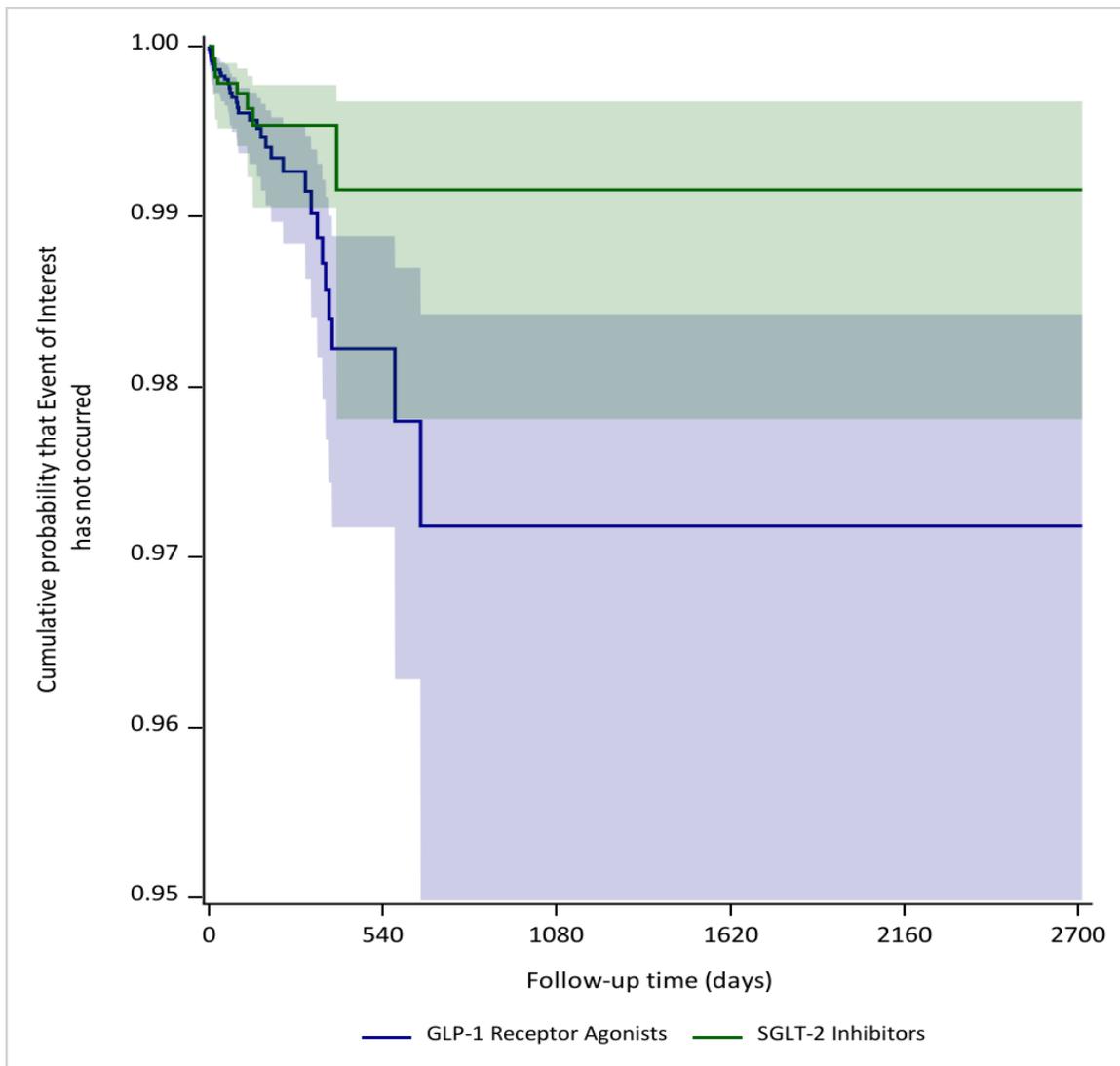


Figure 8t. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

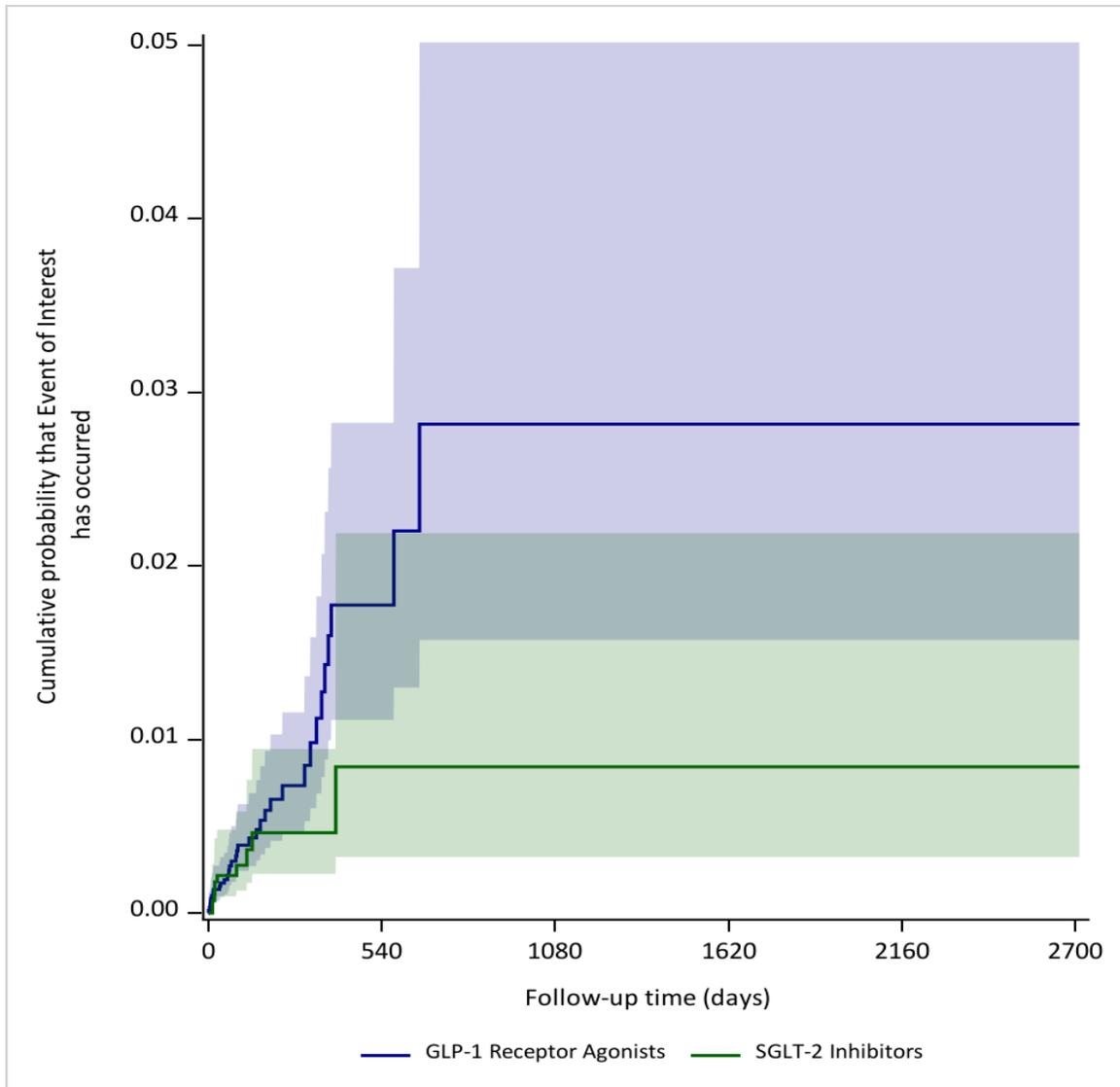


Figure 8u. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

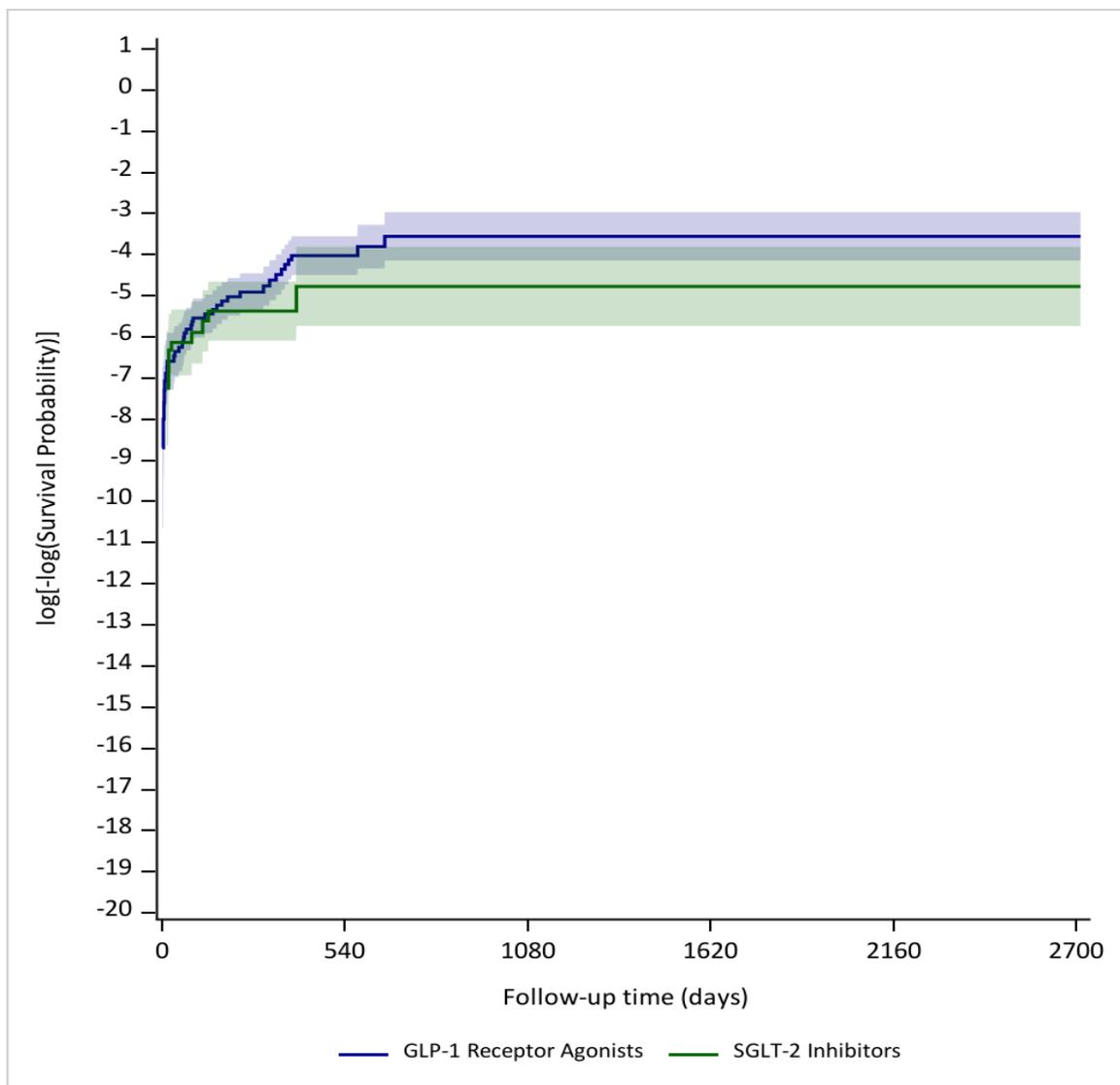


Figure 8v. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

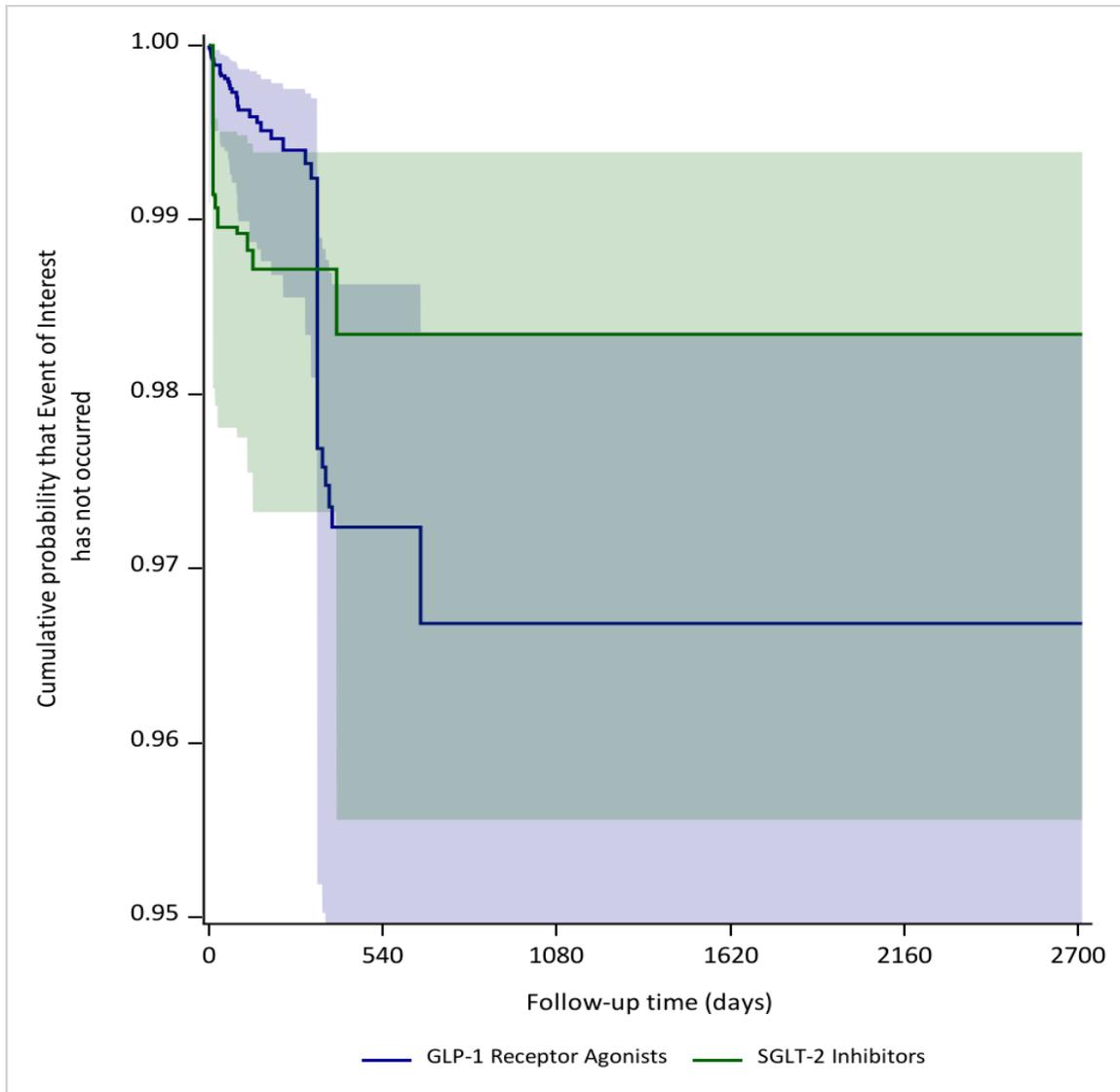


Figure 8w. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

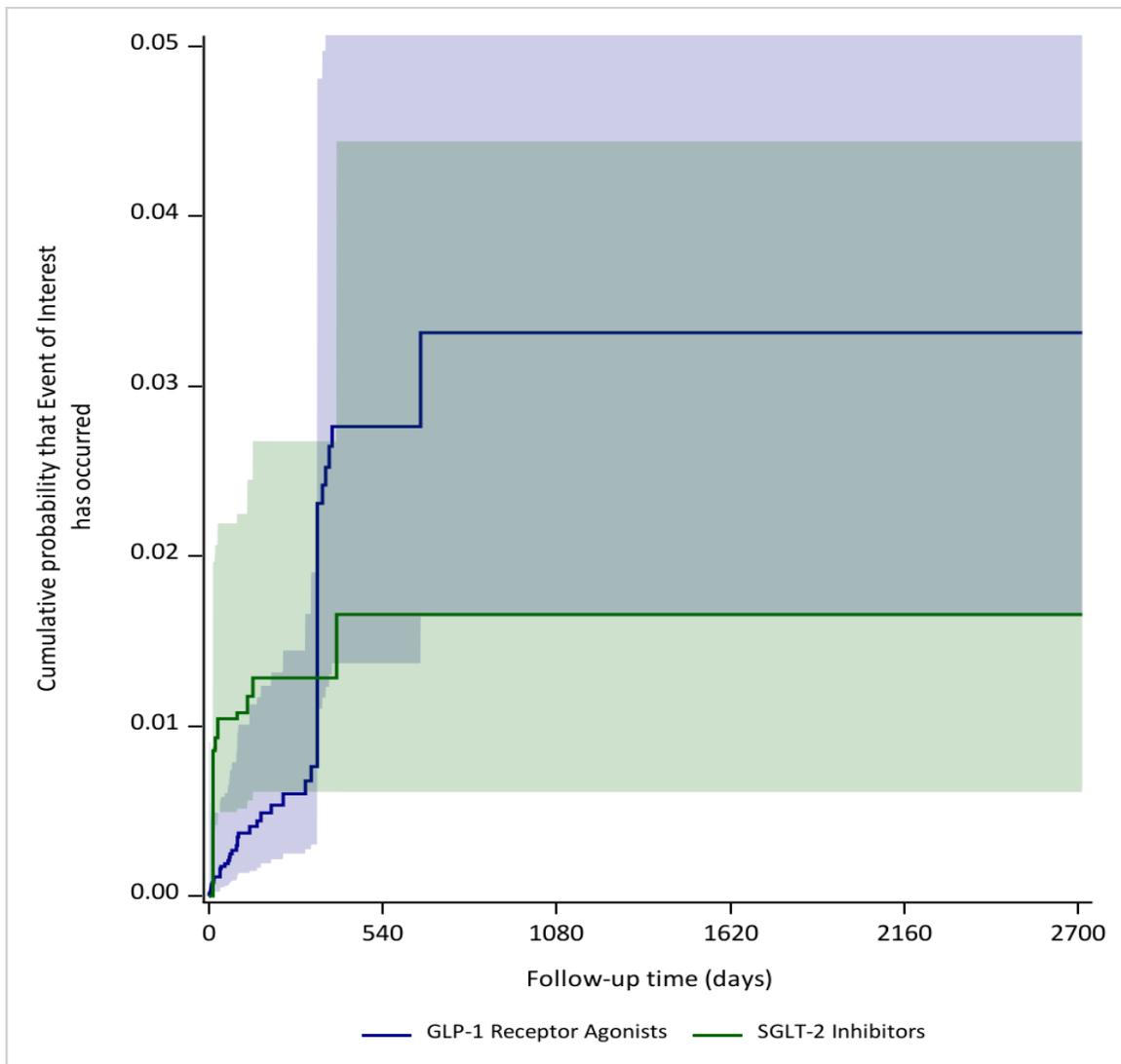


Figure 8x. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

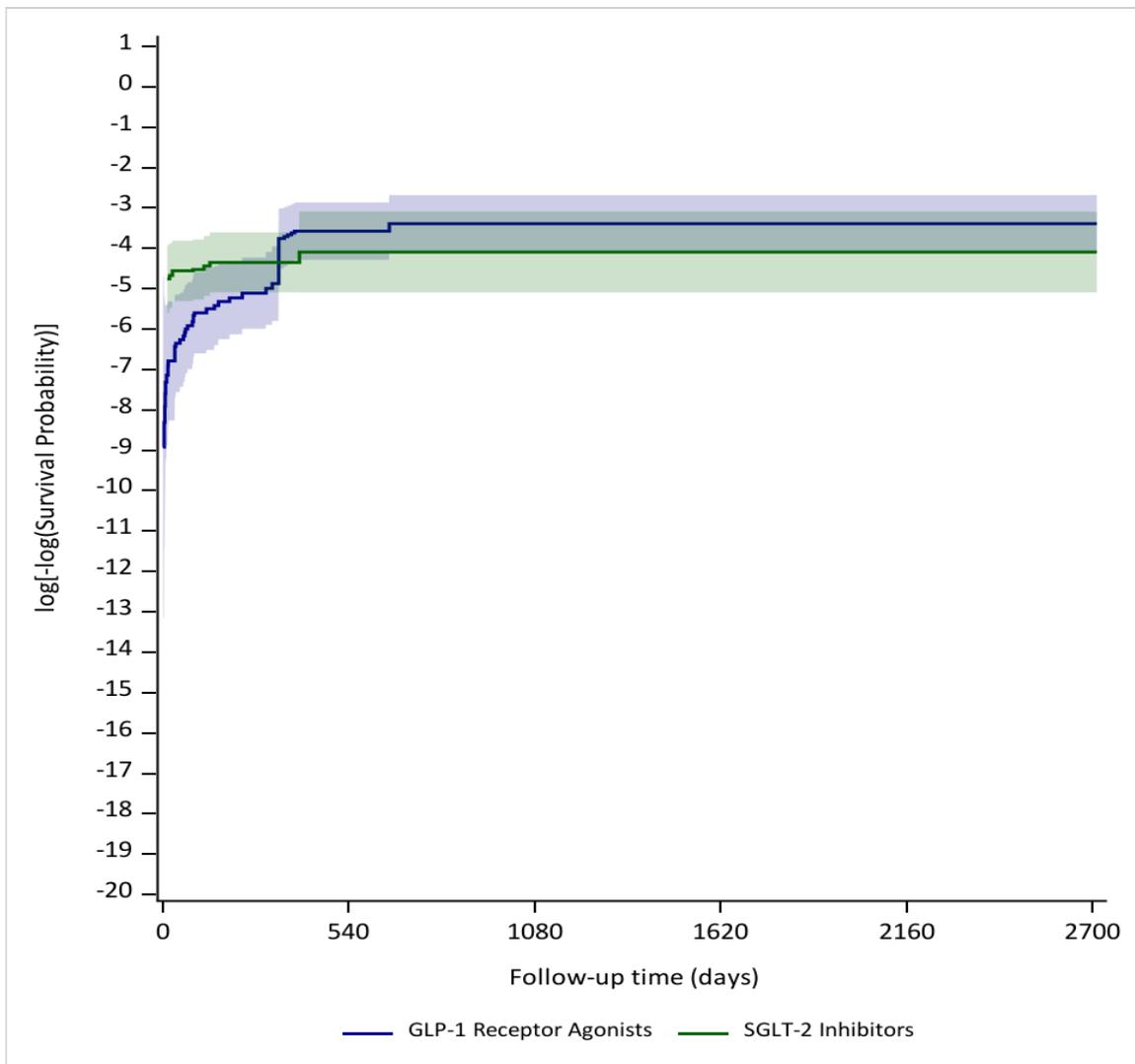


Figure 8y. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

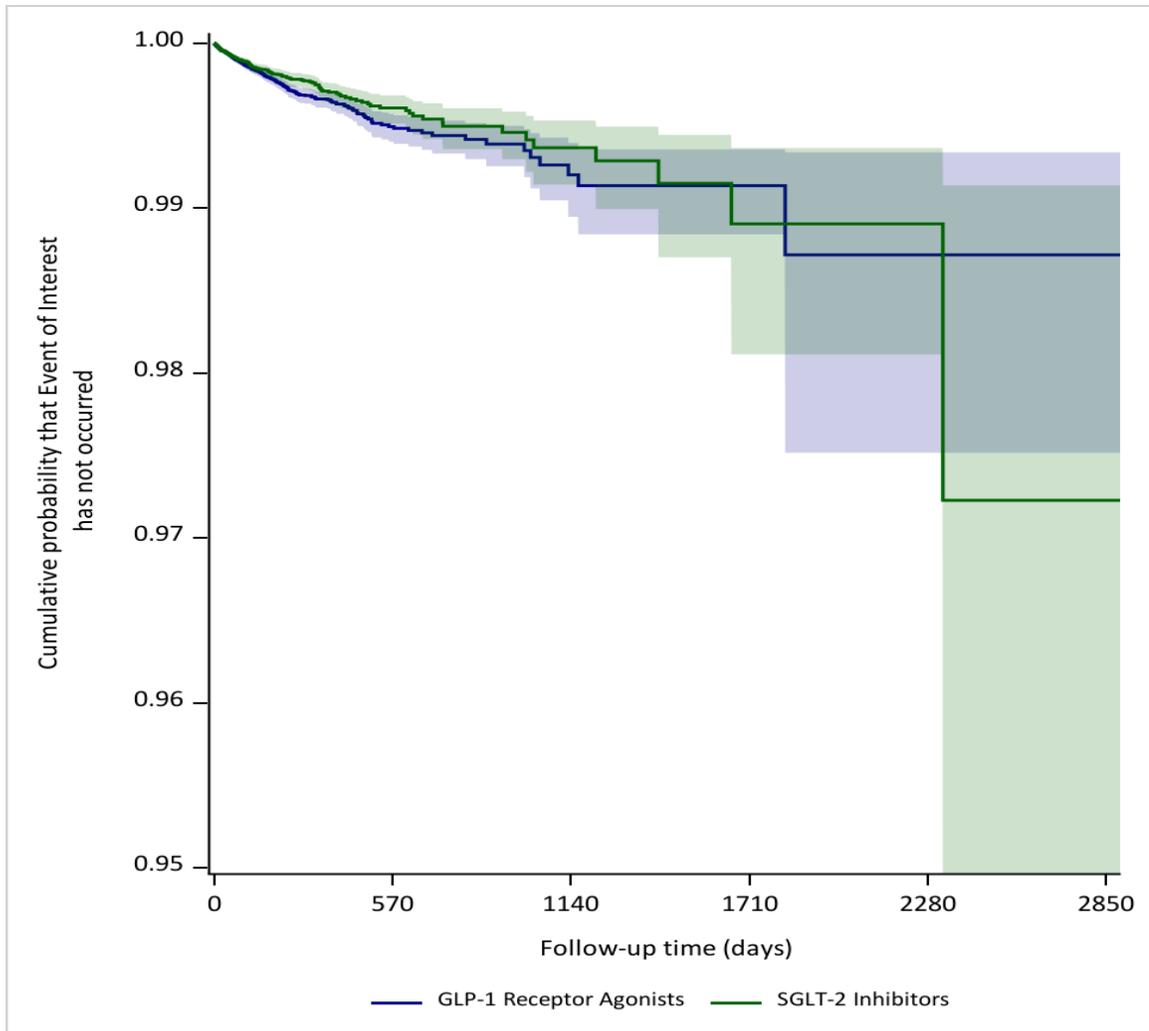


Figure 8z. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

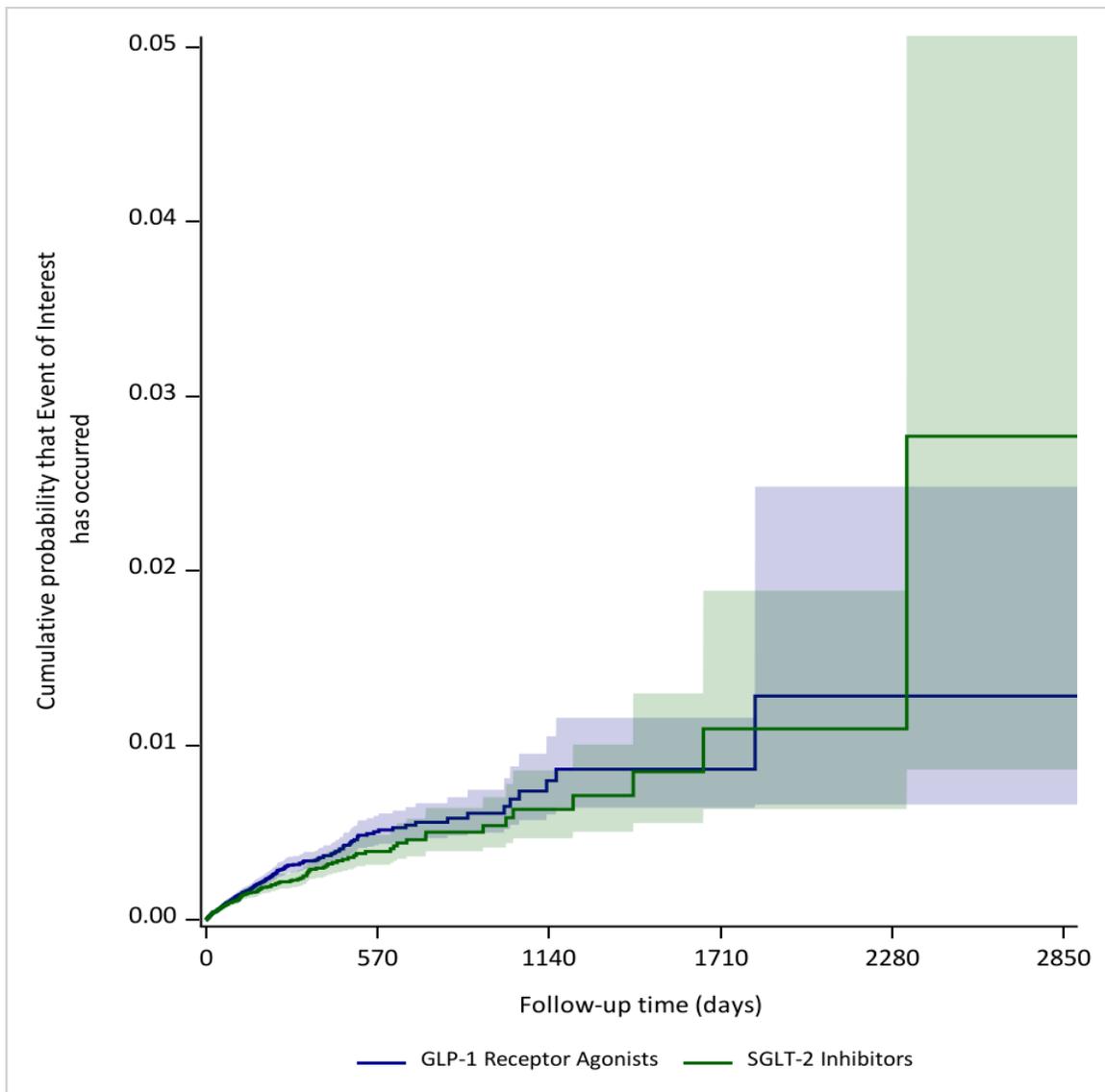


Figure 8aa. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

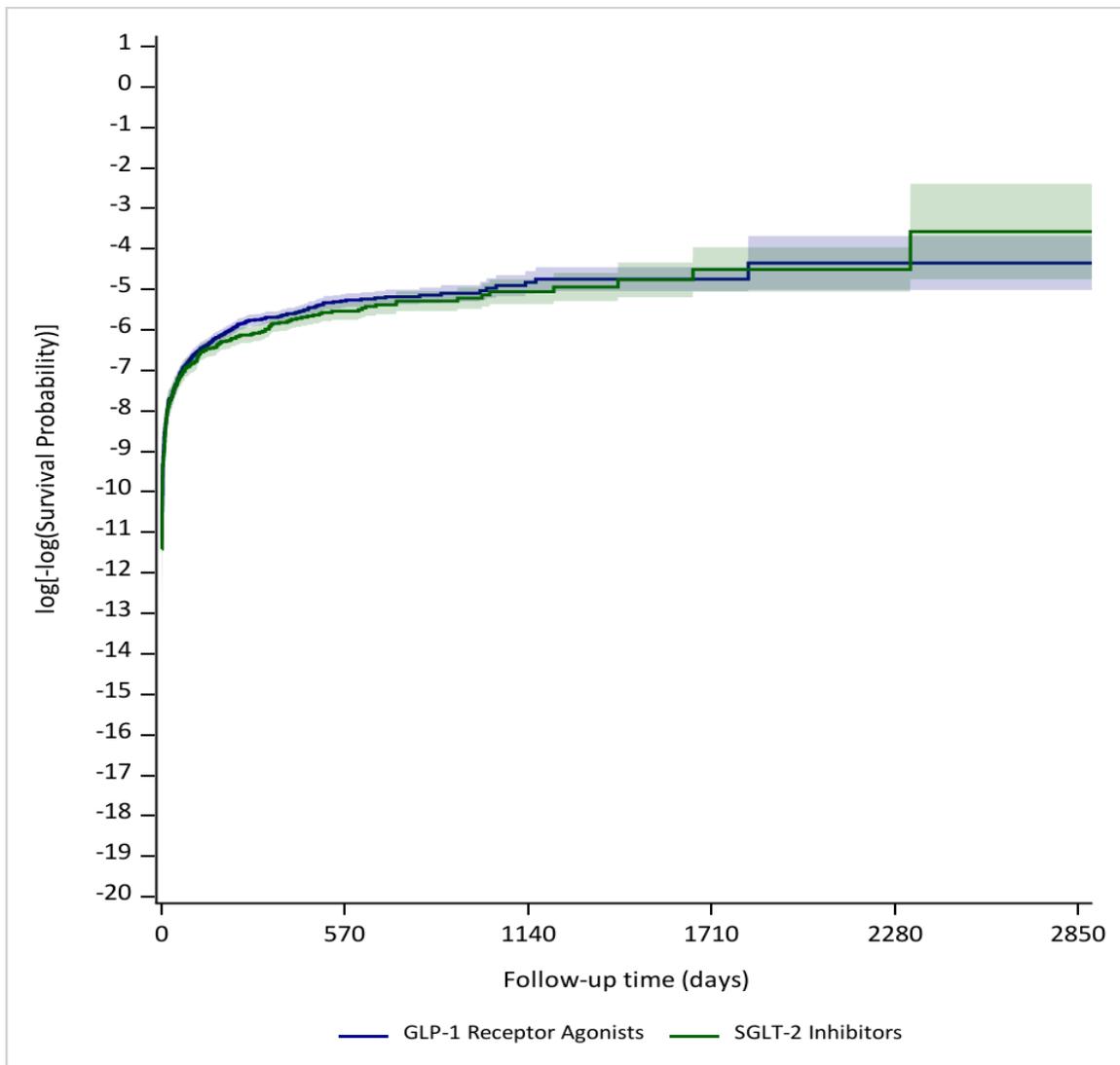


Figure 8ab. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

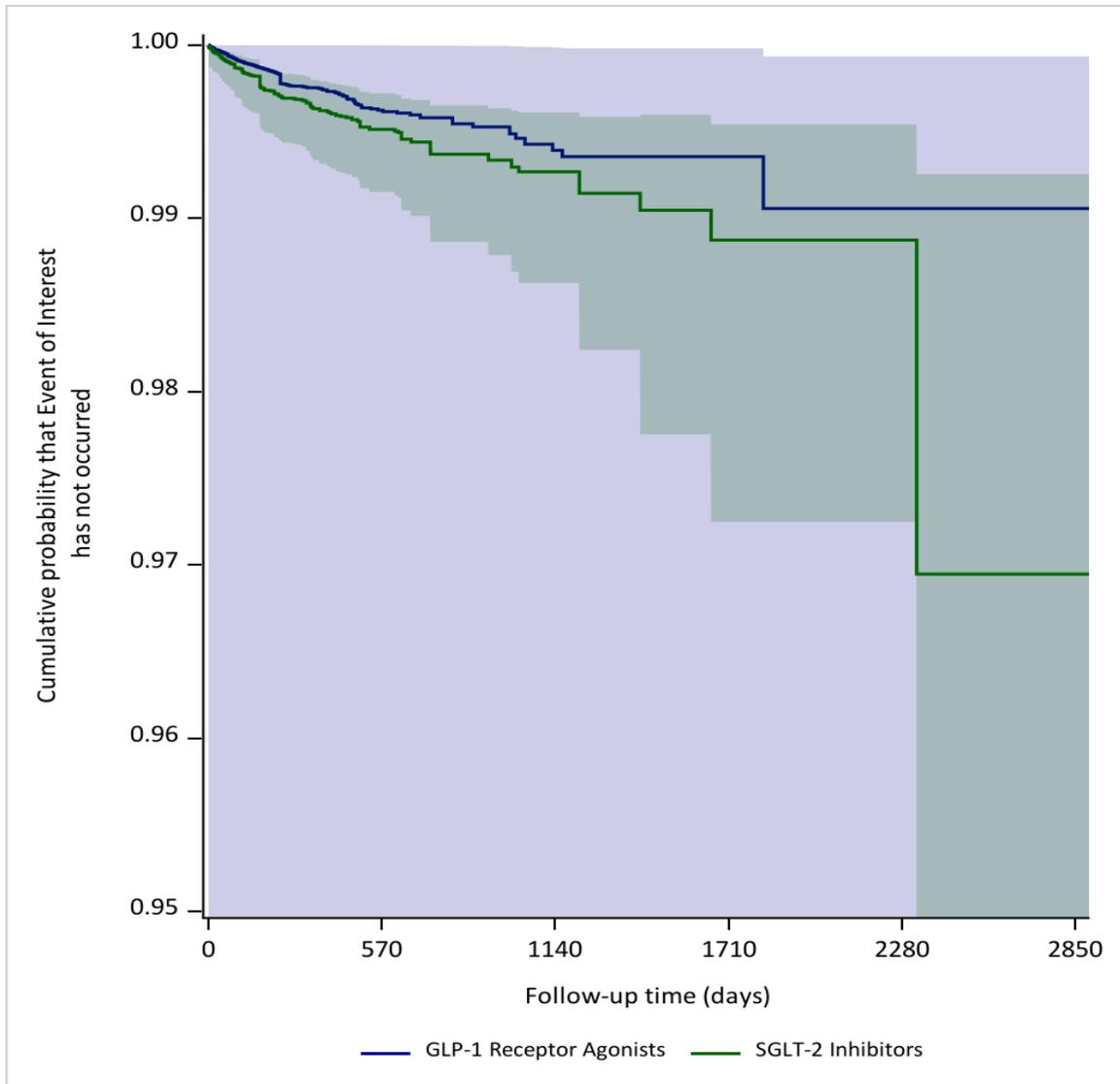


Figure 8ac. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

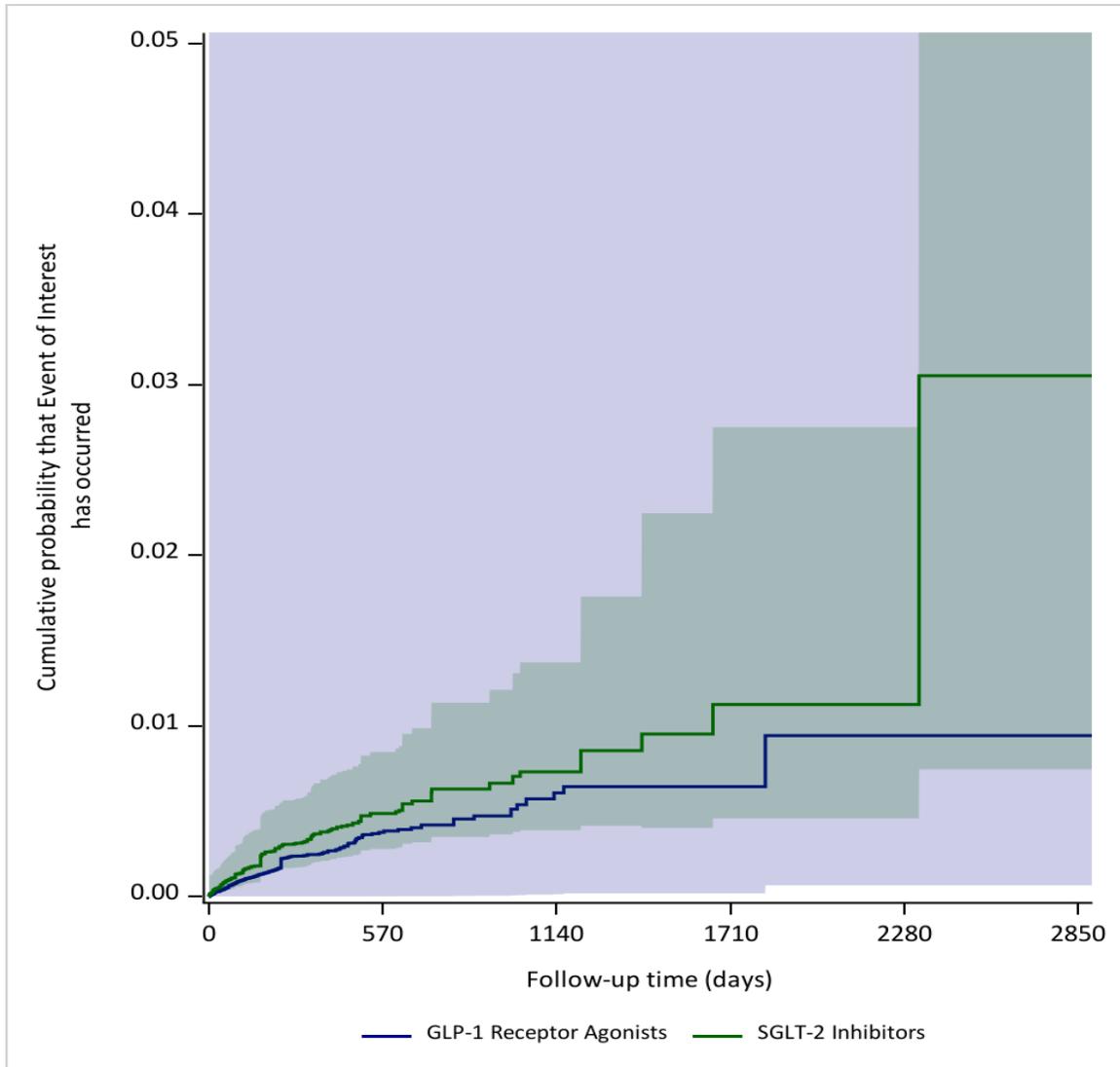


Figure 8ad. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

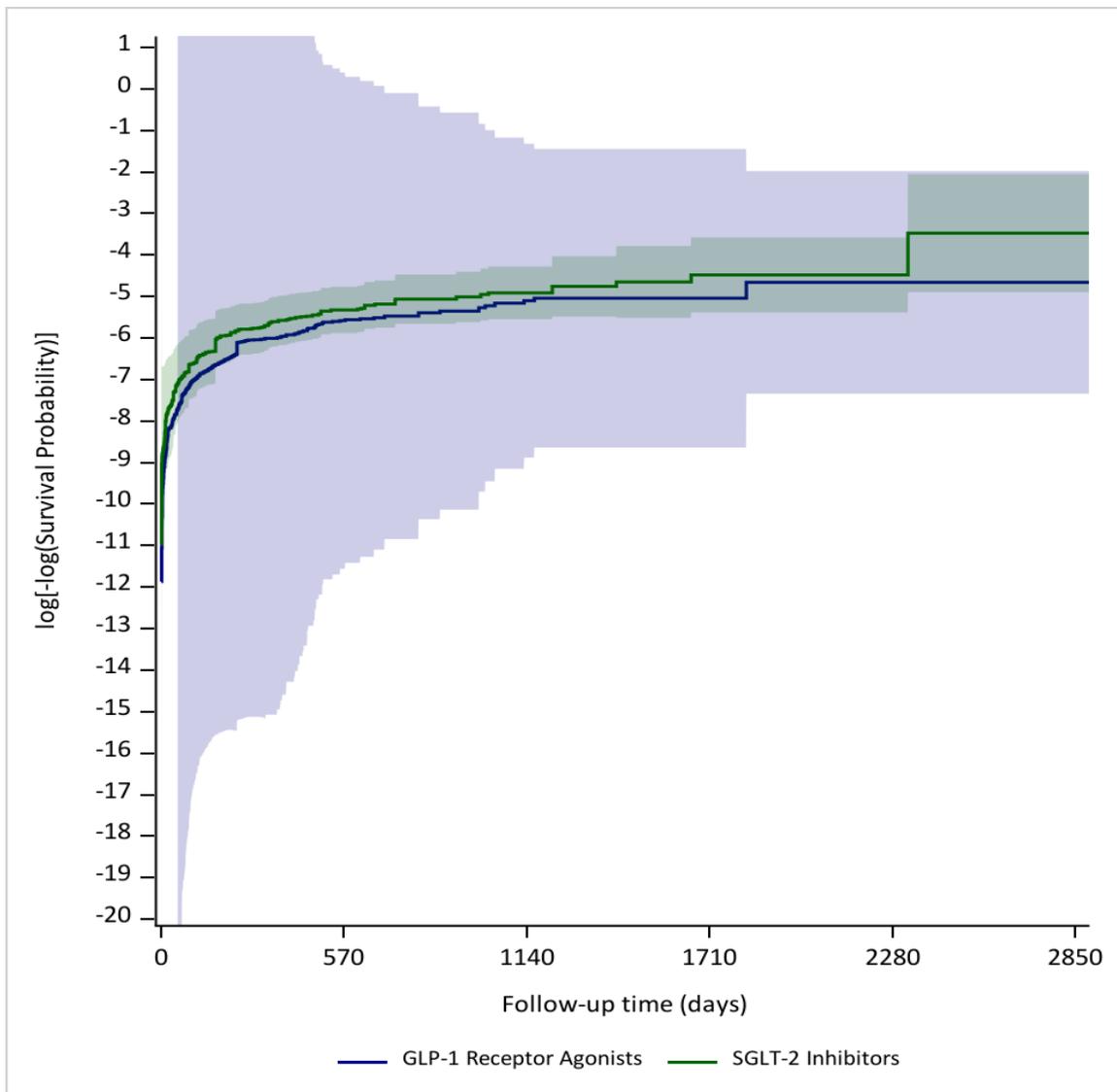


Figure 8ae. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

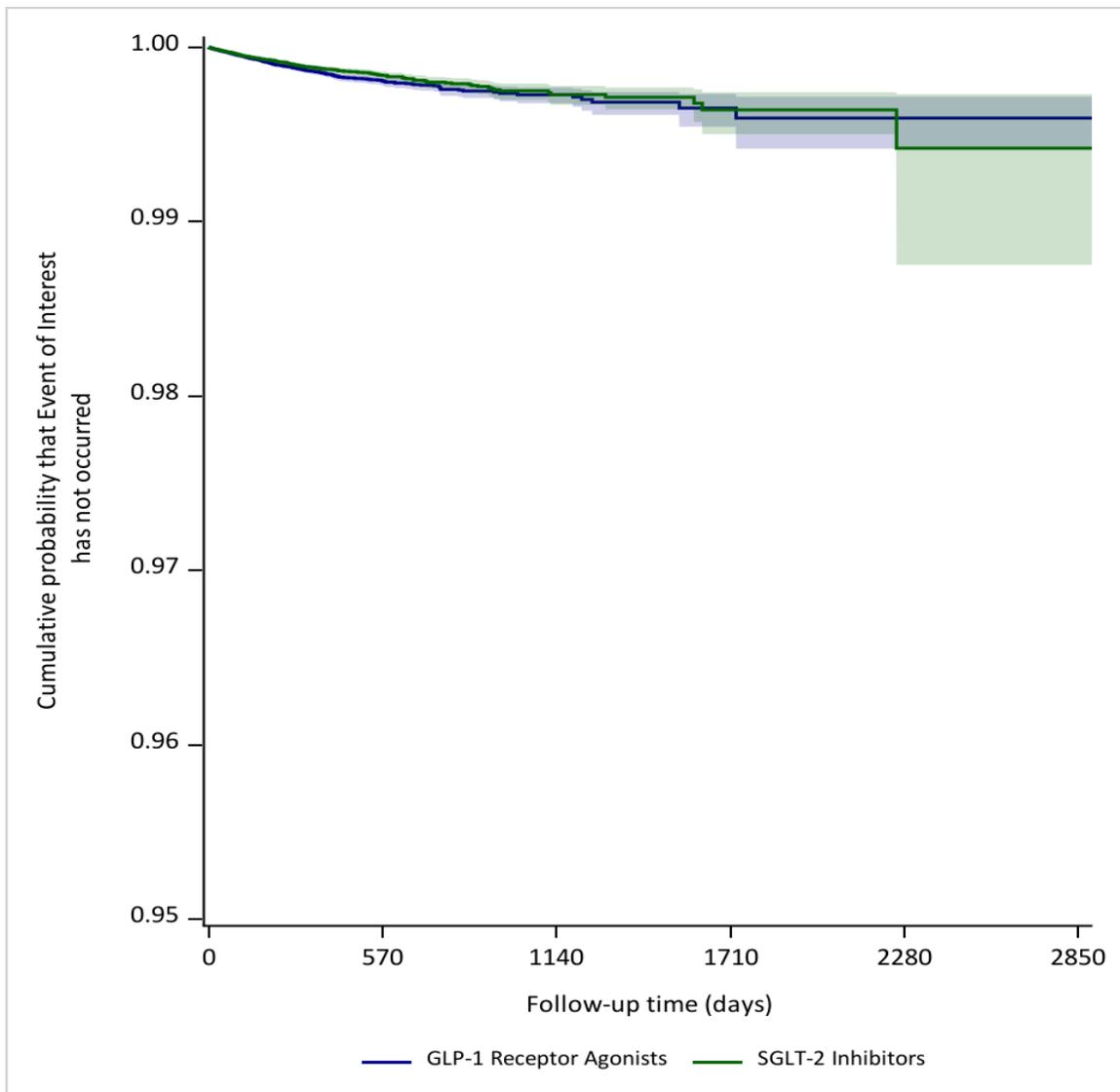


Figure 8af. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

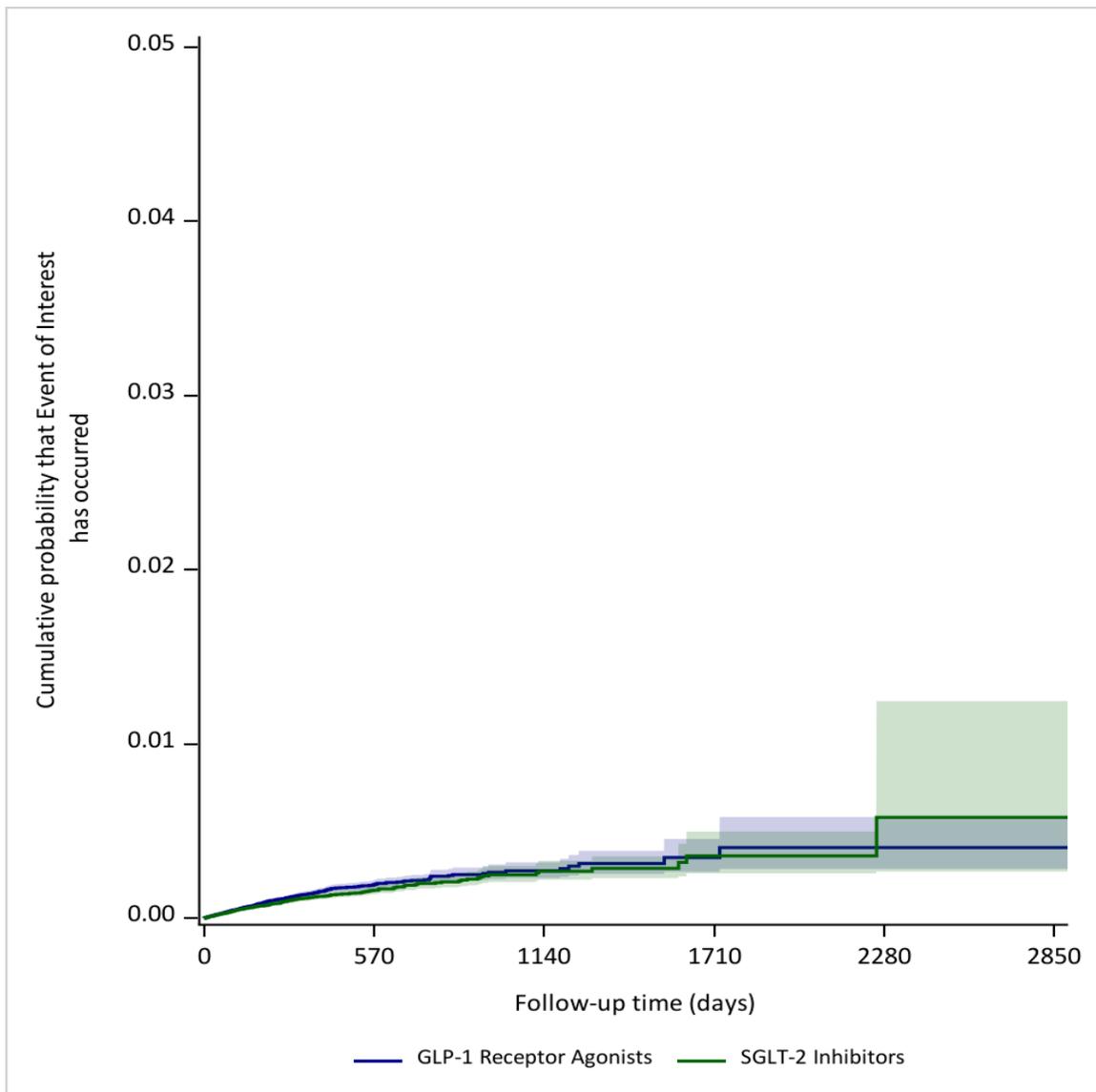


Figure 8ag. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

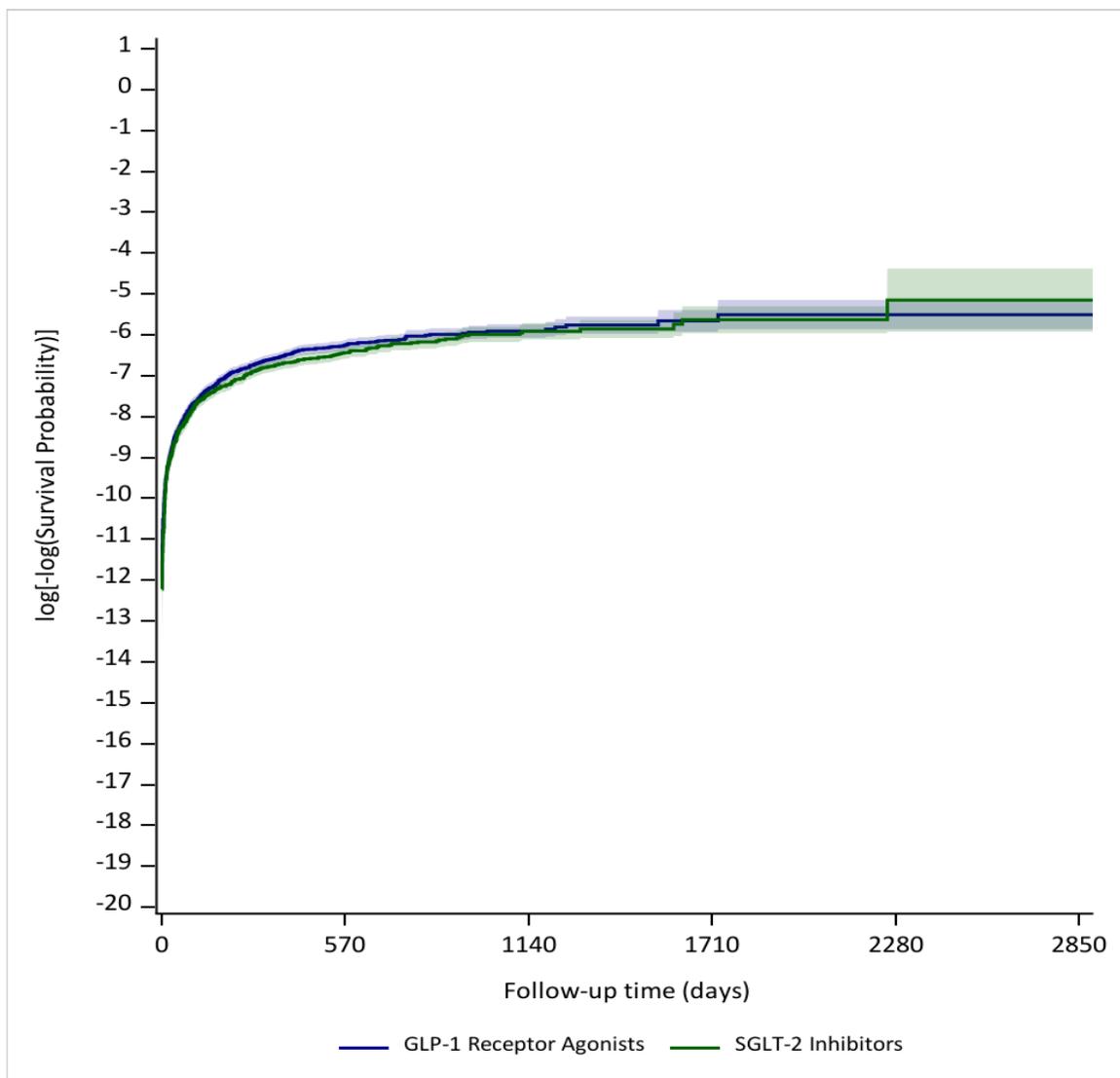


Figure 8ah. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

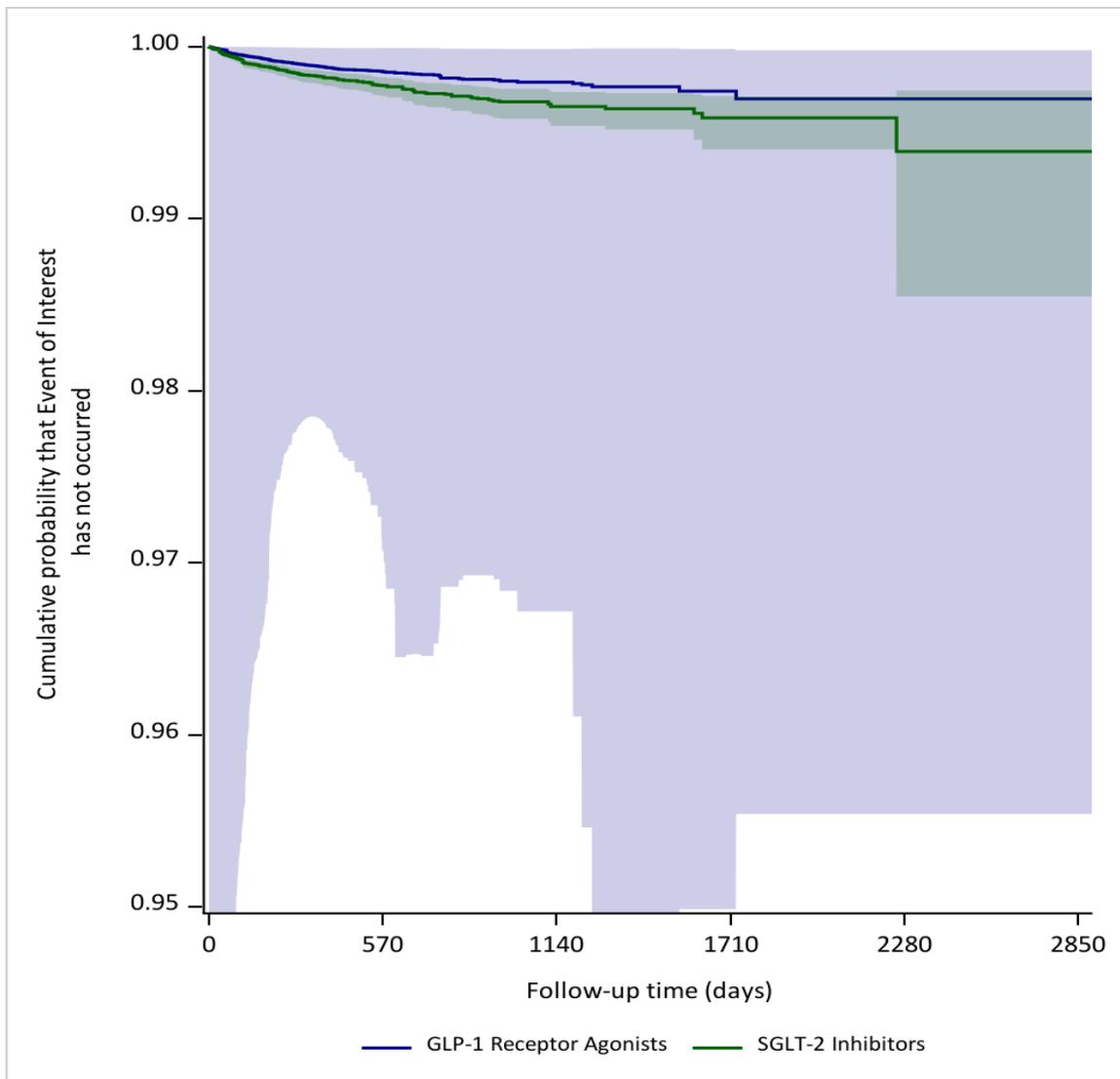


Figure 8ai. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

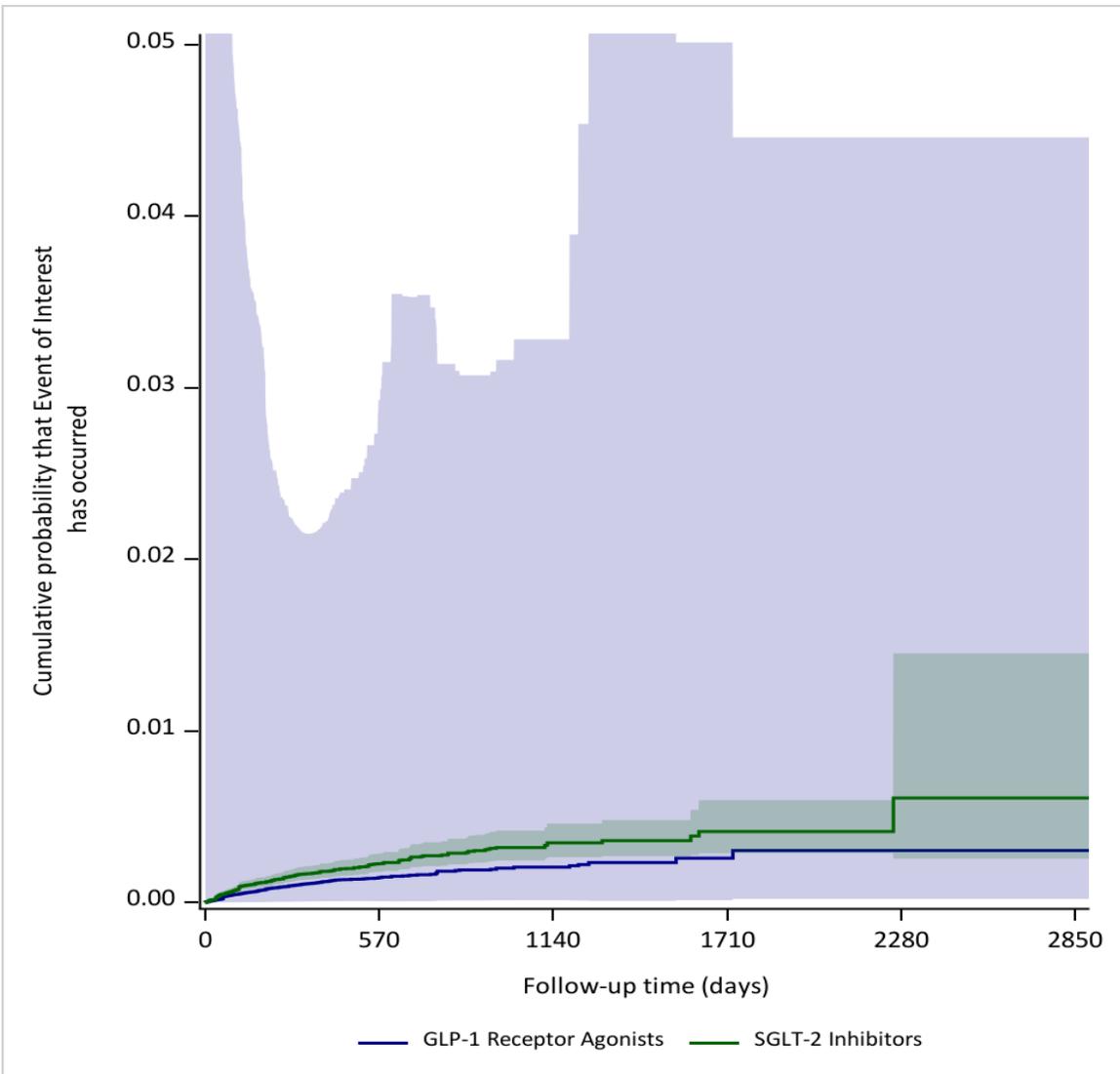


Figure 8aj. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

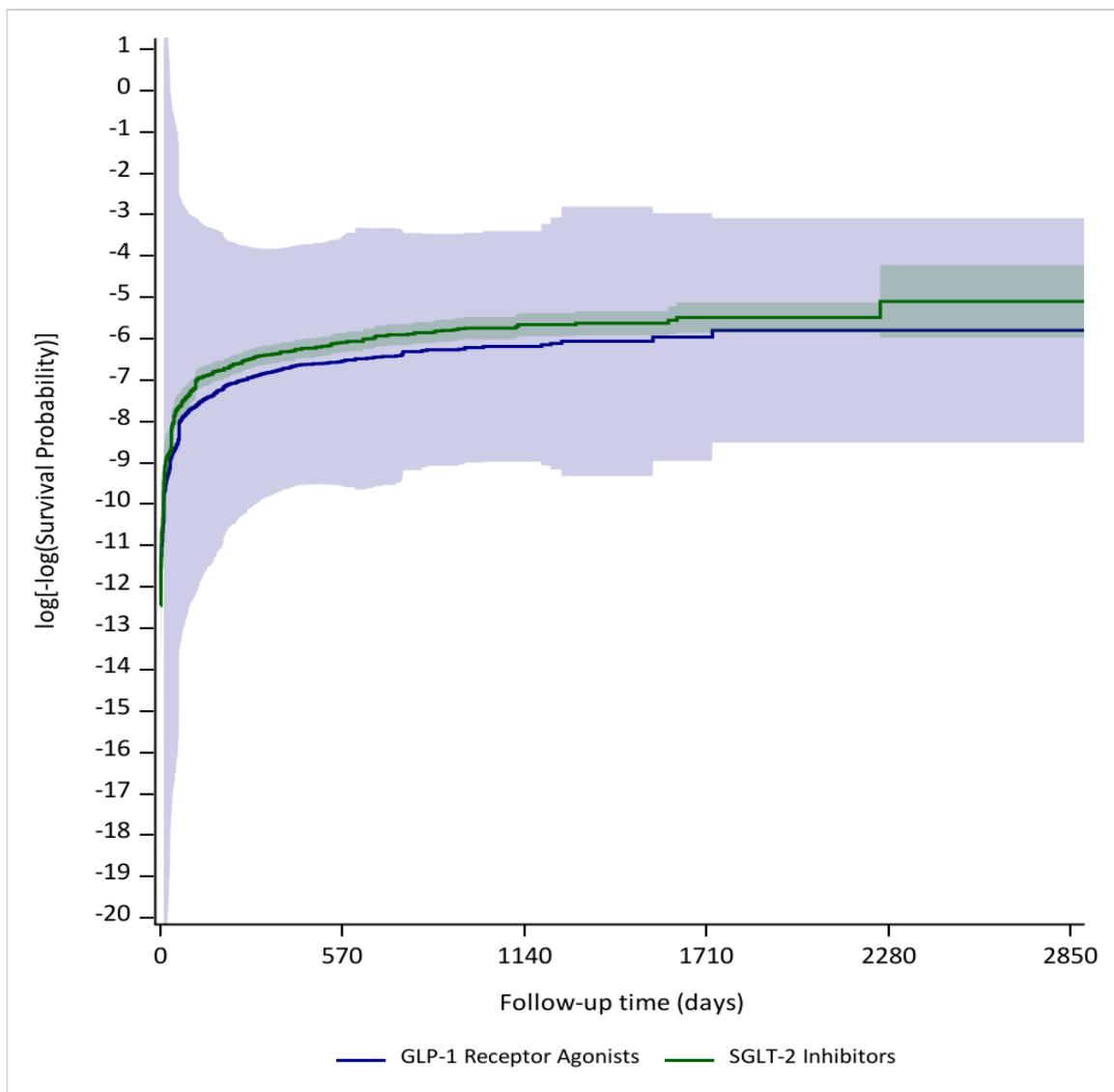


Figure 8ak. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

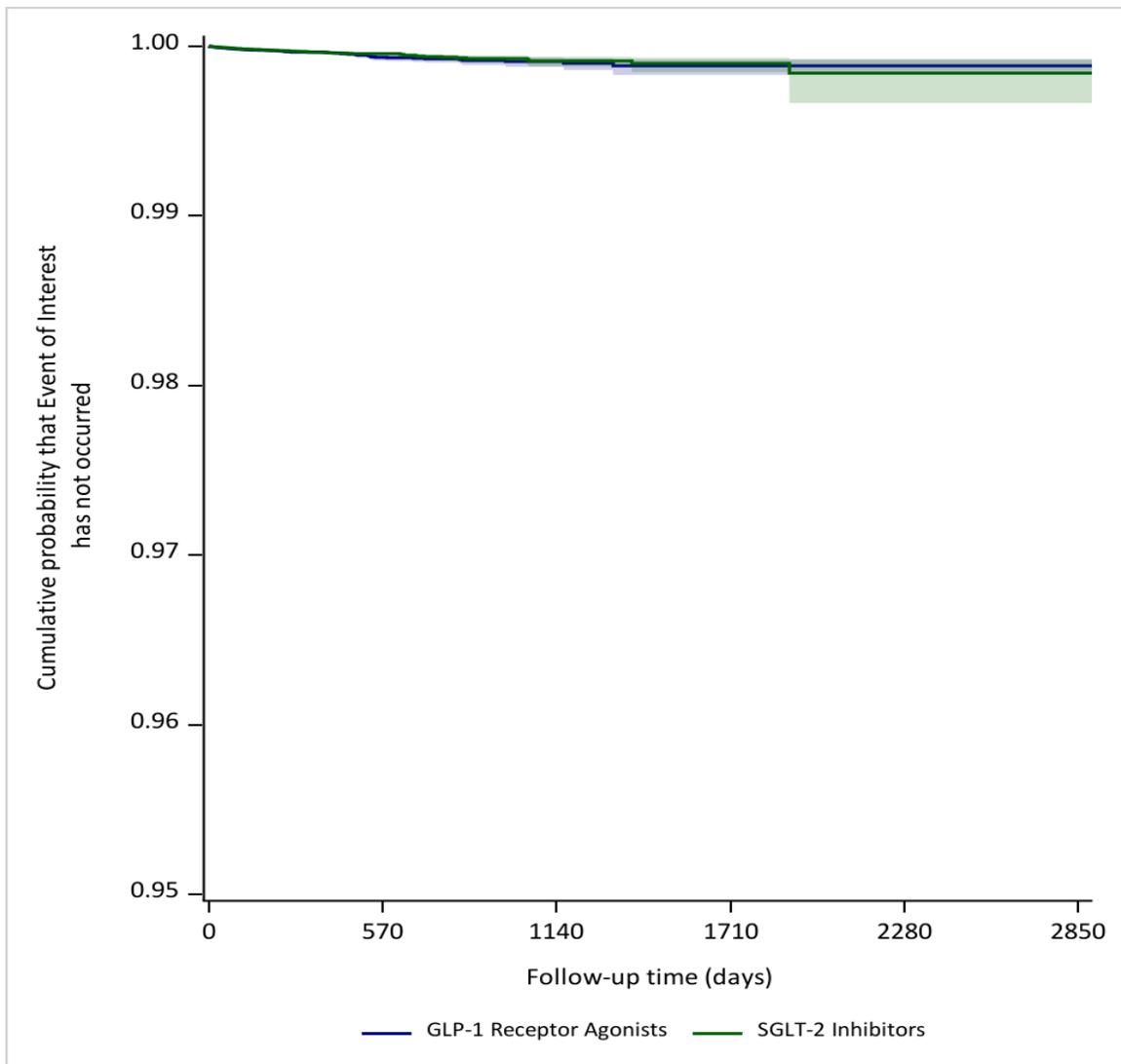


Figure 8a. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

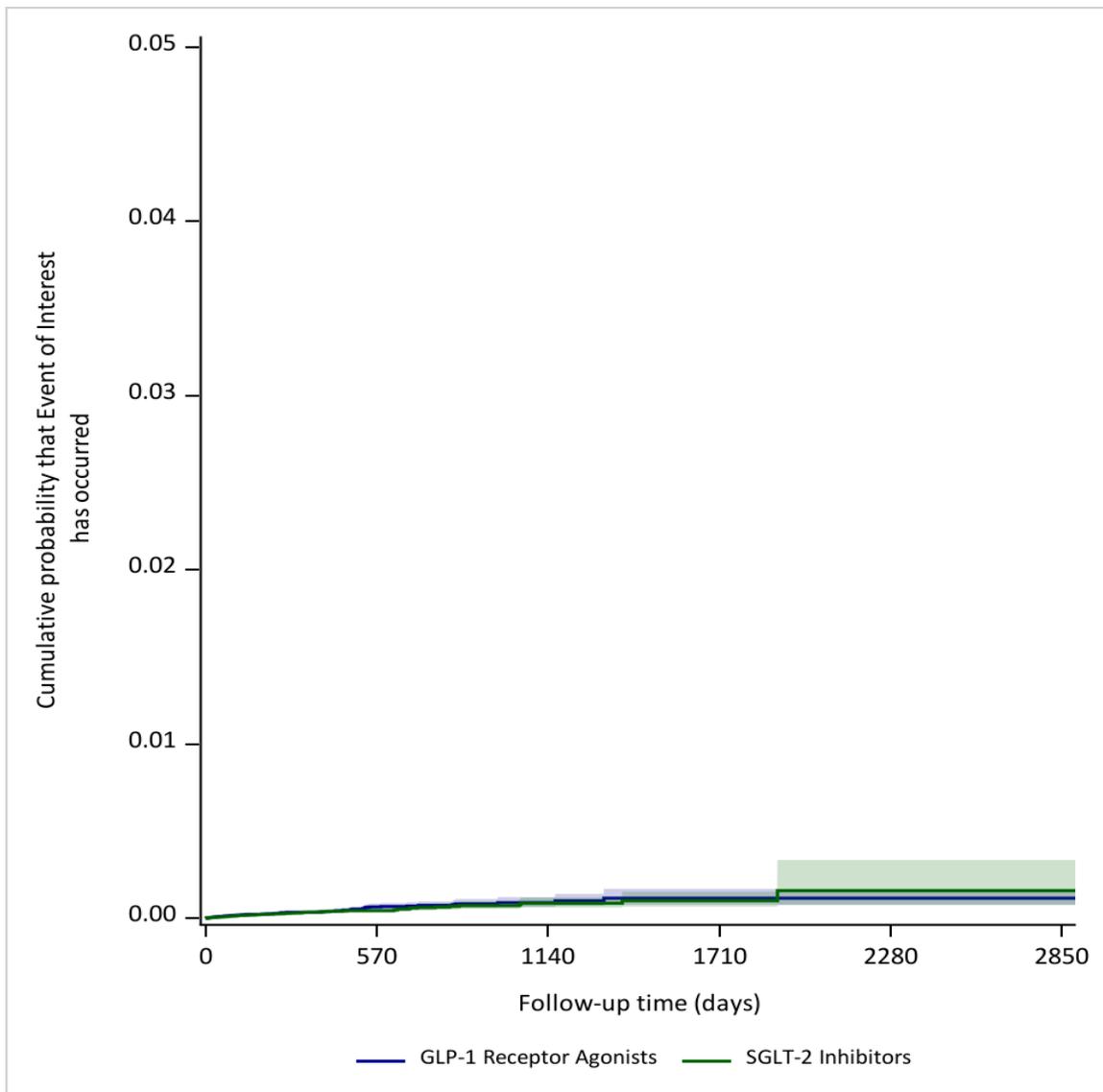


Figure 8am. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

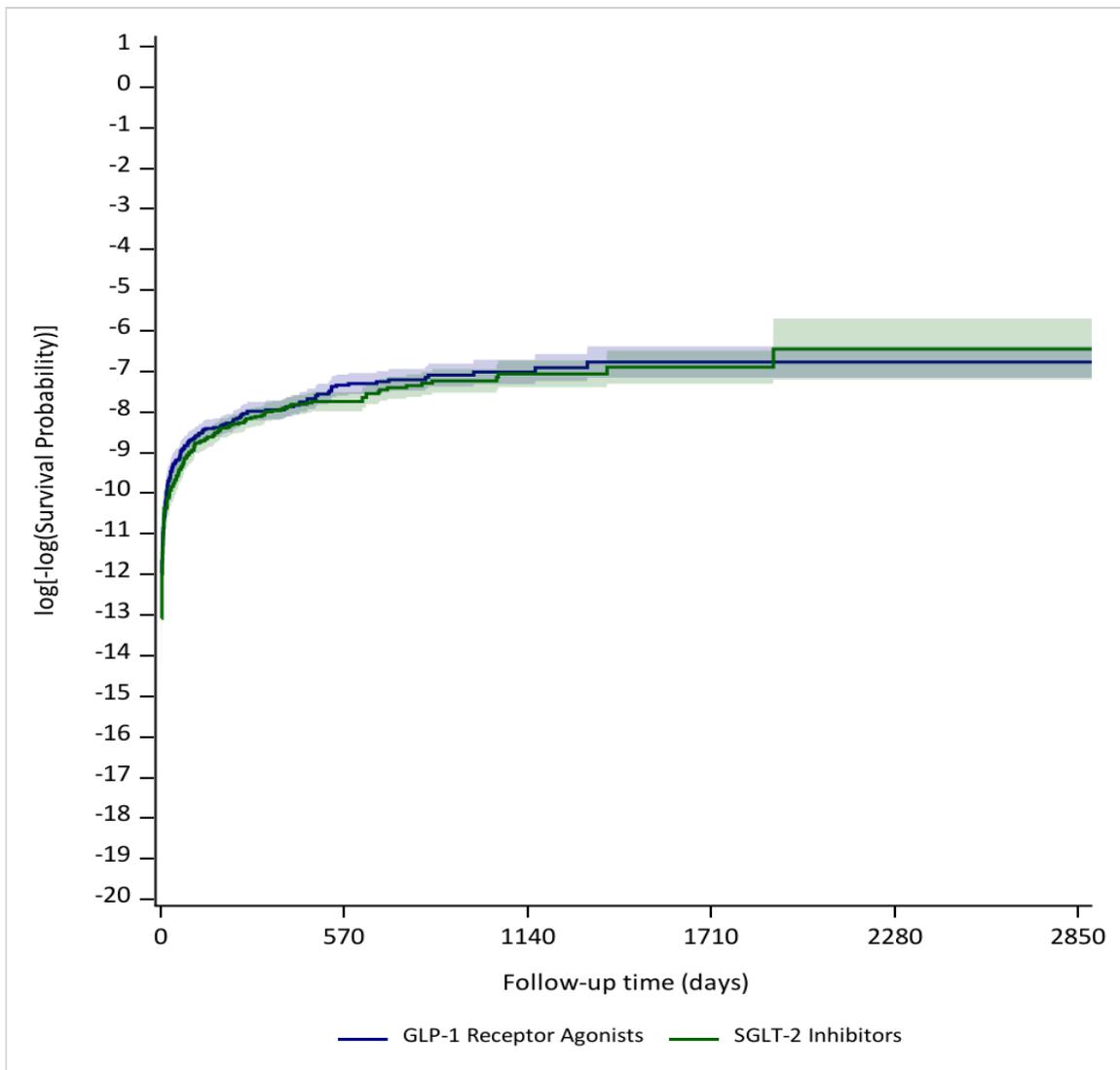


Figure 8an. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

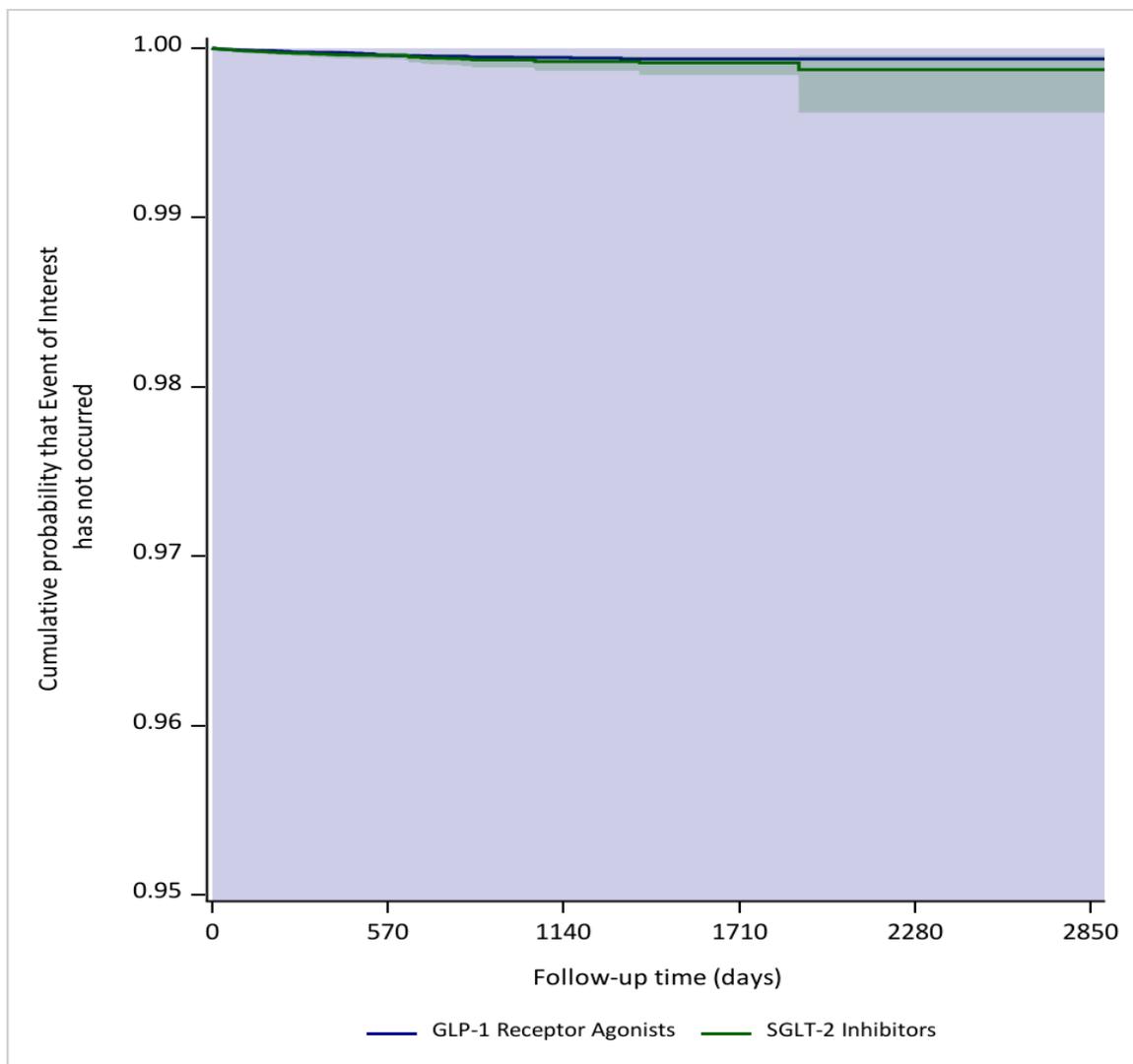


Figure 8ao. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

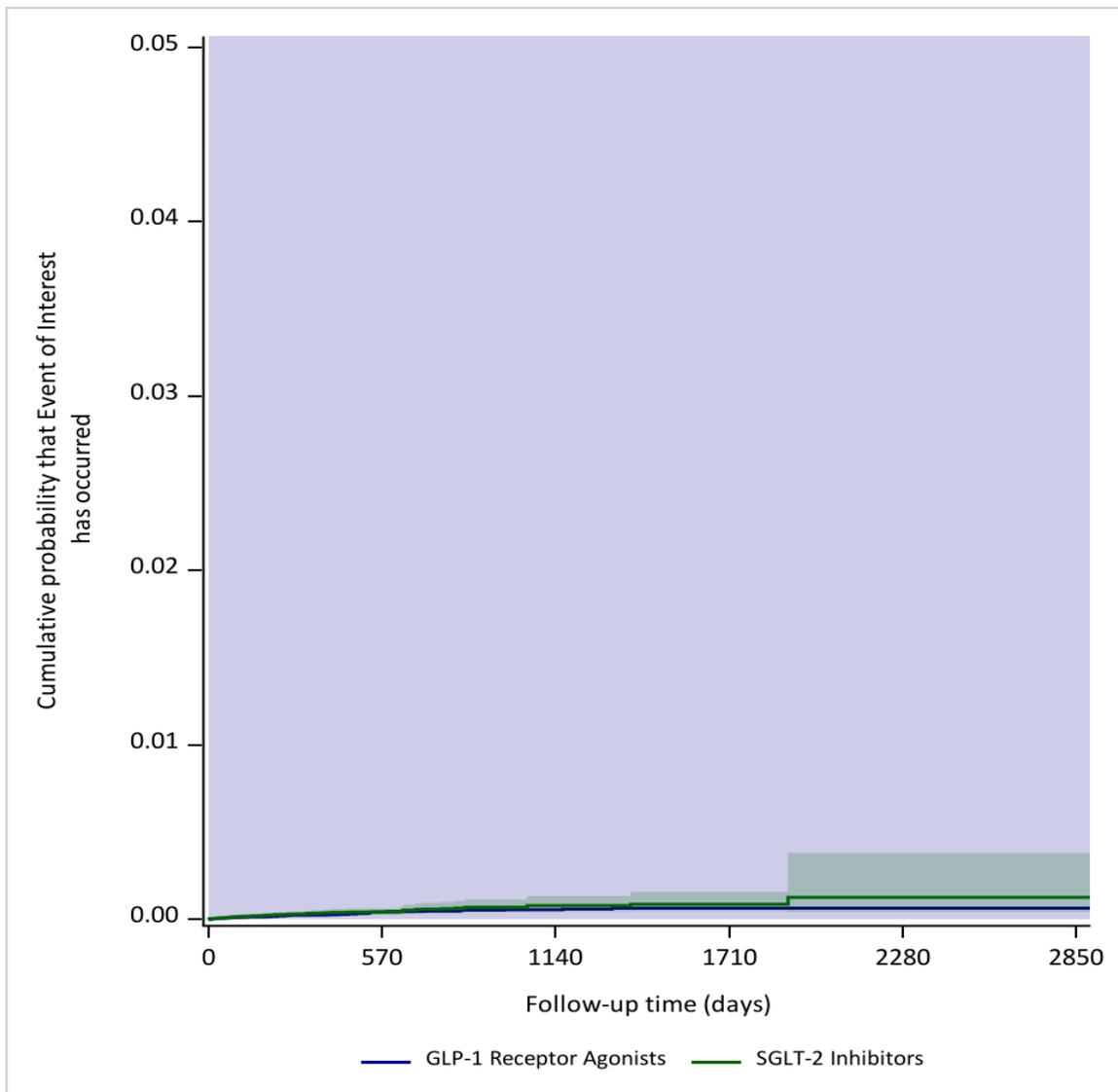


Figure 8ap. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

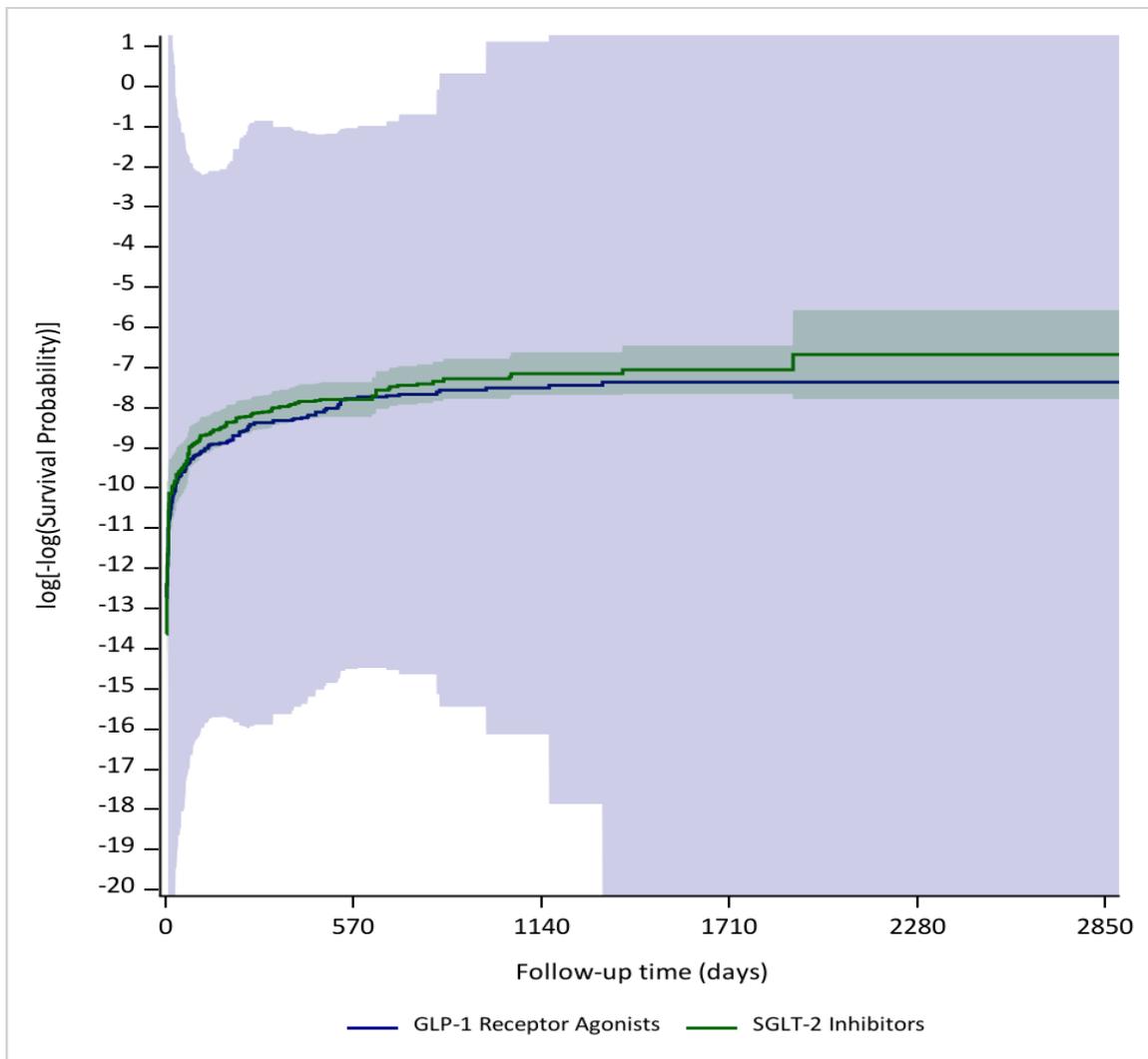


Figure 8a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

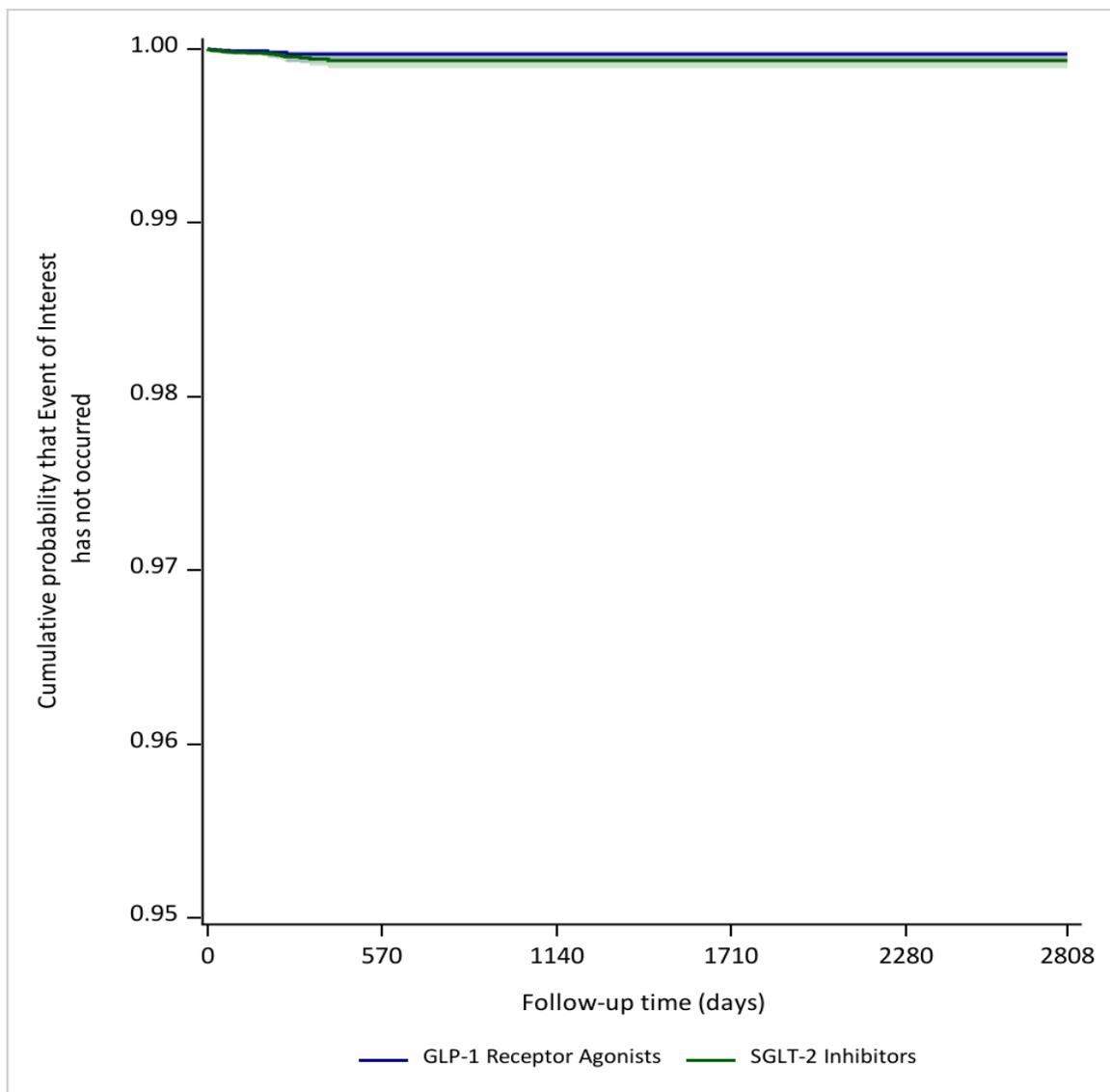


Figure 8ar. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

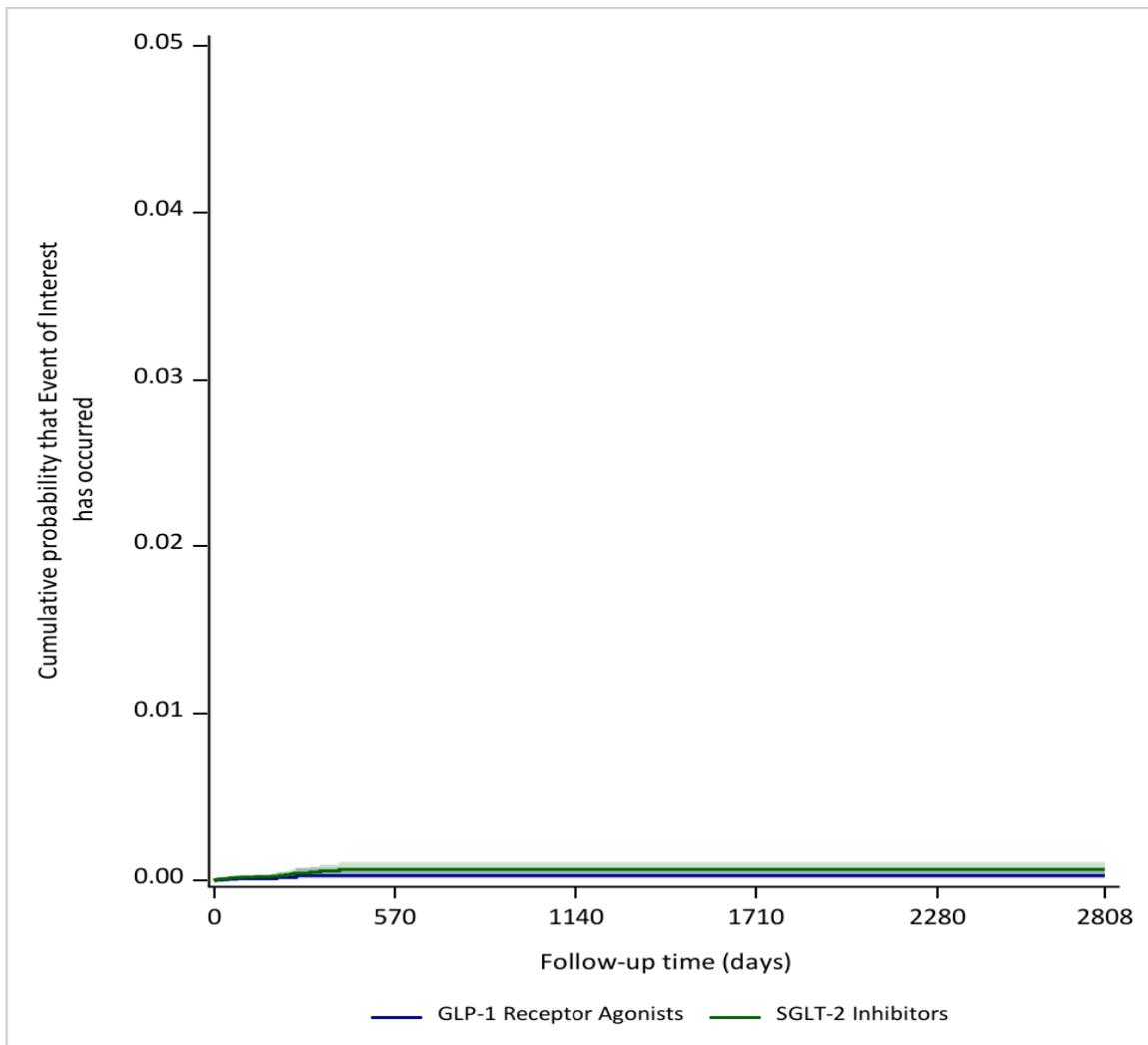


Figure 8as. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

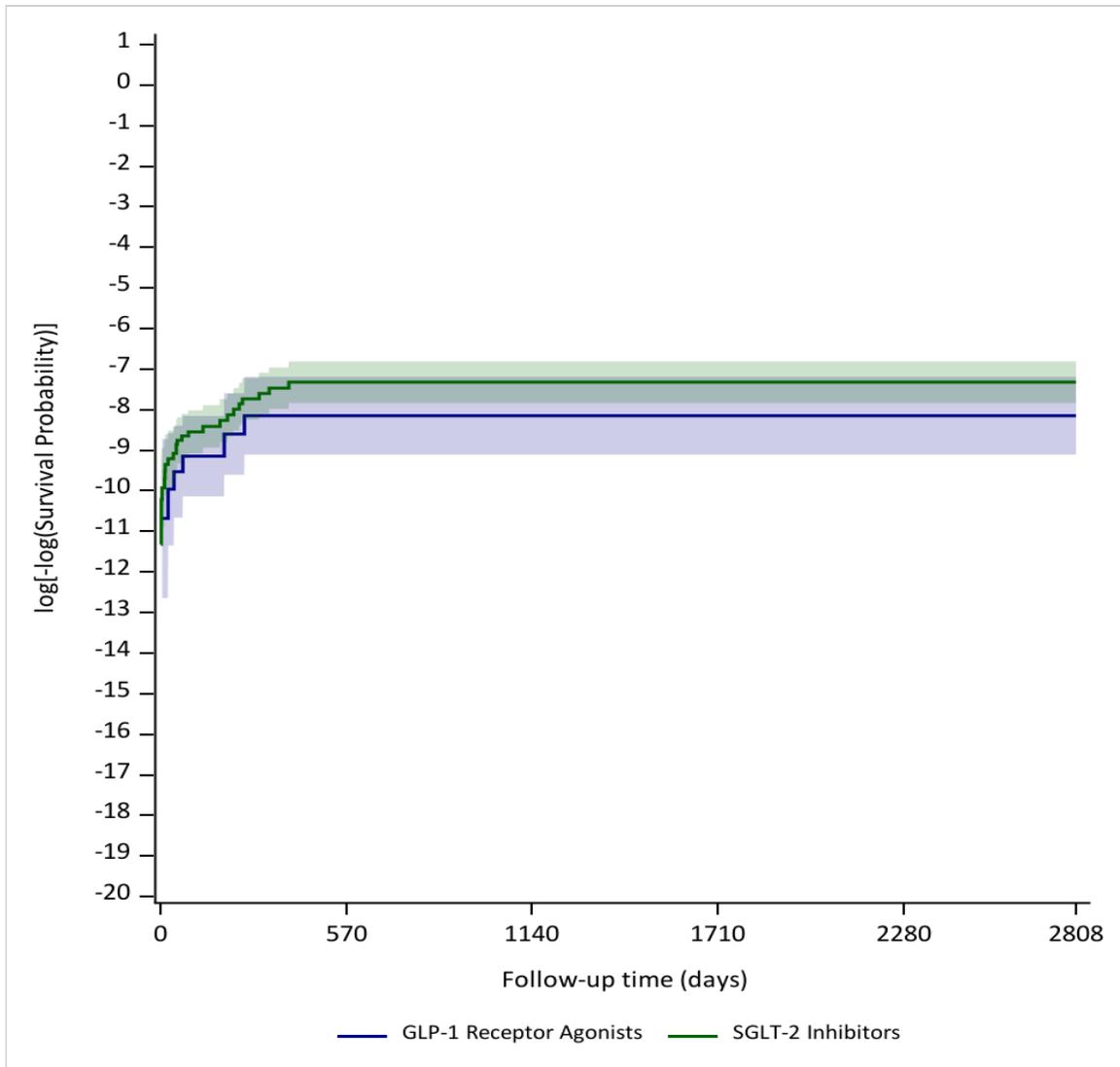


Figure 8at. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

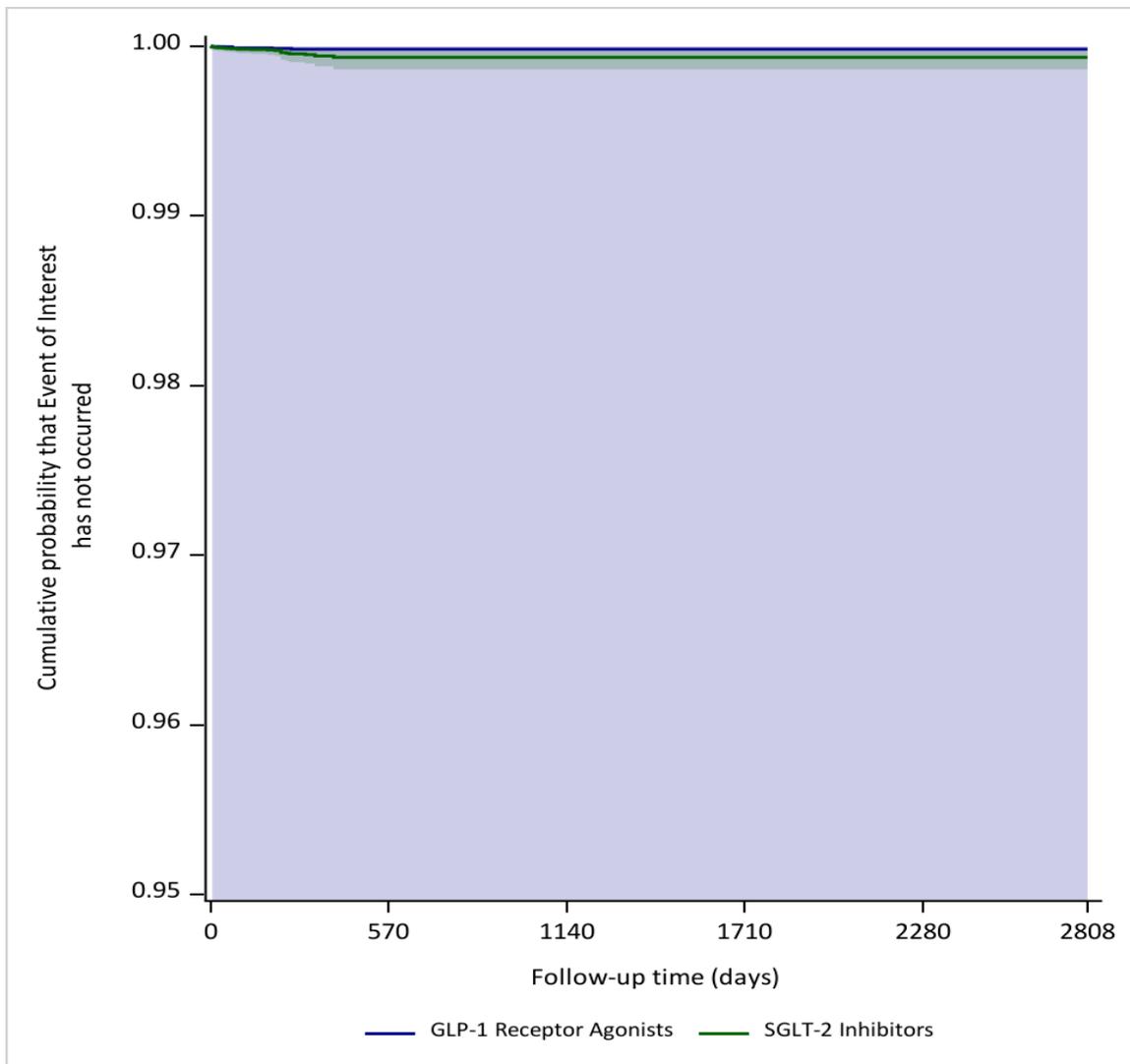


Figure 8au. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

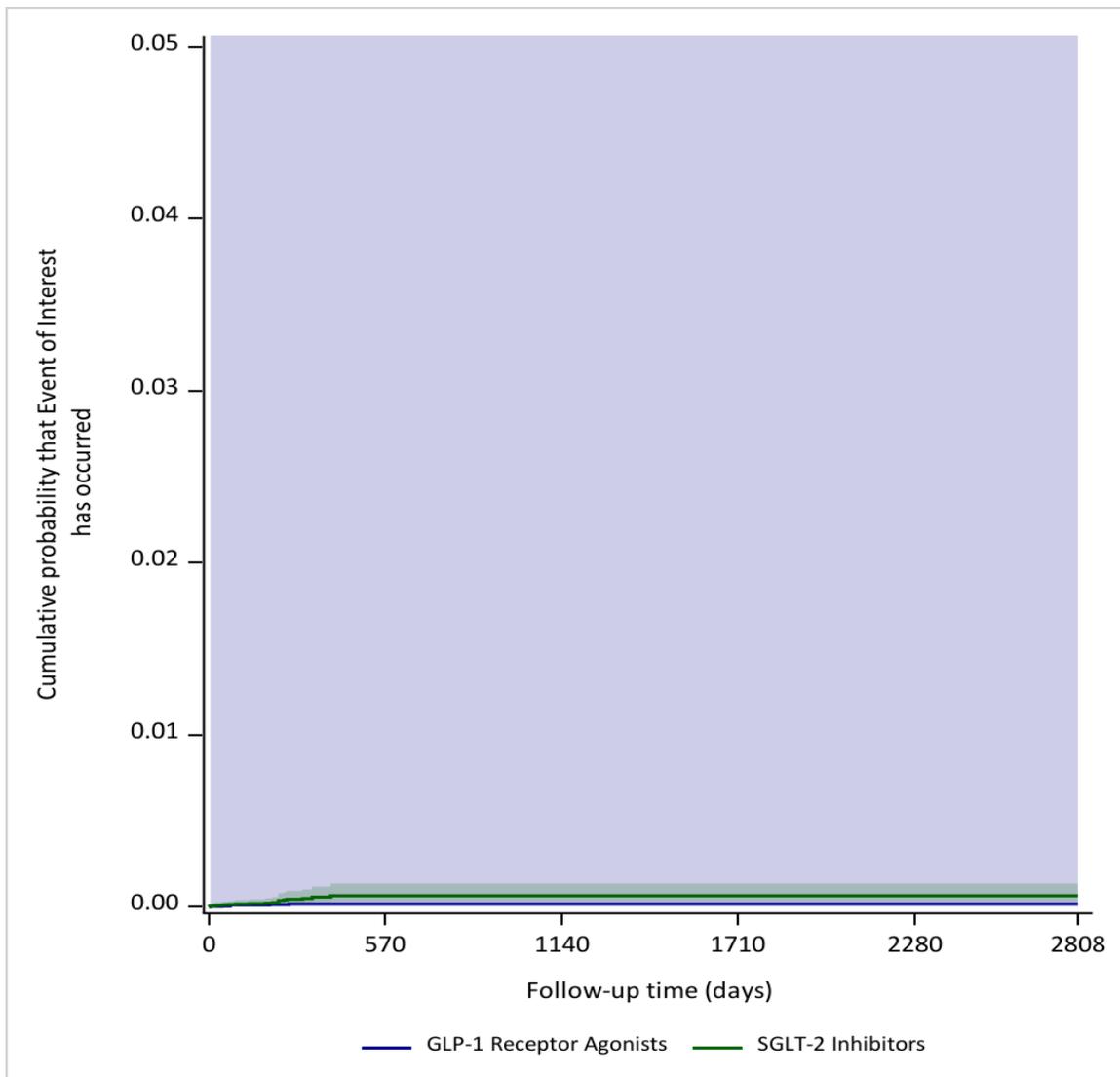


Figure 8av. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

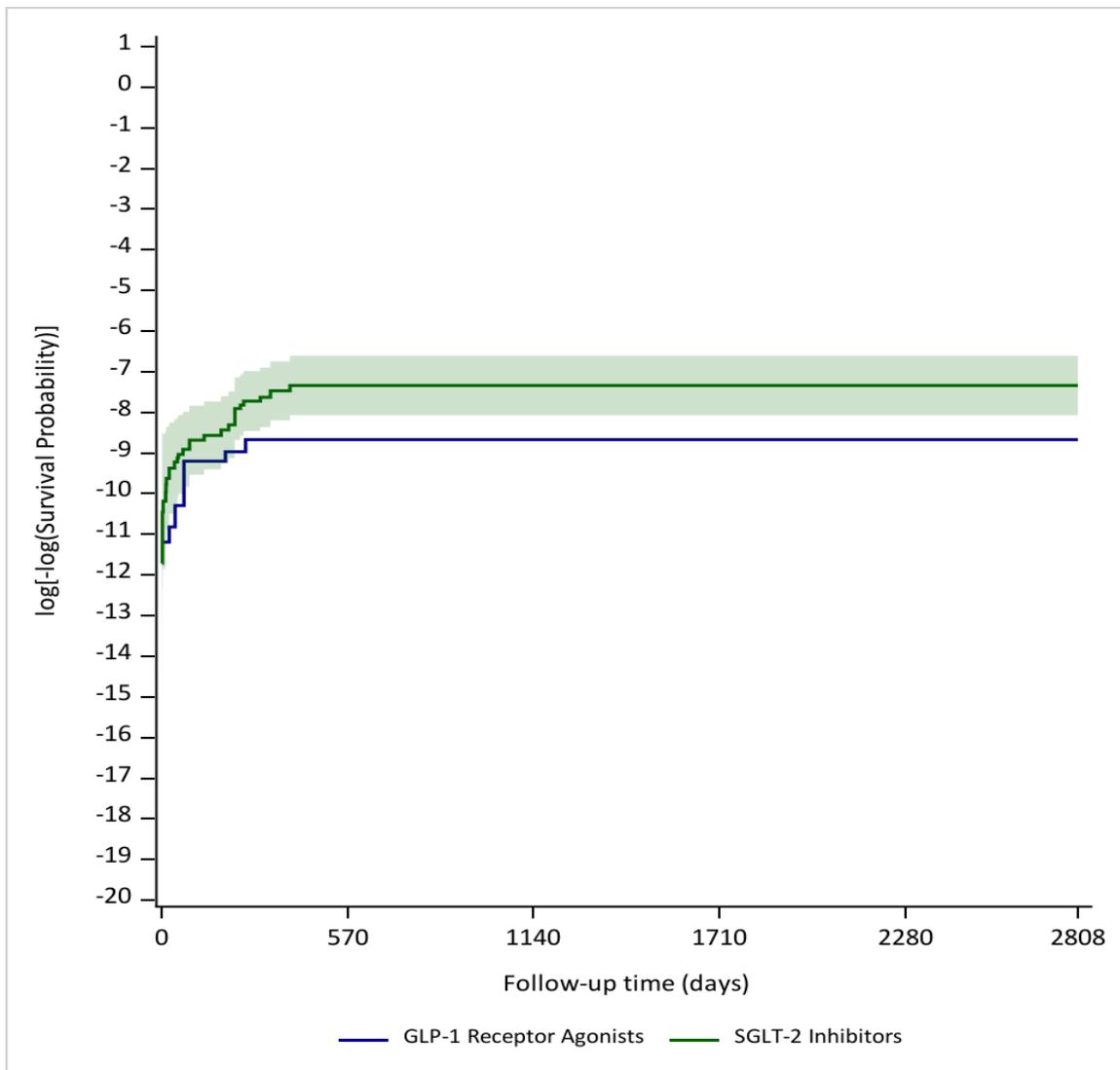


Figure 9a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

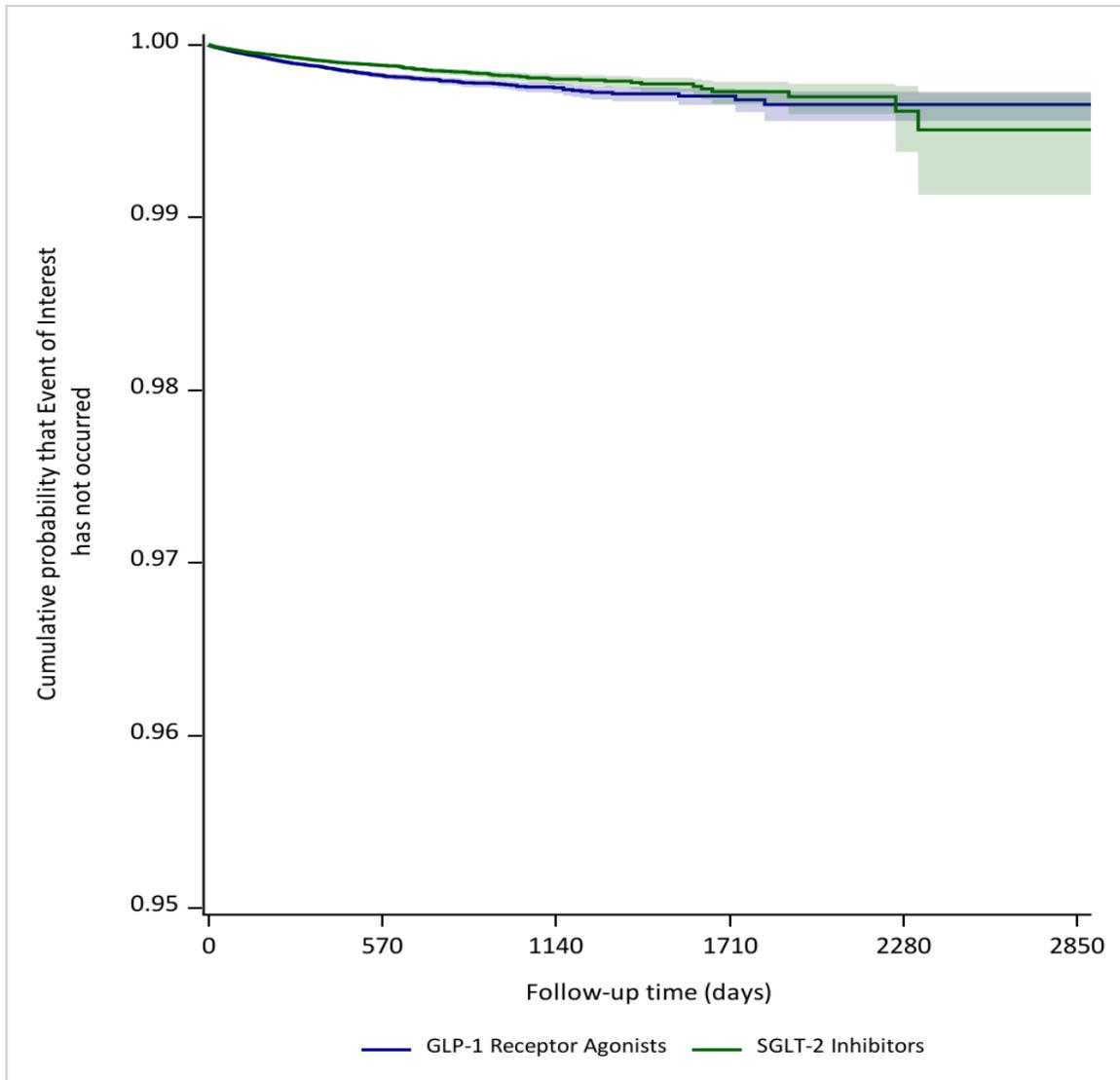


Figure 9b. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

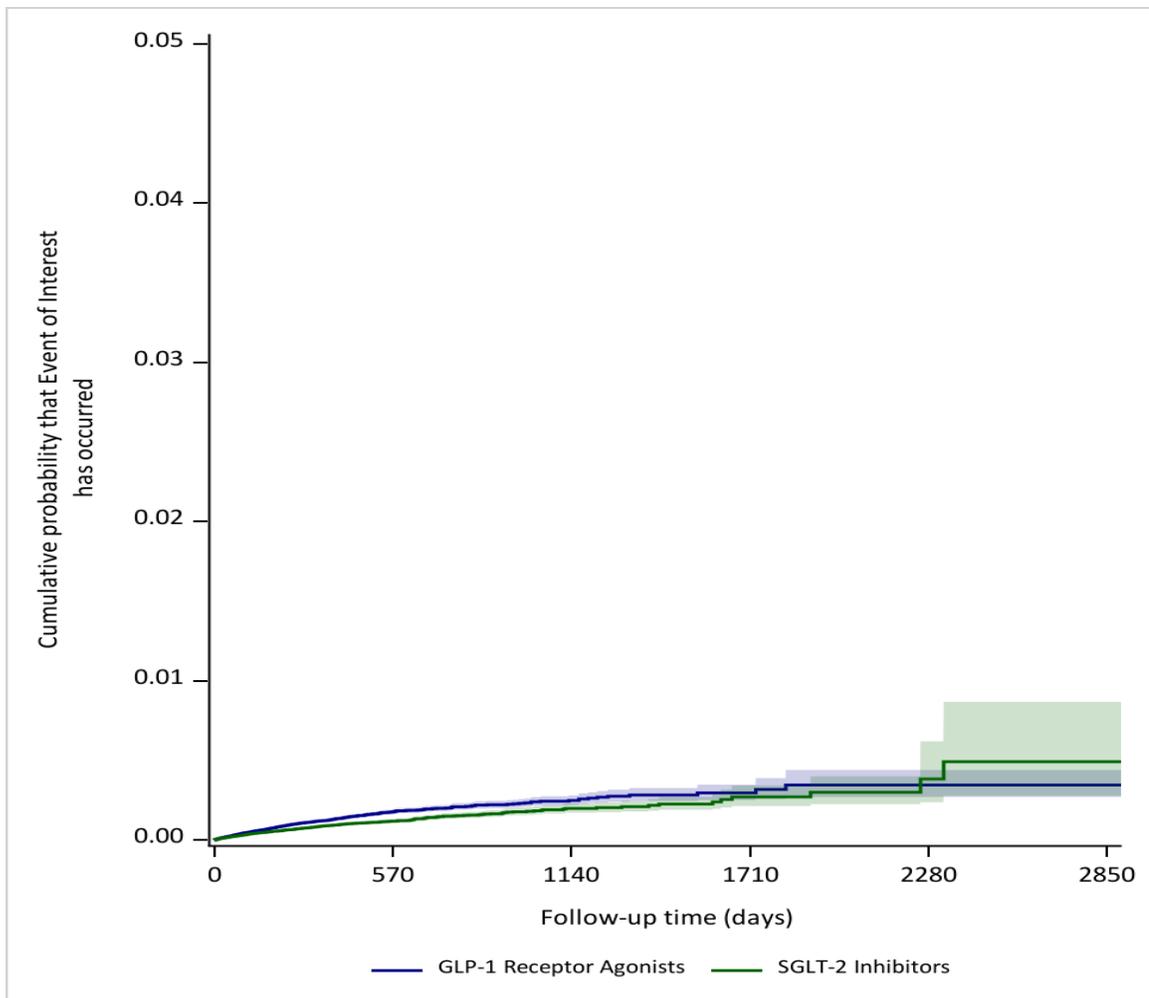


Figure 9c. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

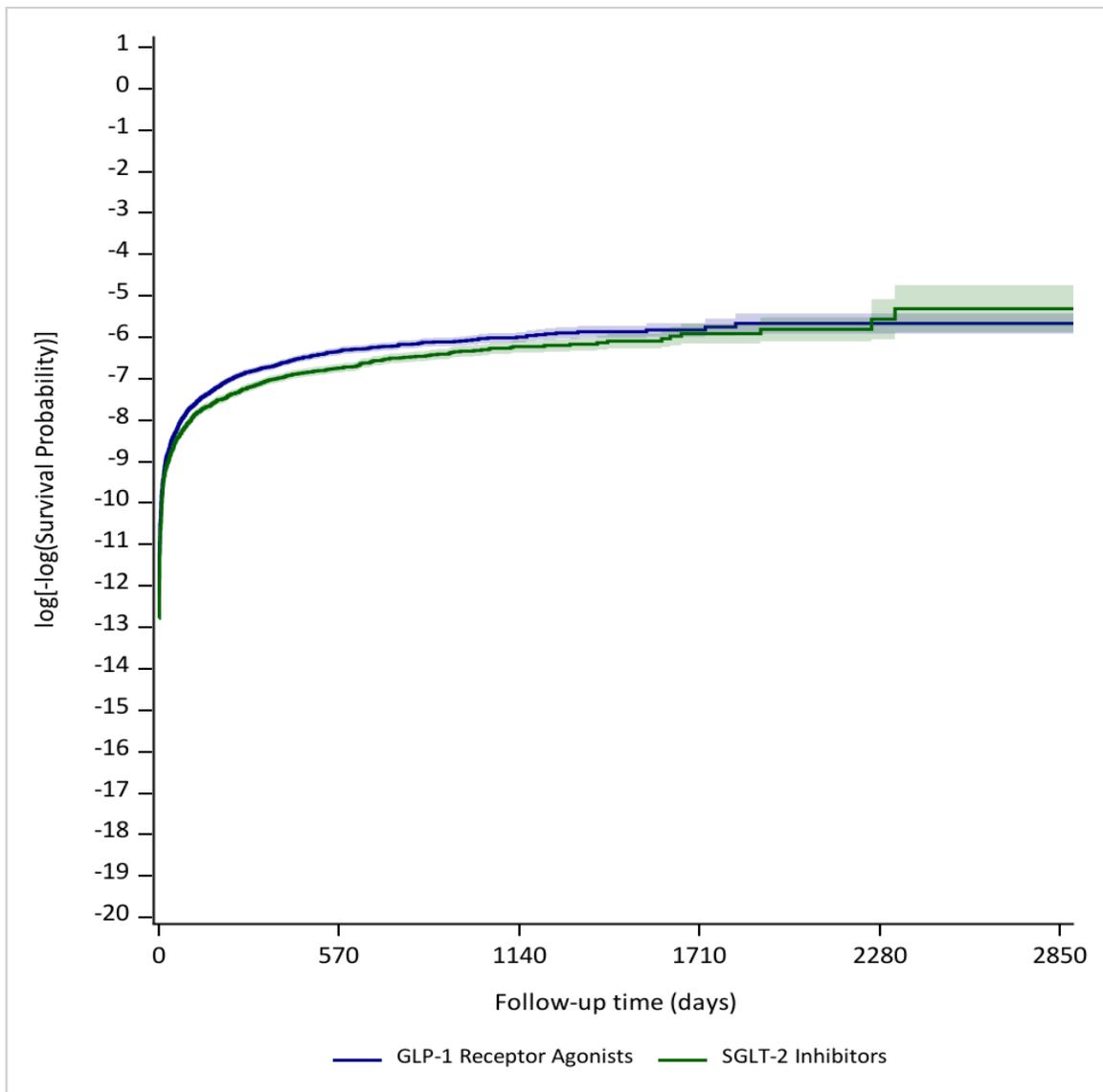


Figure 9d. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

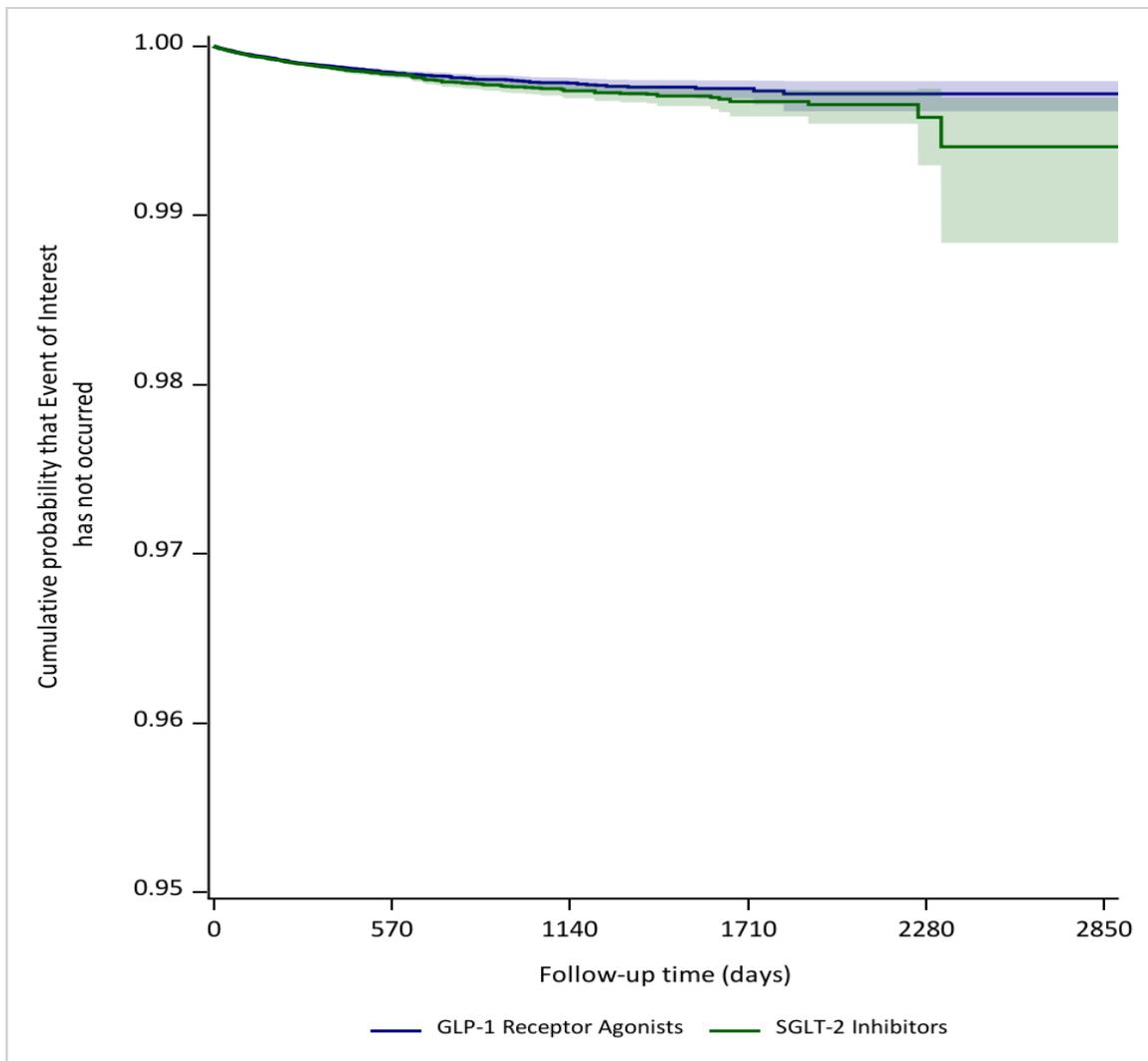


Figure 9e. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

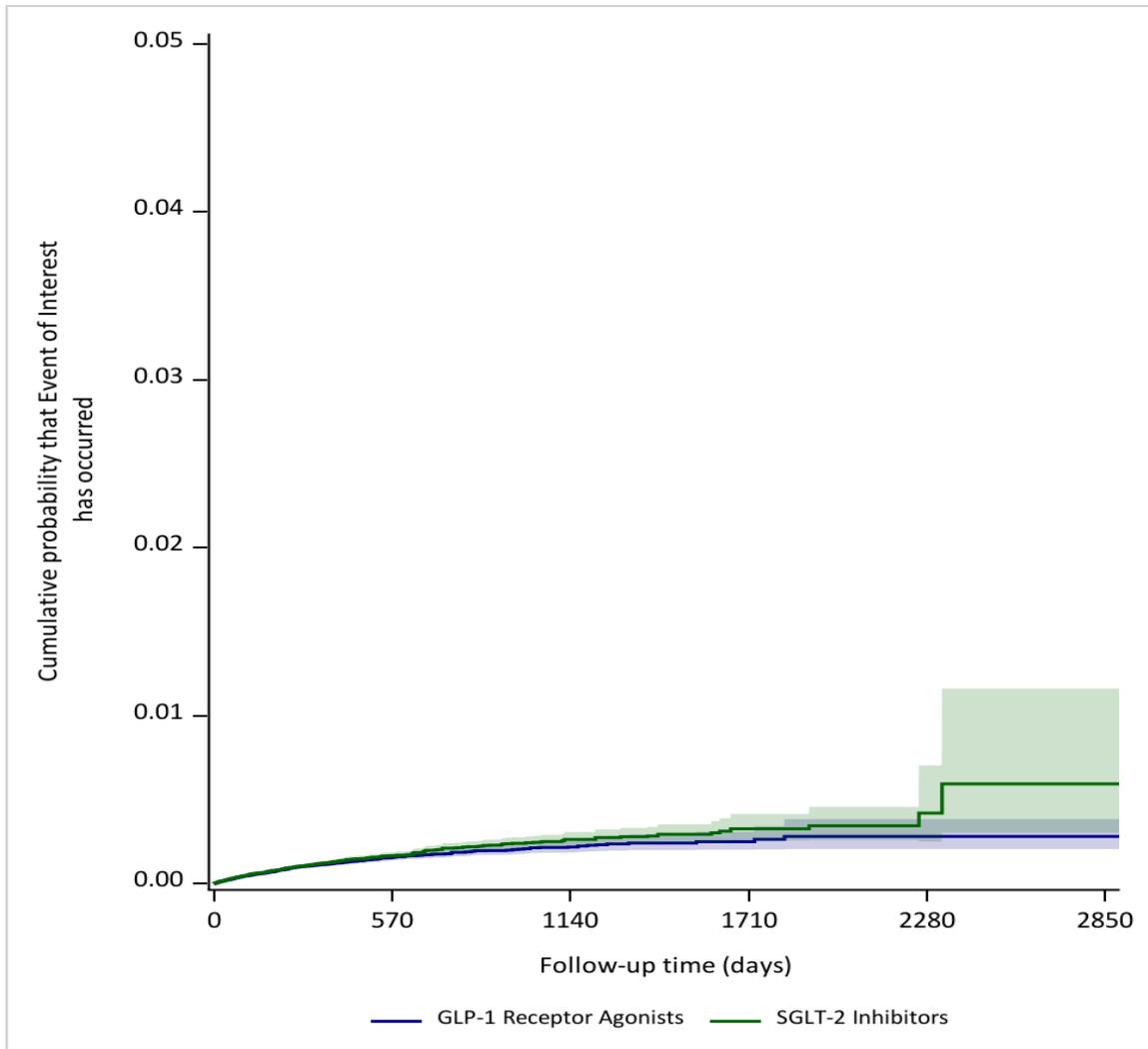


Figure 9f. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

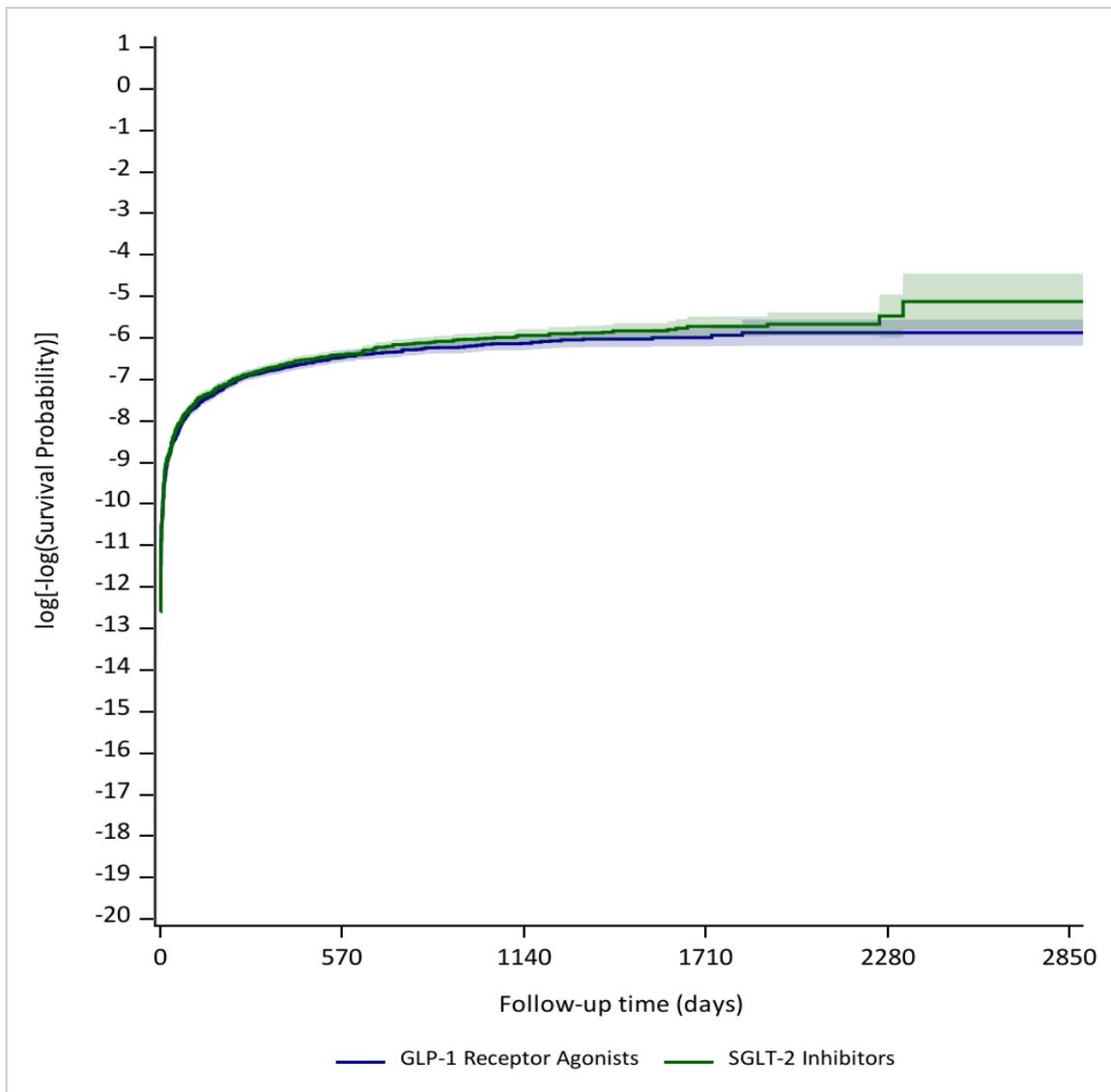


Figure 9g. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

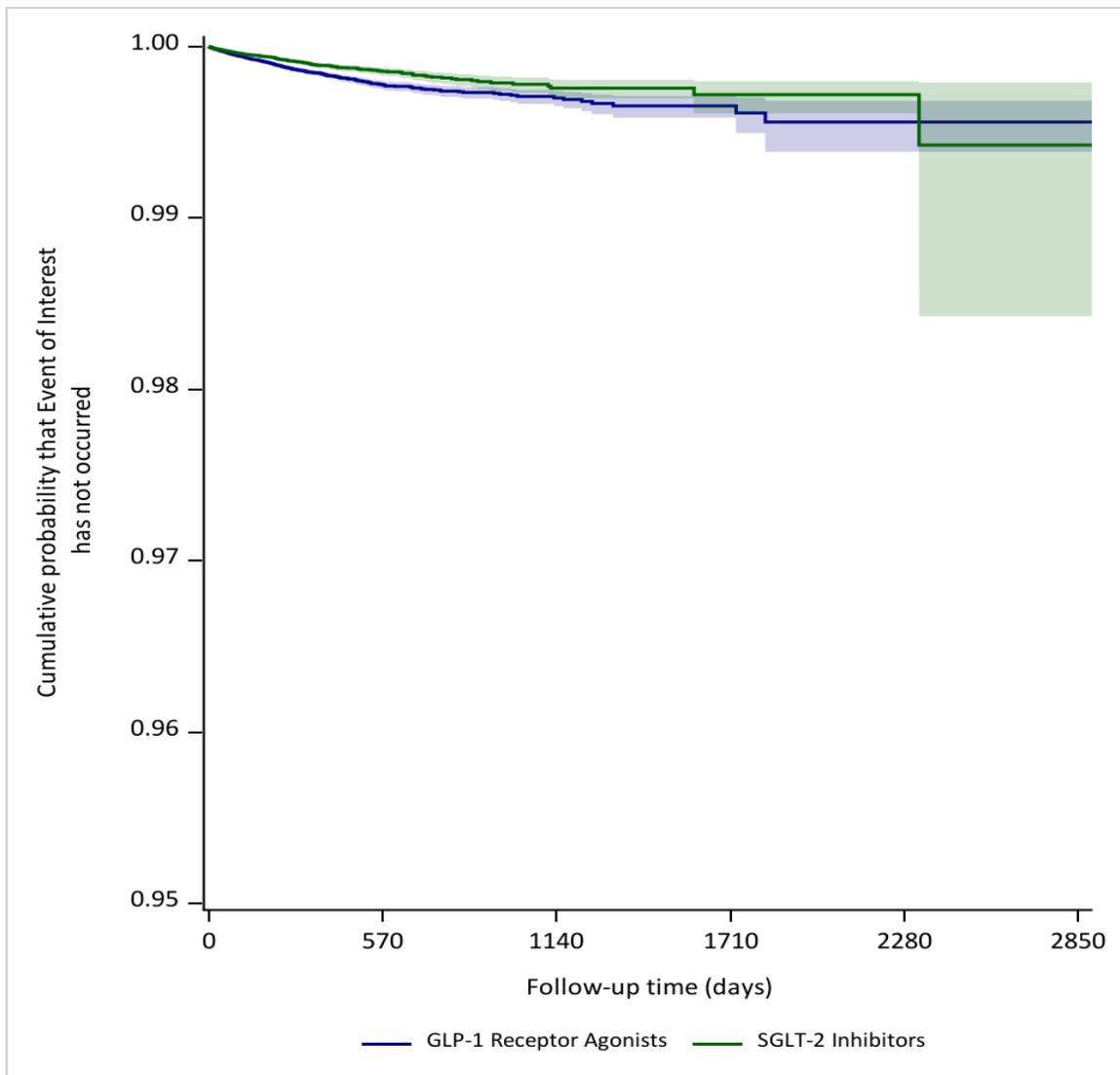


Figure 9h. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

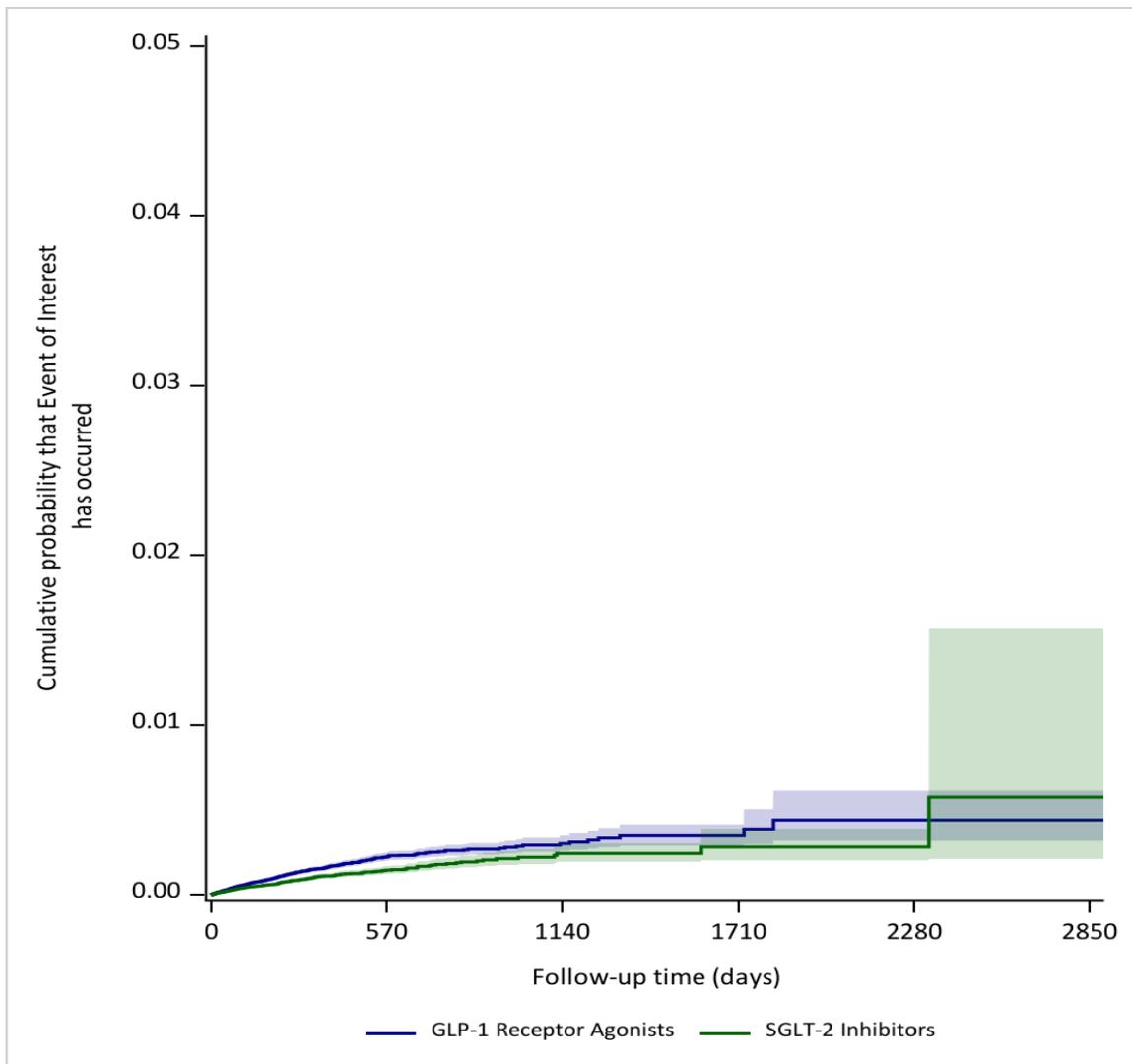


Figure 9i. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

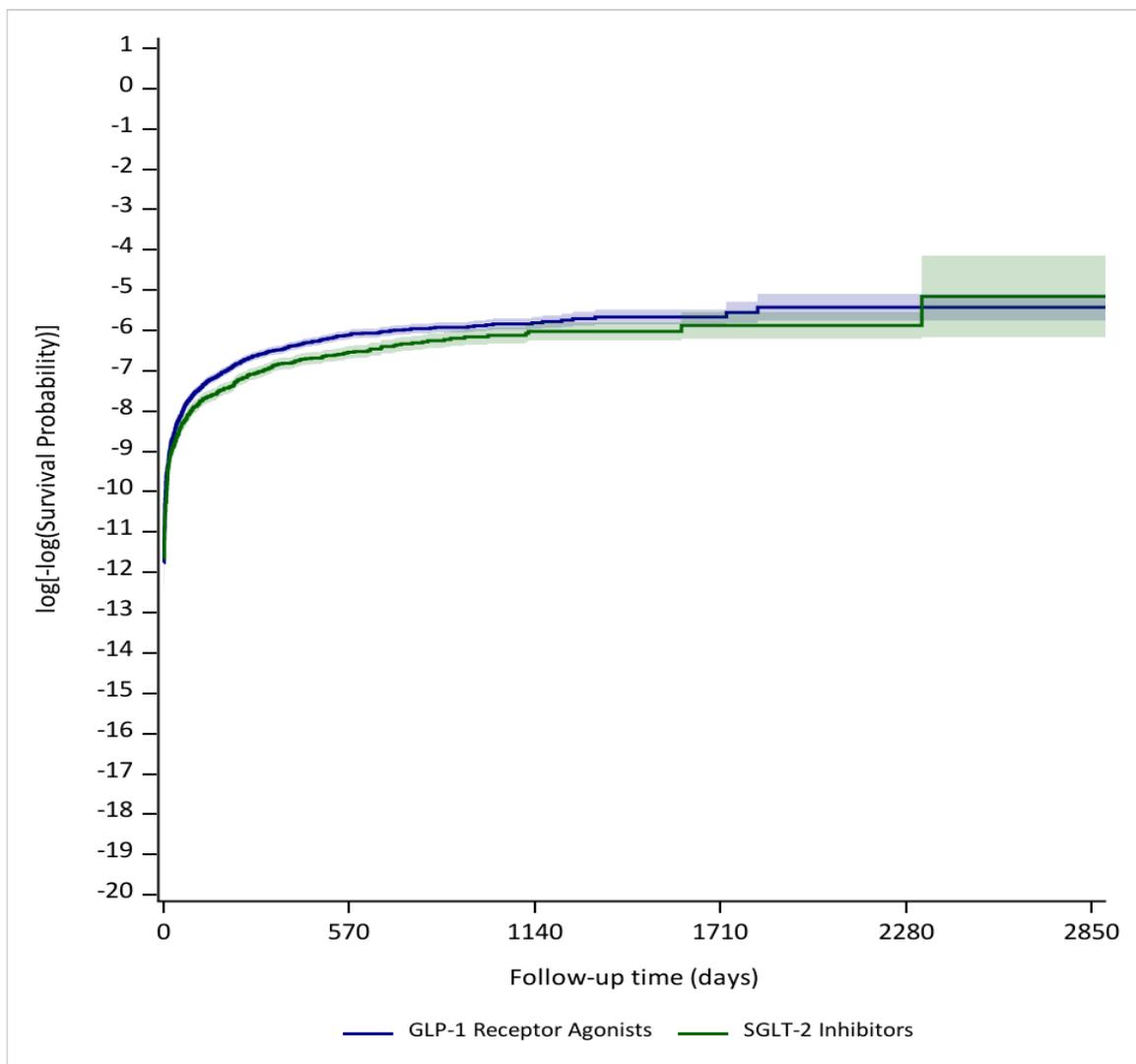


Figure 9j. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

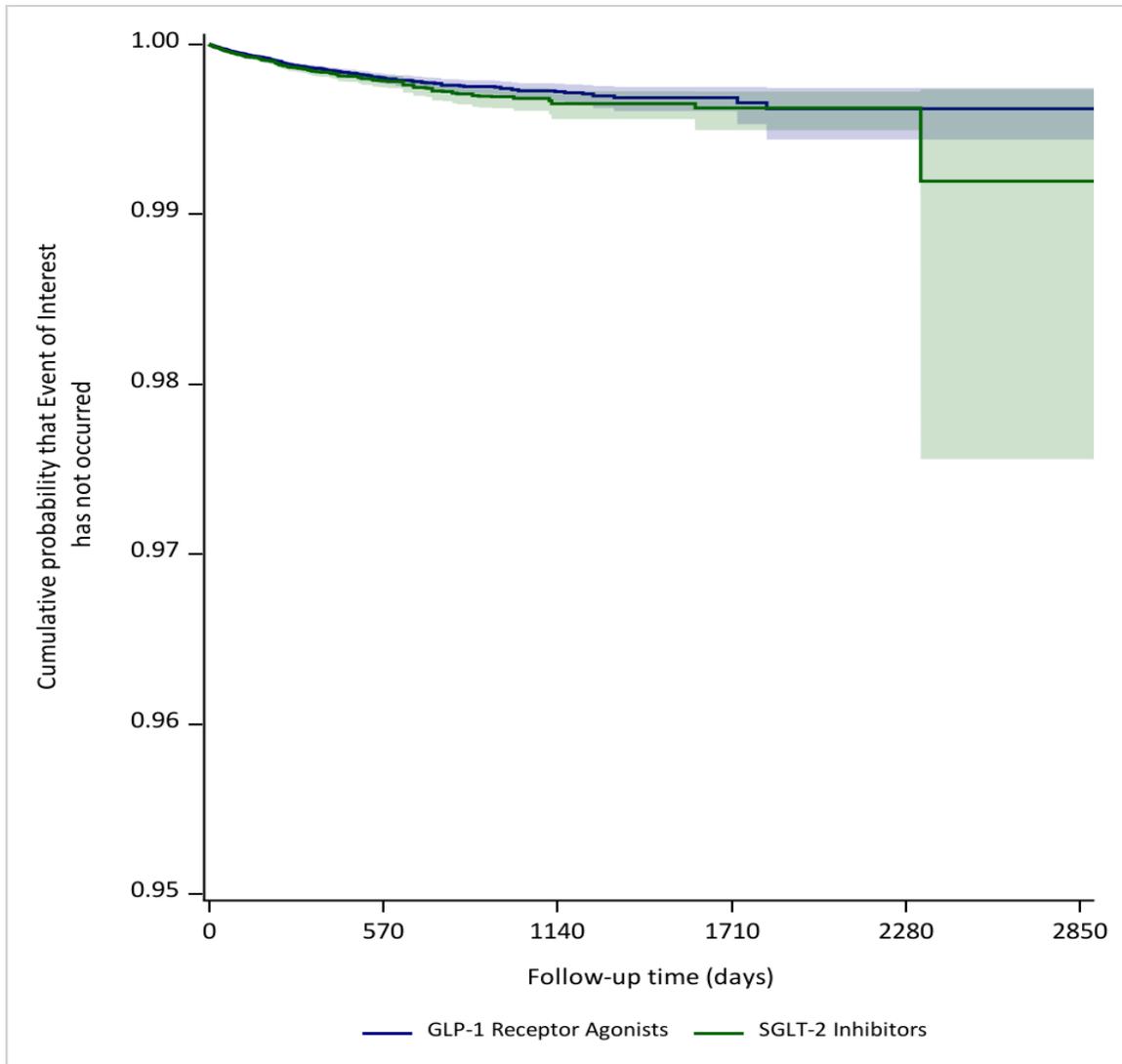


Figure 9k. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

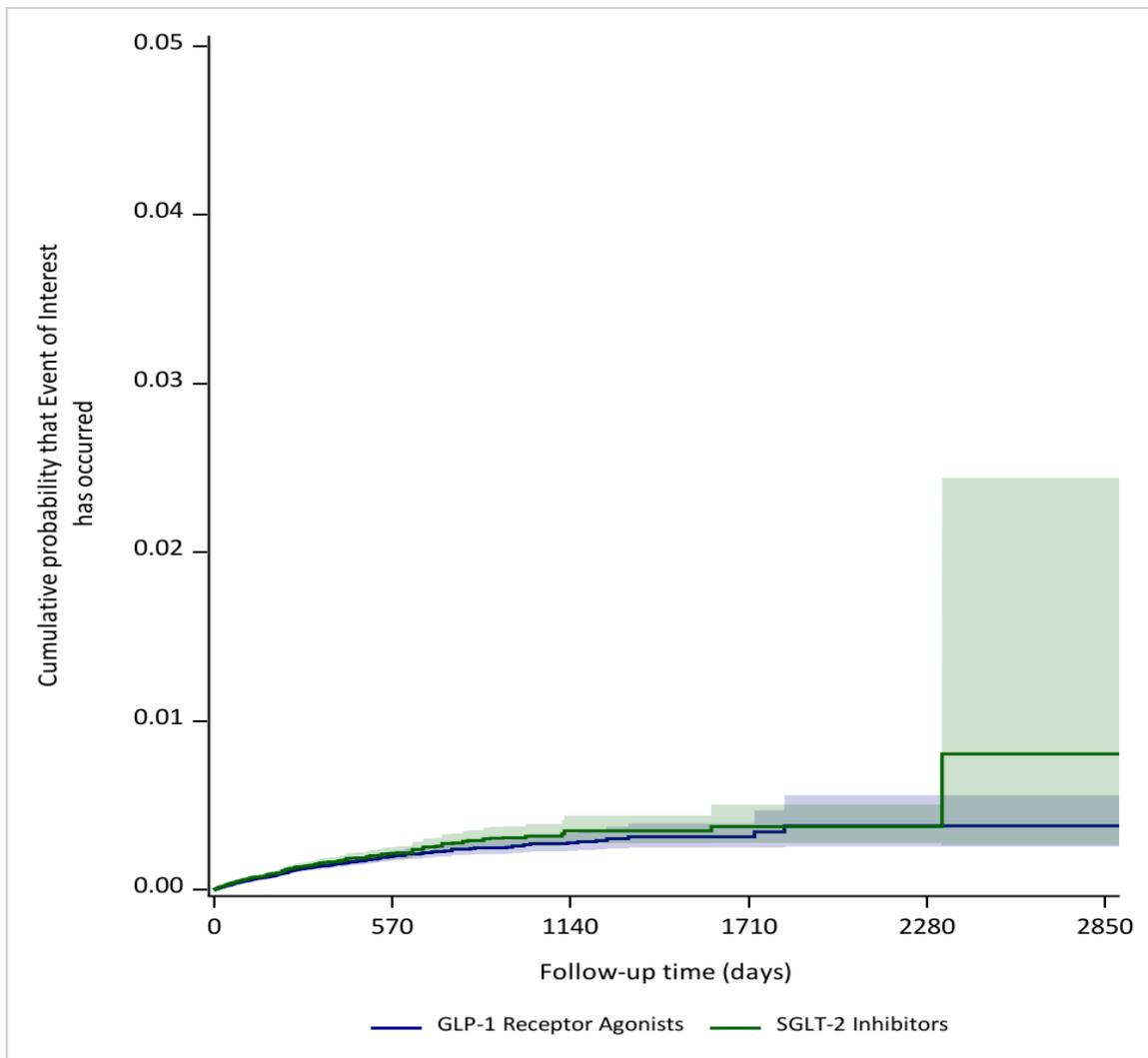


Figure 9I. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

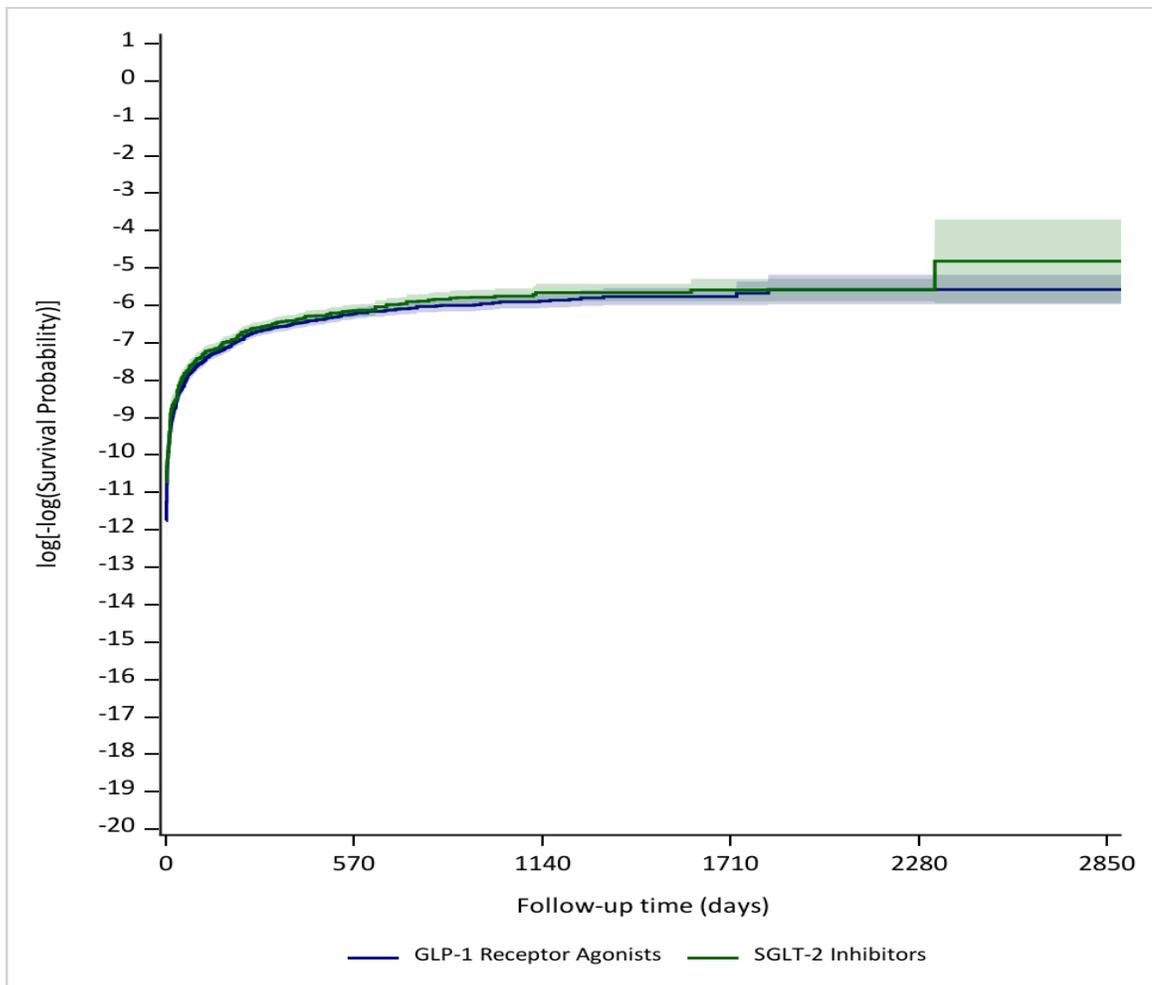


Figure 9m. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

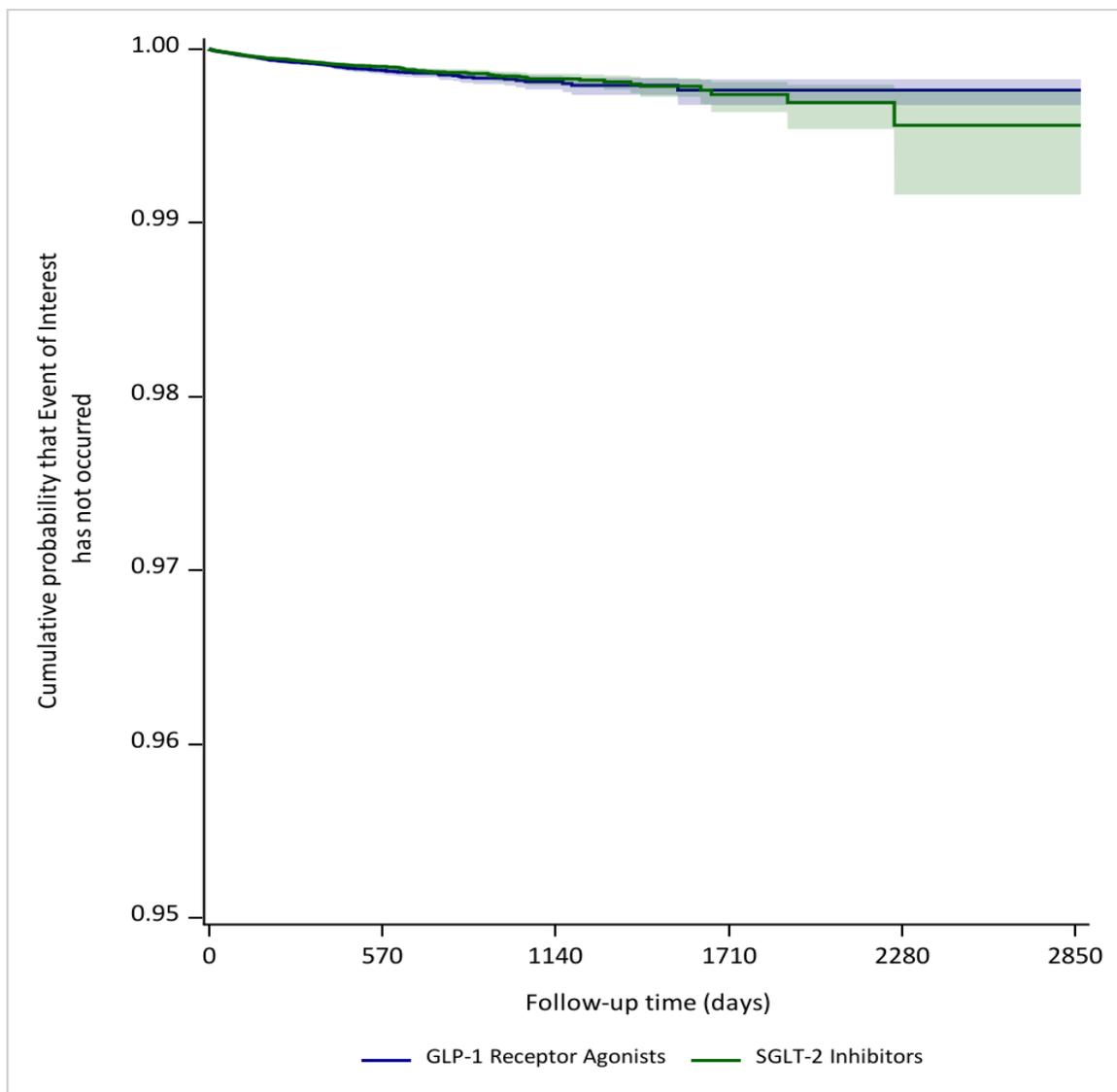


Figure 9n. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

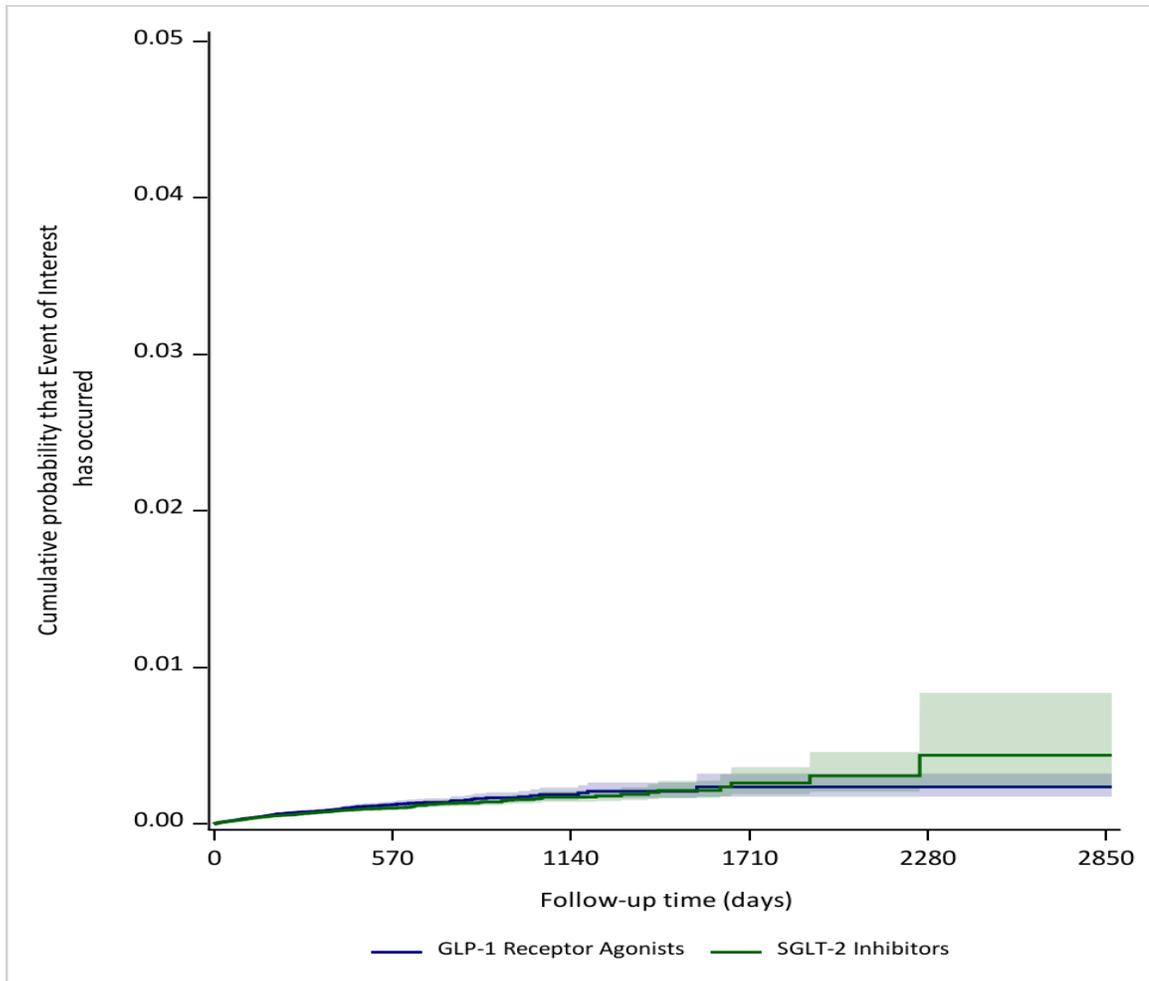


Figure 9o. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

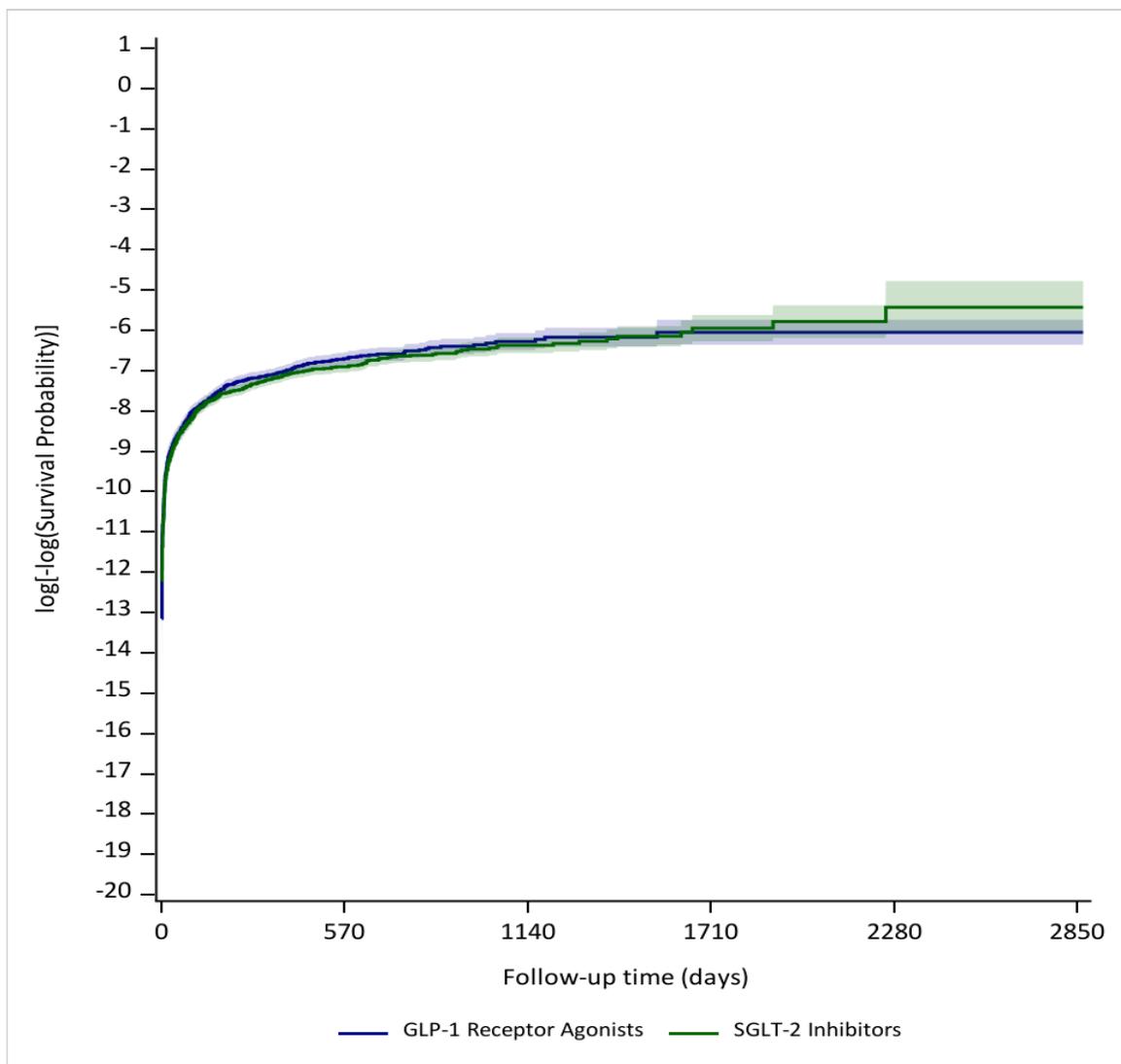


Figure 9p. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

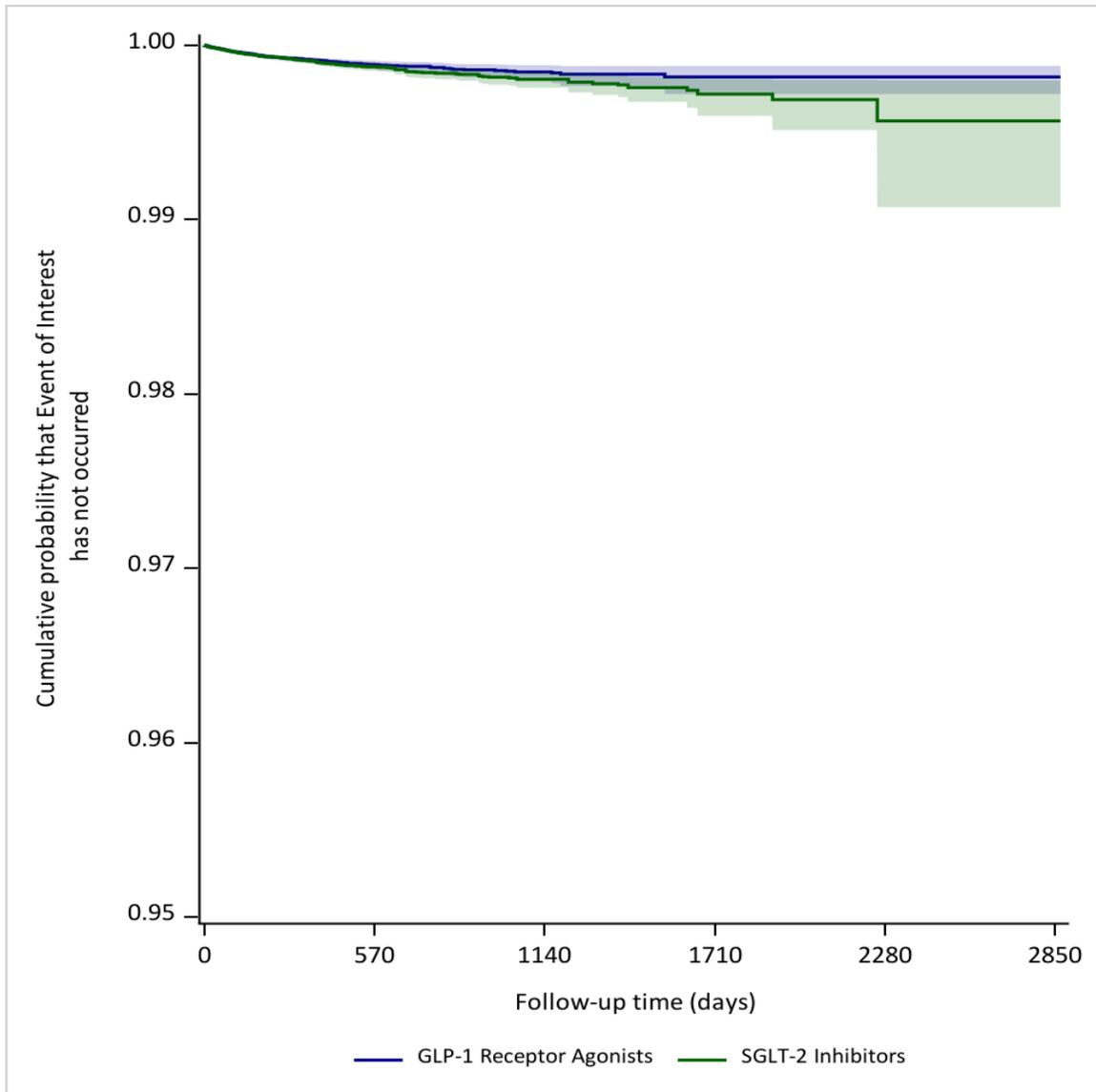


Figure 9q. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

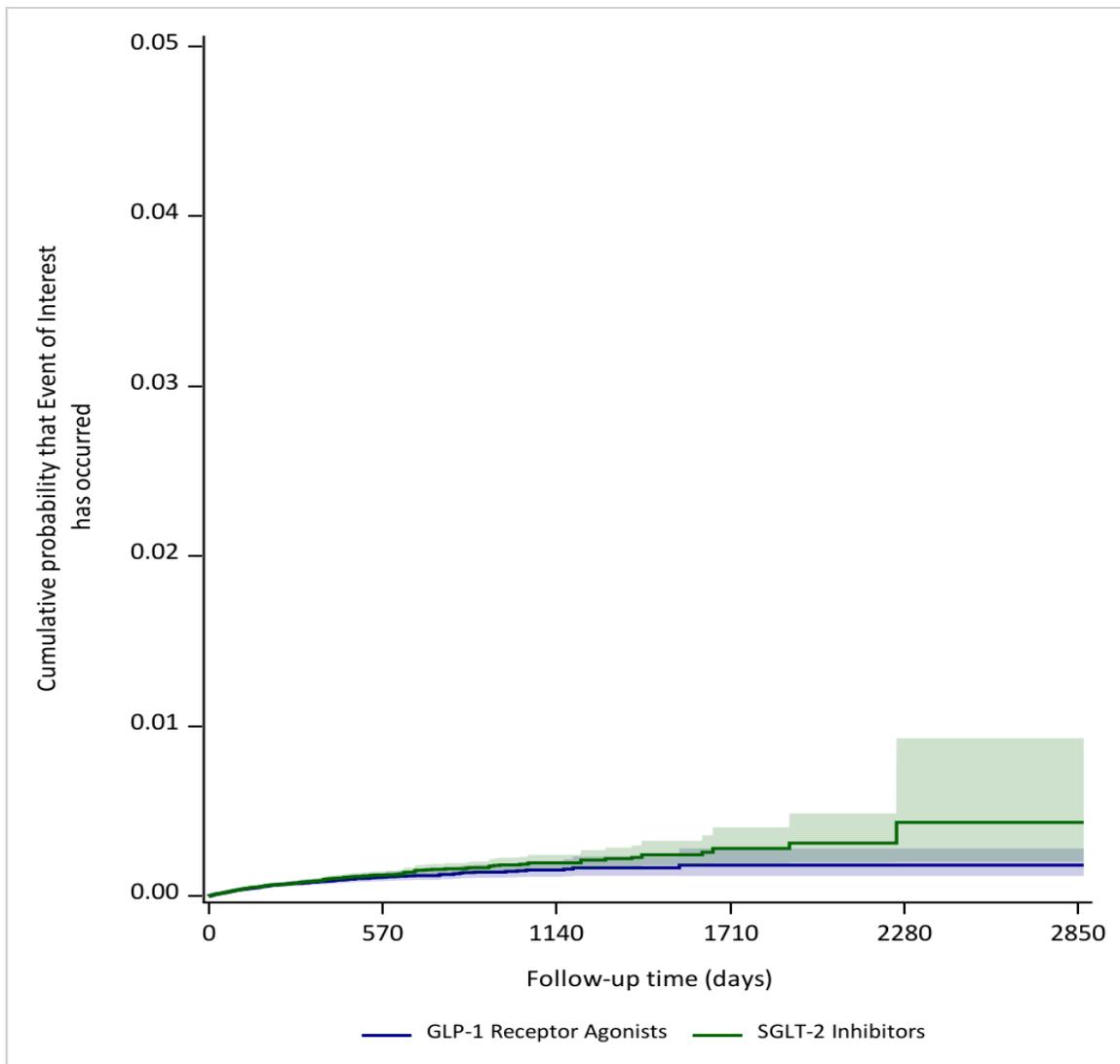


Figure 9r. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

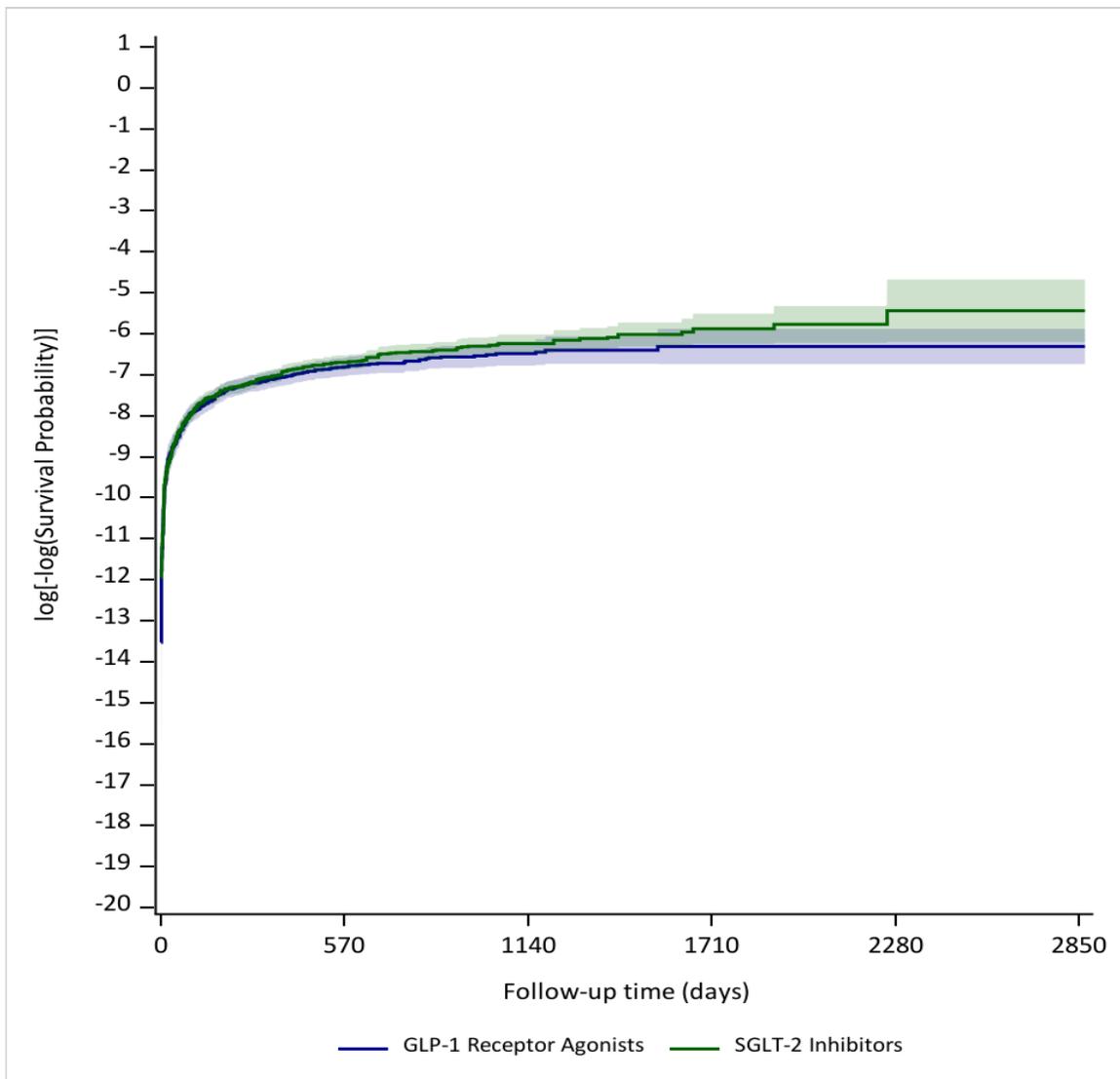


Figure 9s. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

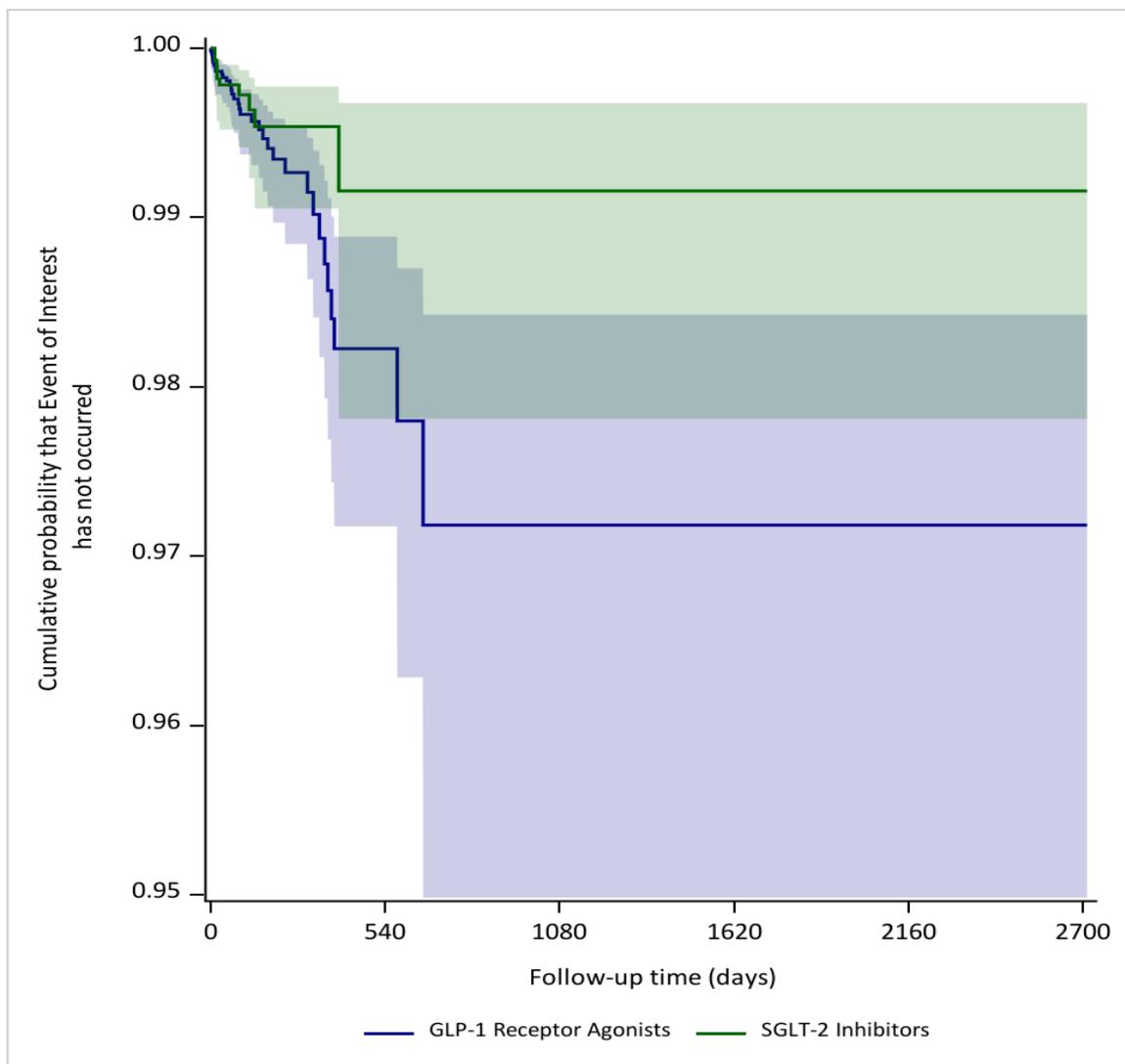


Figure 9t. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

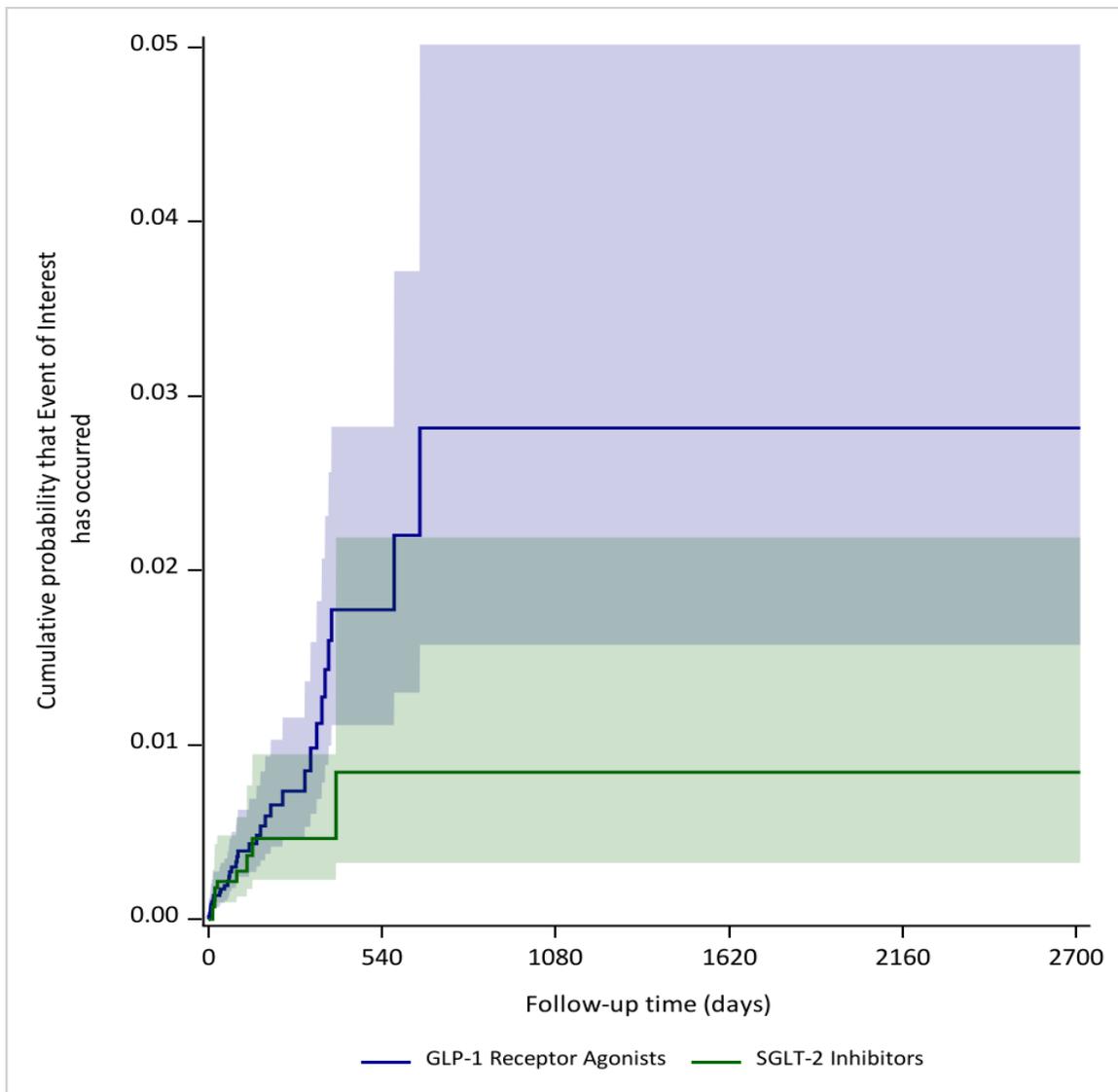


Figure 9u. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

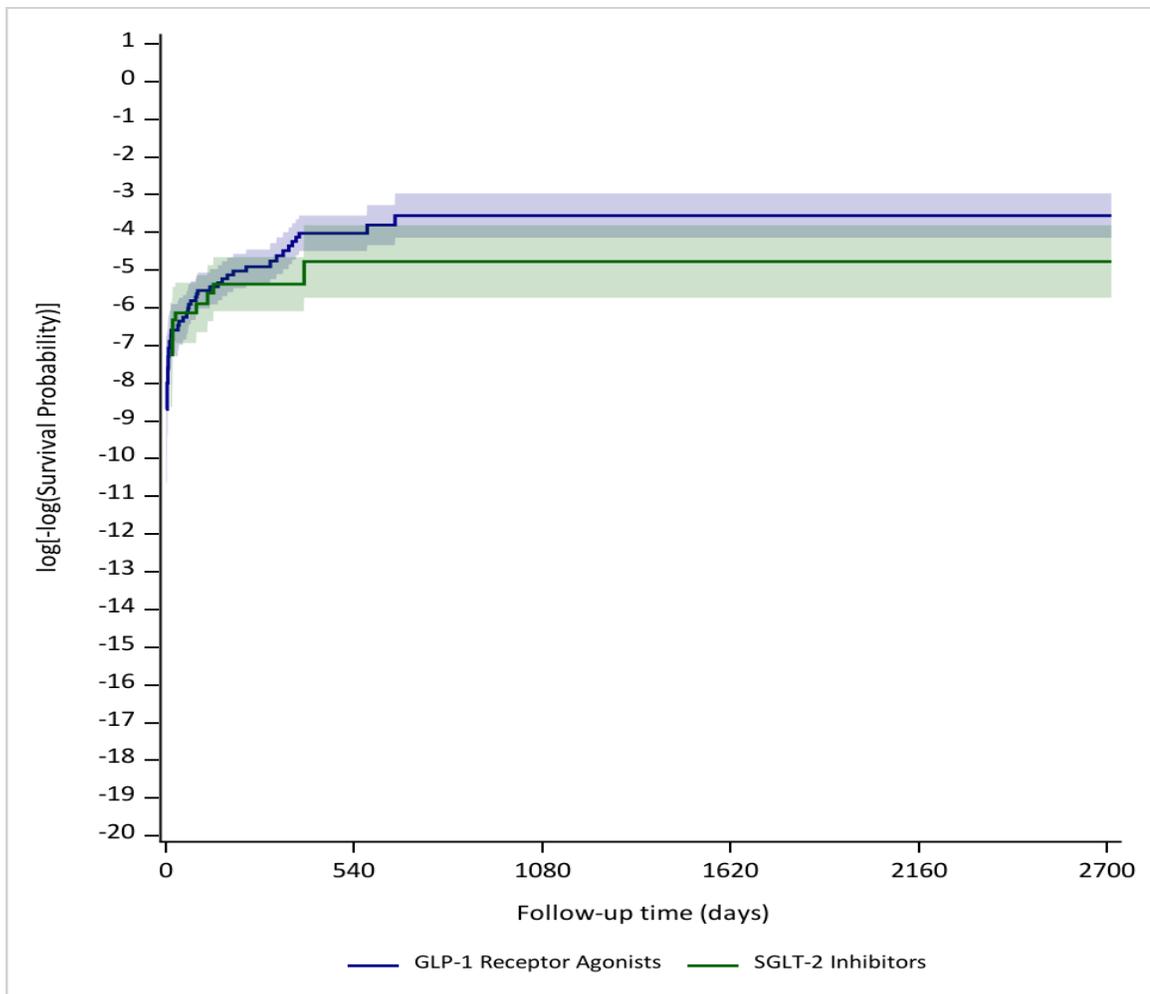


Figure 9v. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

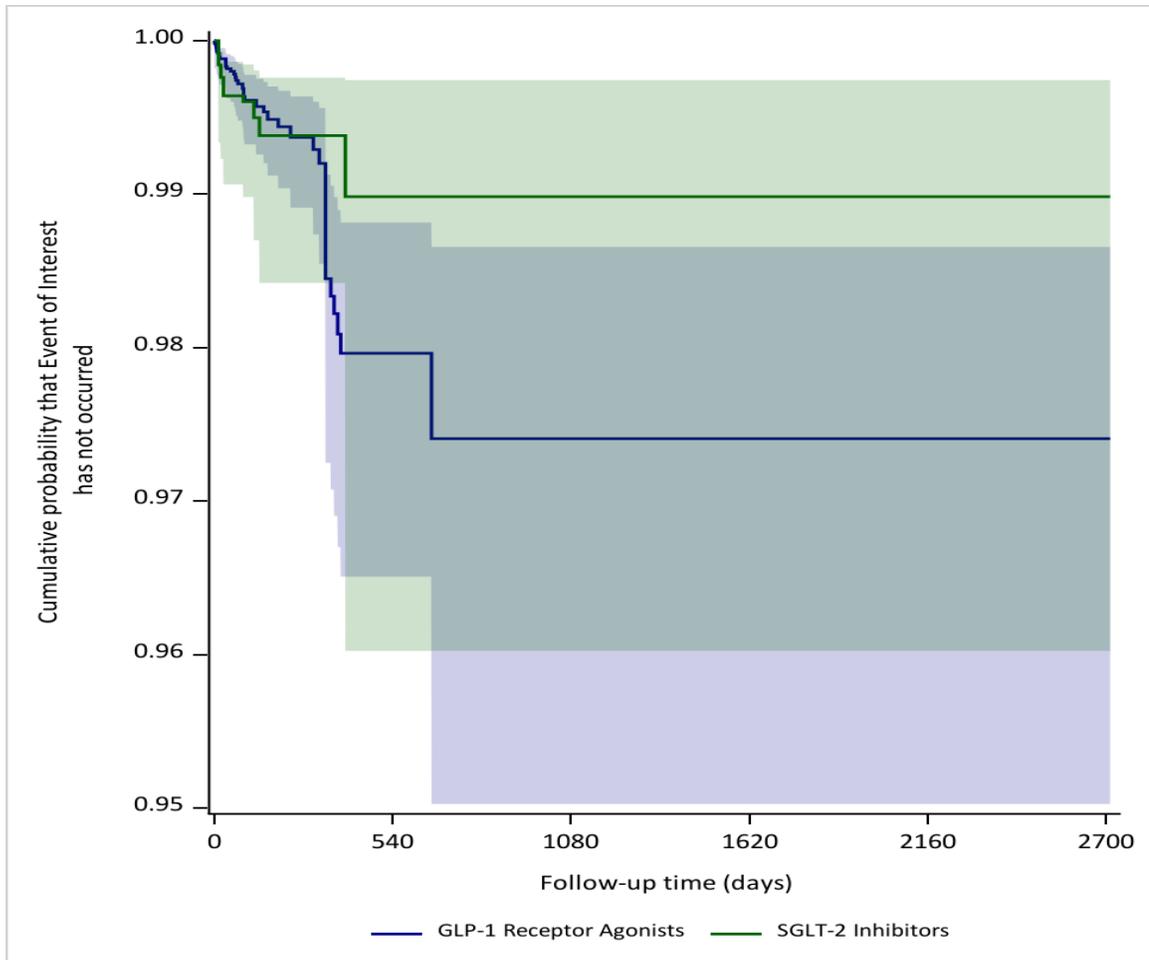


Figure 9w. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

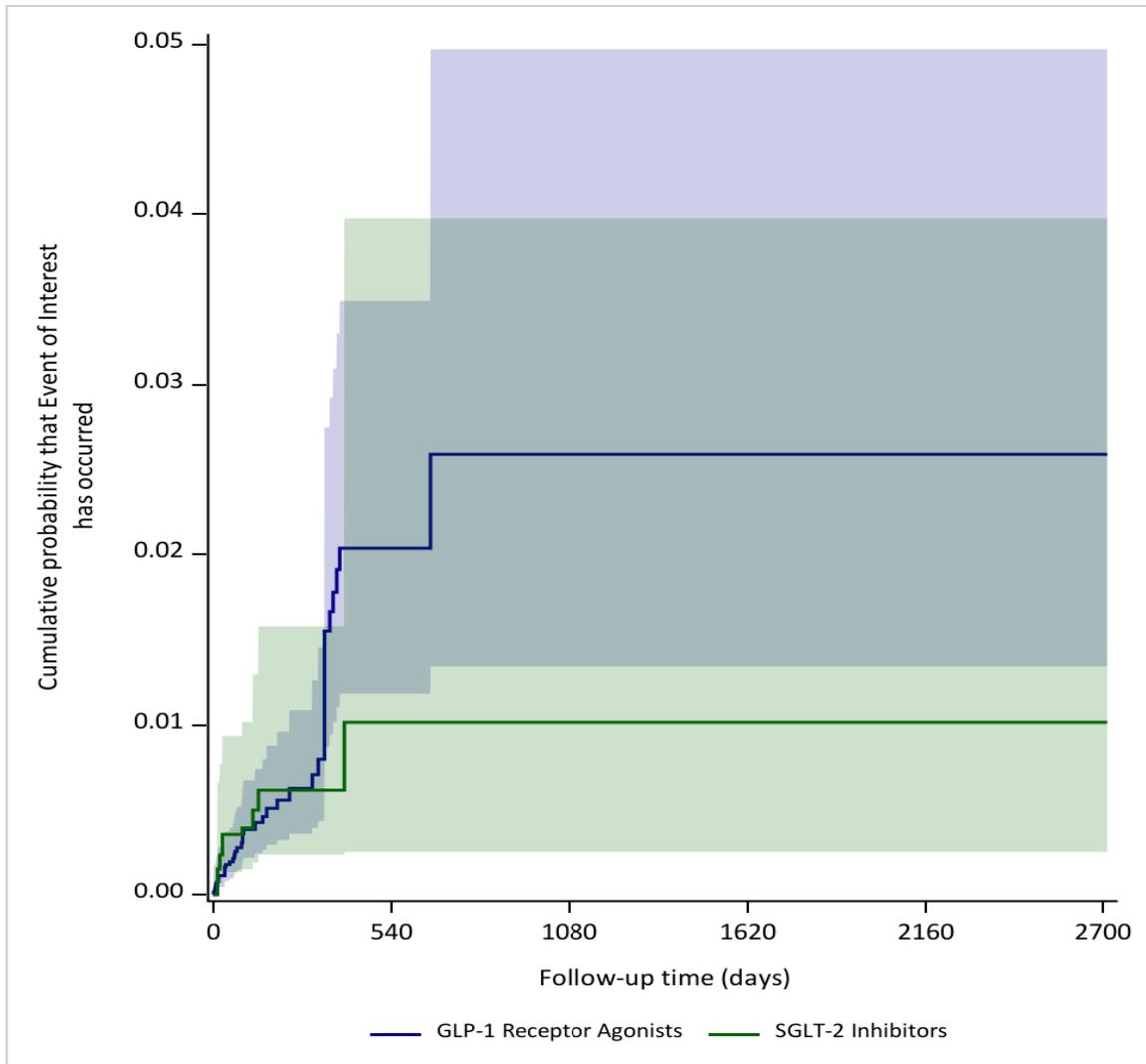


Figure 9x. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

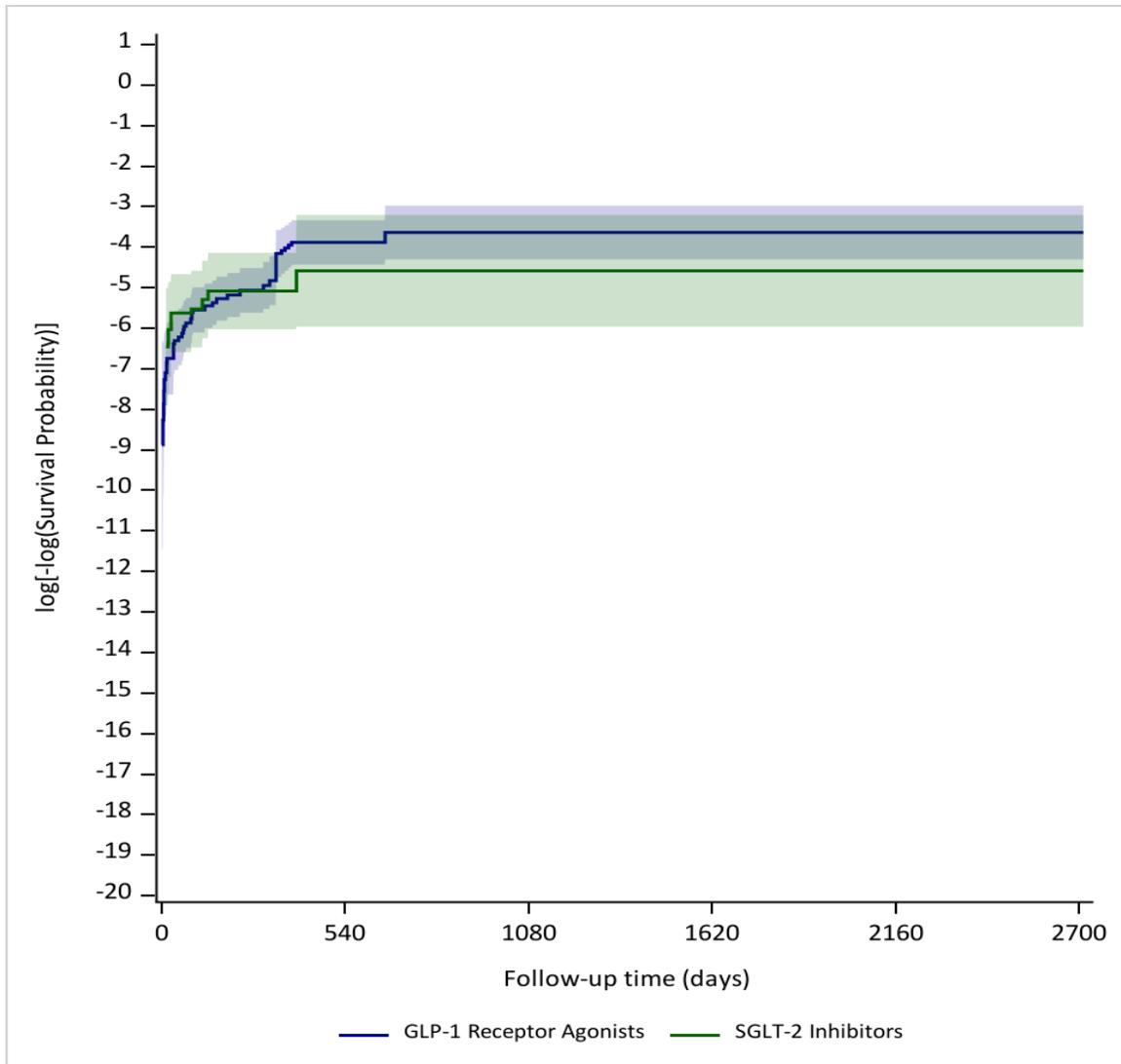


Figure 9y. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

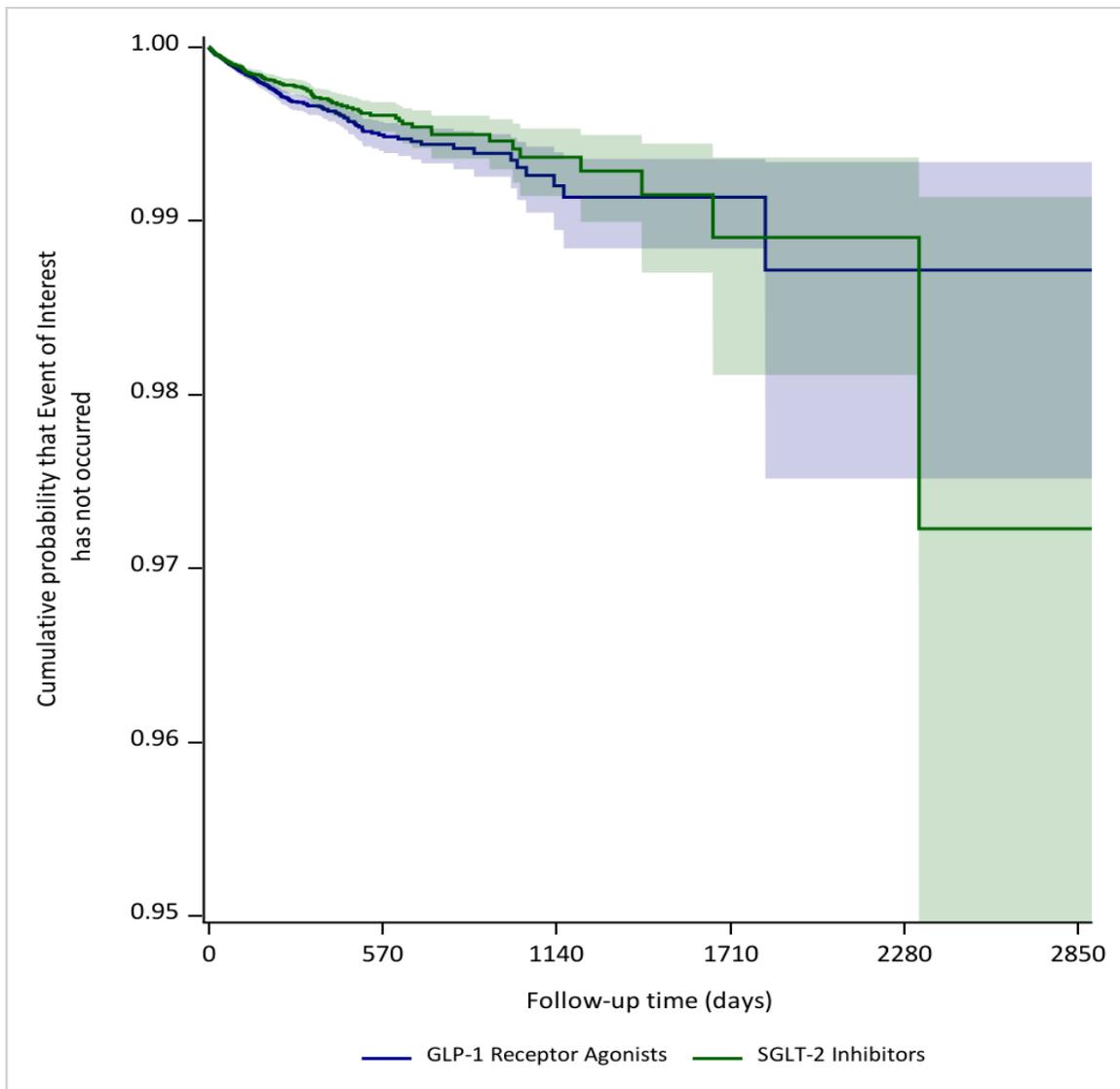


Figure 9z. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

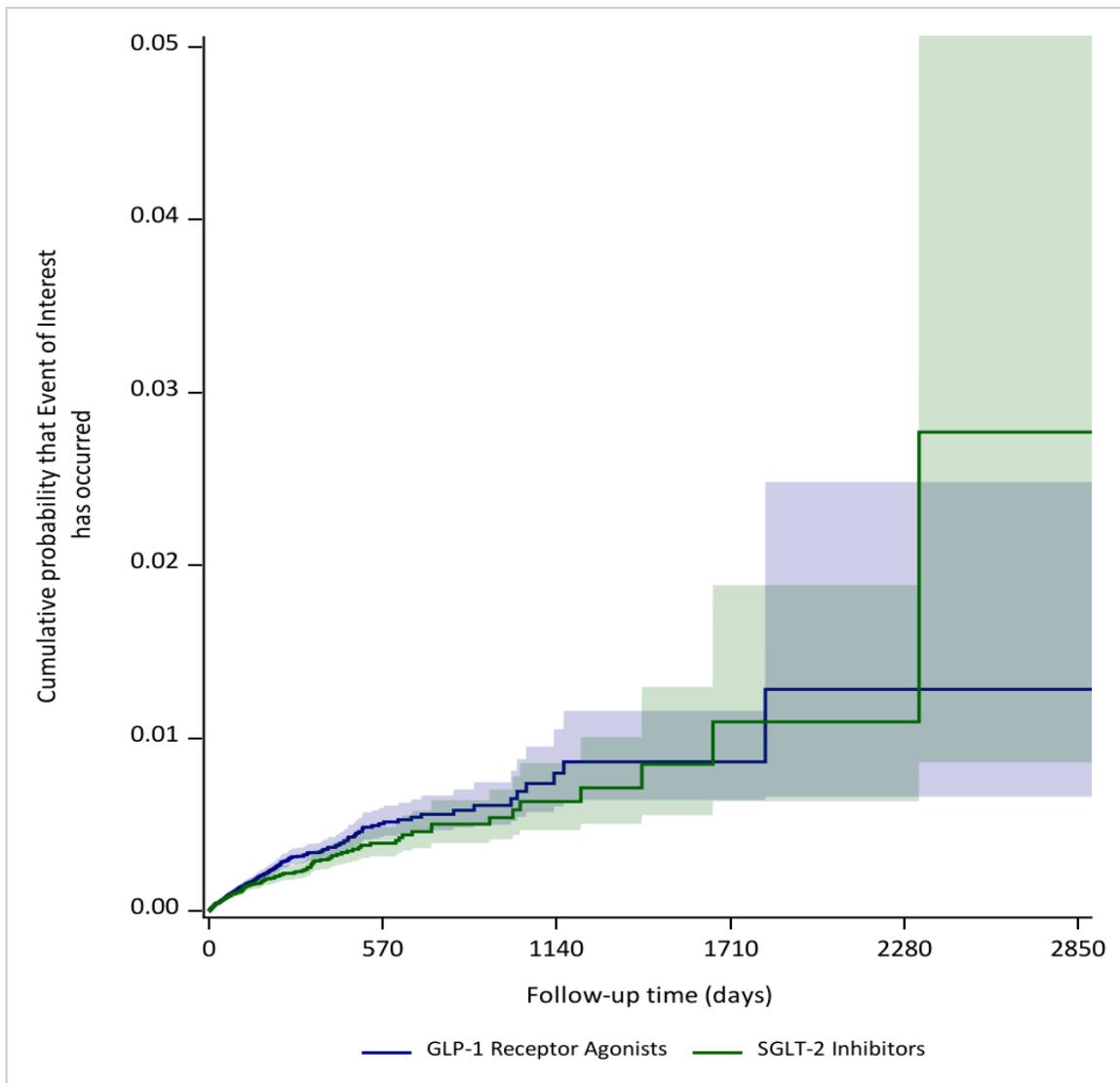


Figure 9aa. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

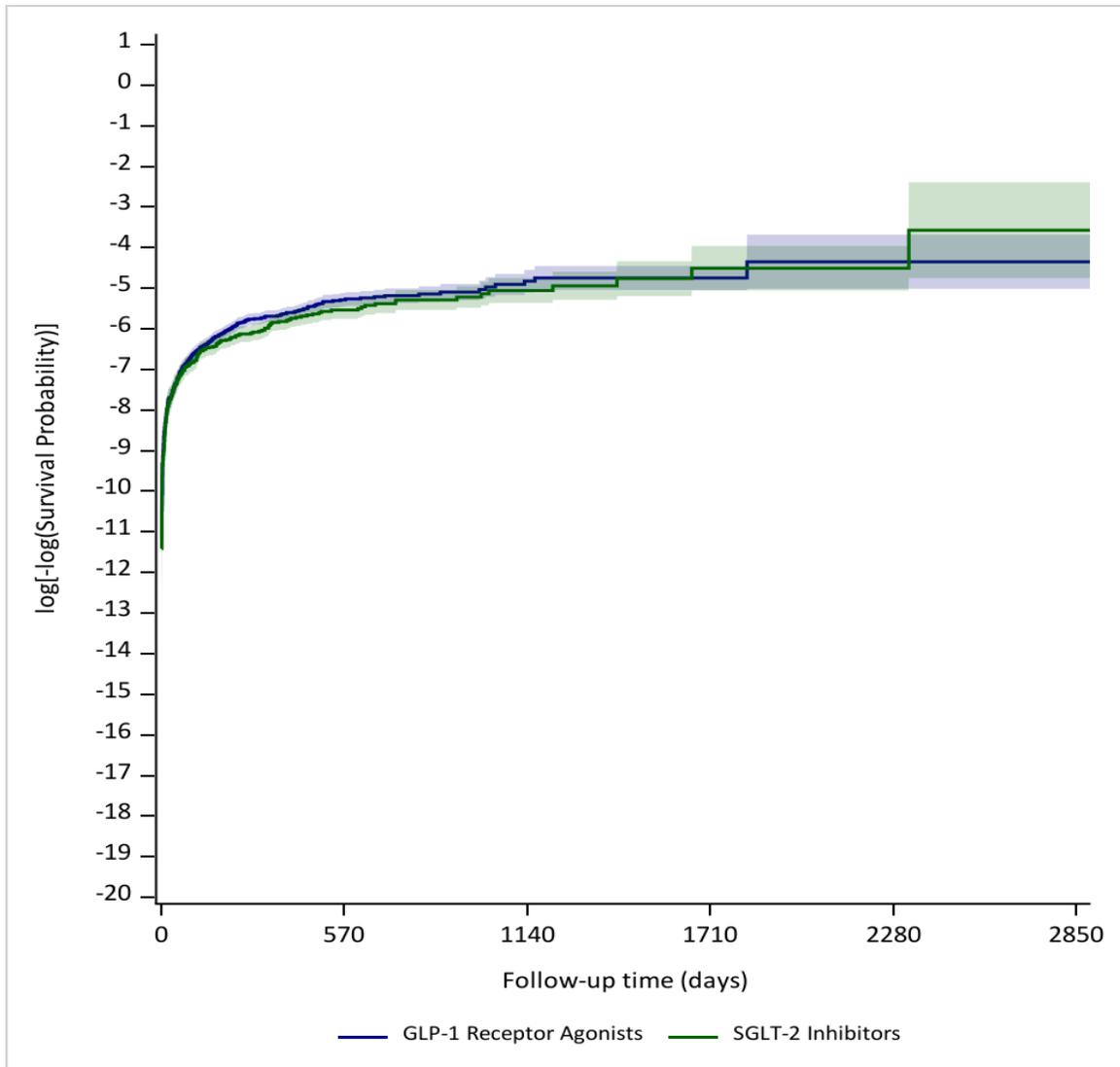


Figure 9ab. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

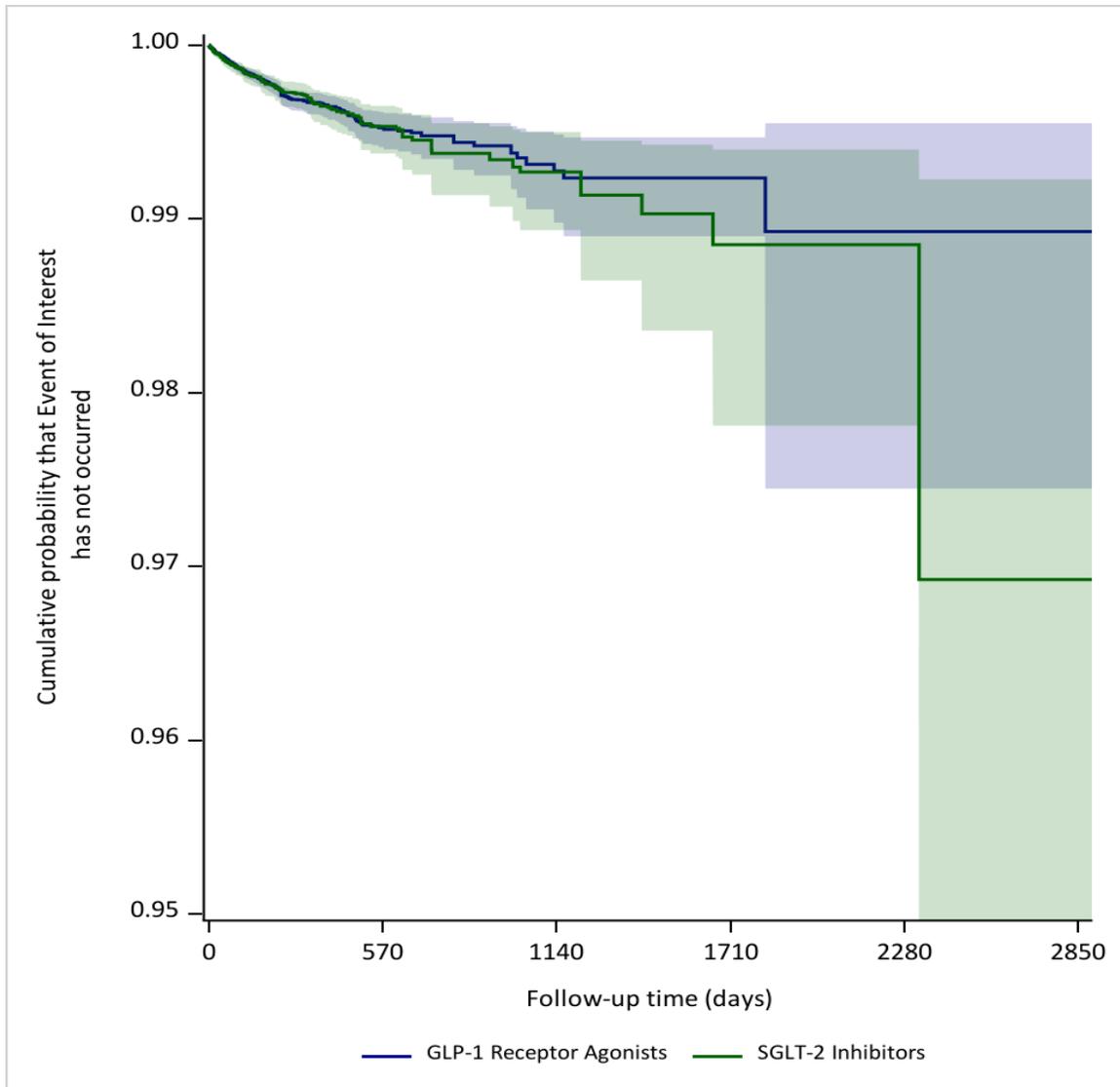


Figure 9ac. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

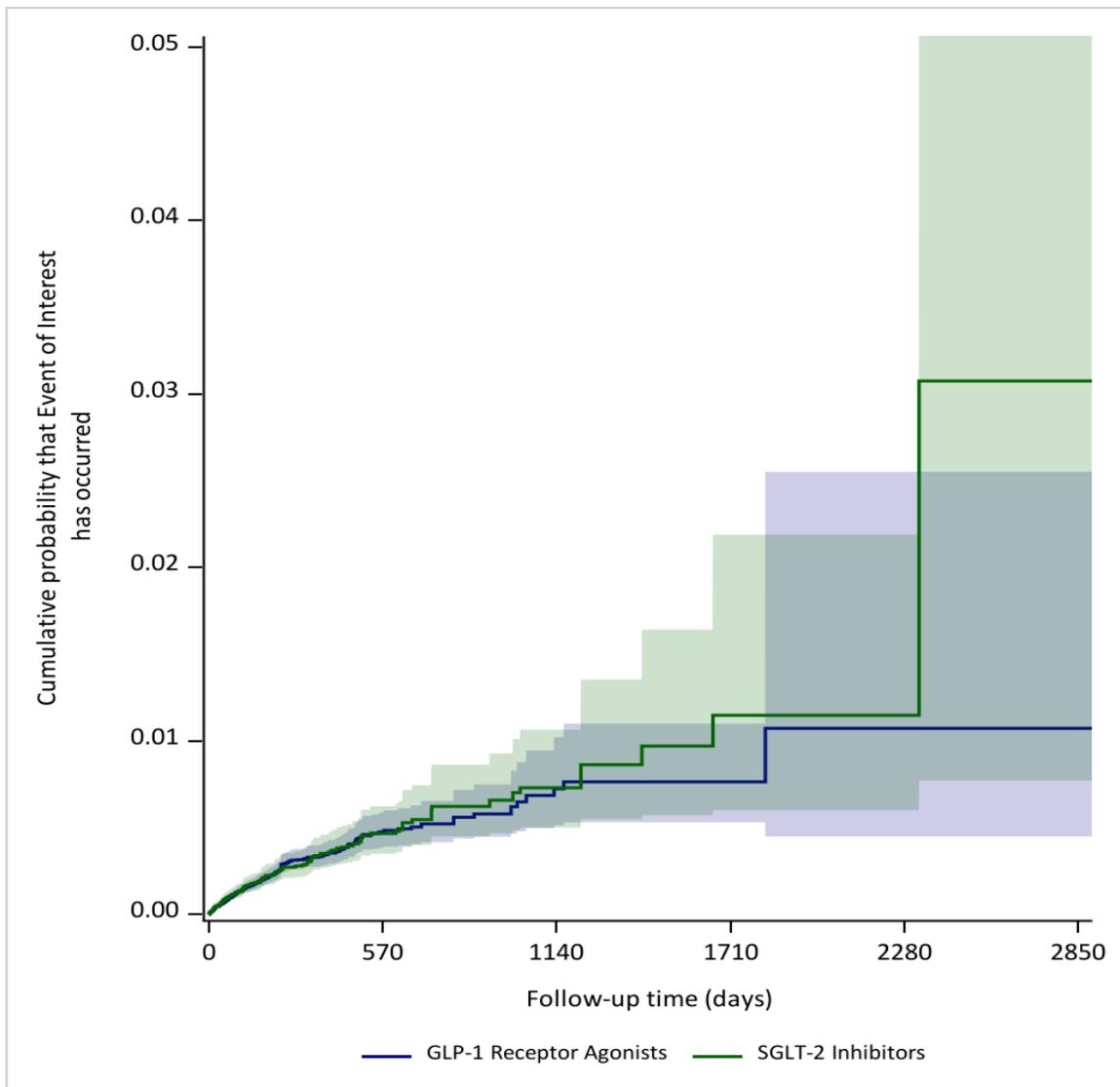


Figure 9ad. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

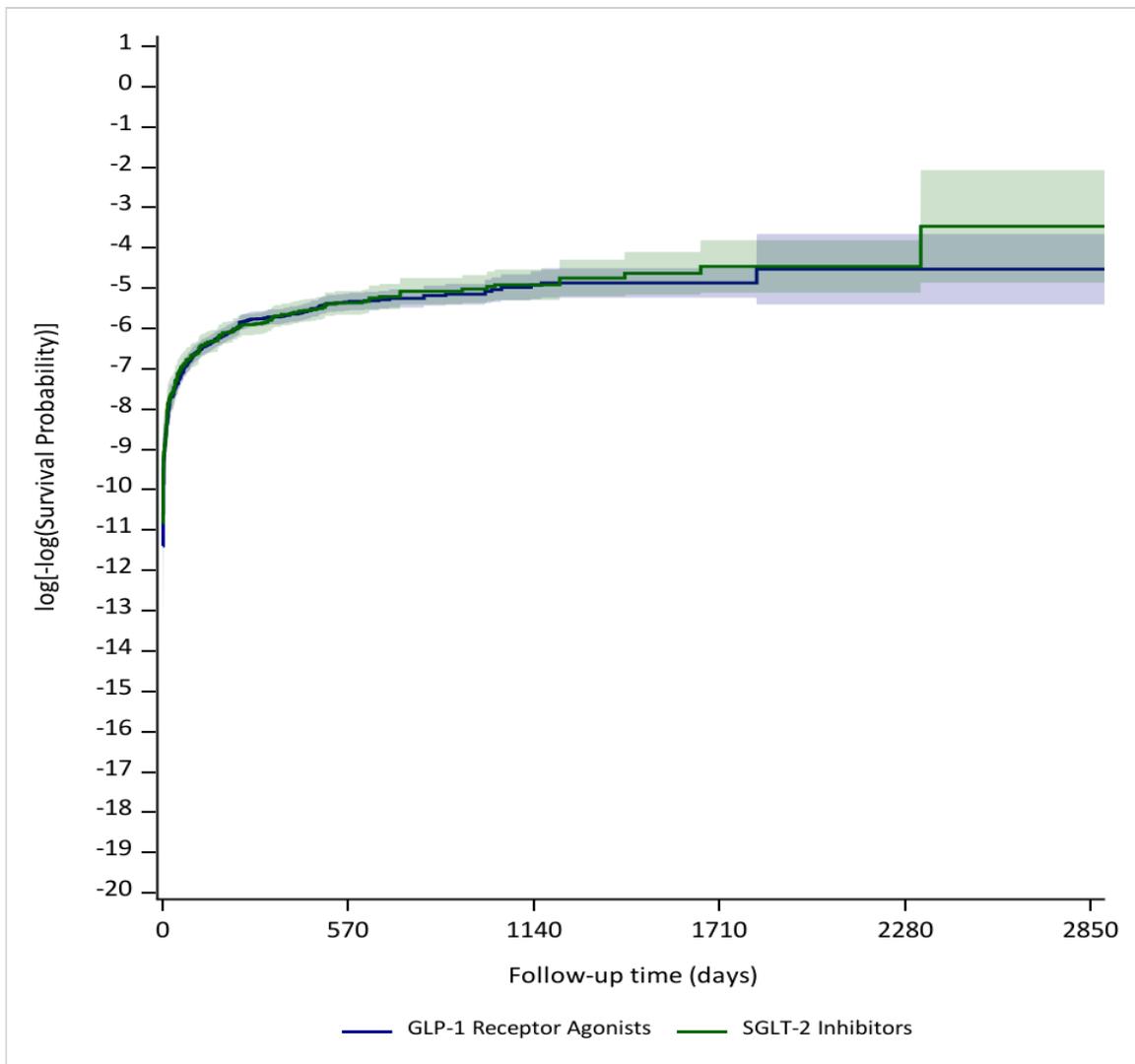


Figure 9ae. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

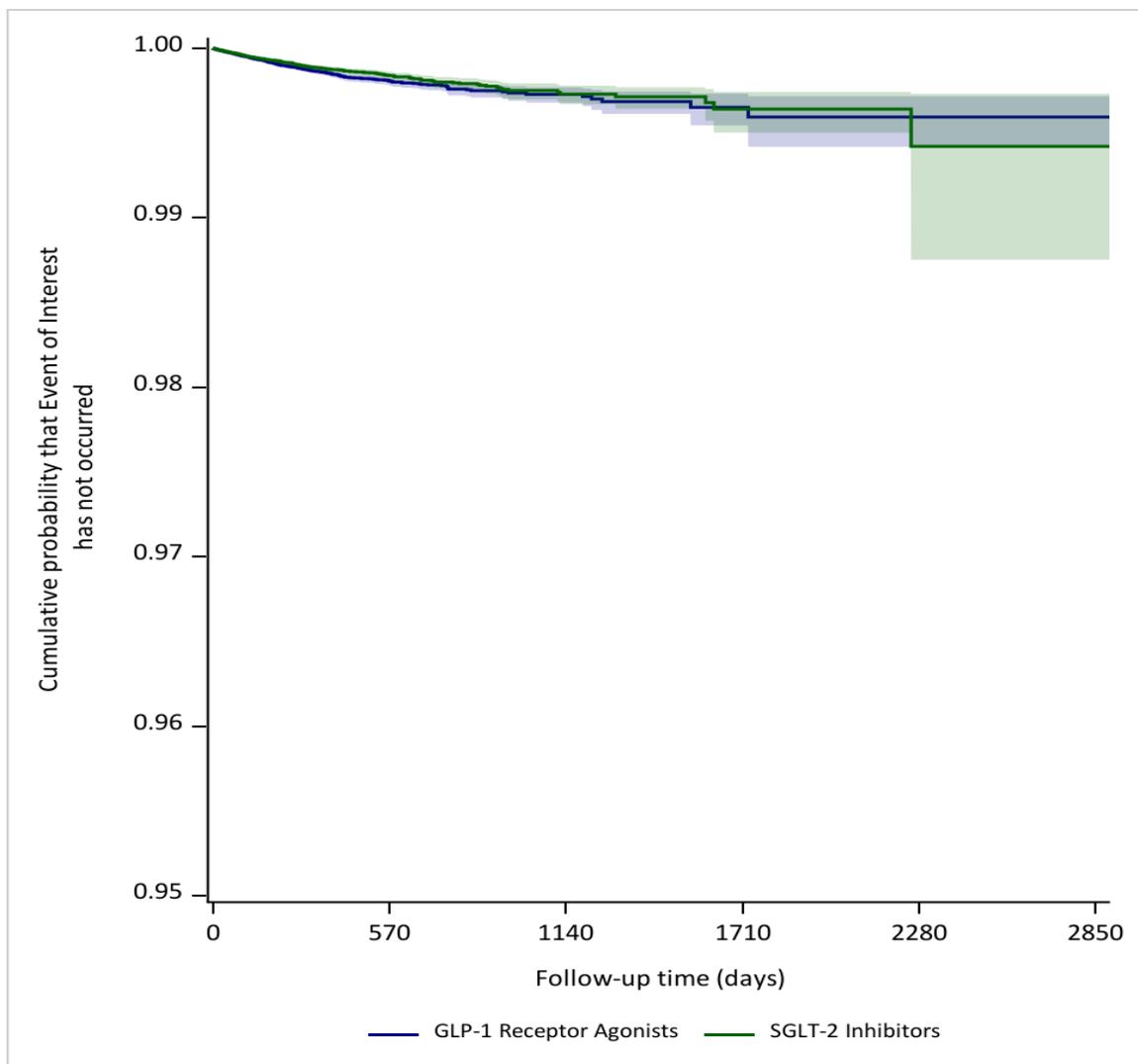


Figure 9af. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

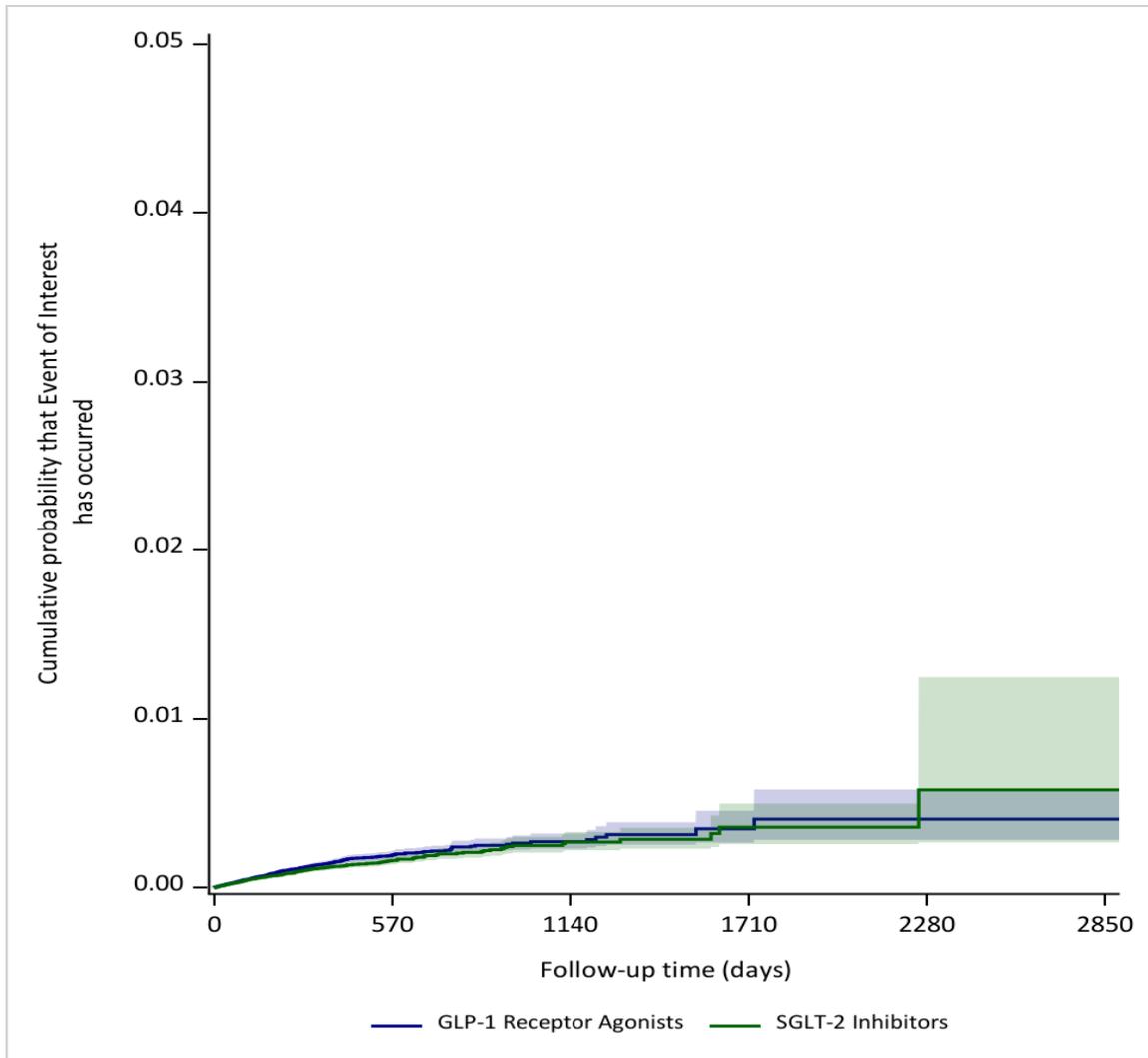


Figure 9ag. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

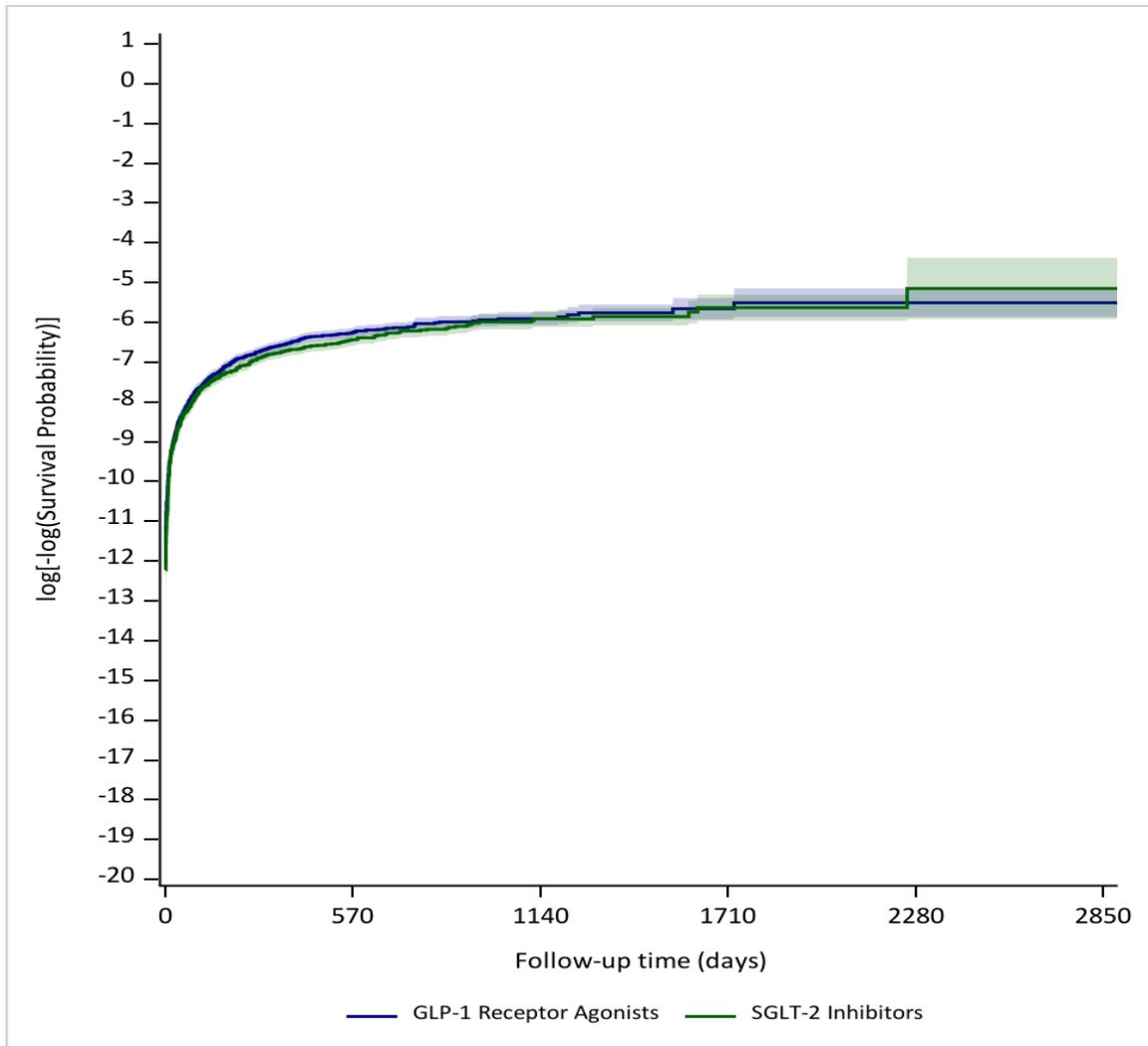


Figure 9ah. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

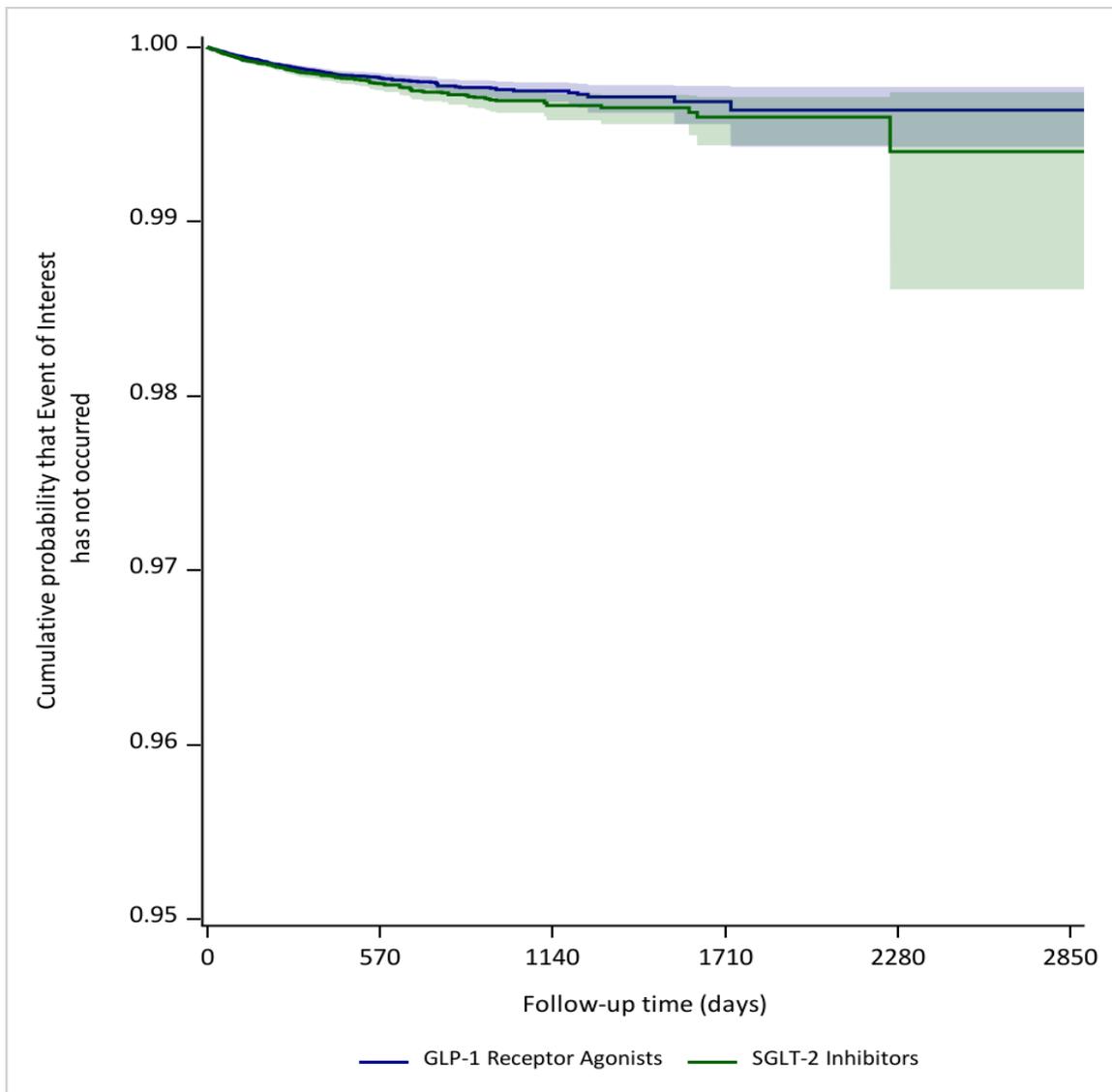


Figure 9ai. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

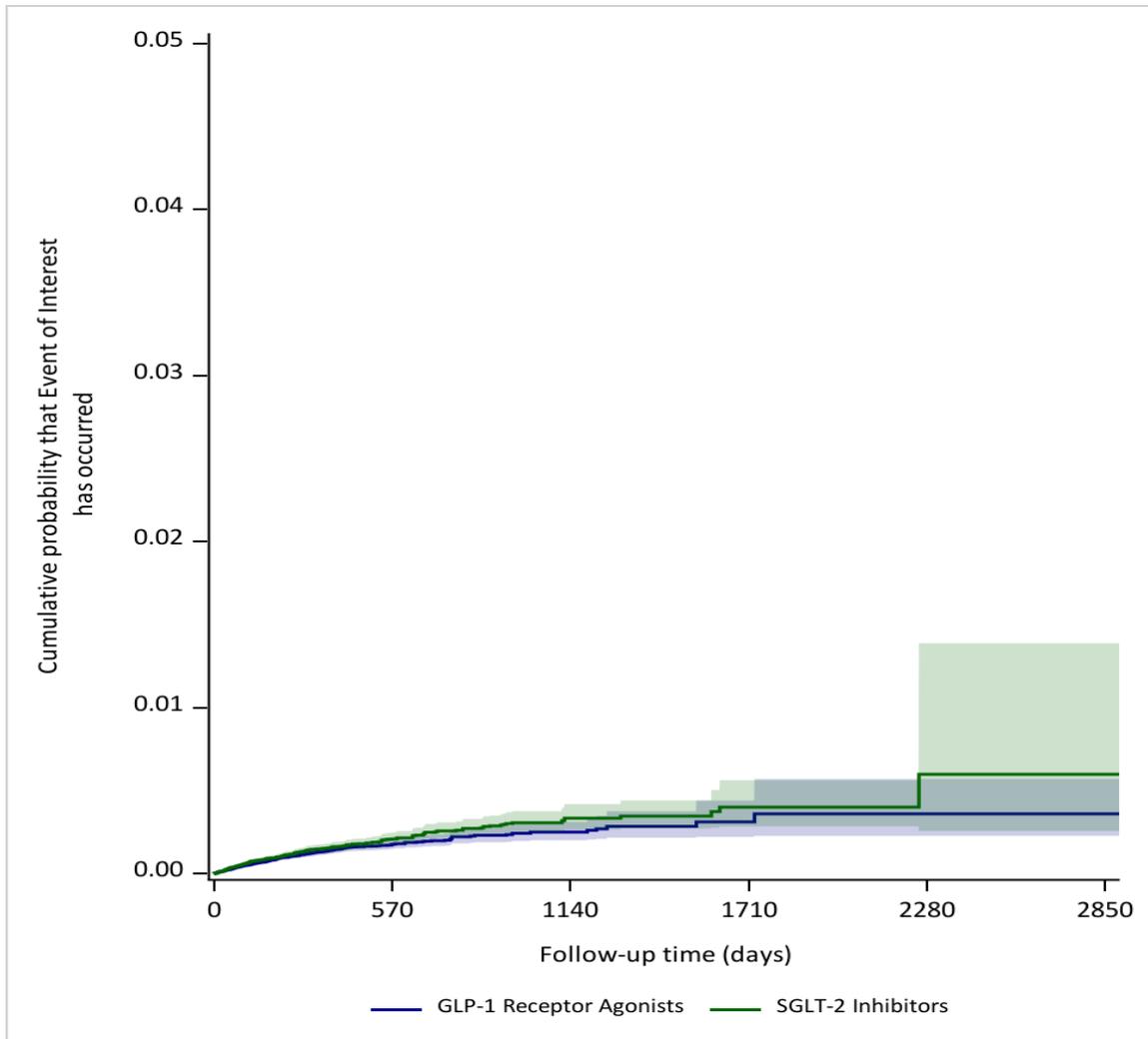


Figure 9aj. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

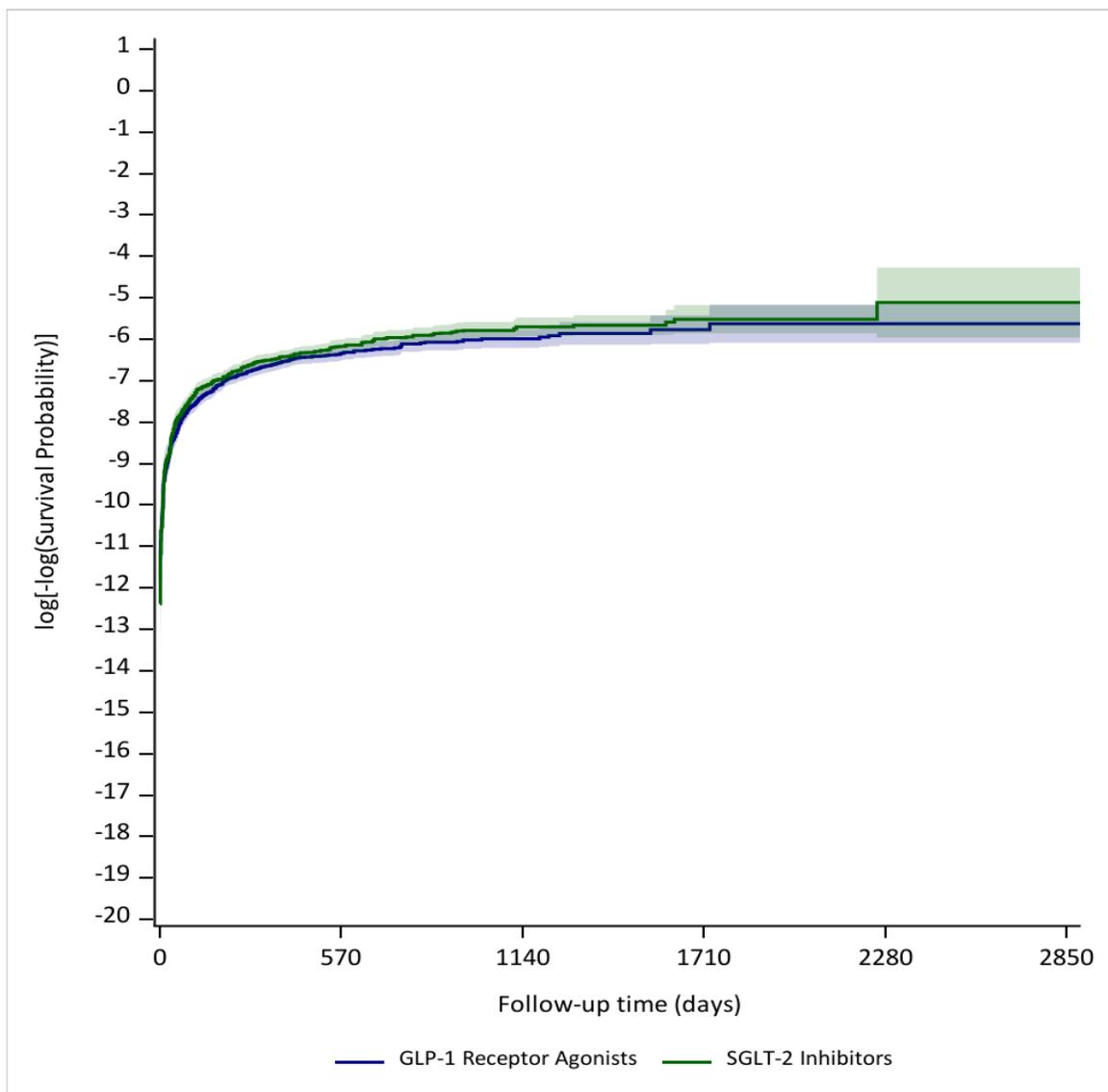


Figure 9ak. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

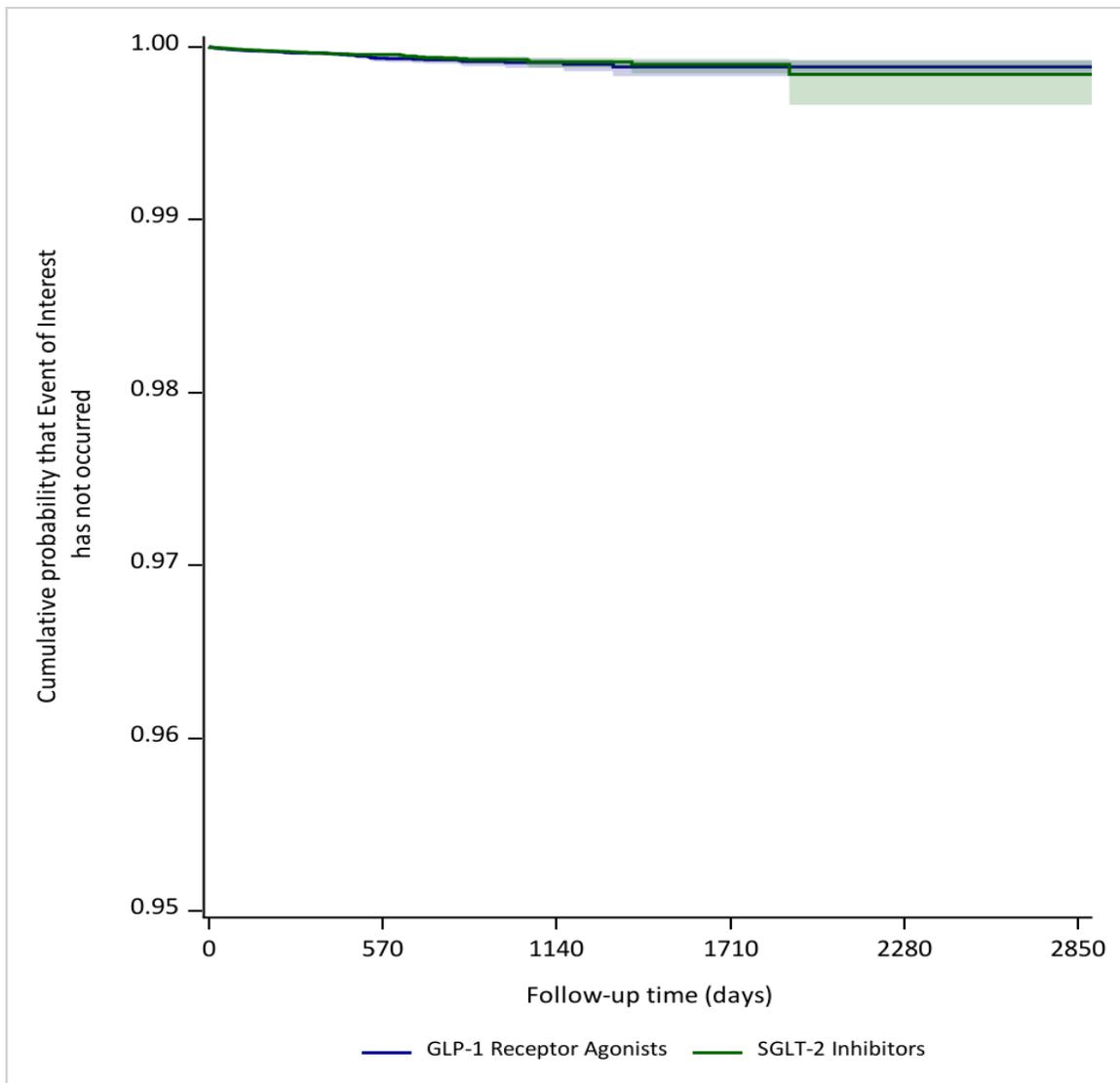


Figure 9a. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

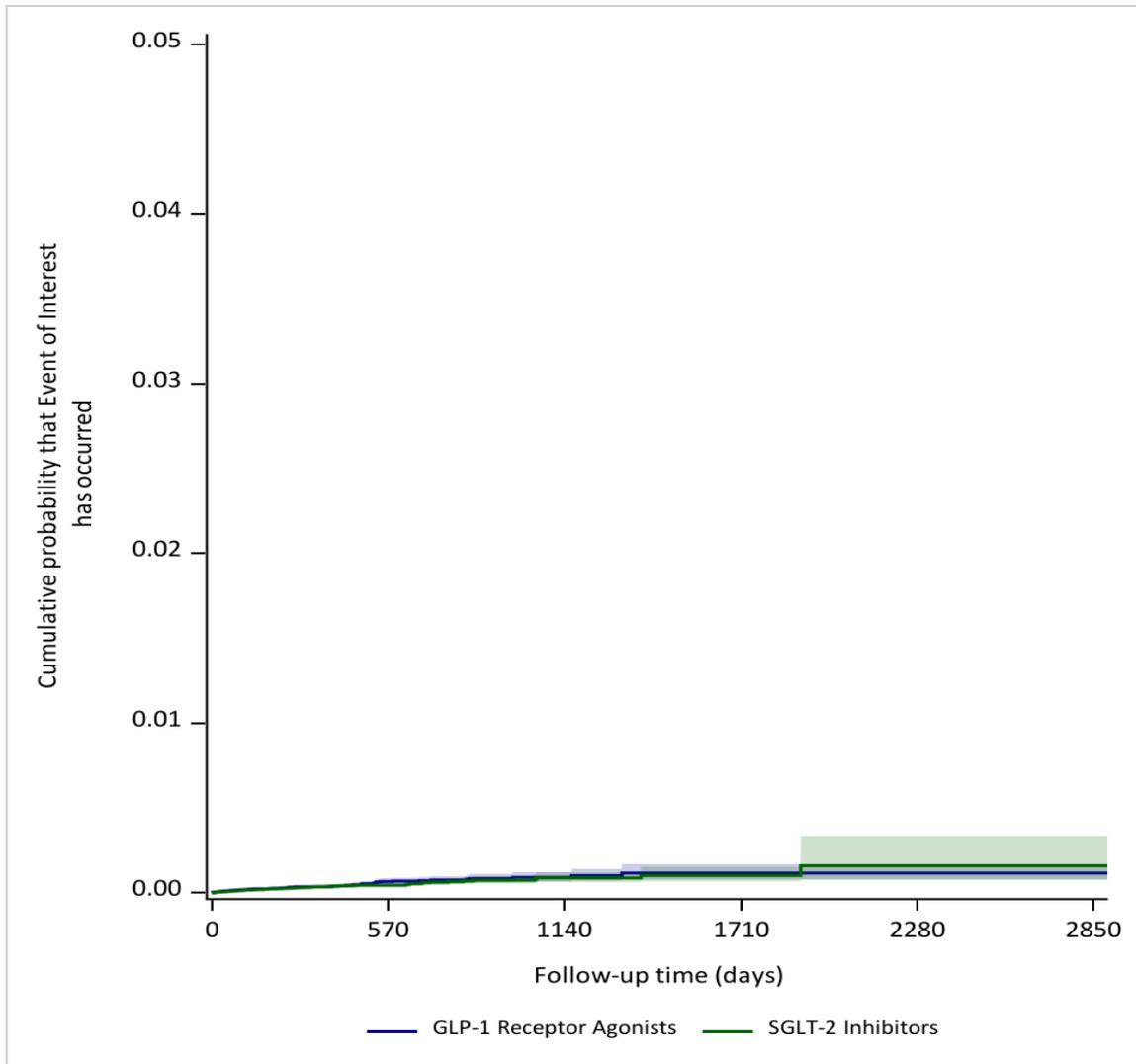


Figure 9am. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

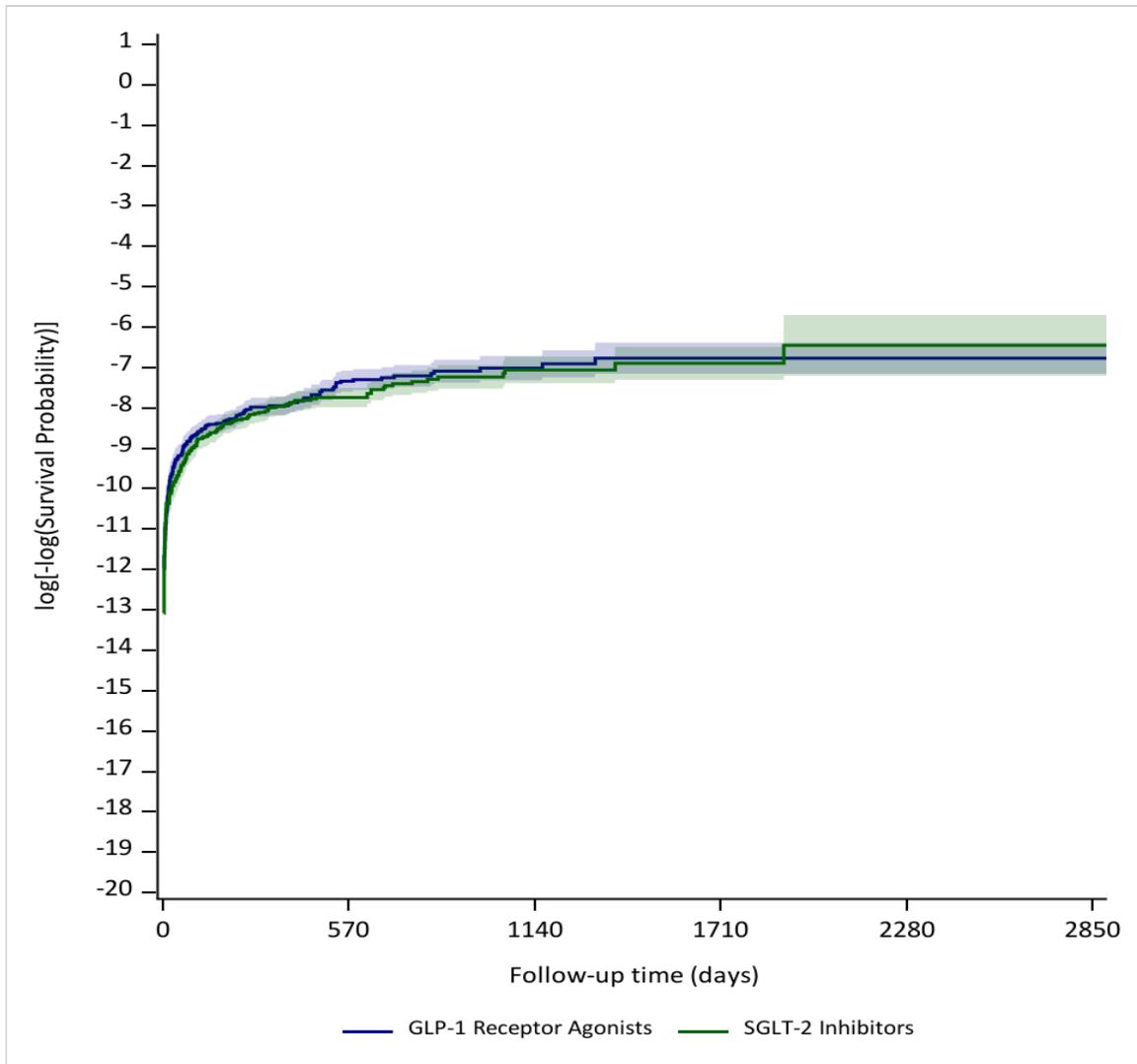


Figure 9an. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

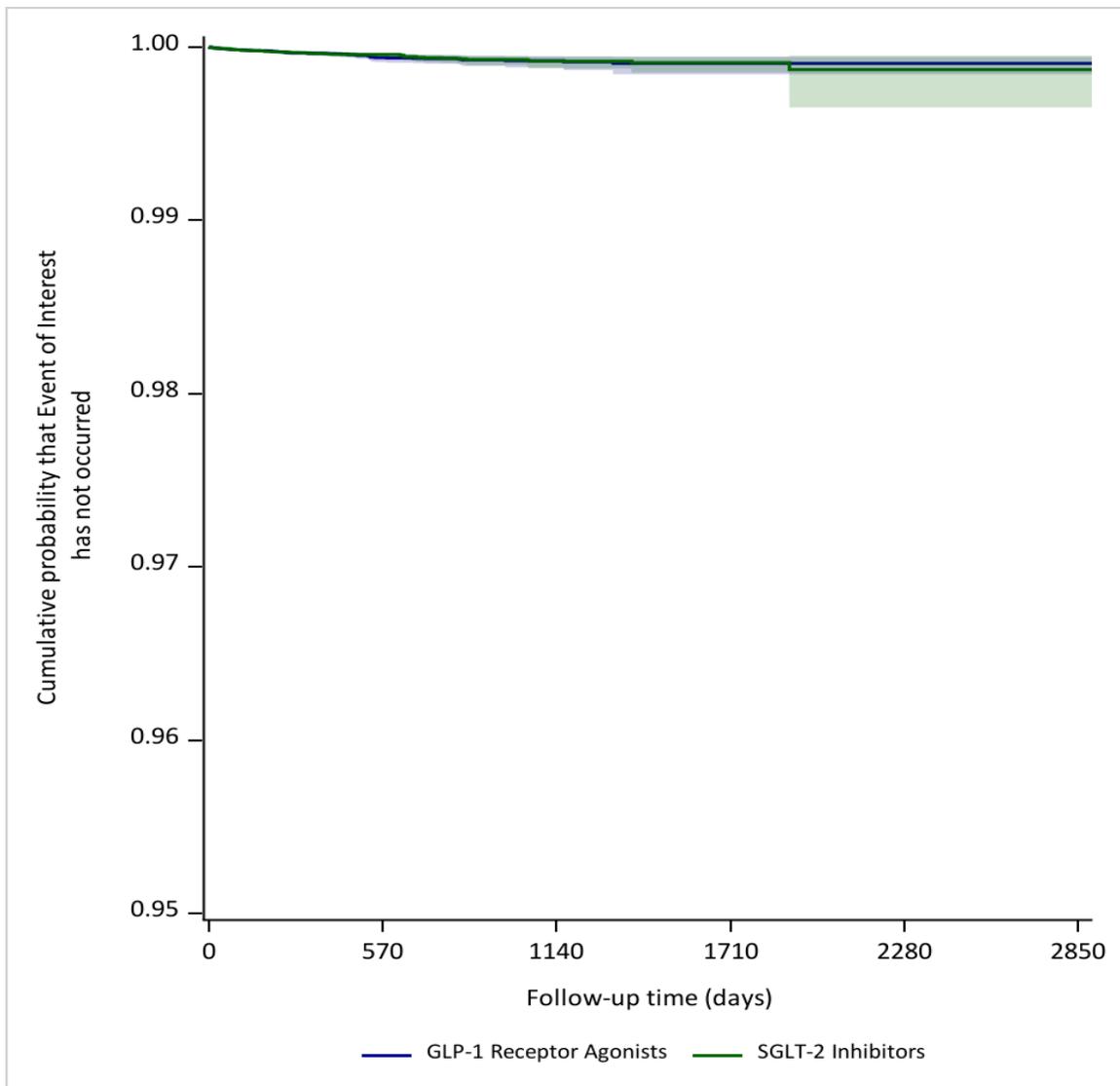


Figure 9ao. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

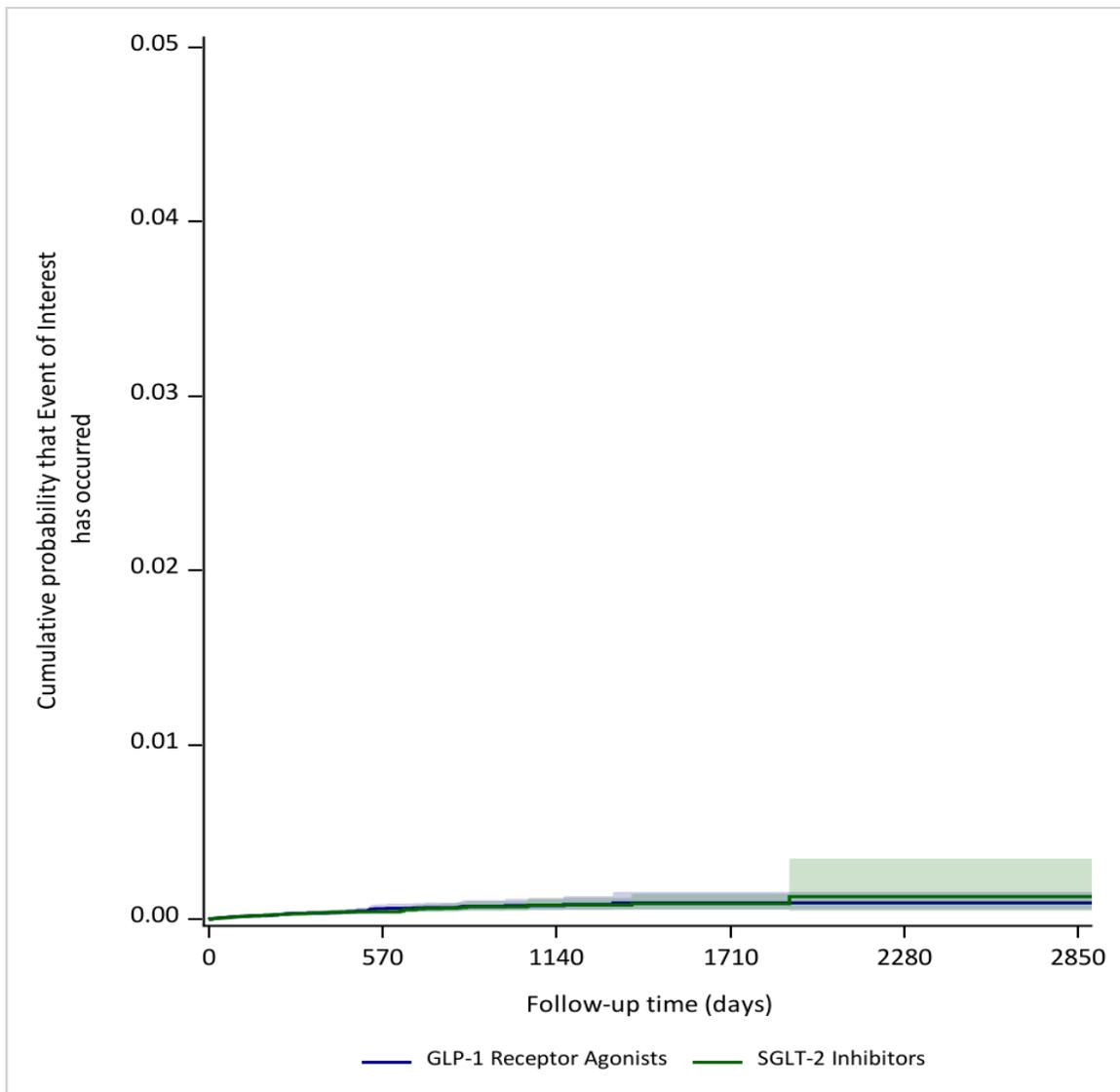


Figure 9ap. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

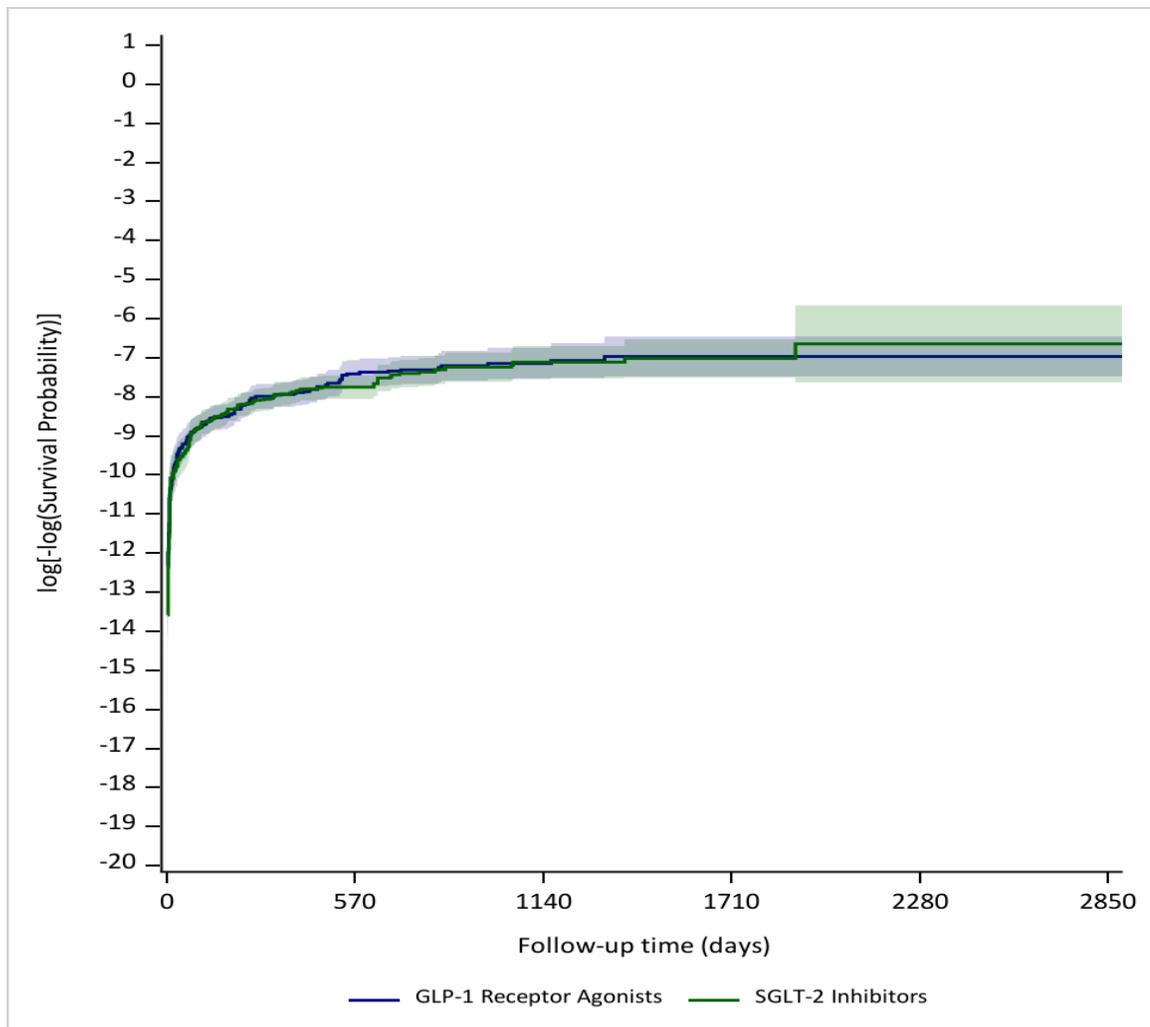


Figure 9a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

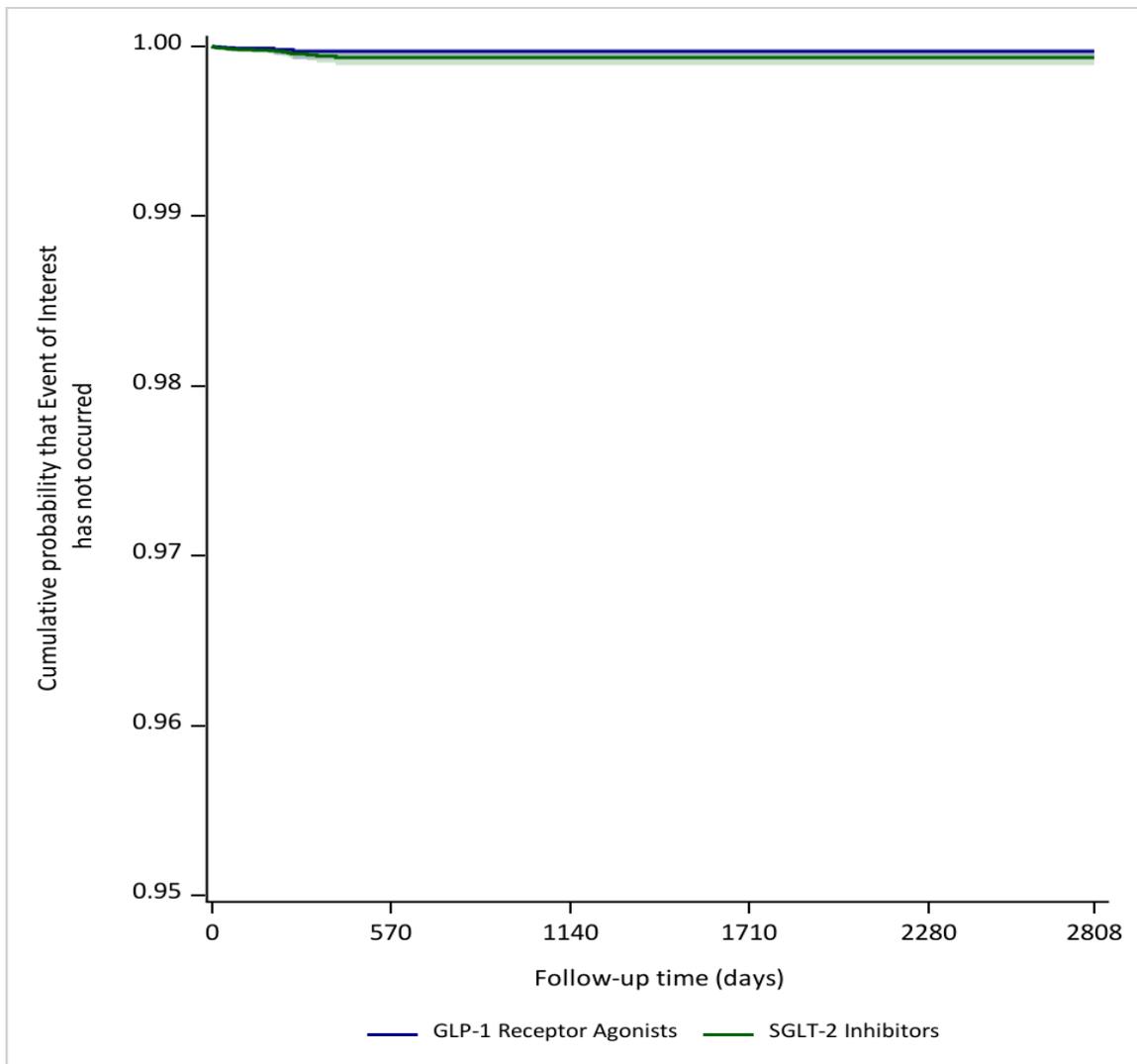


Figure 9ar. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

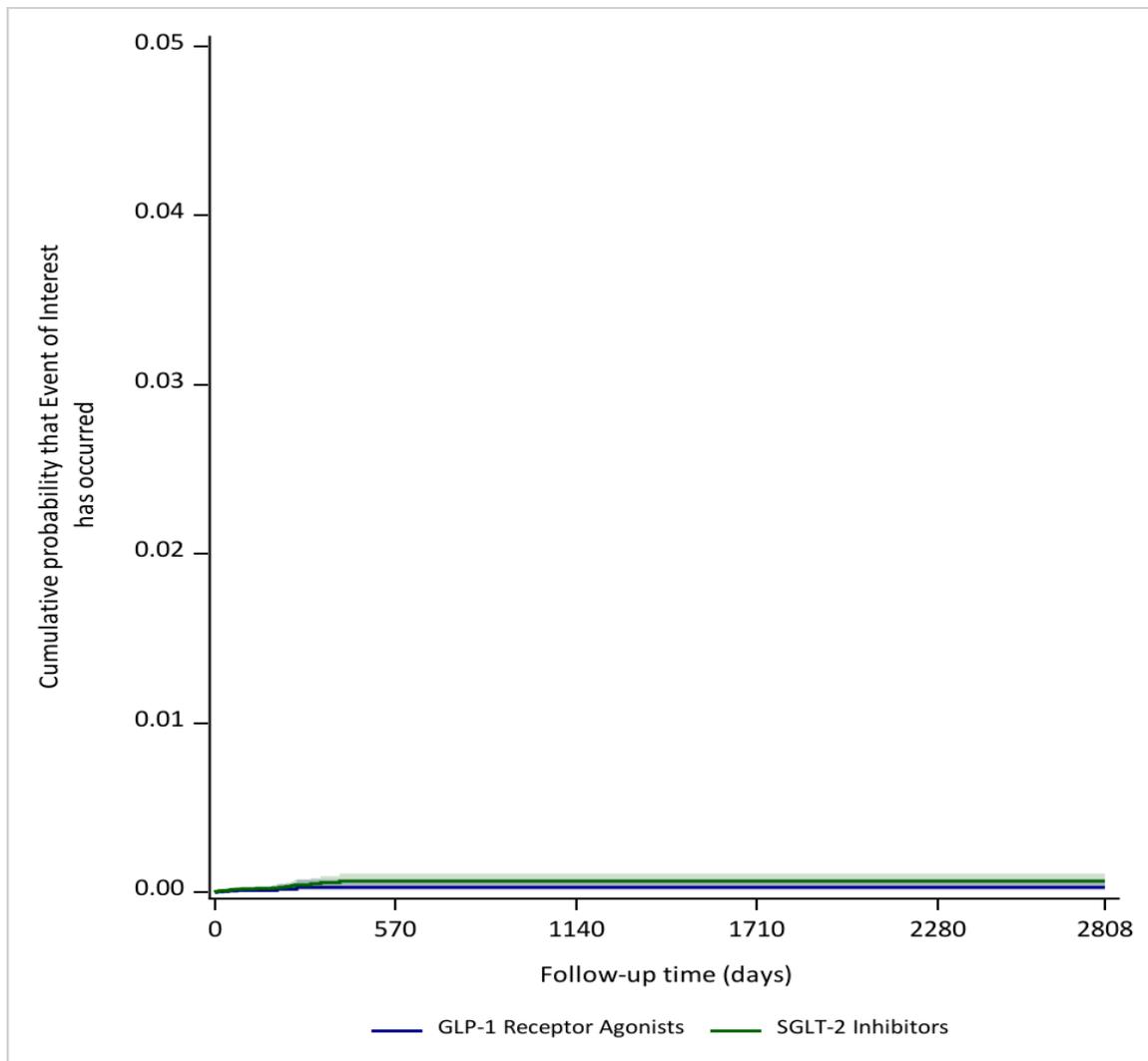


Figure 9as. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

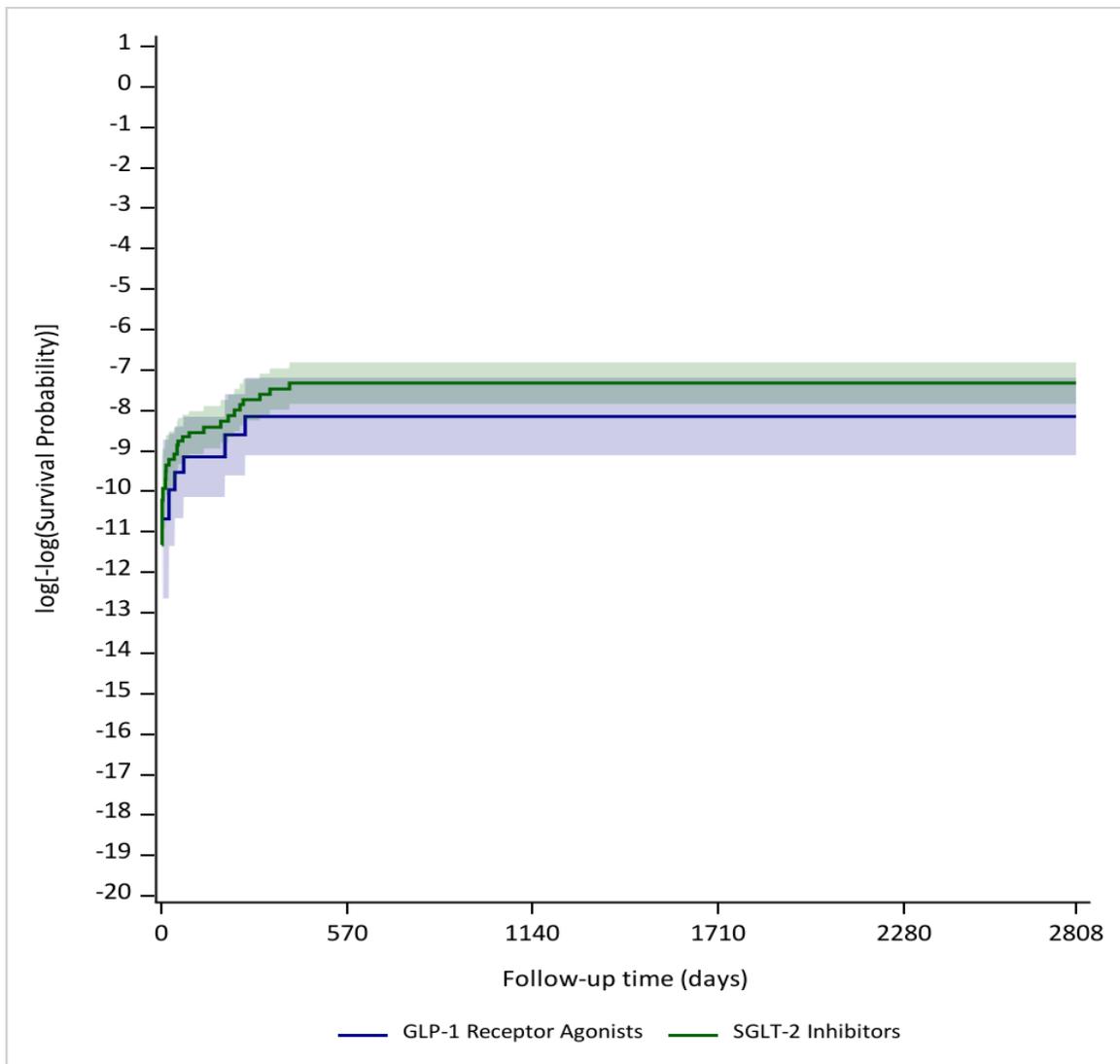


Figure 9at. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

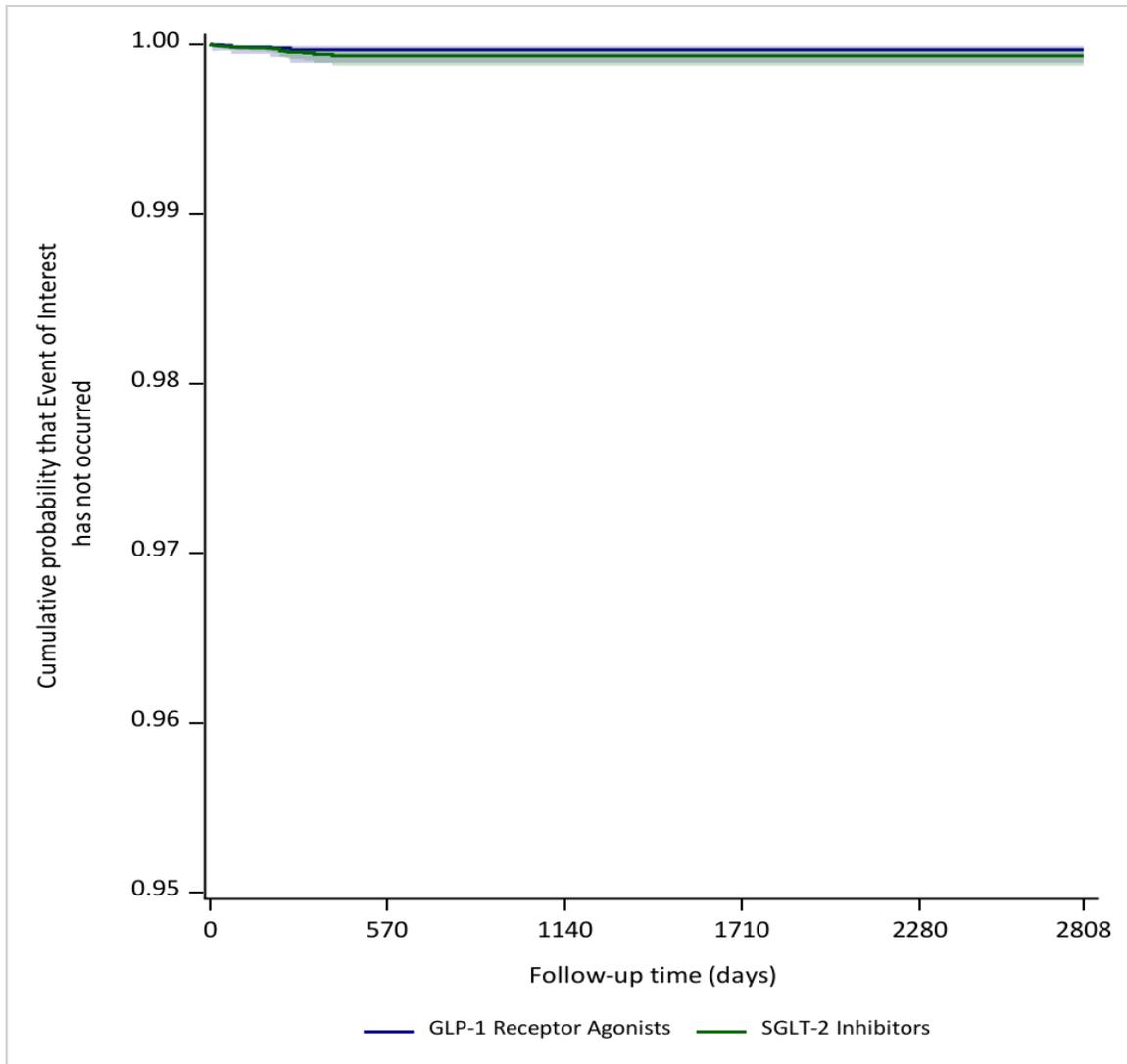


Figure 9au. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

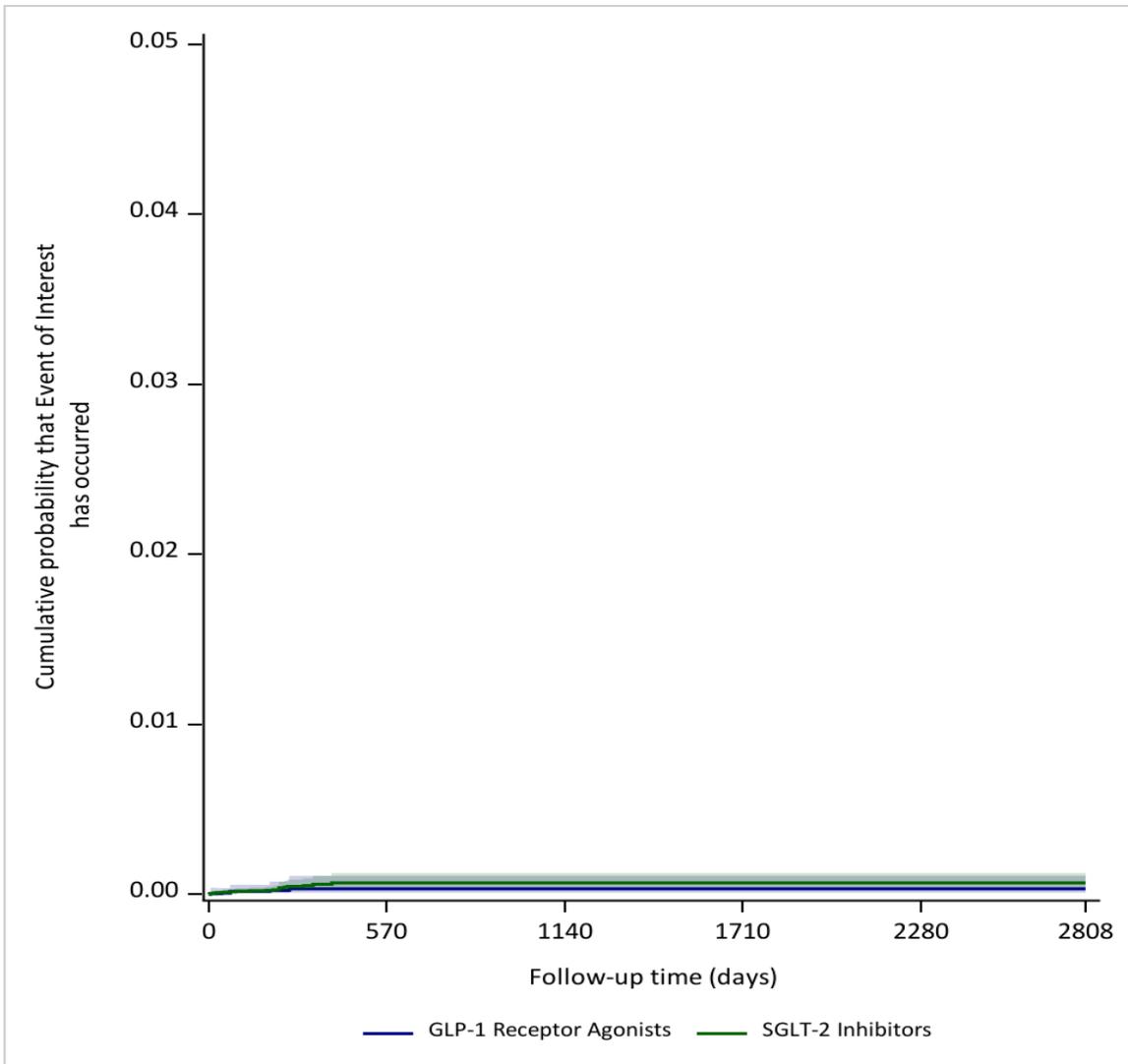


Figure 9av. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

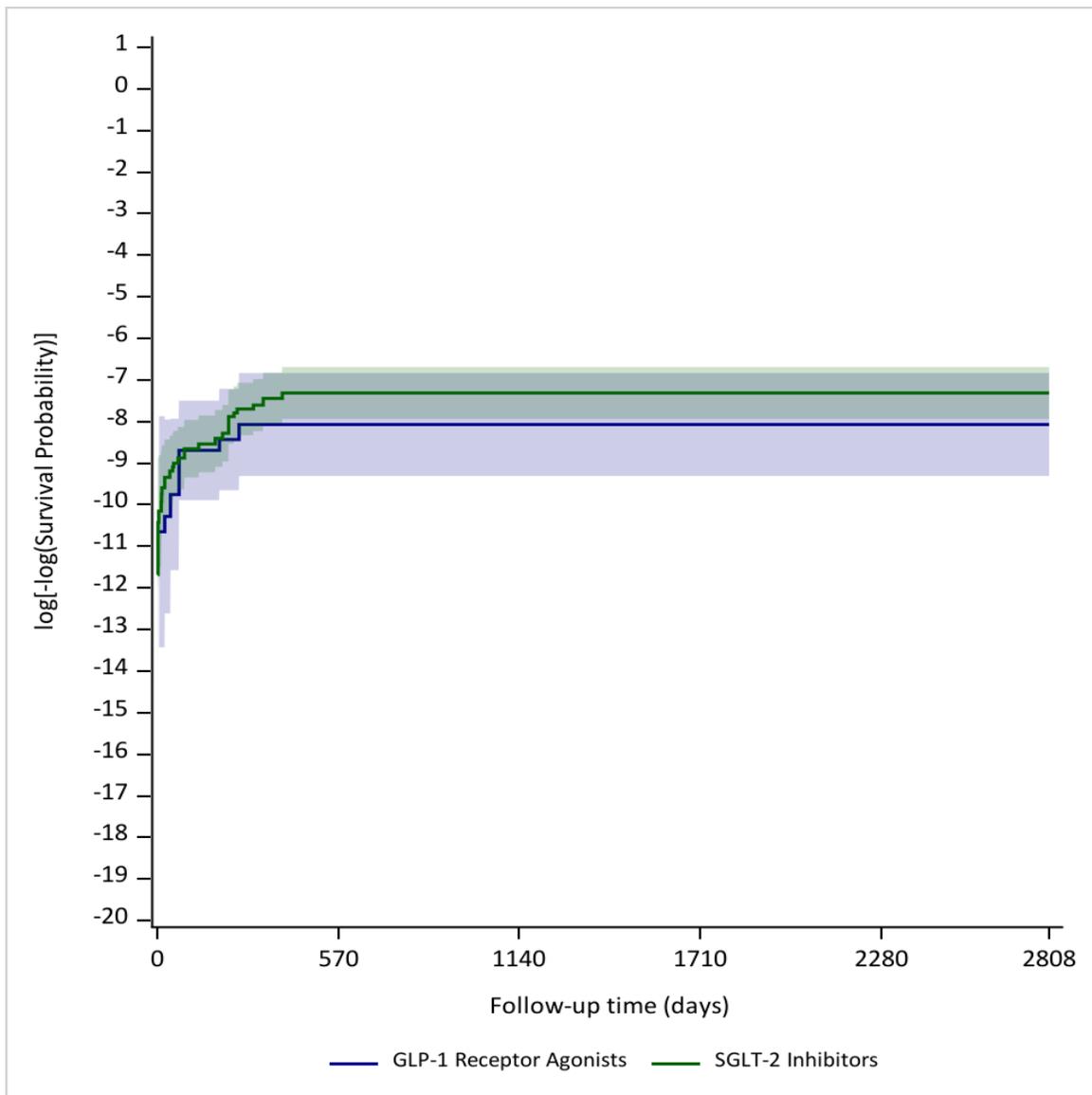


Figure 10a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

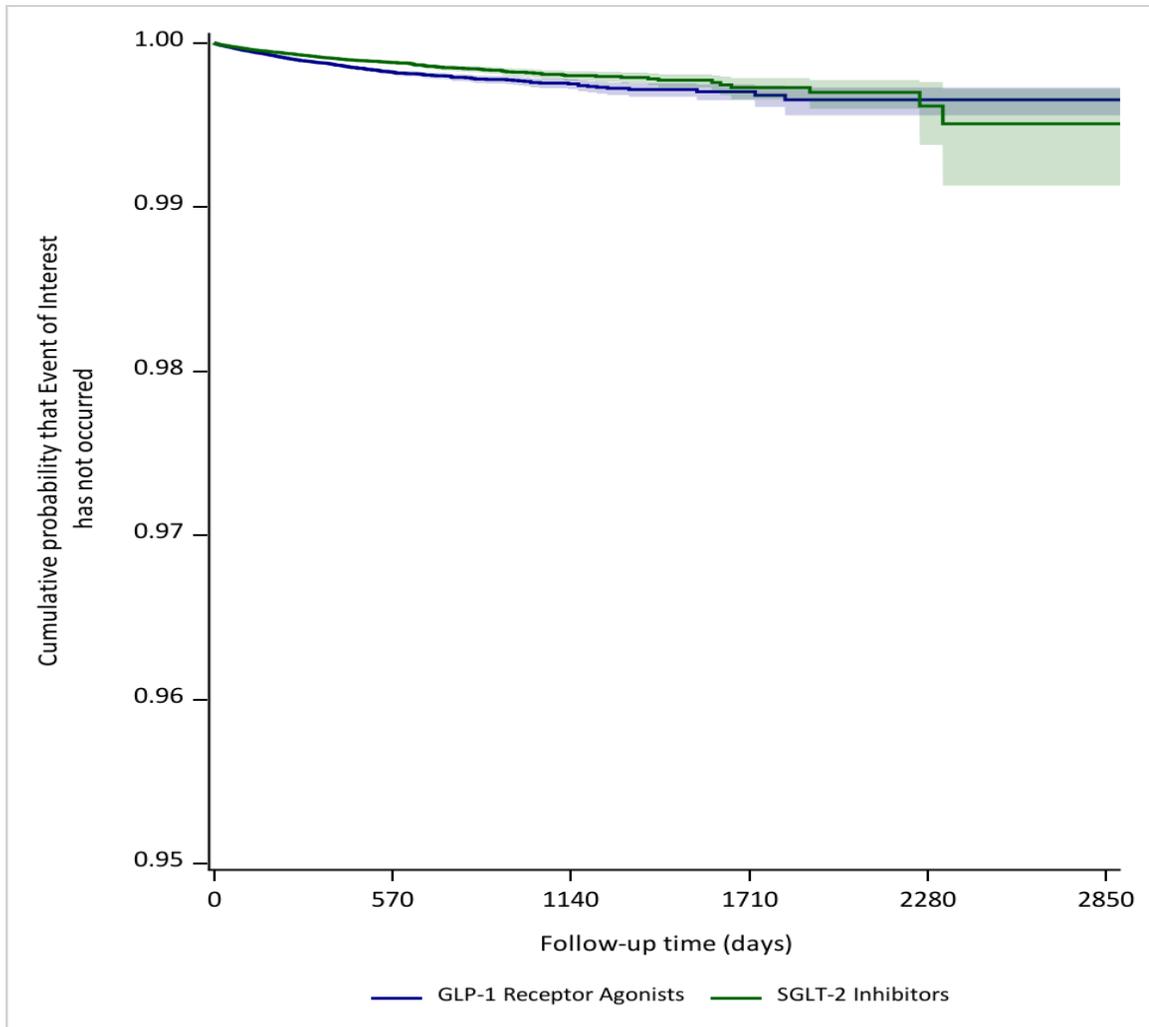


Figure 10b. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

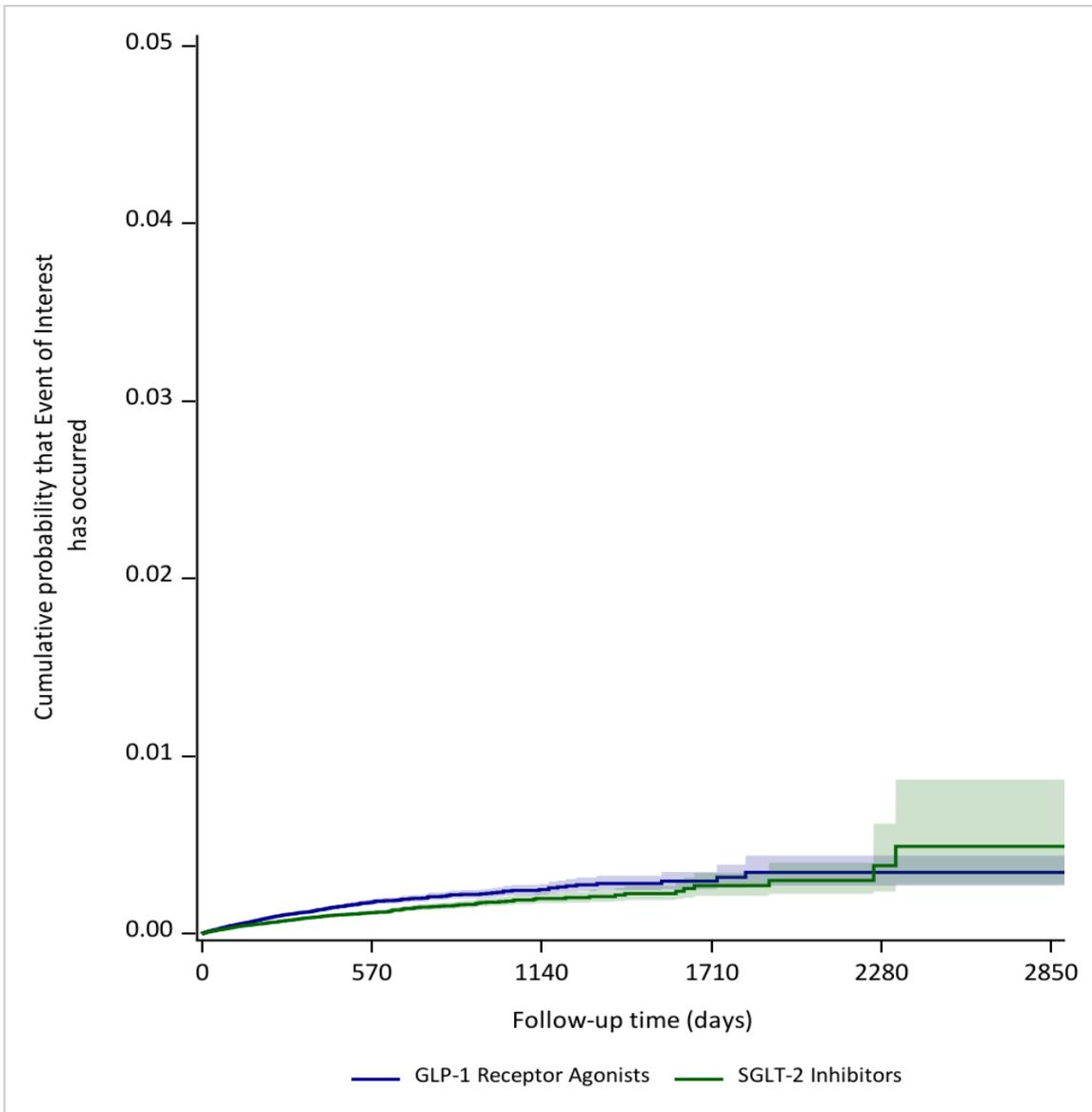


Figure 10c. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

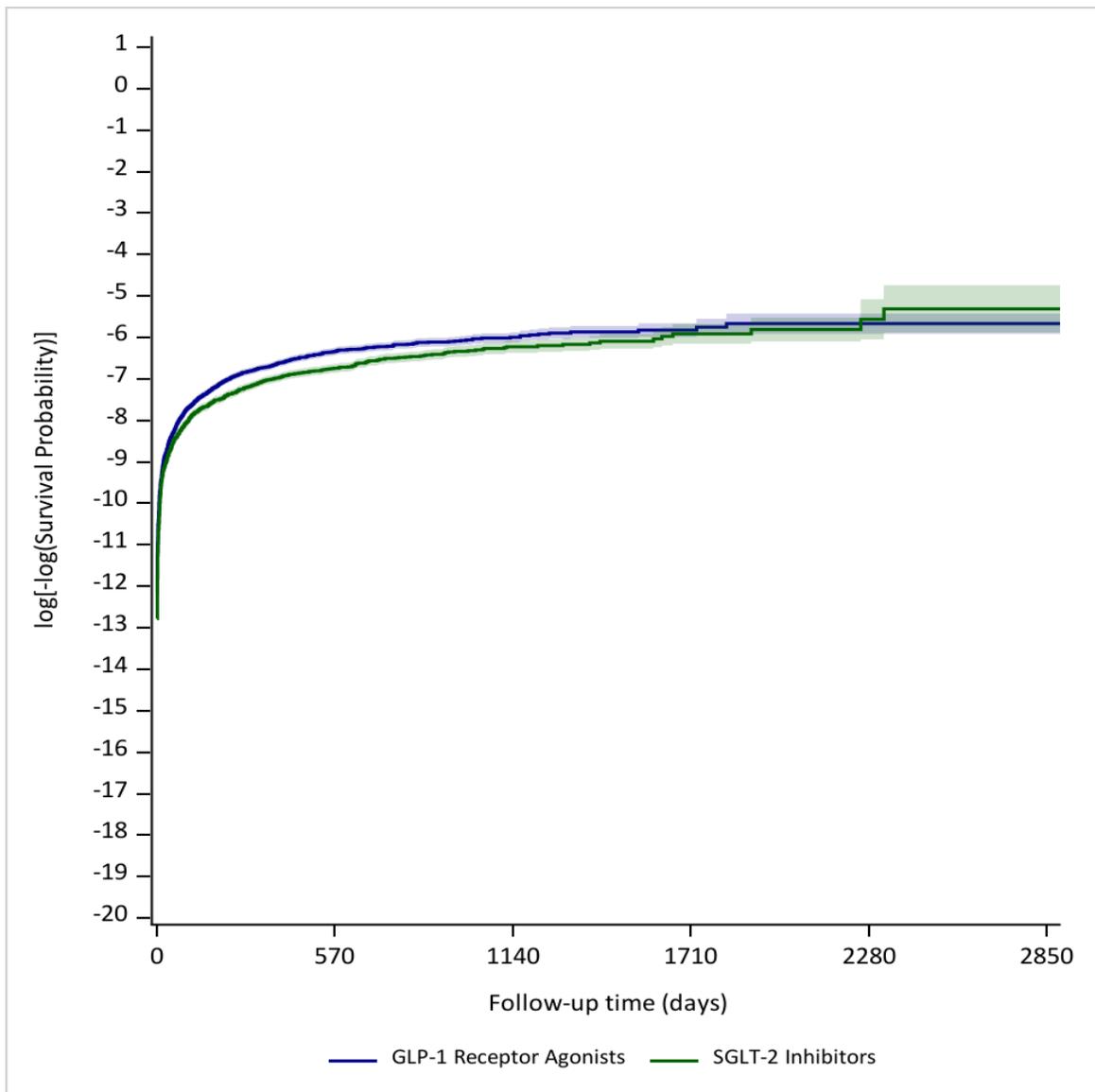


Figure 10d. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

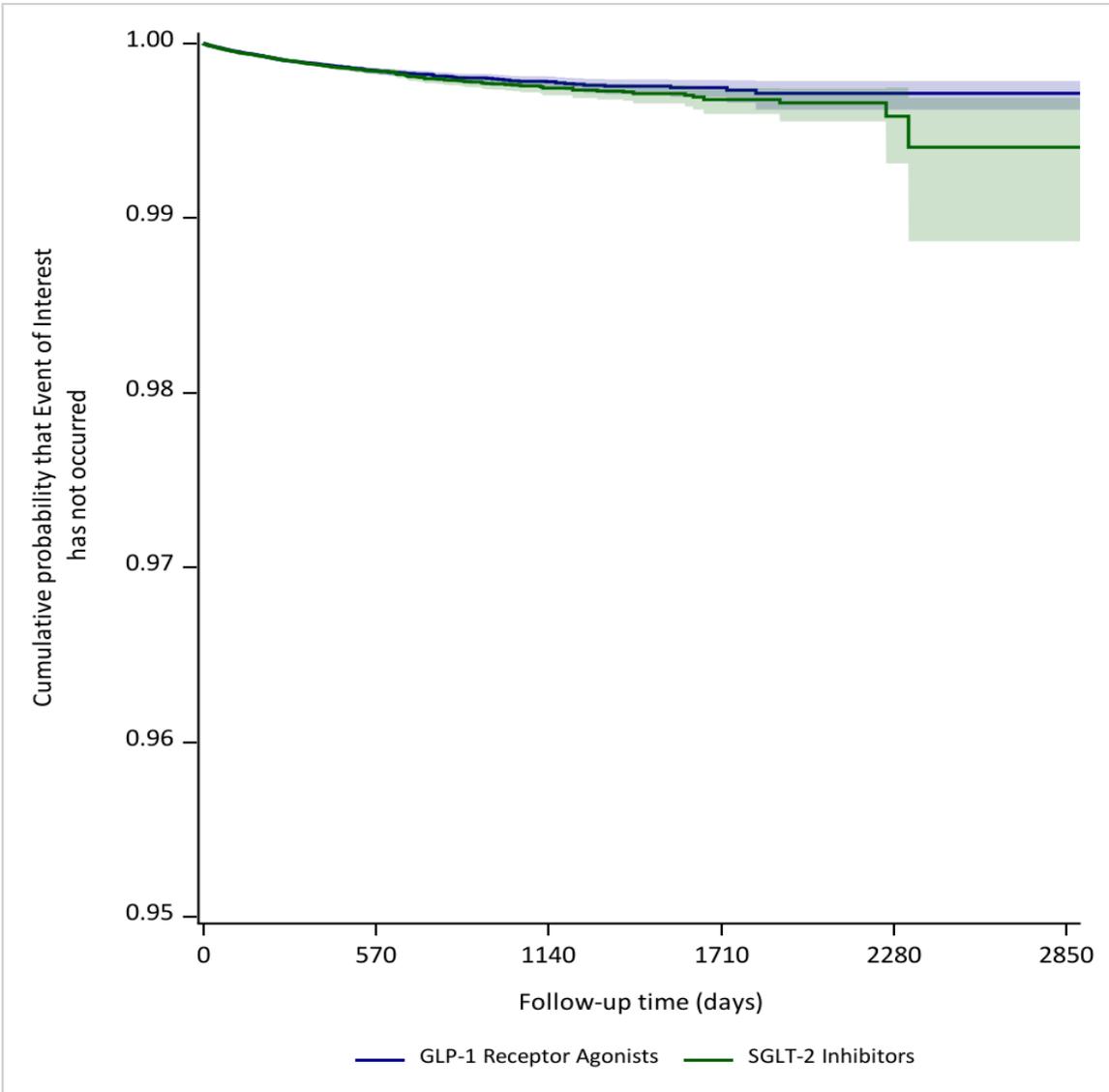


Figure 10e. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

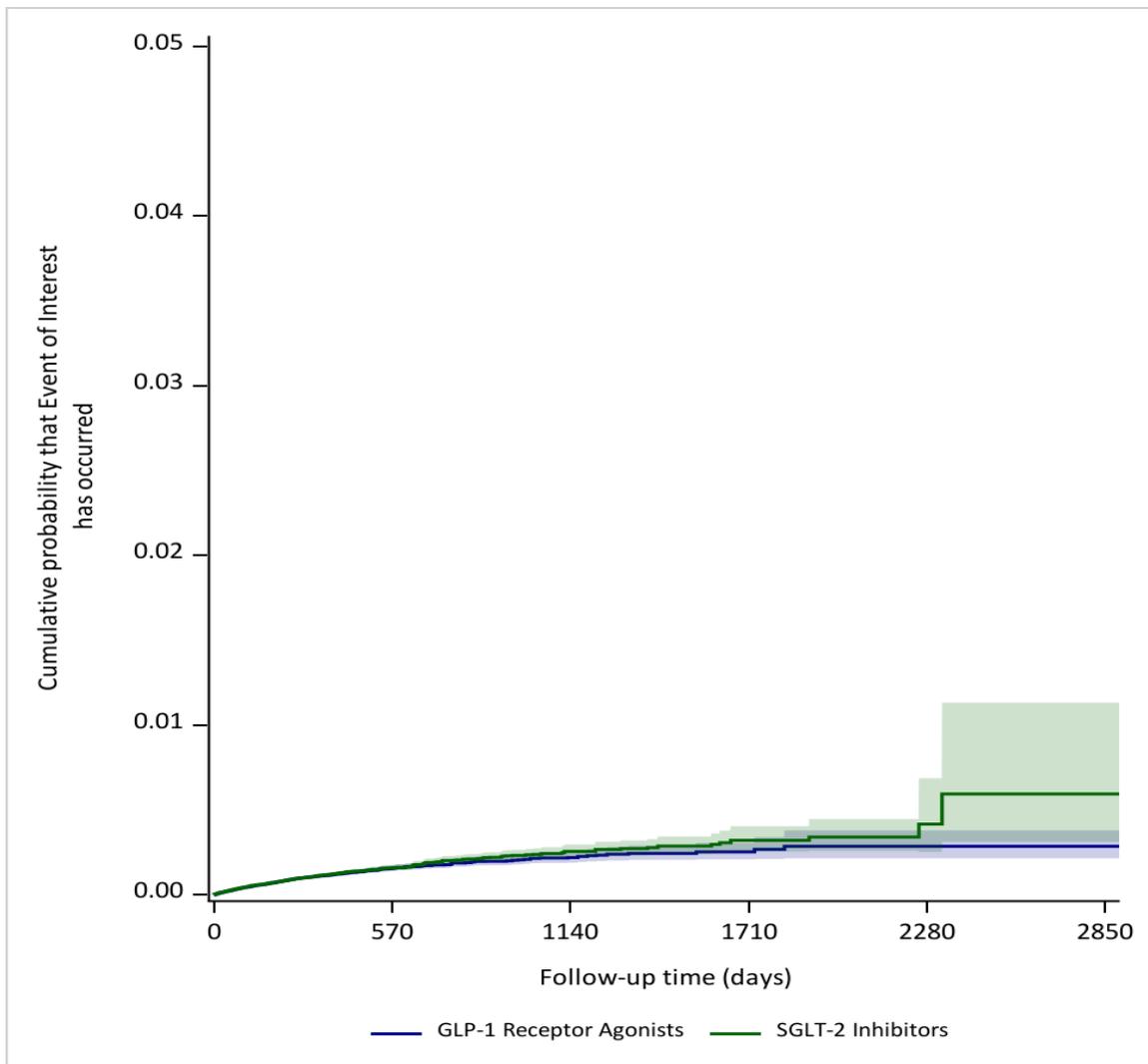


Figure 10f. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

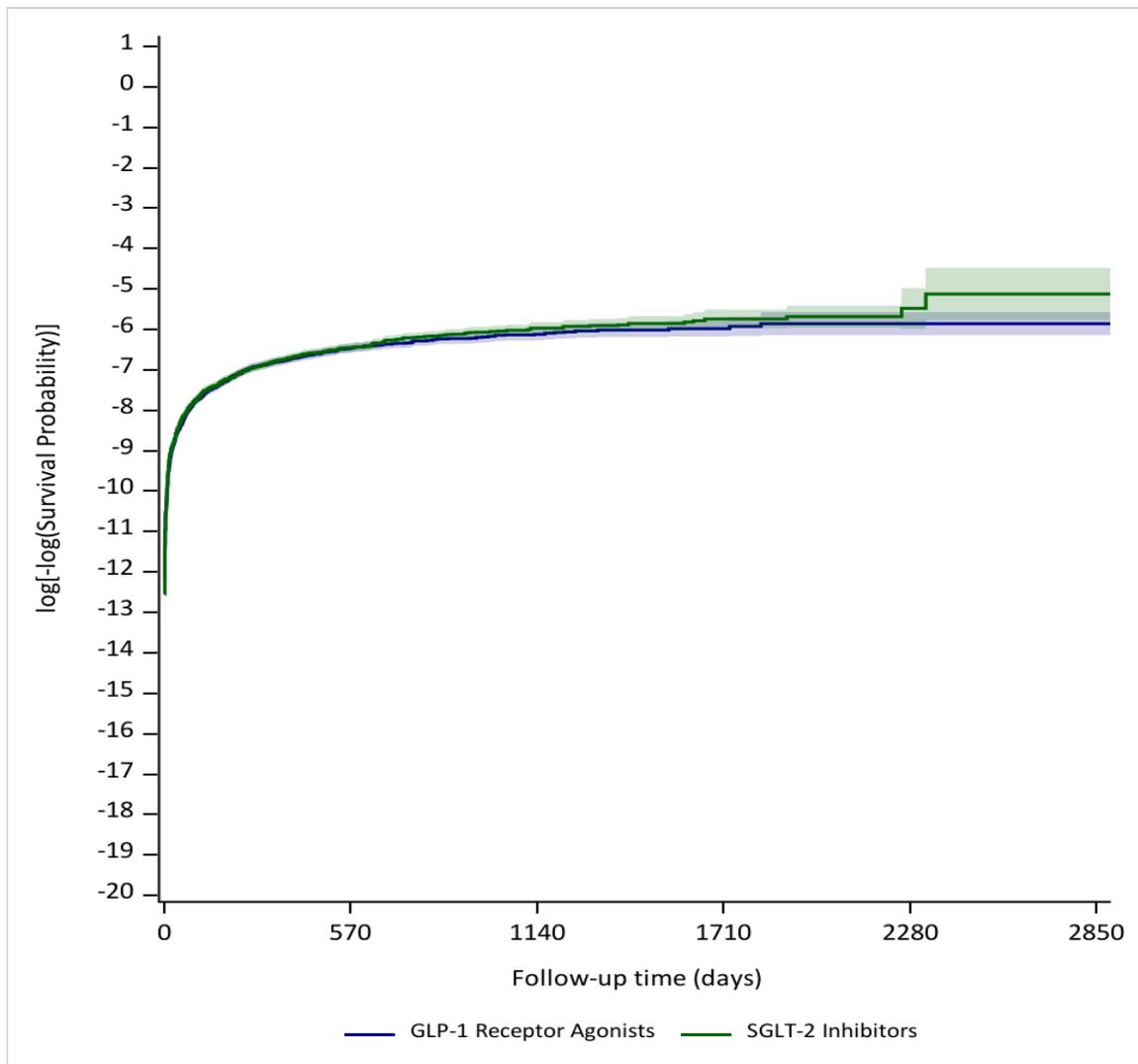


Figure 10g. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

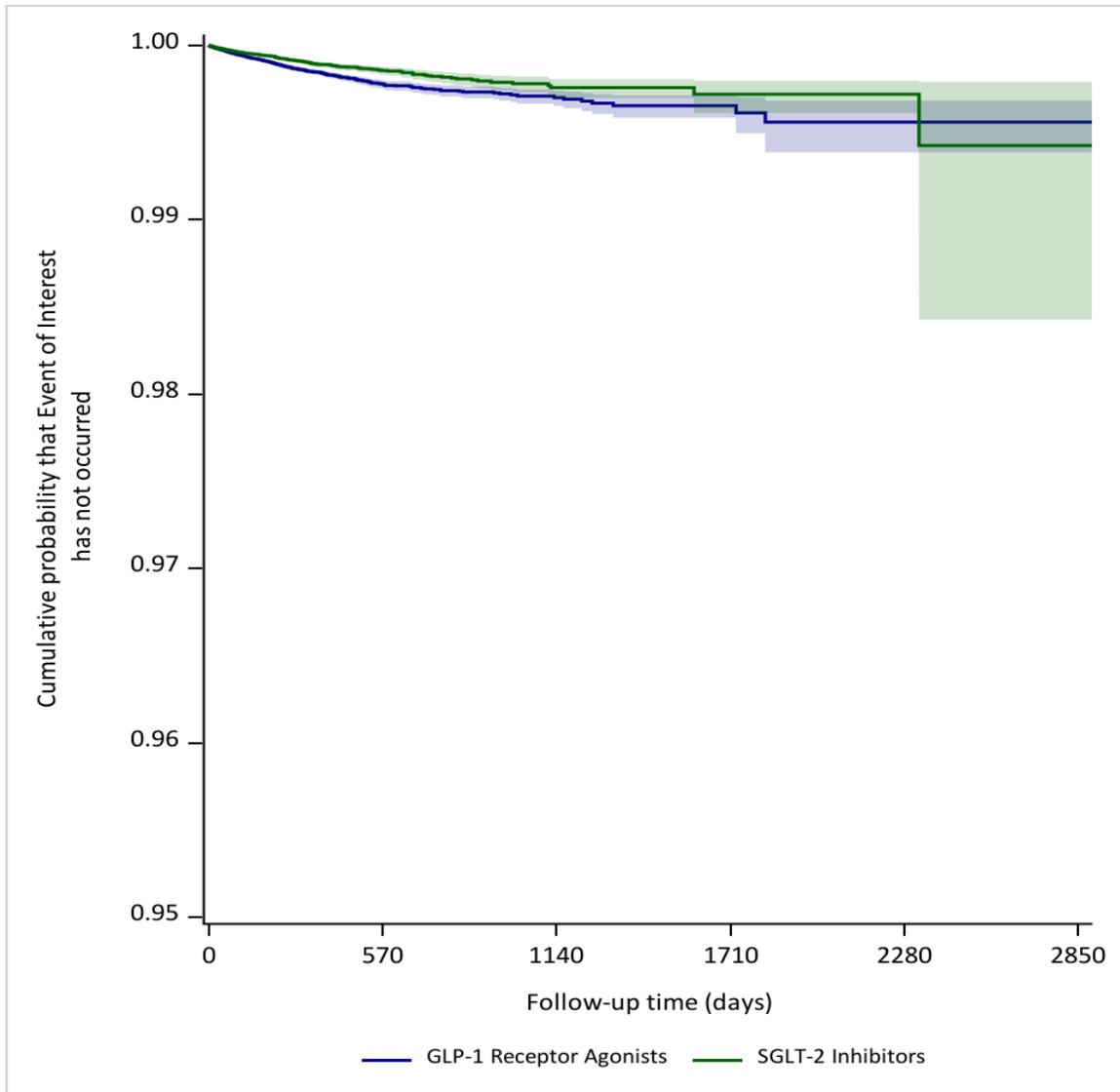


Figure 10h. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

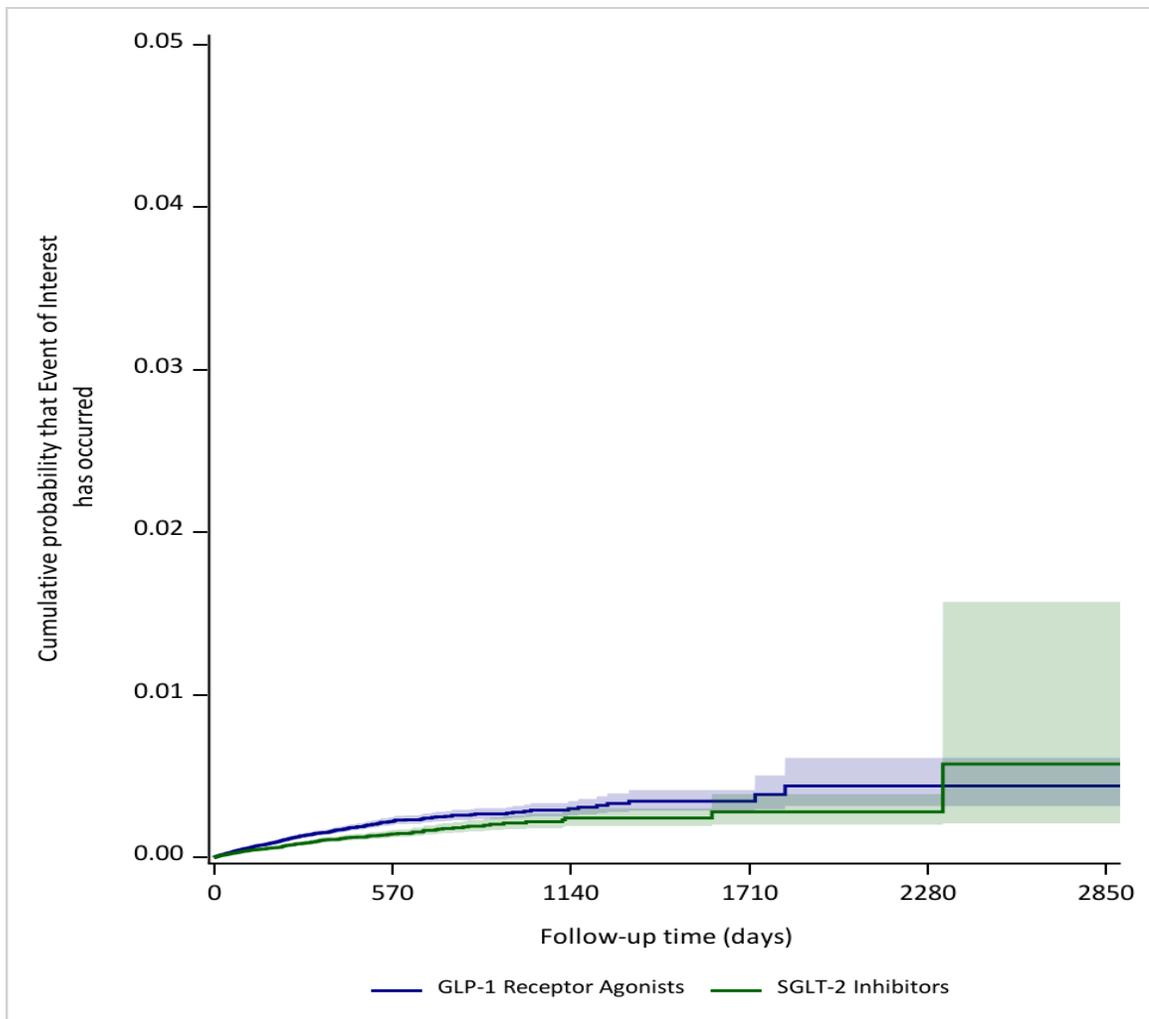


Figure 10i. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

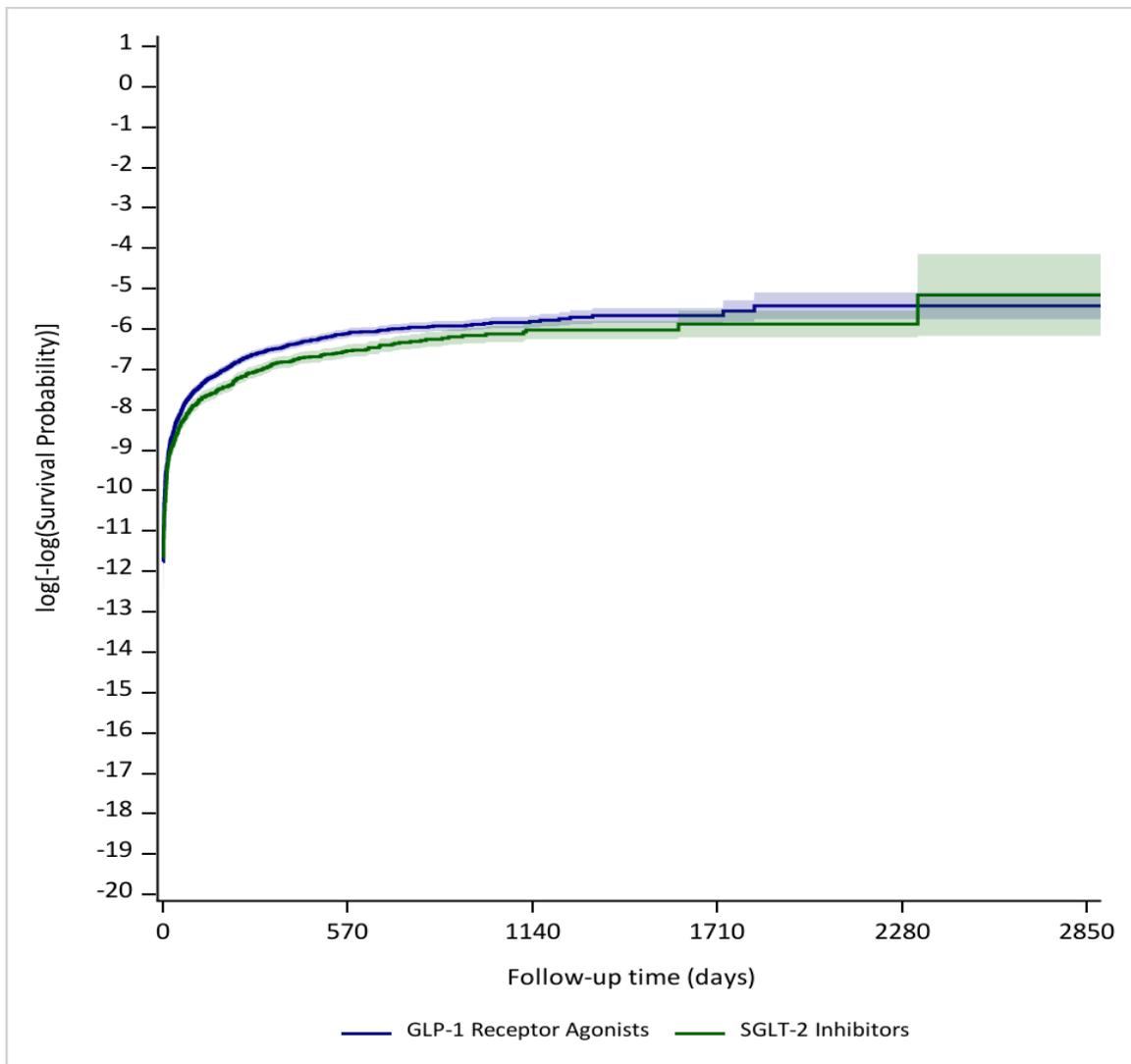


Figure 10j. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

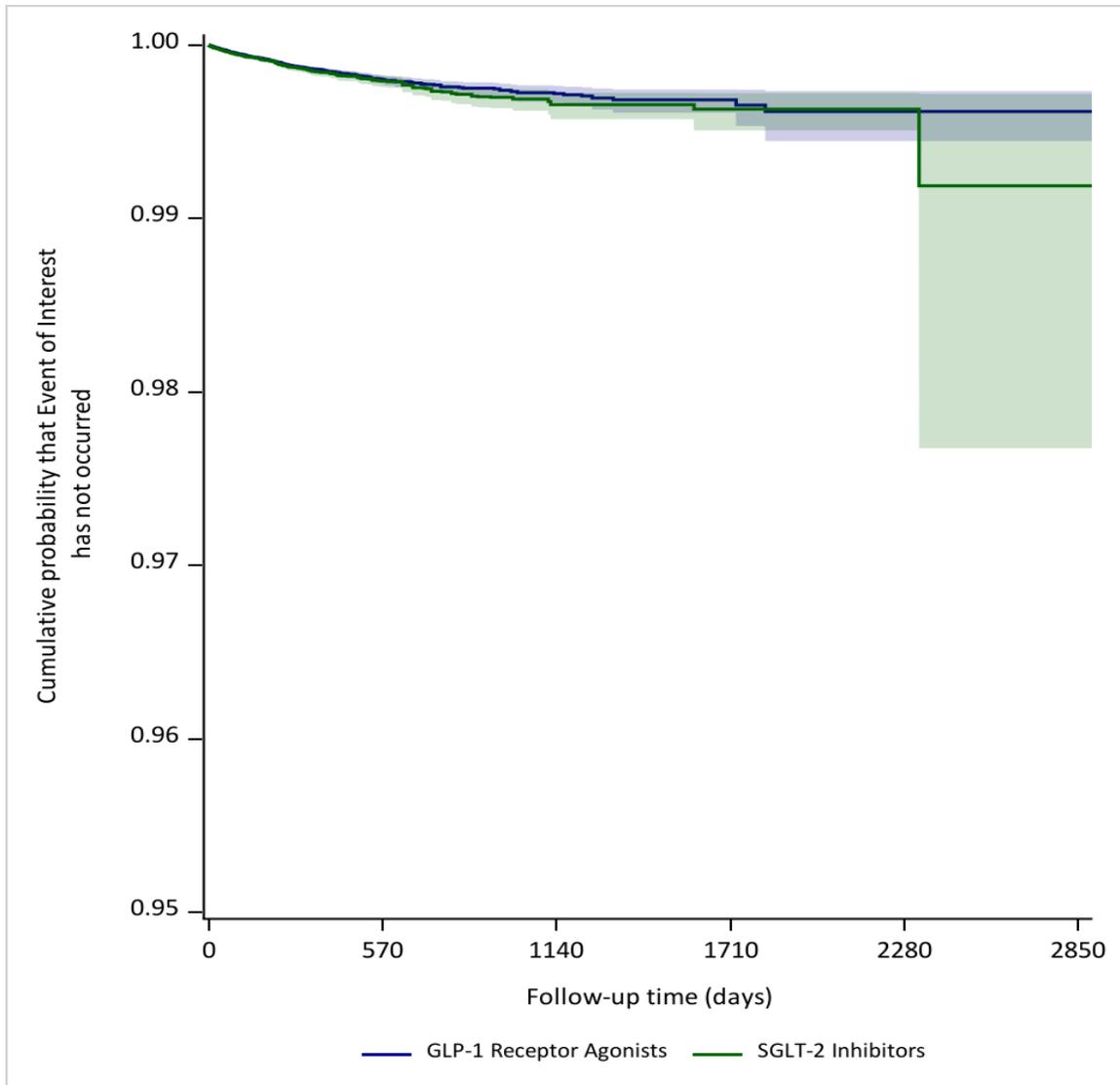


Figure 10k. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

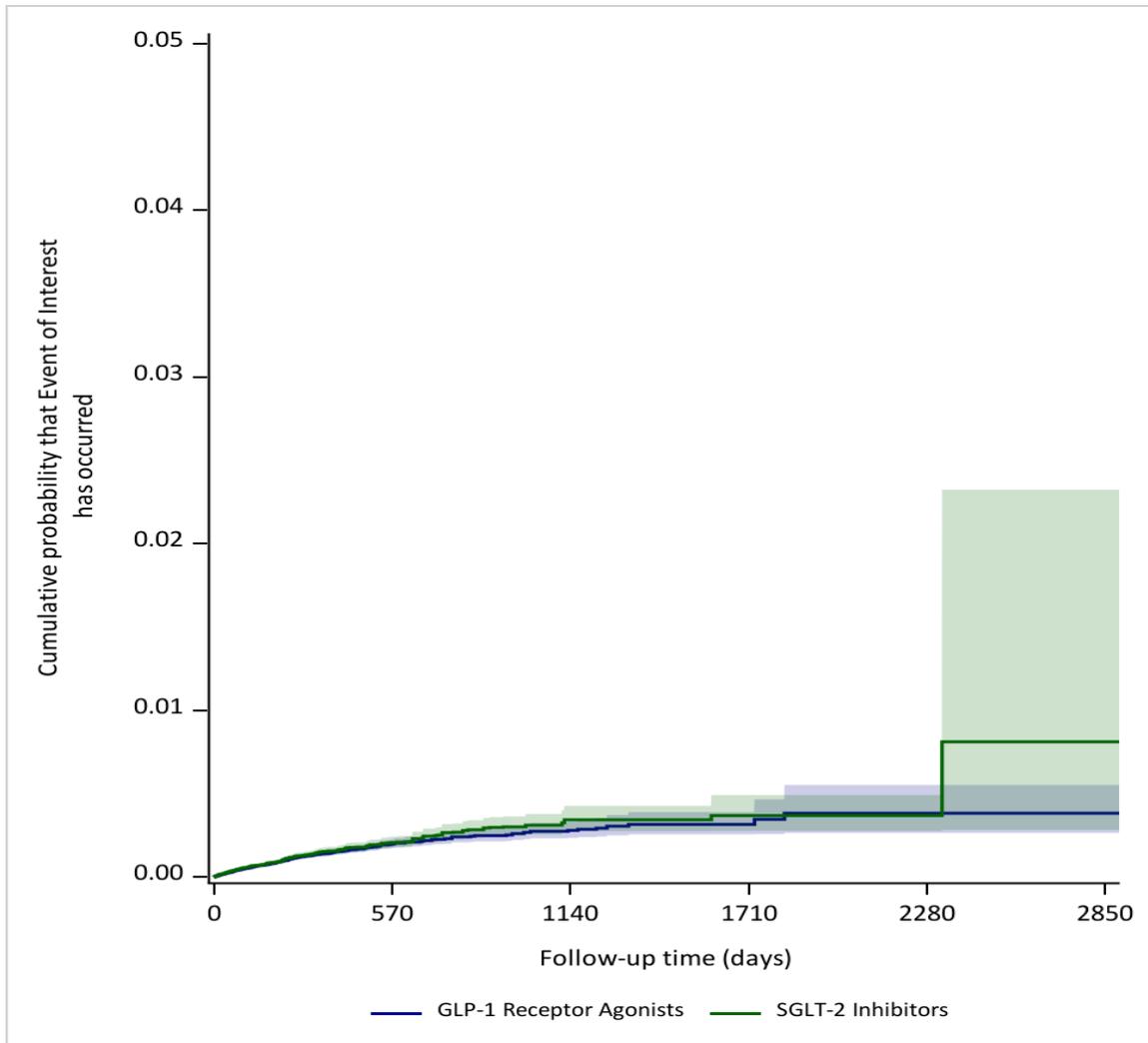


Figure 10I. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

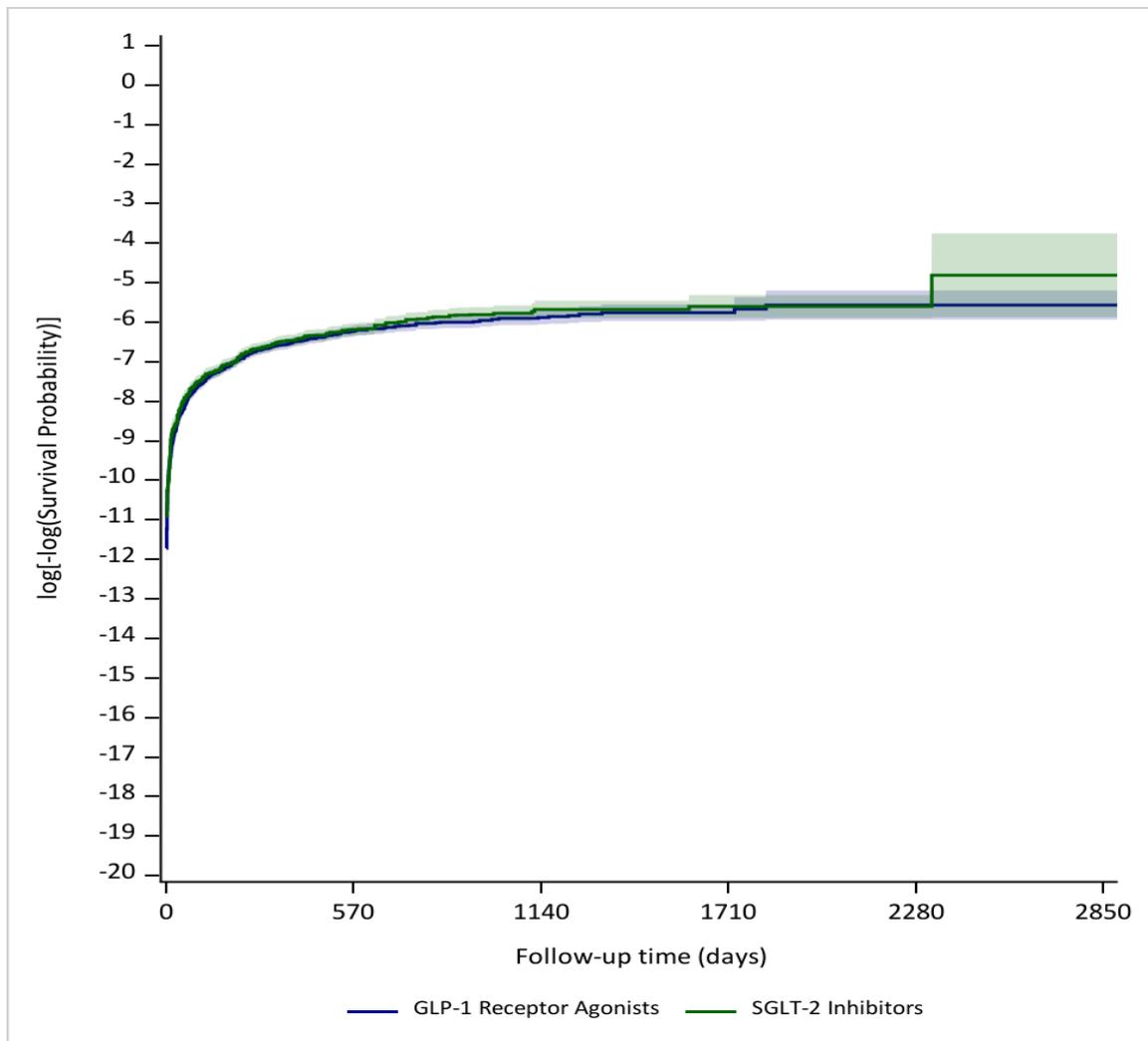


Figure 10m. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

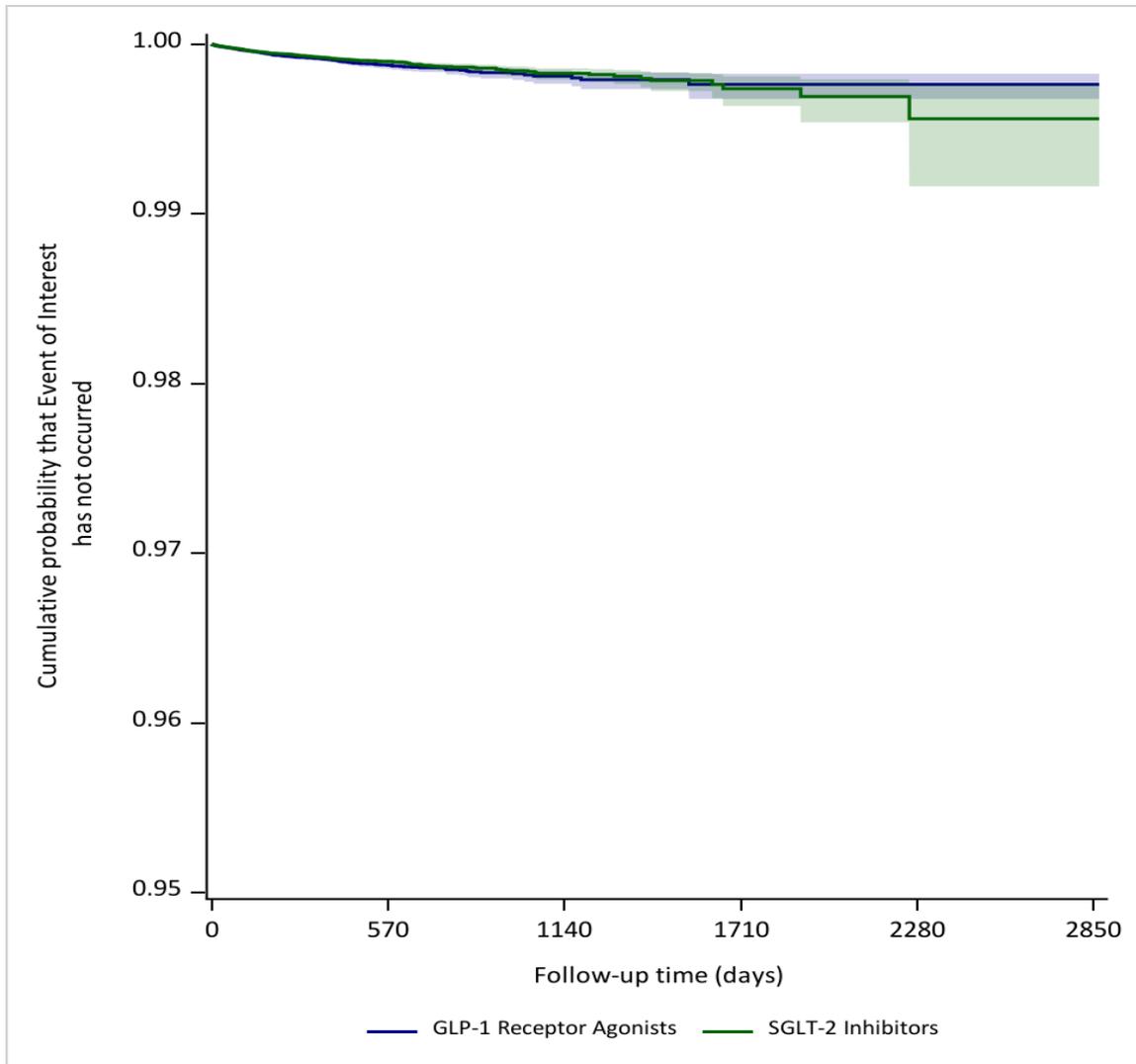


Figure 10n. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

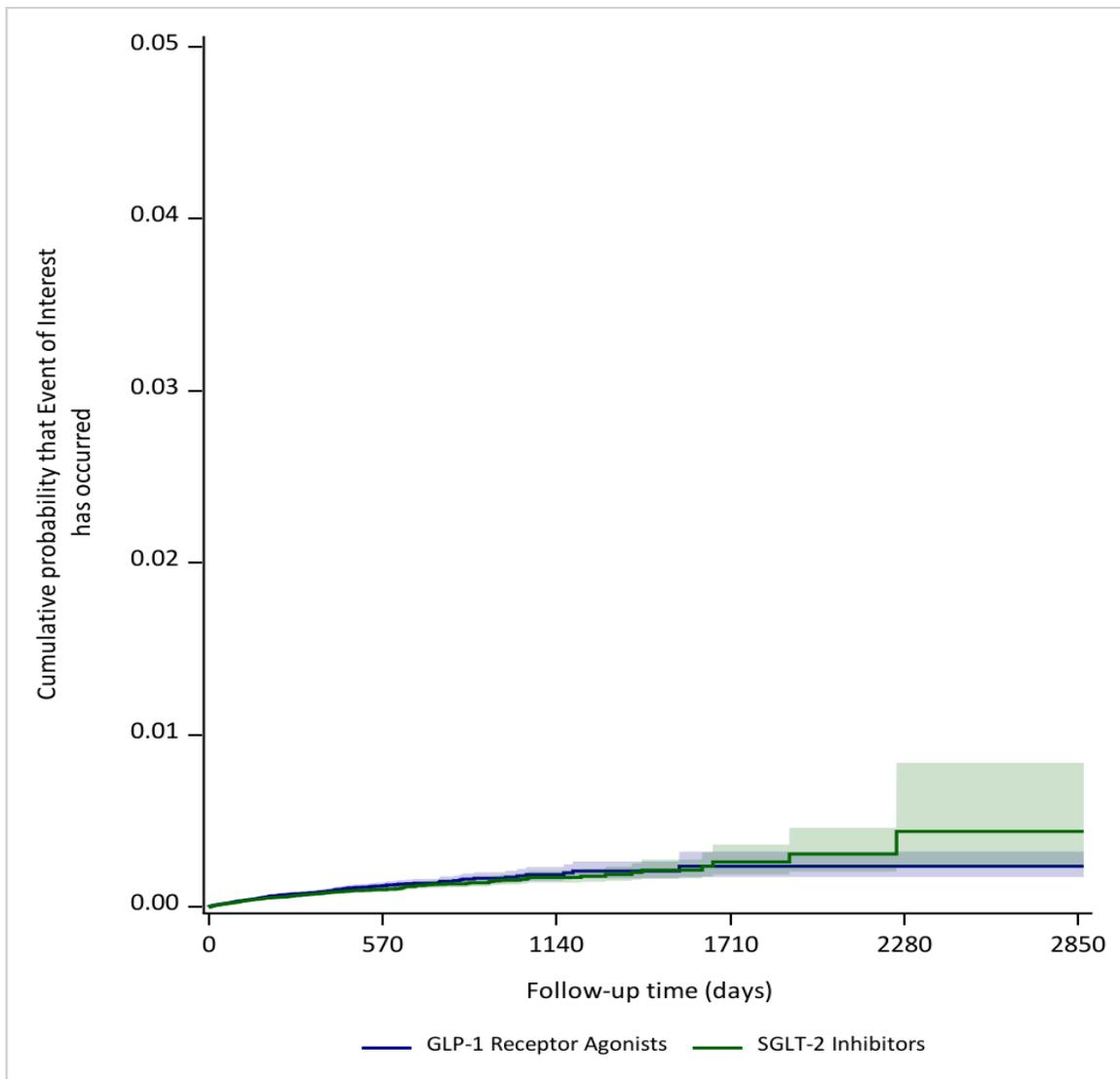


Figure 10o. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

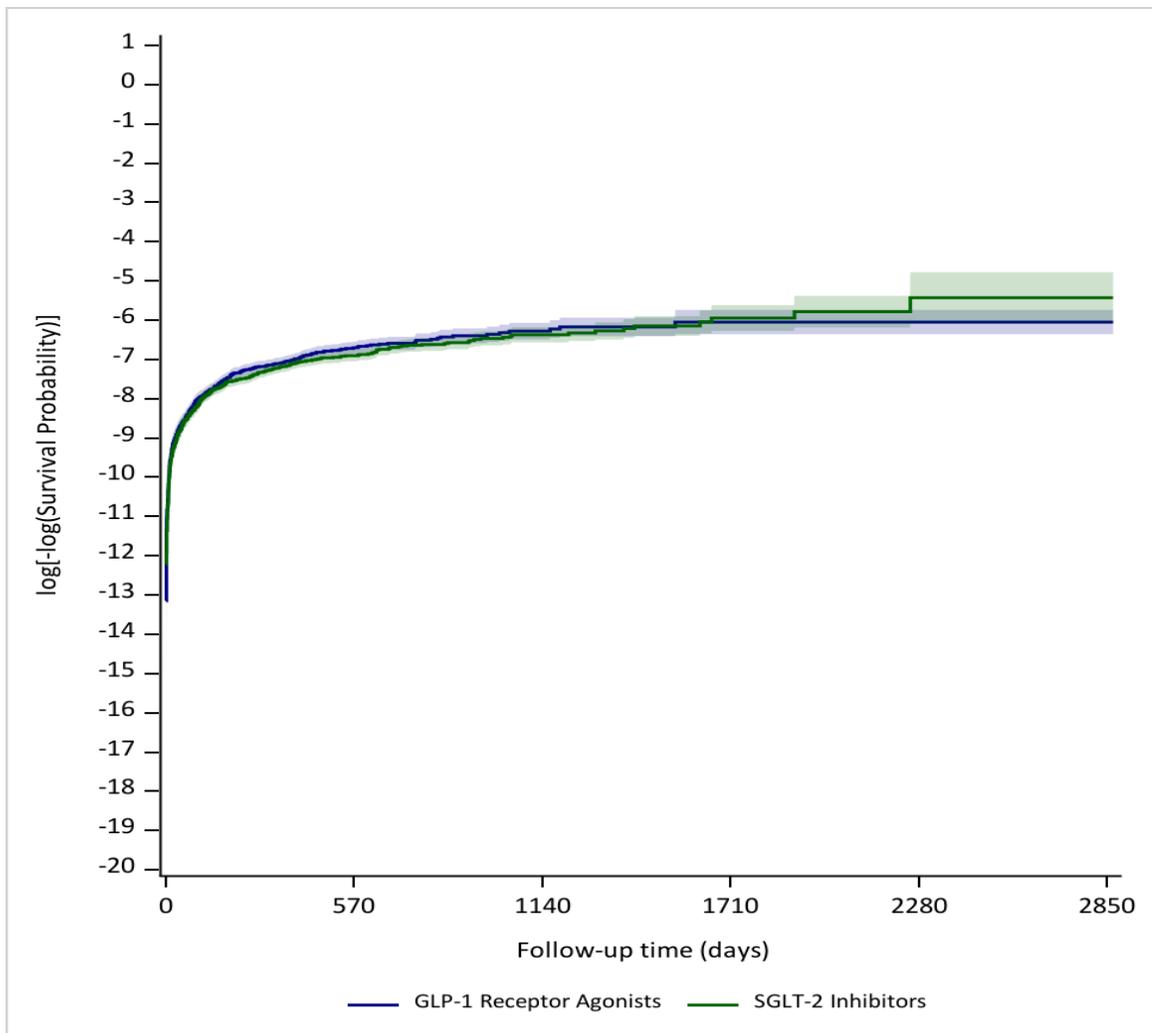


Figure 10p. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

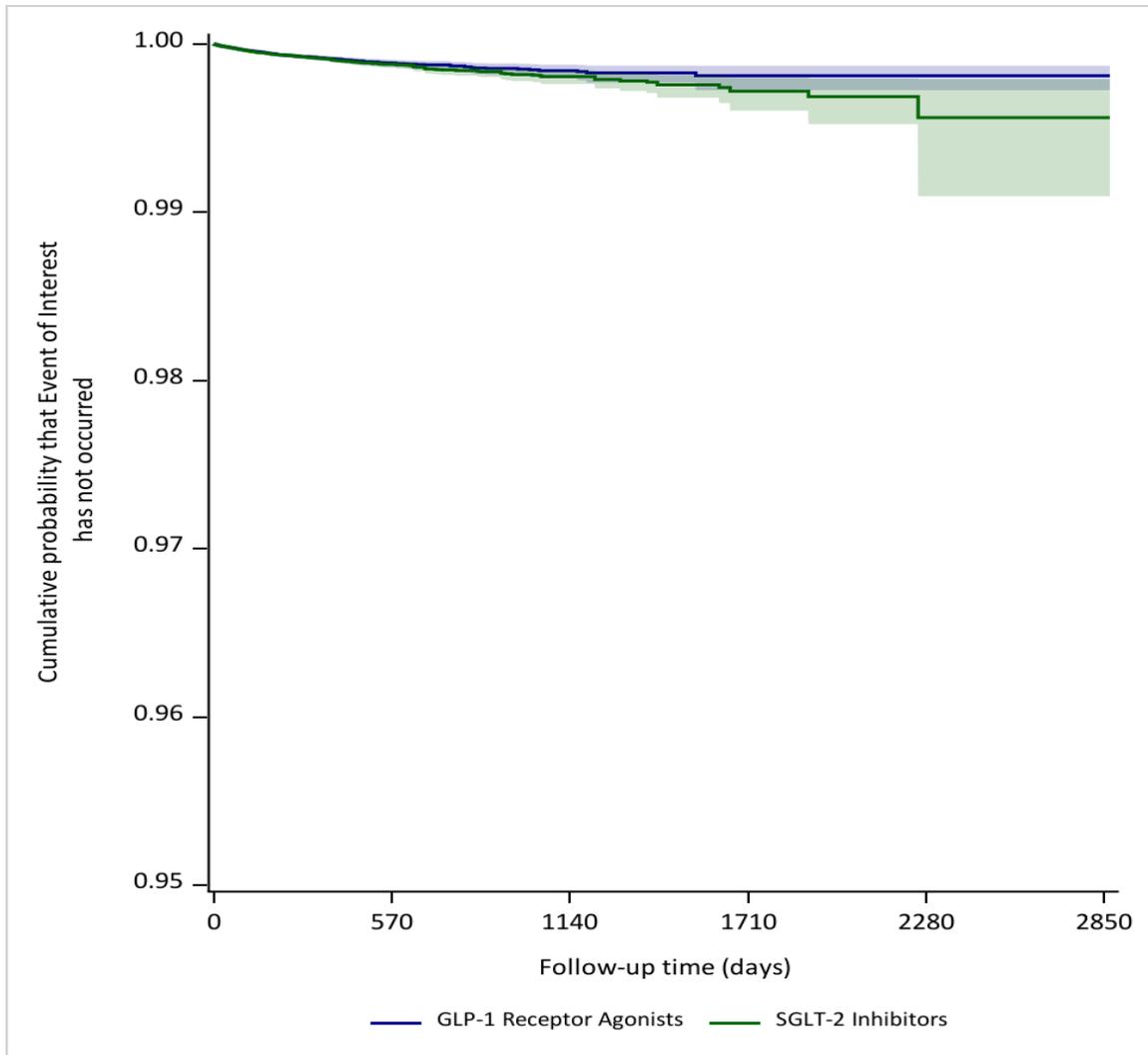


Figure 10q. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

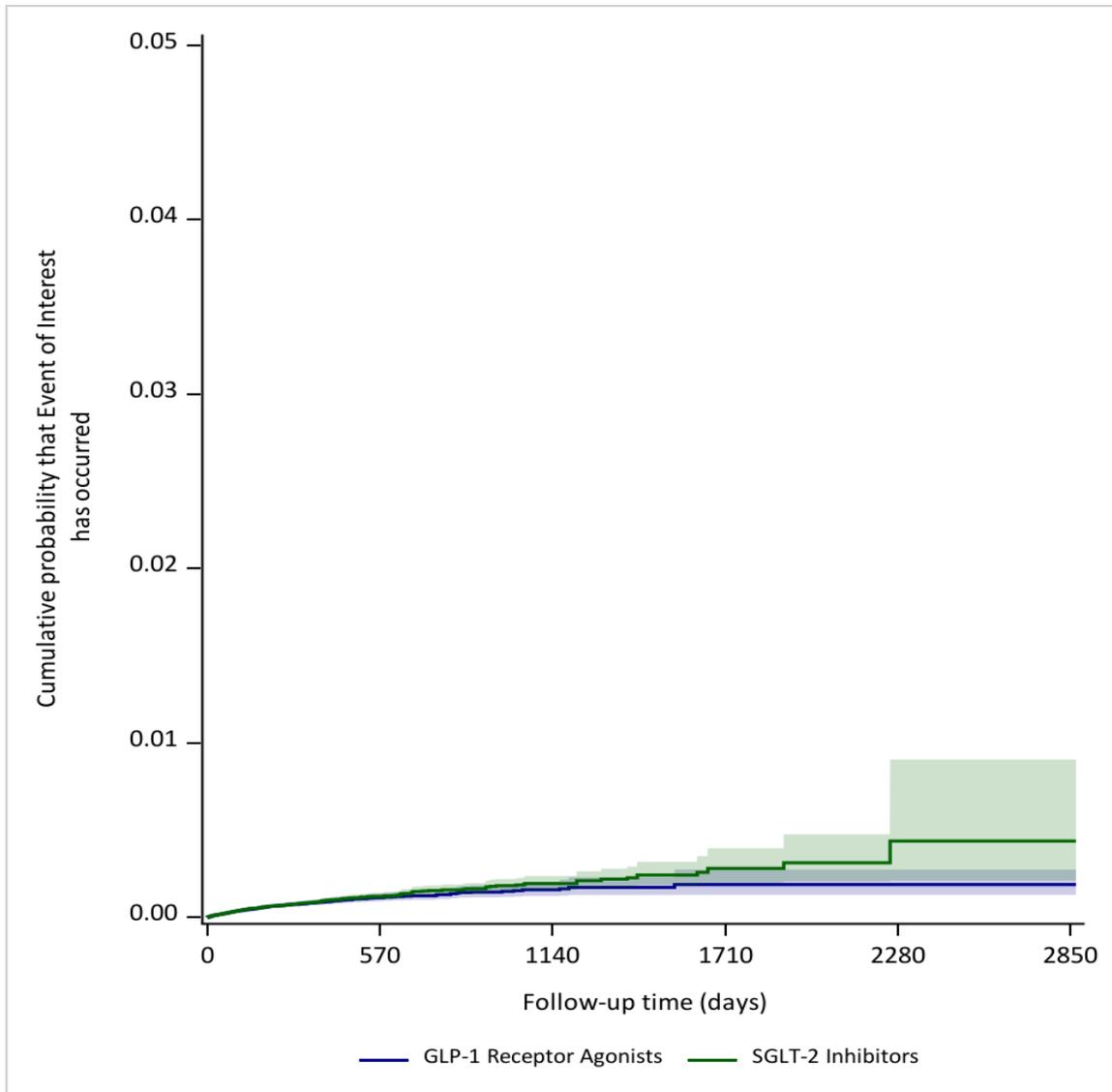


Figure 10r. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

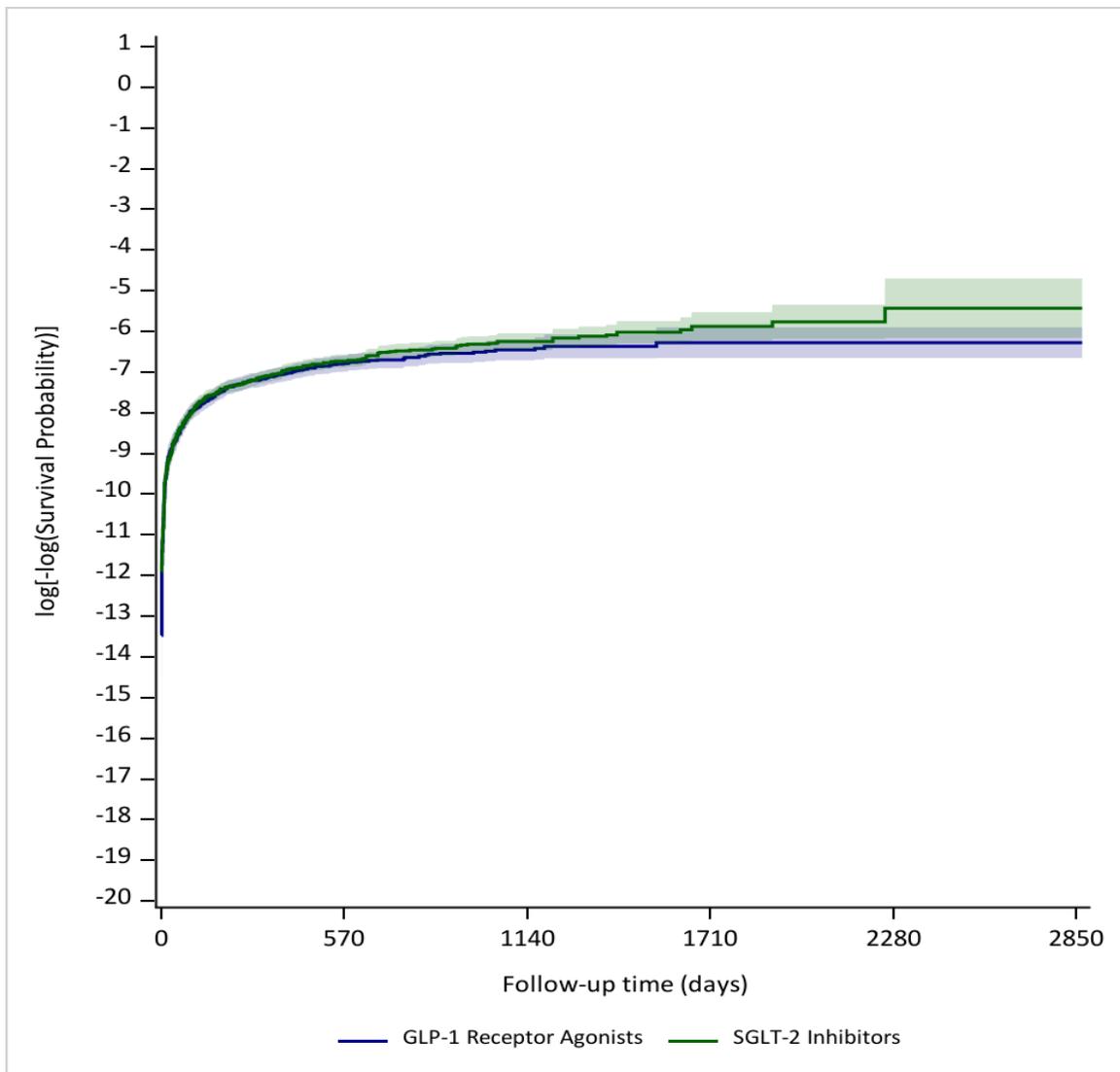


Figure 10s. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

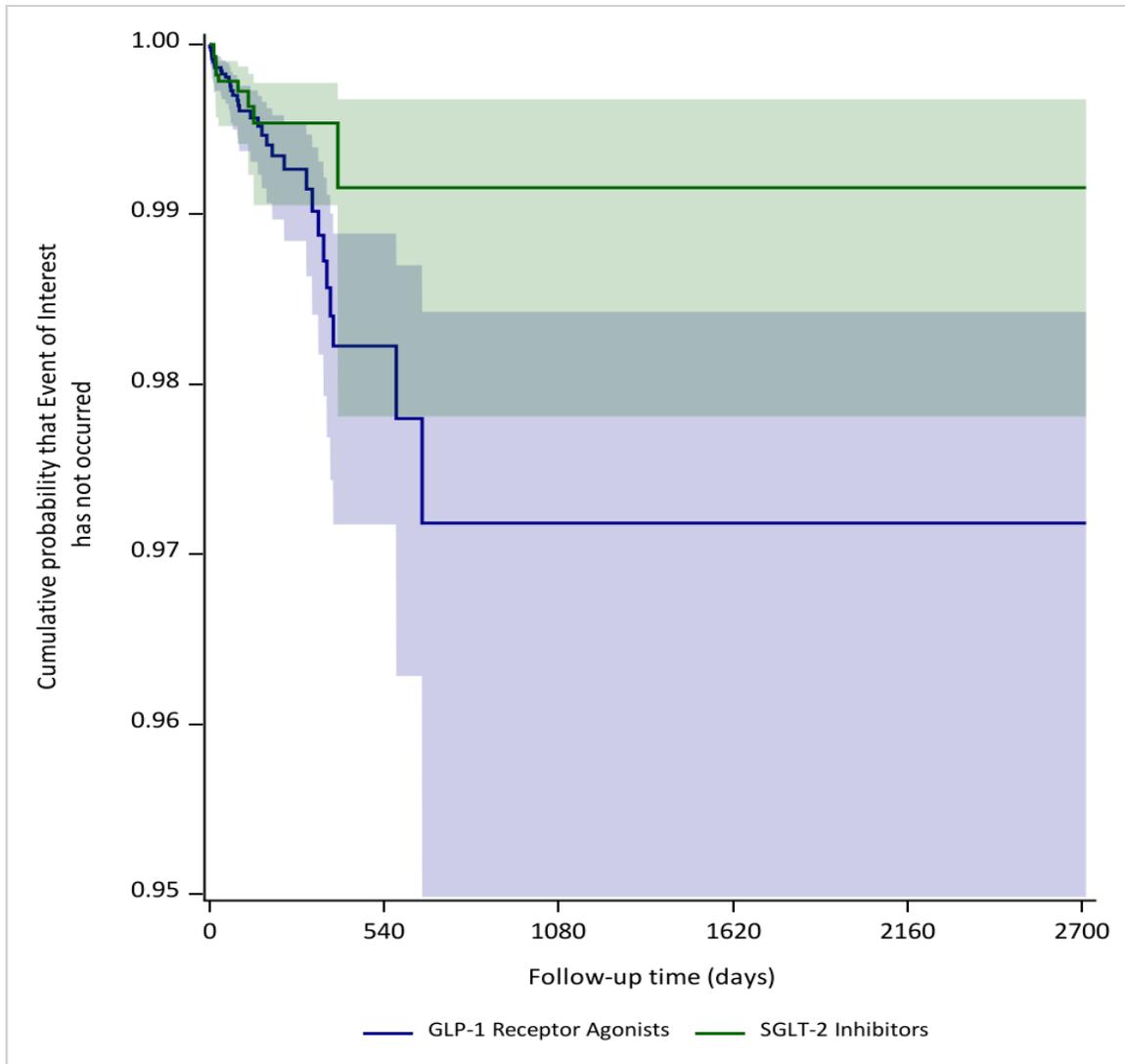


Figure 10t. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

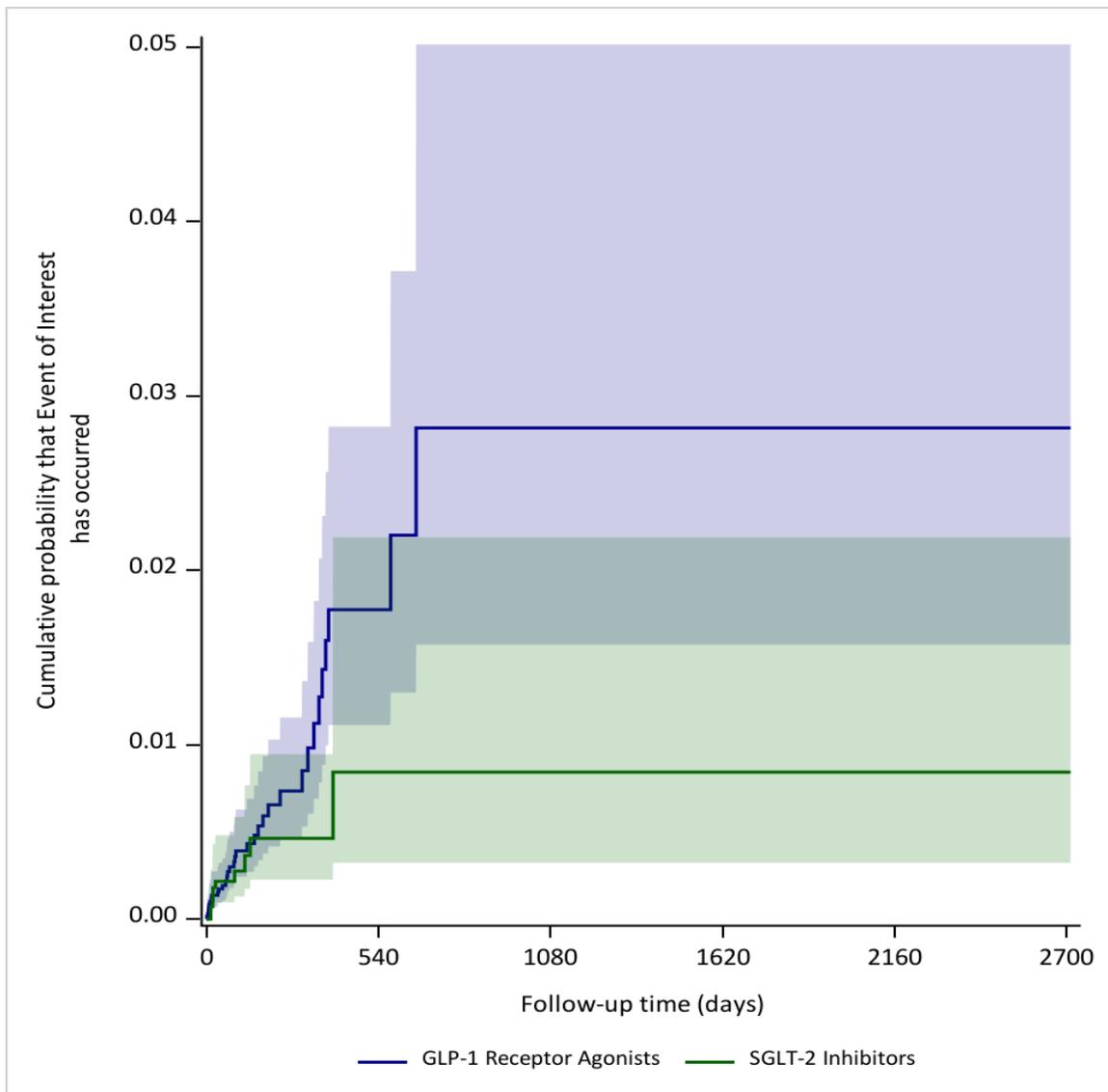


Figure 10u. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

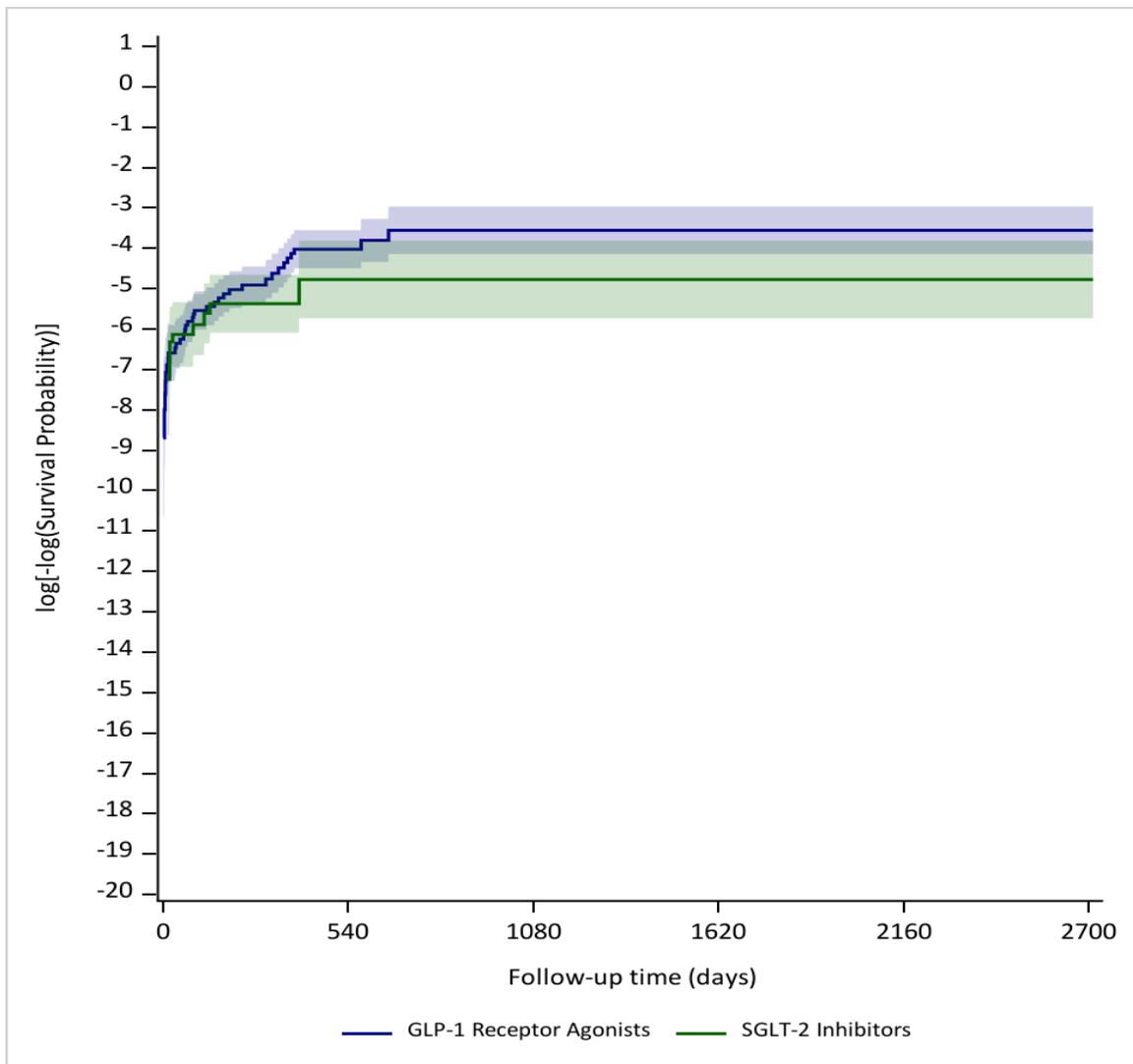


Figure 10v. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

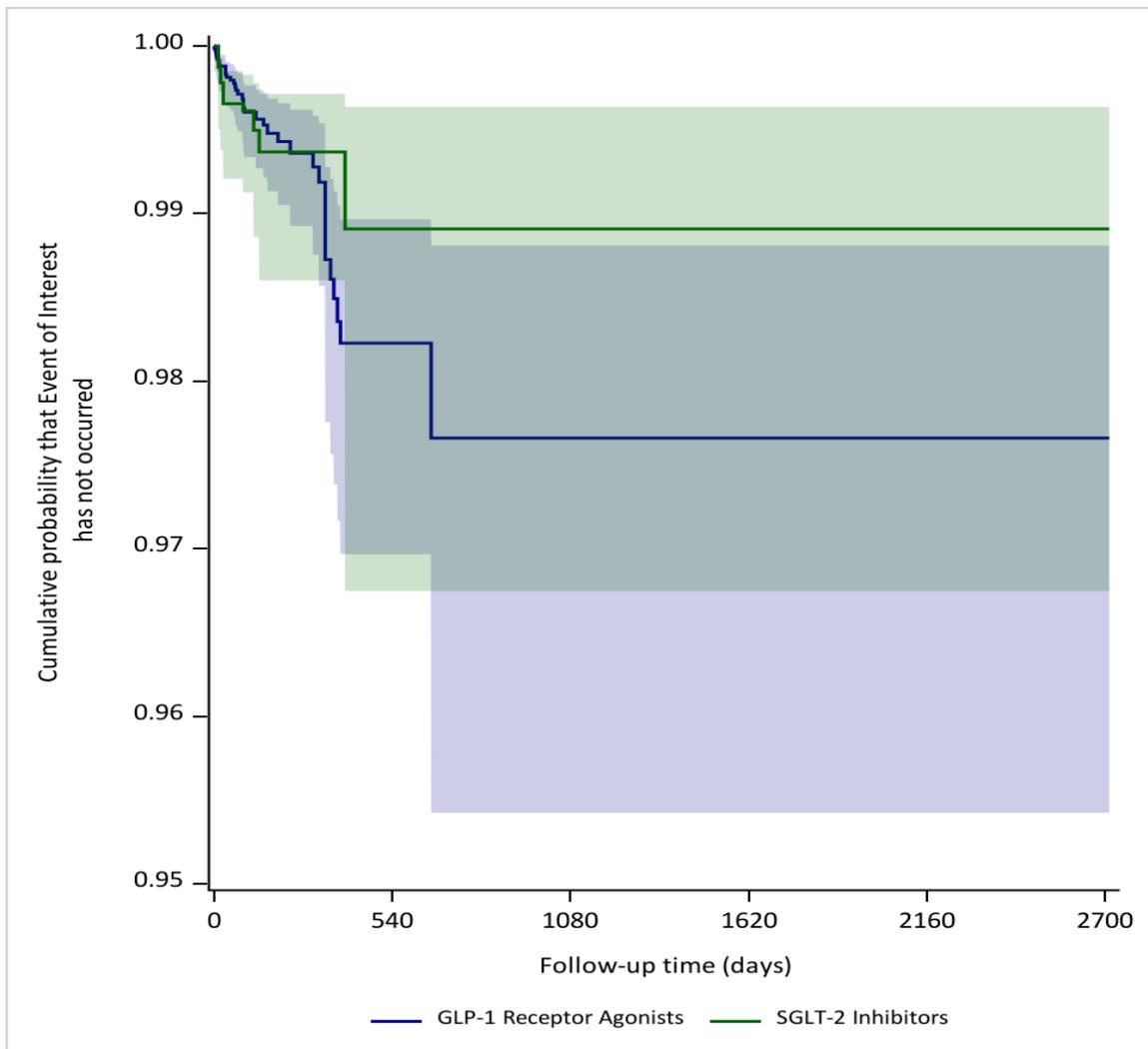


Figure 10w. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

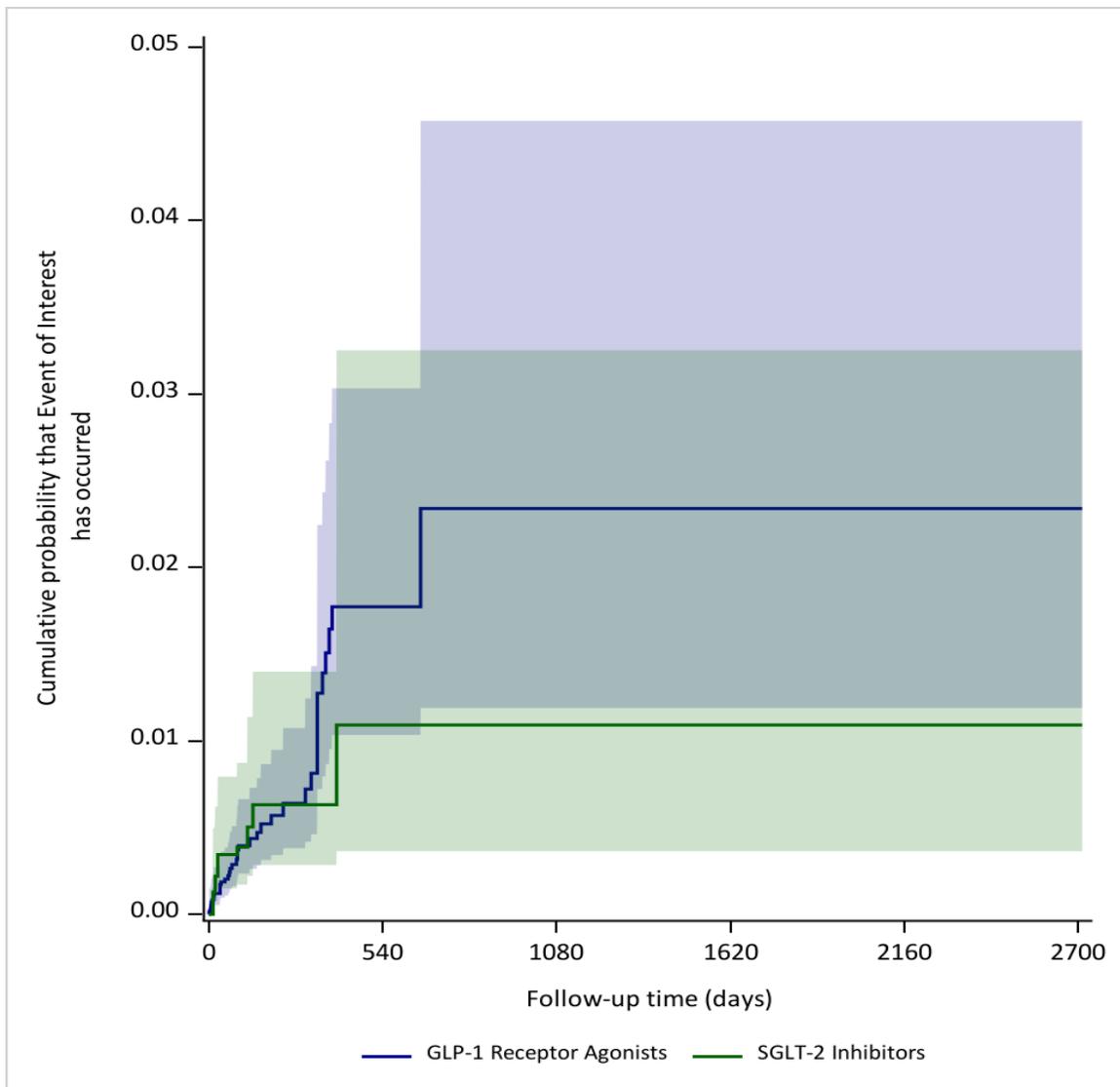


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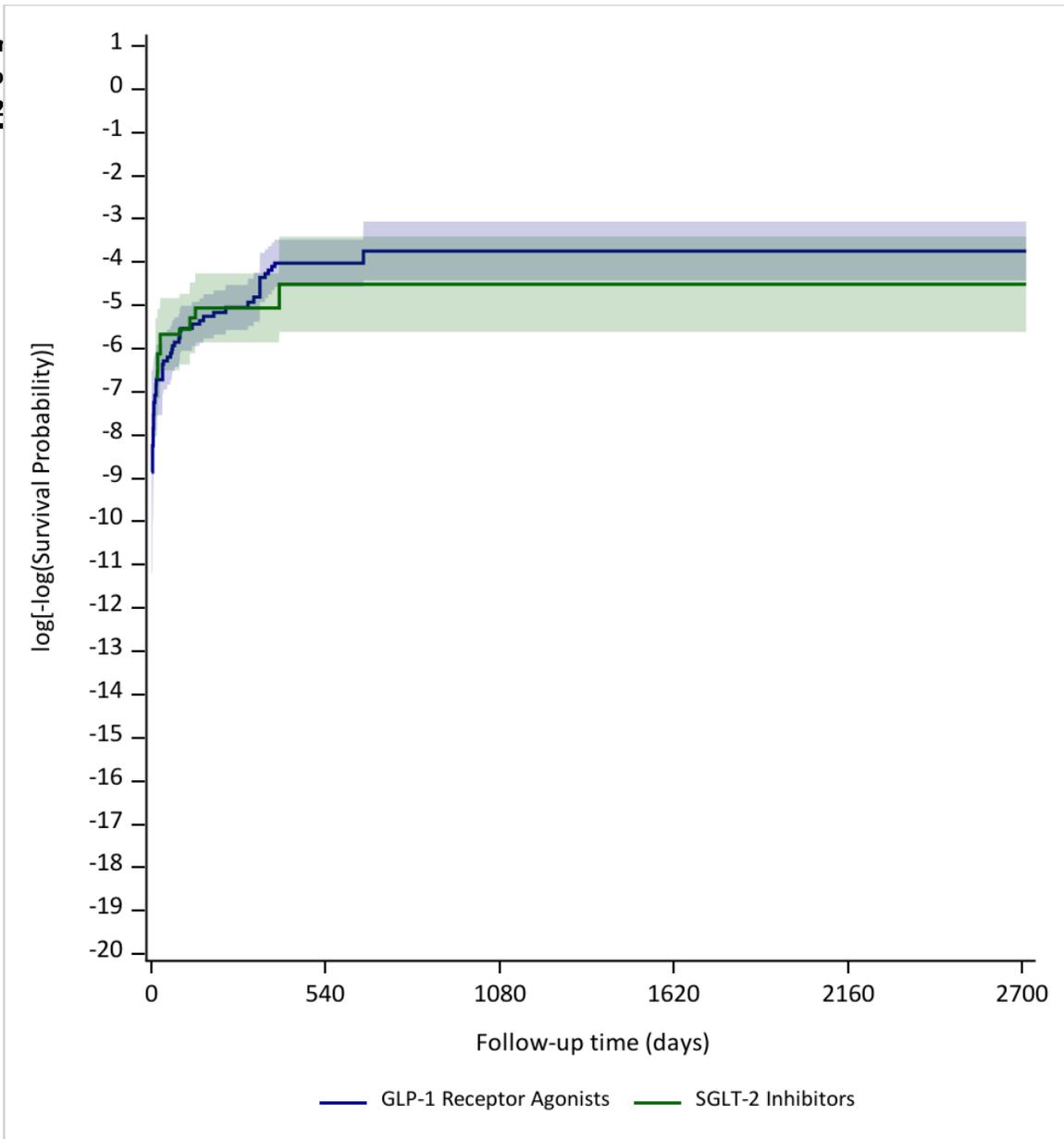


Figure 10y. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

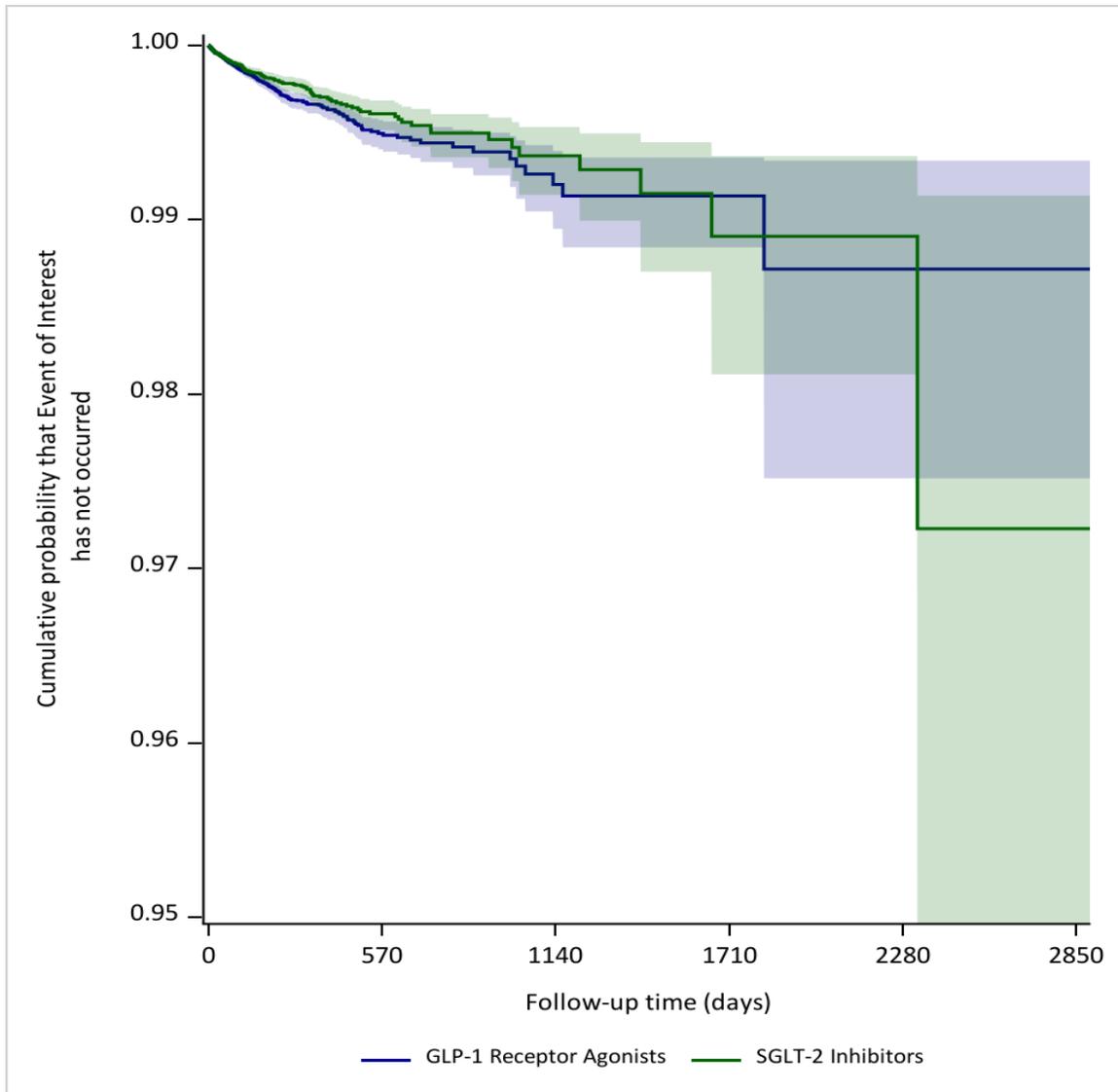


Figure 10z. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

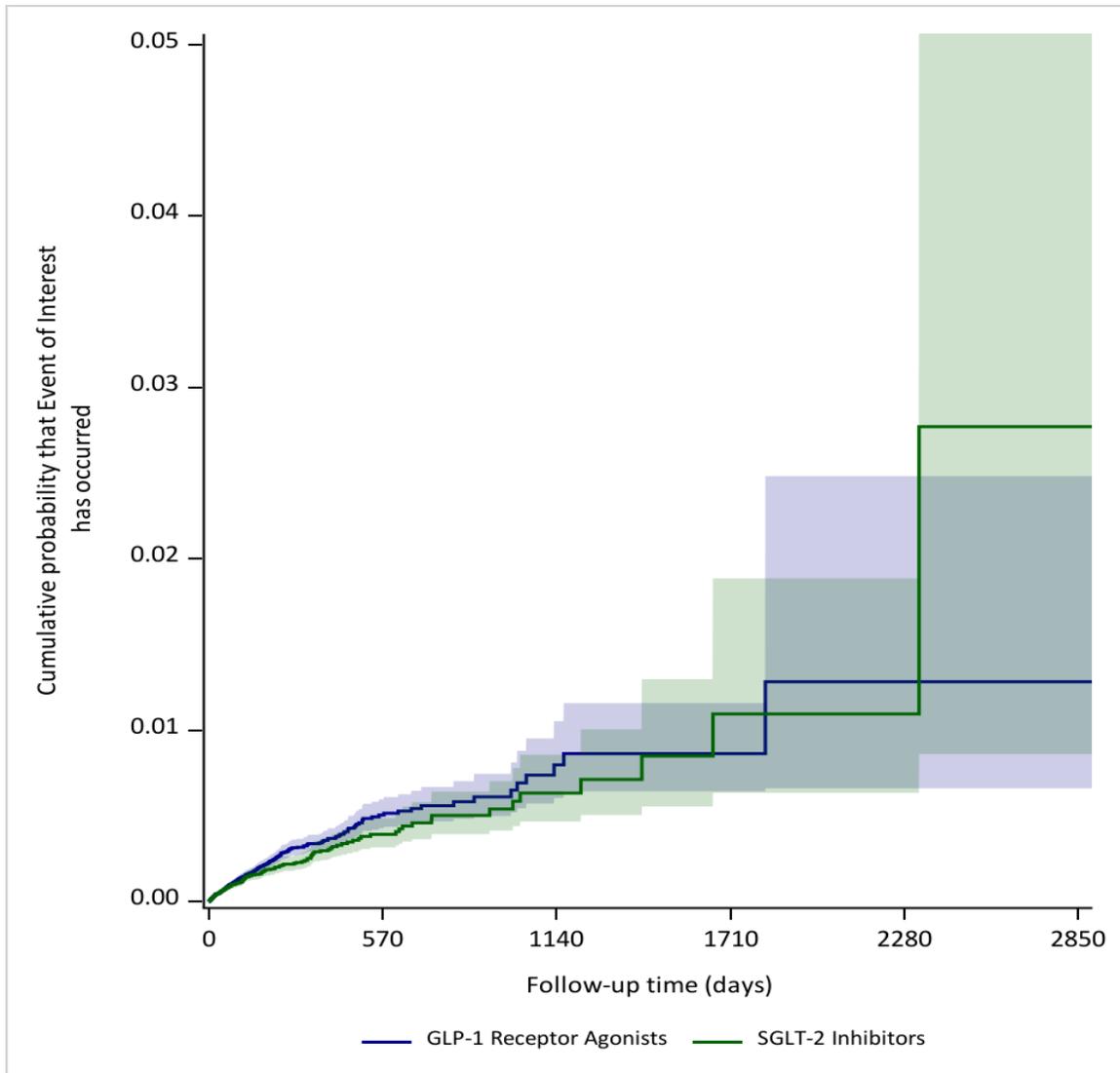


Figure 10aa. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

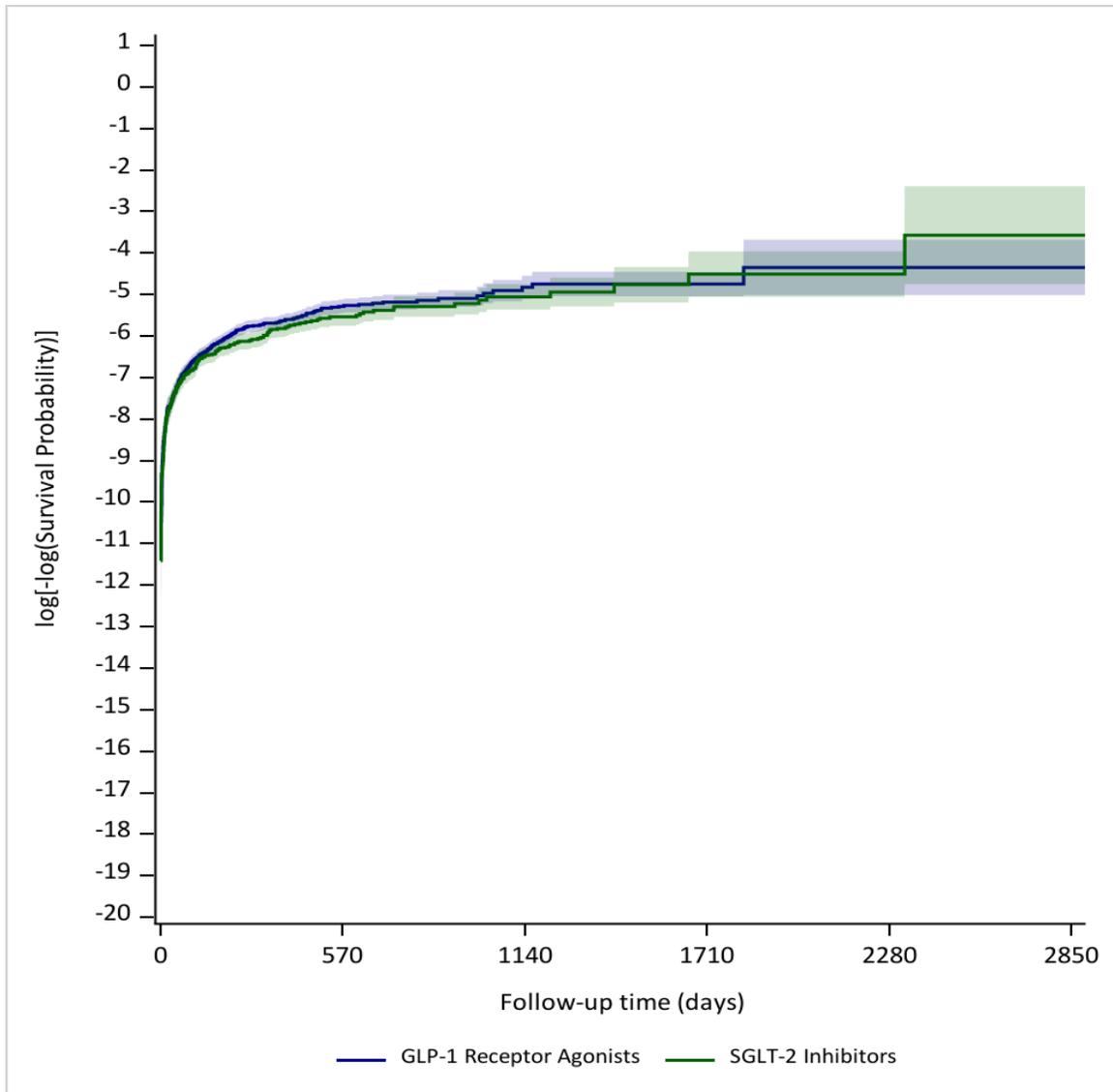


Figure 10ab. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

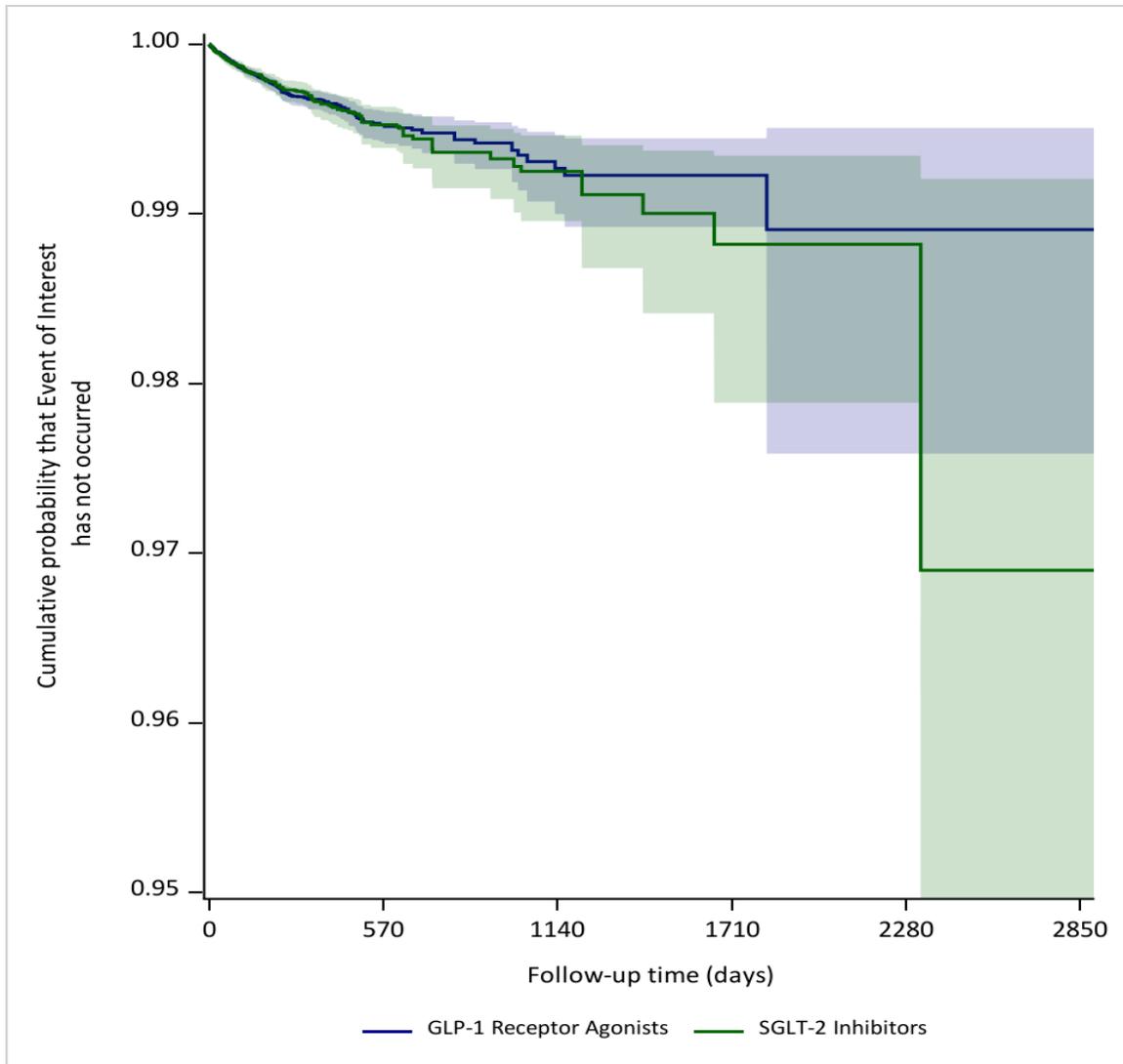


Figure 10ac. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

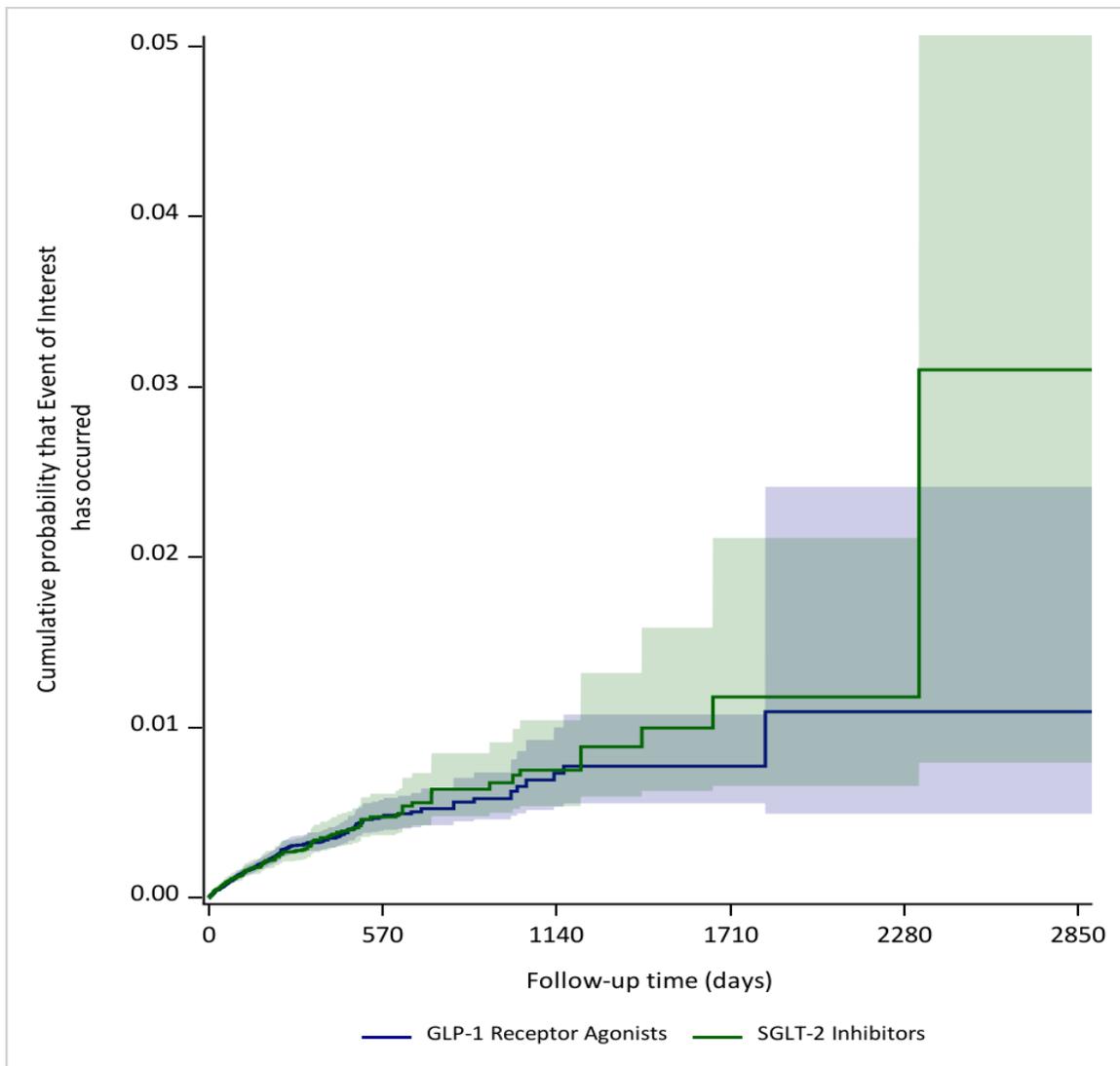


Figure 10ad. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

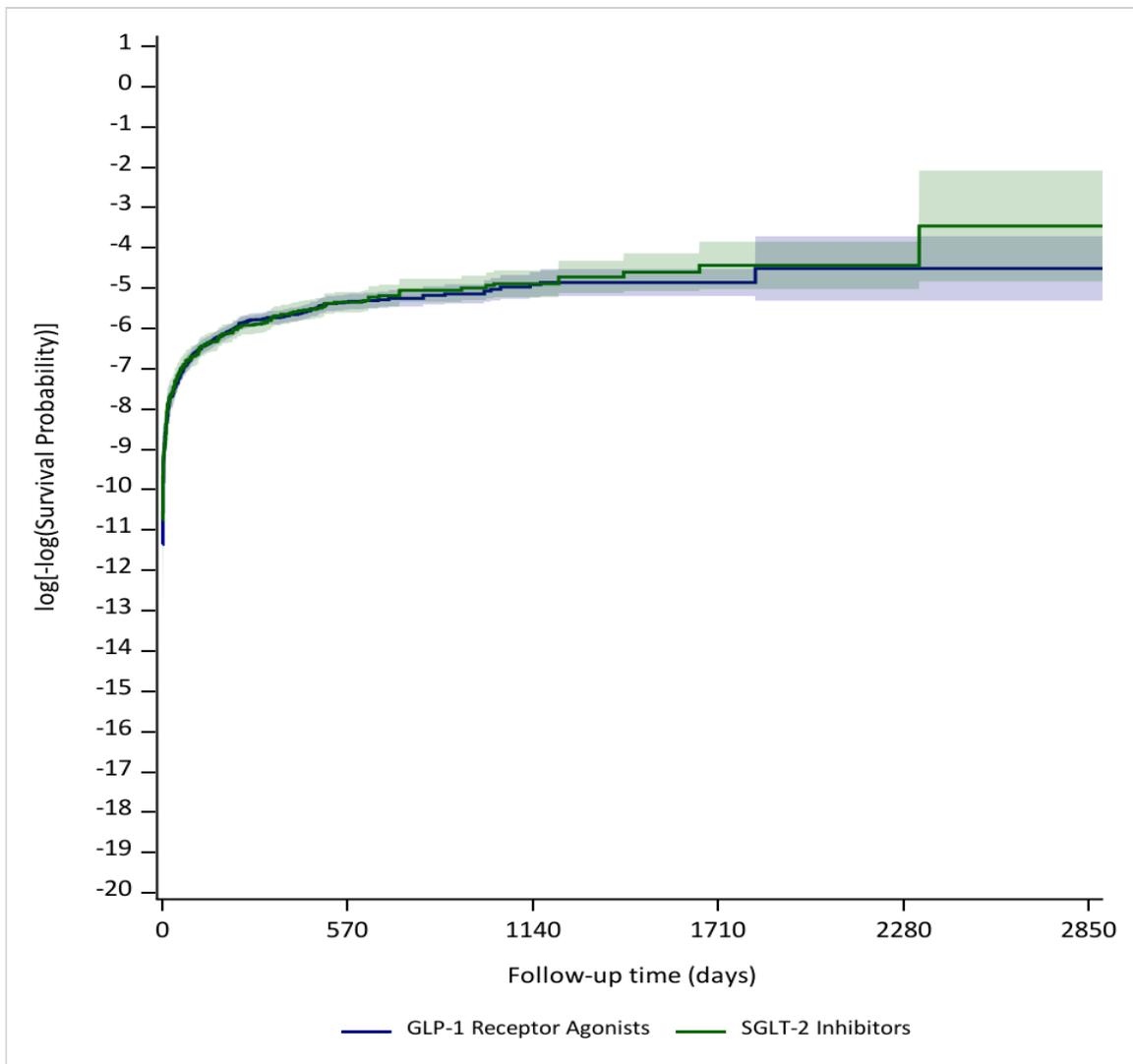


Figure 10ae. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

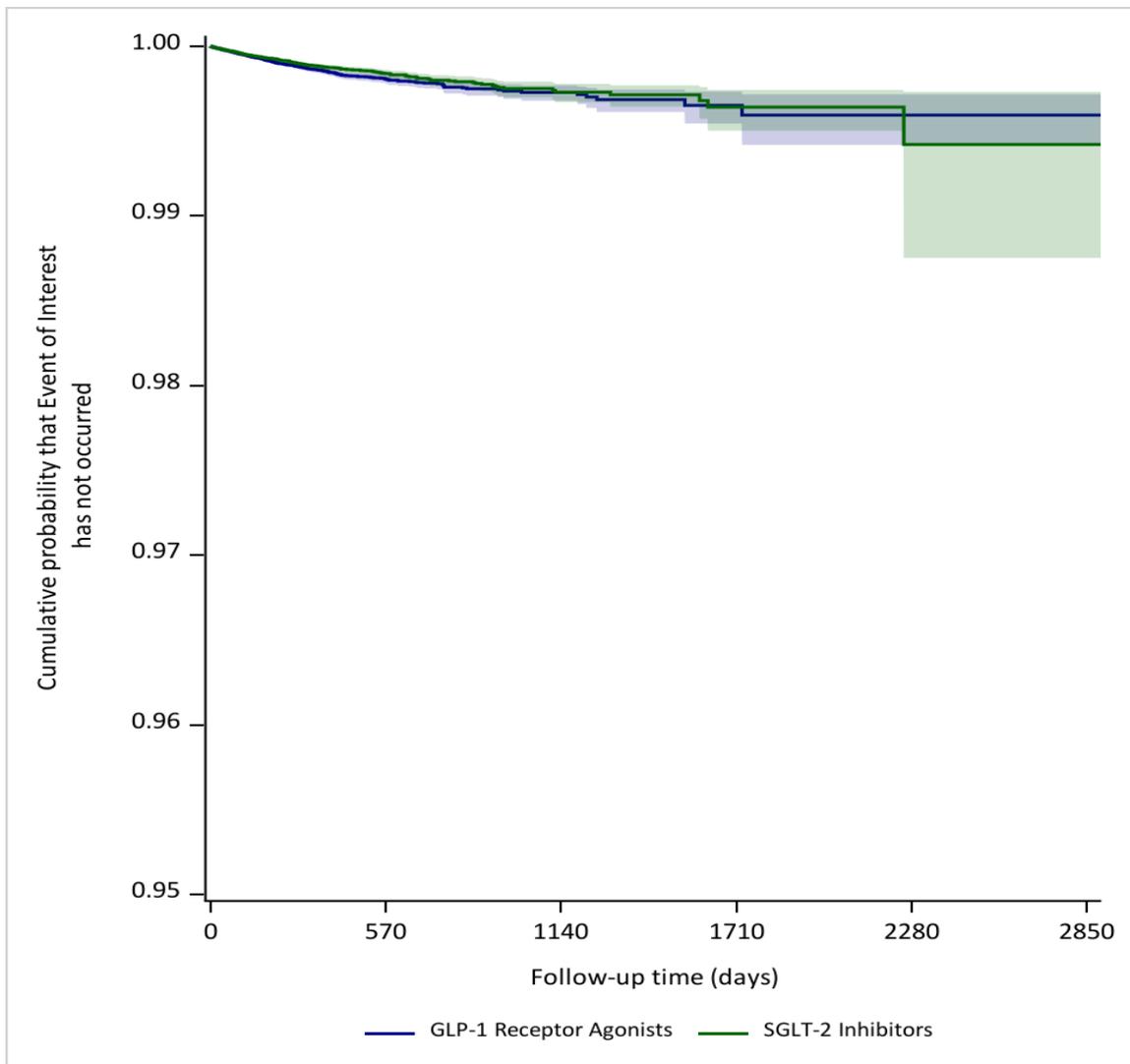


Figure 10af. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

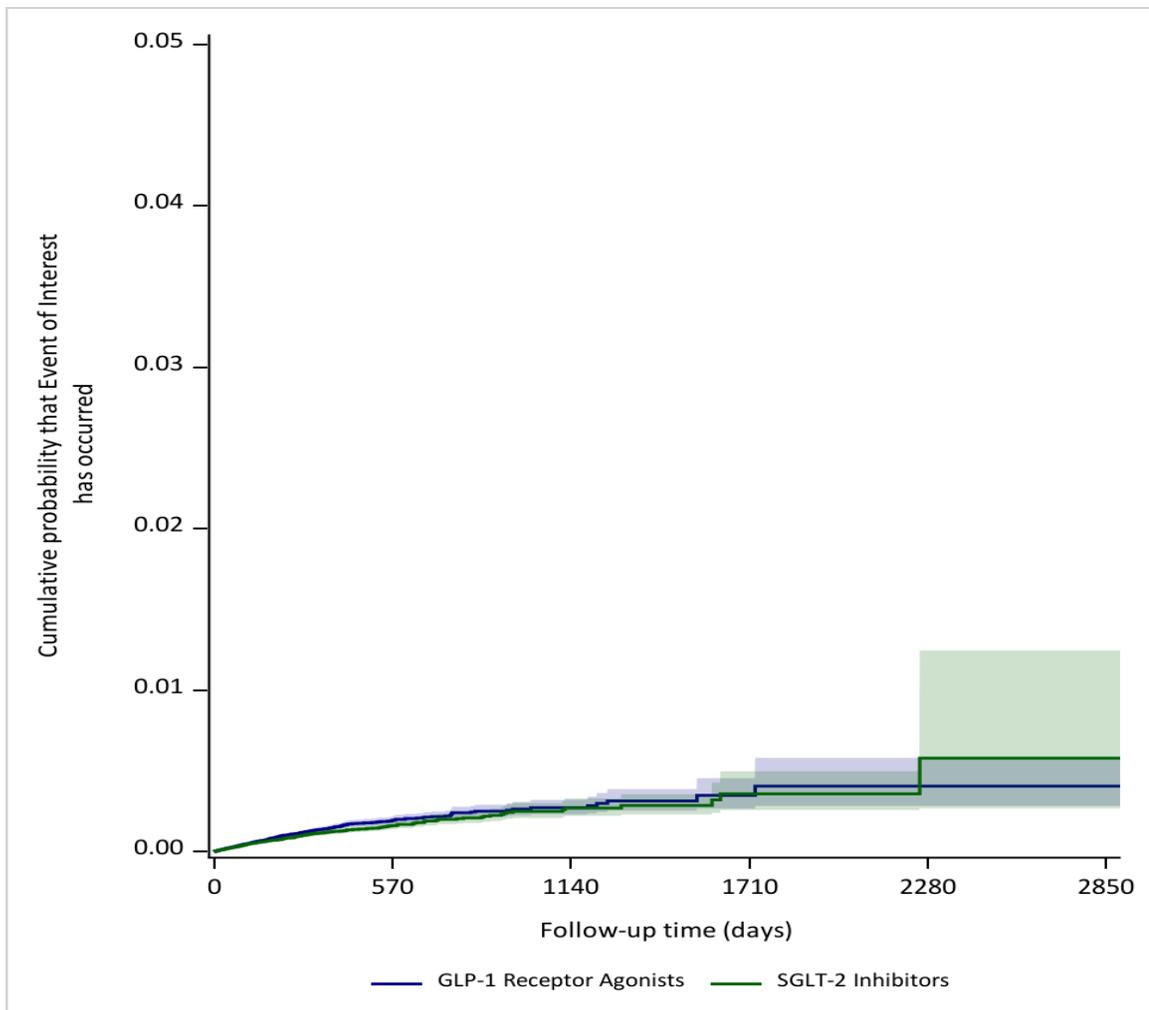


Figure 10ag. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

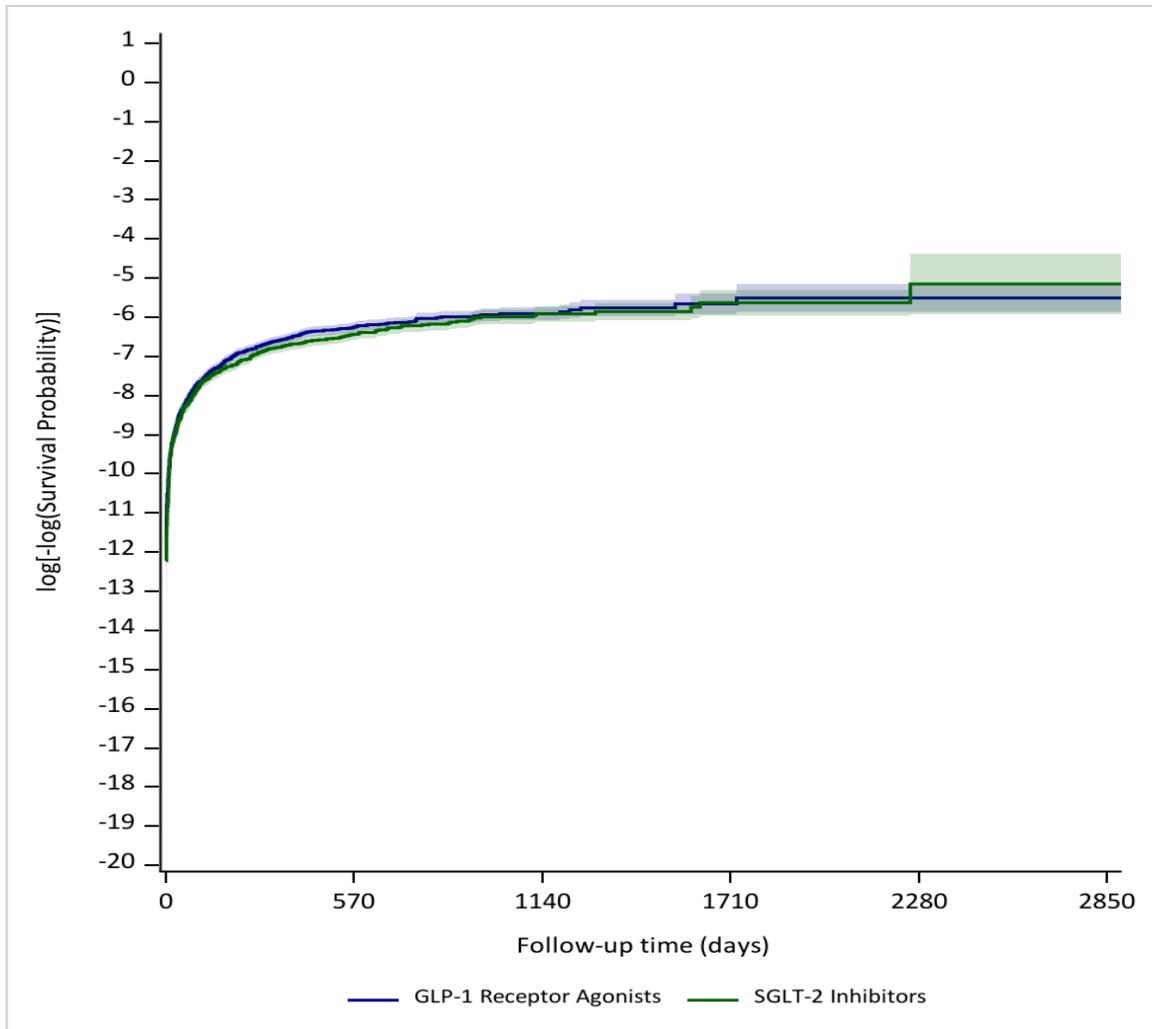


Figure 10ah. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

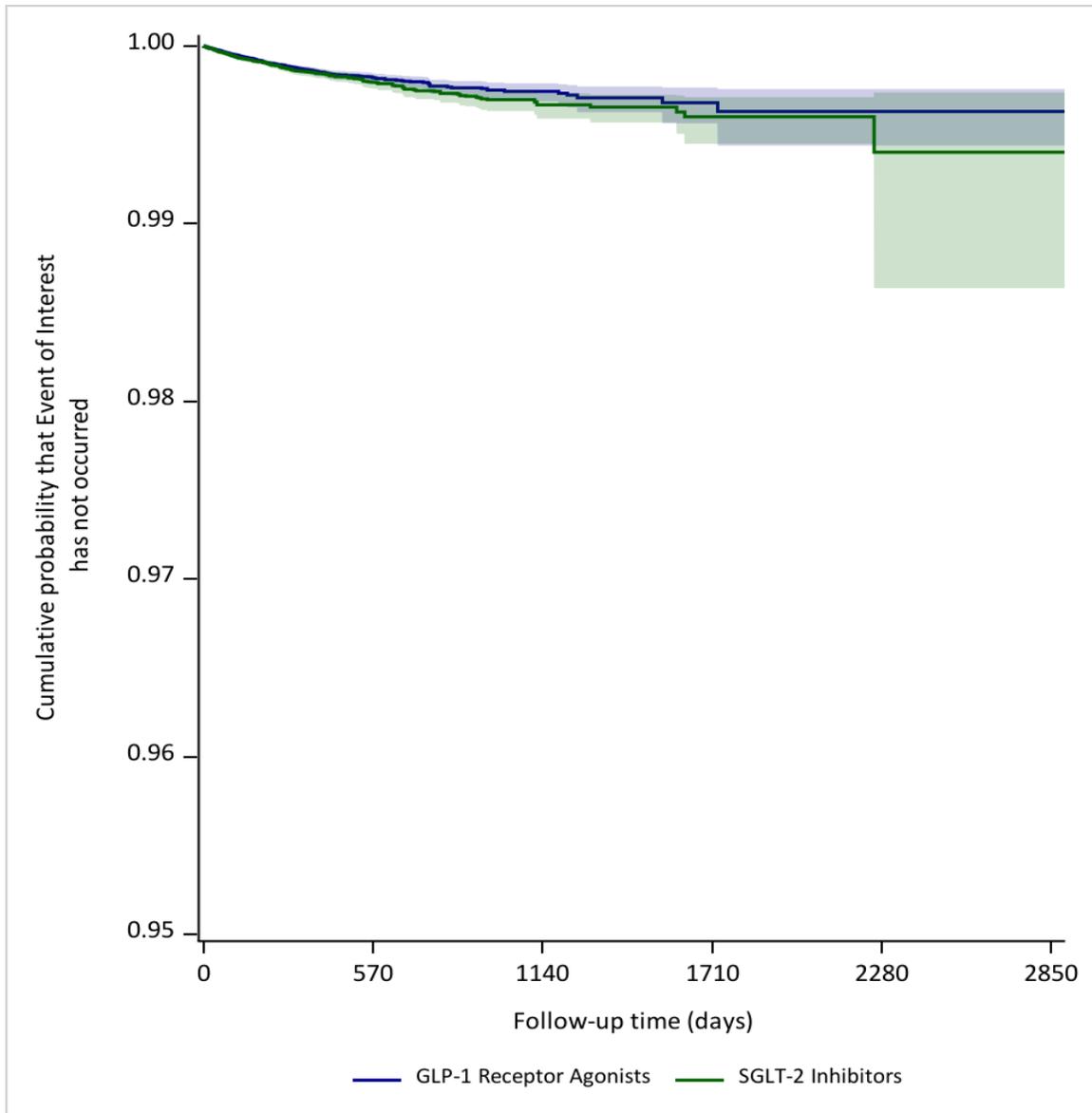


Figure 10ai. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

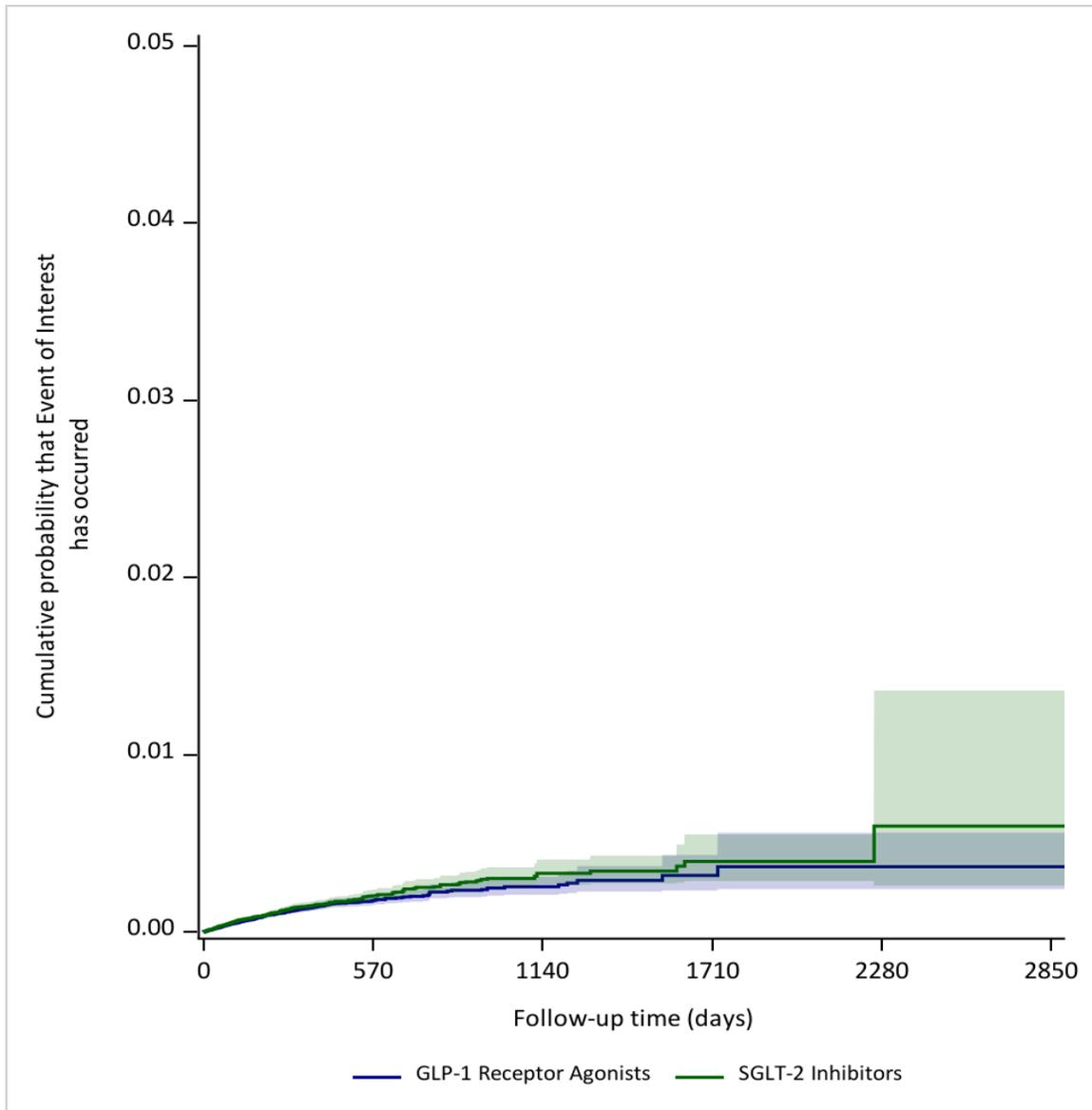


Figure 10aj. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

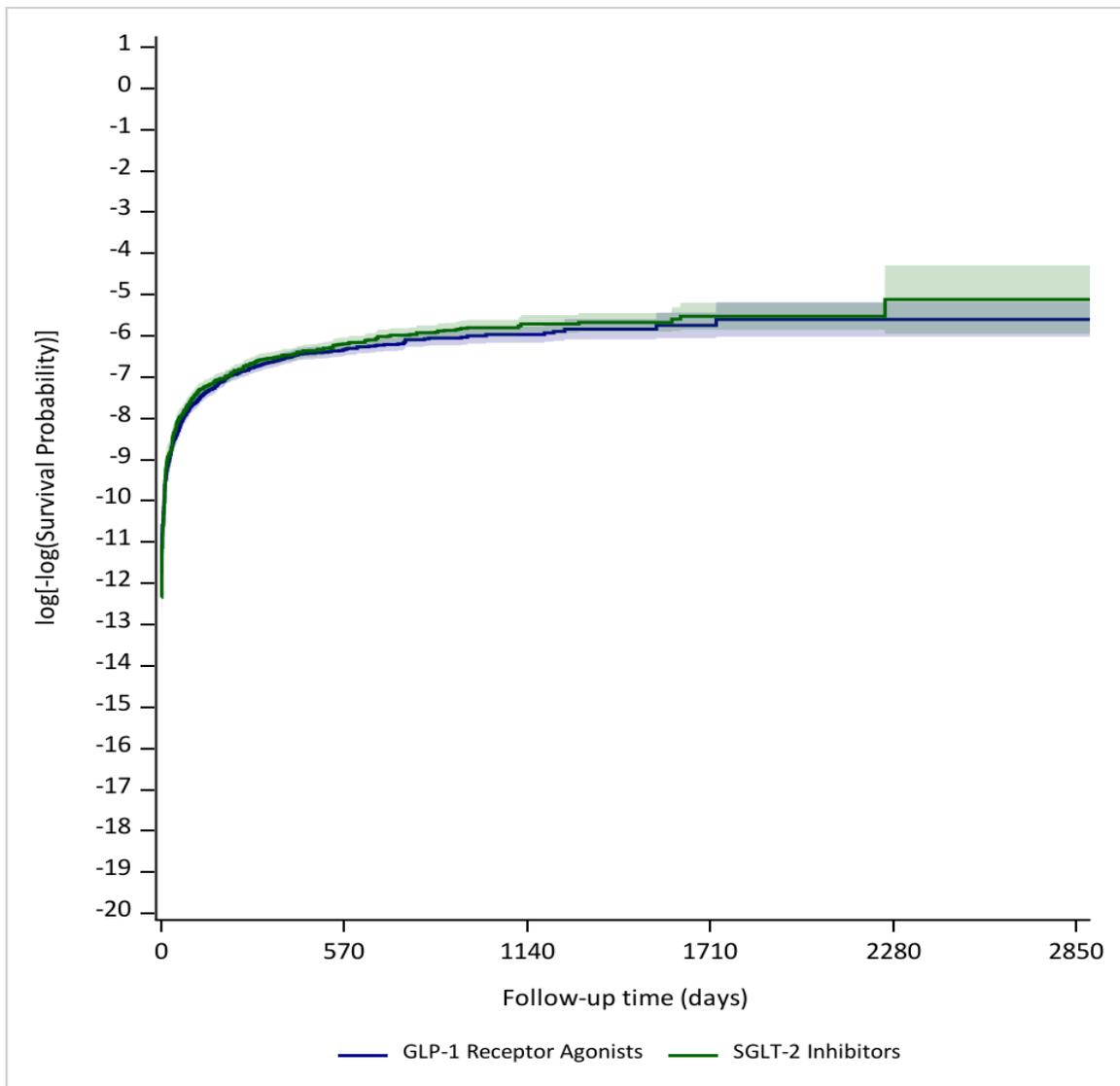


Figure 10ak. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

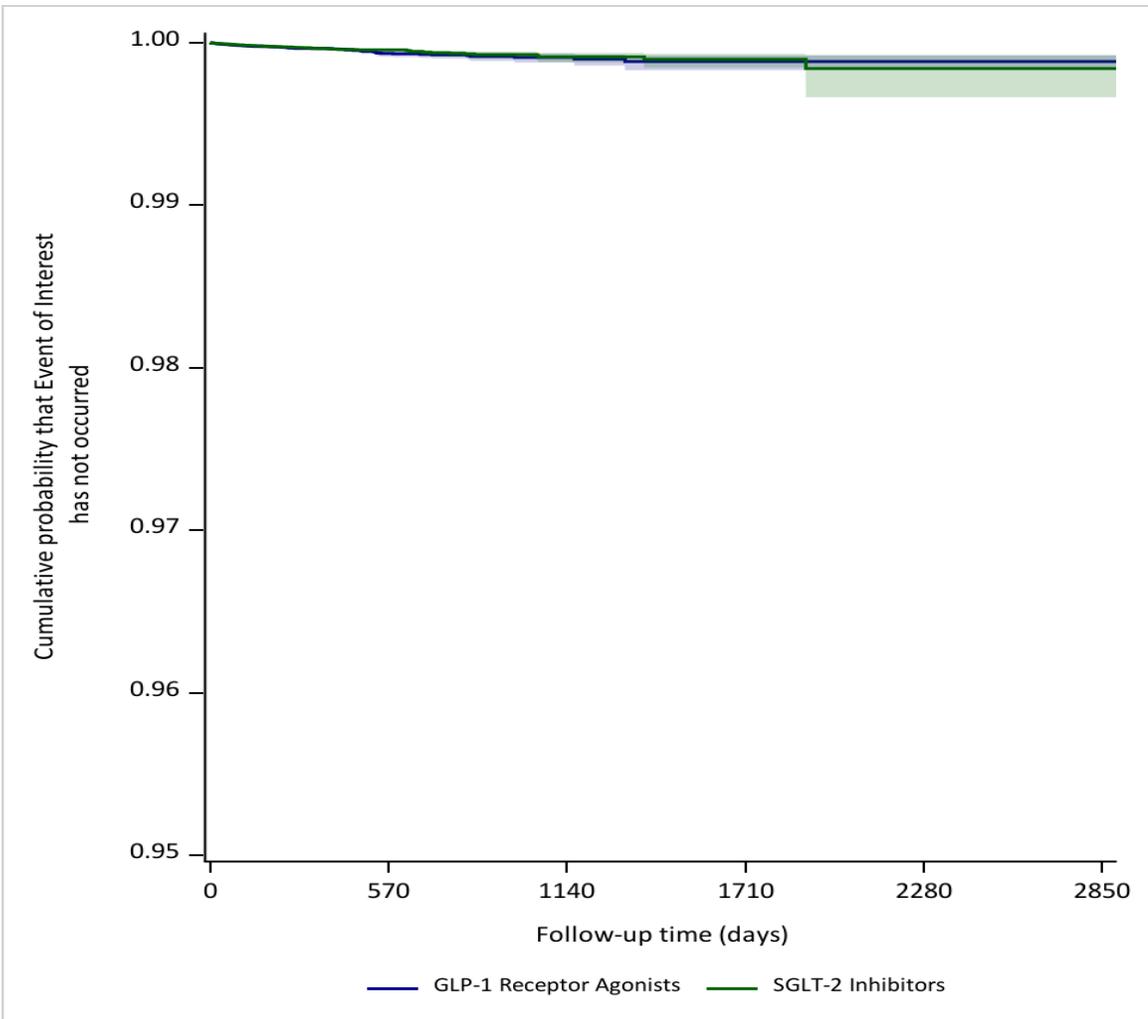


Figure 10a. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

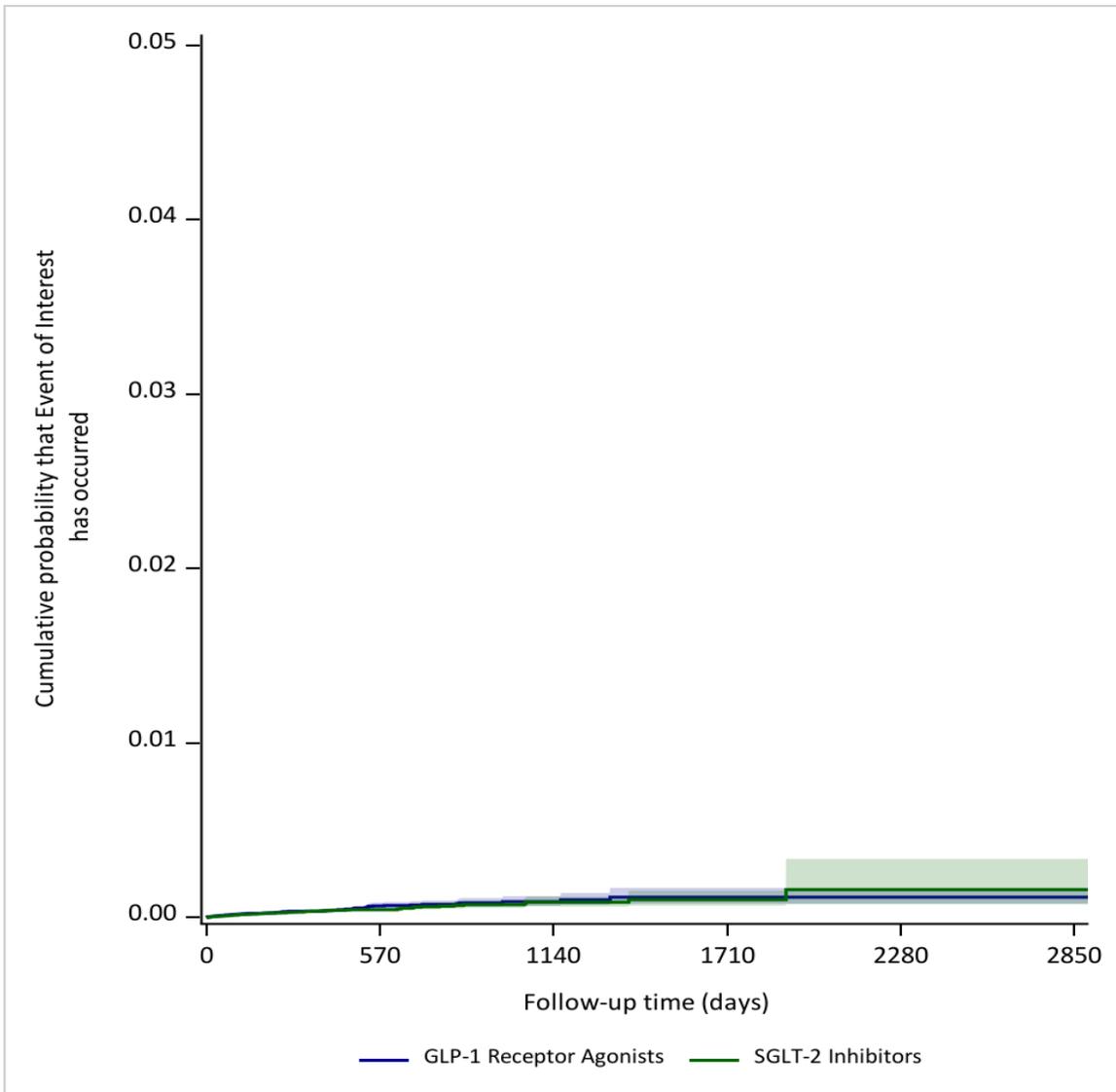


Figure 10am. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

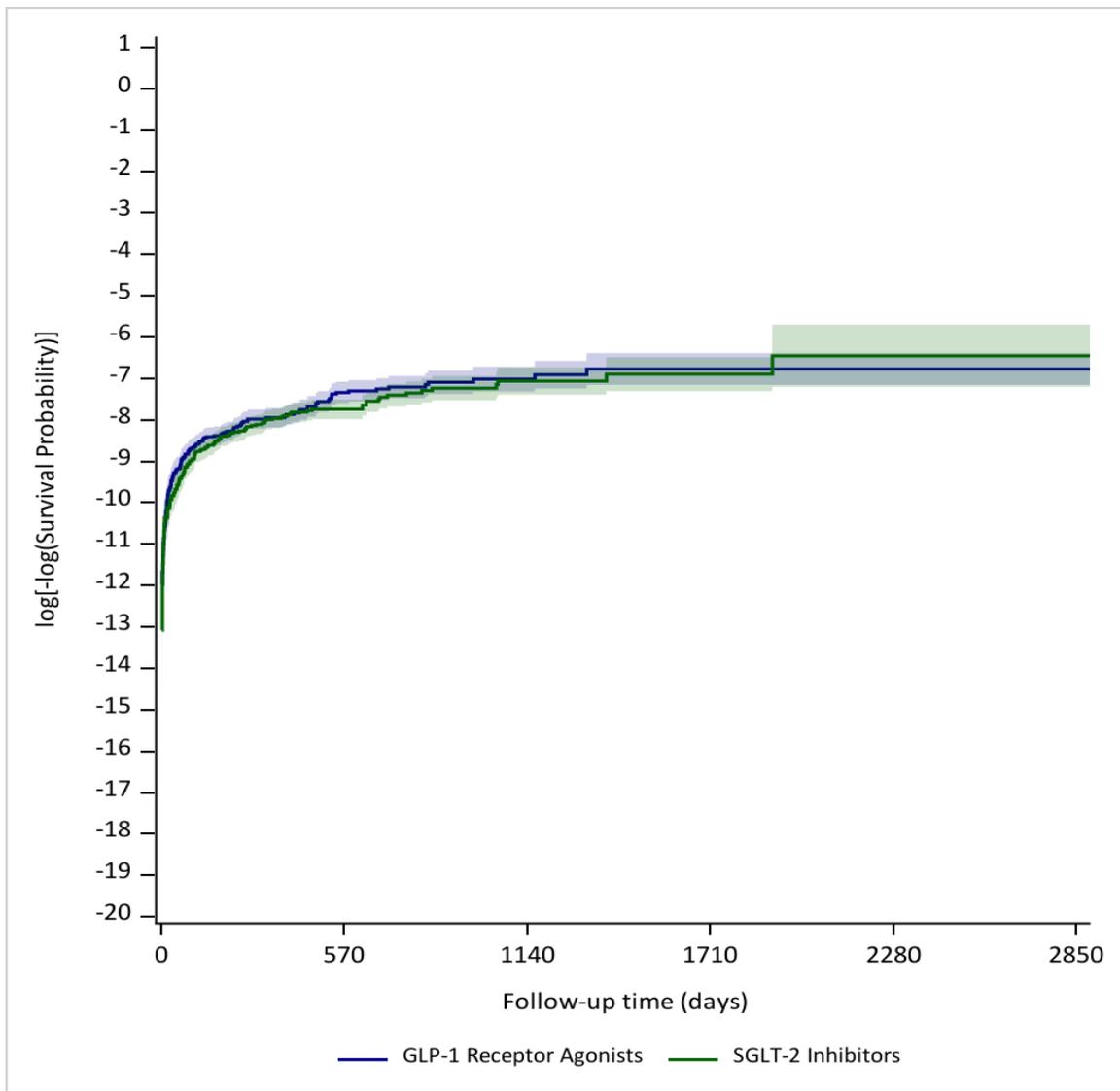


Figure 10an. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

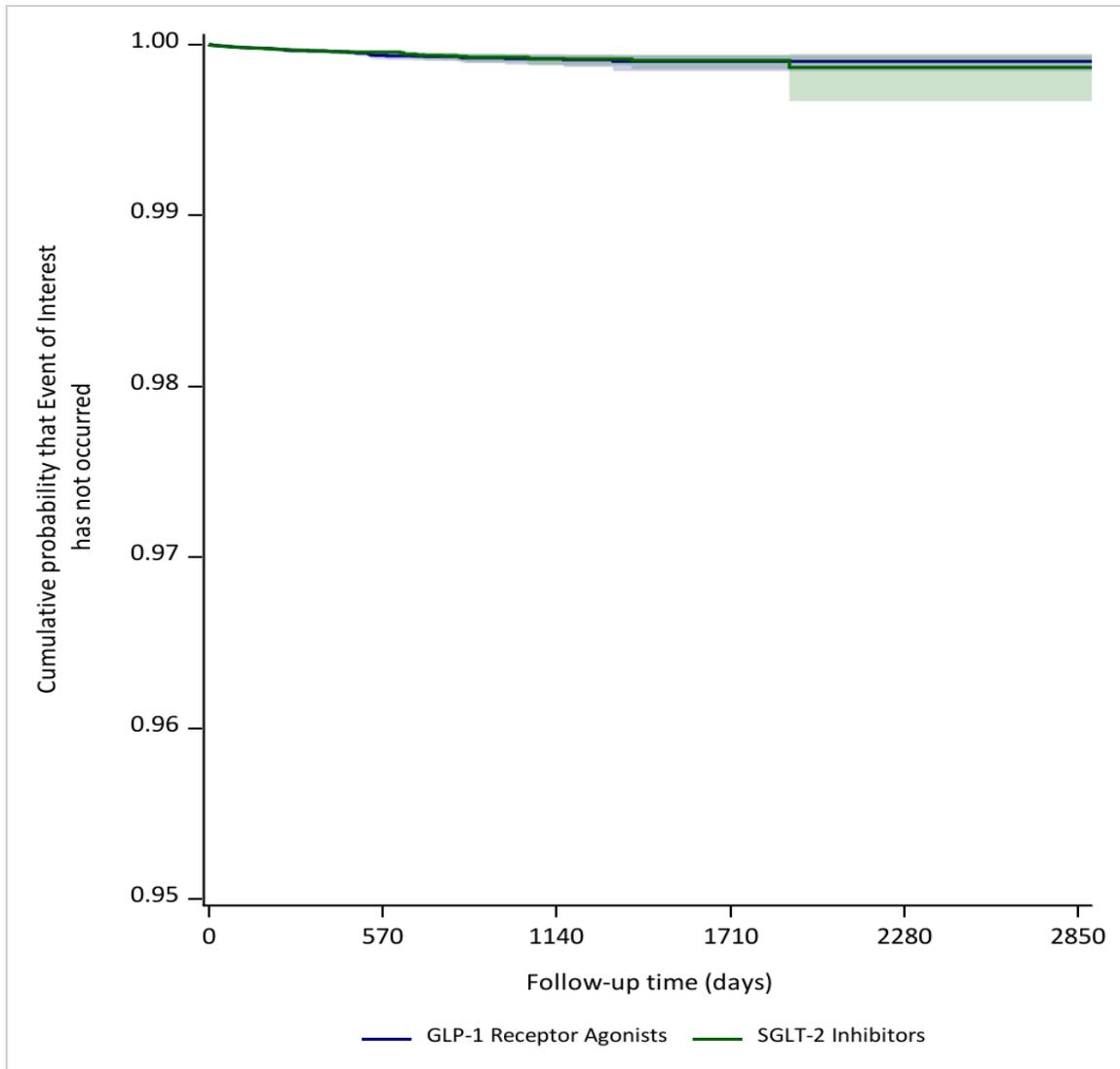


Figure 10ao. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

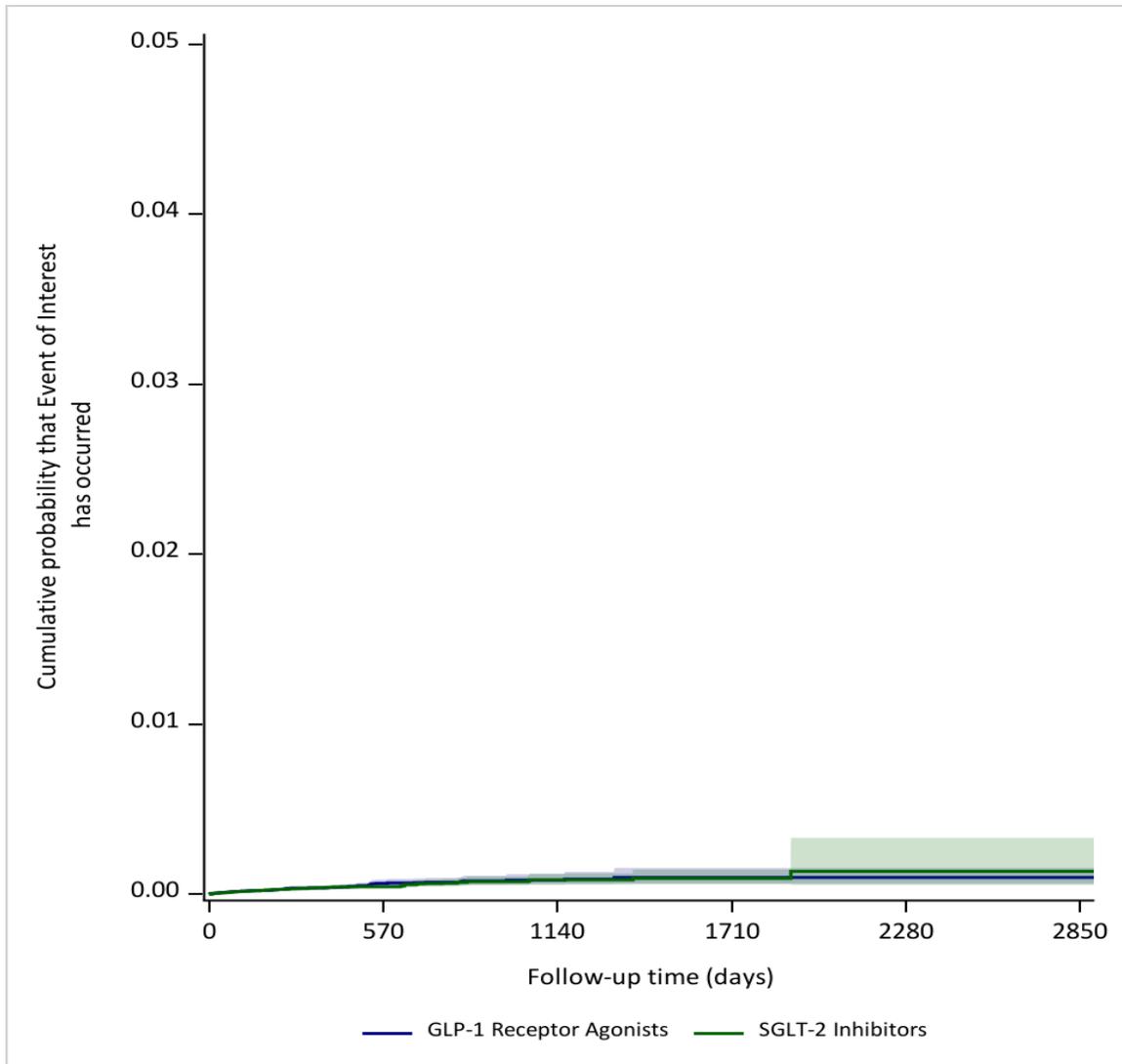


Figure 10ap. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

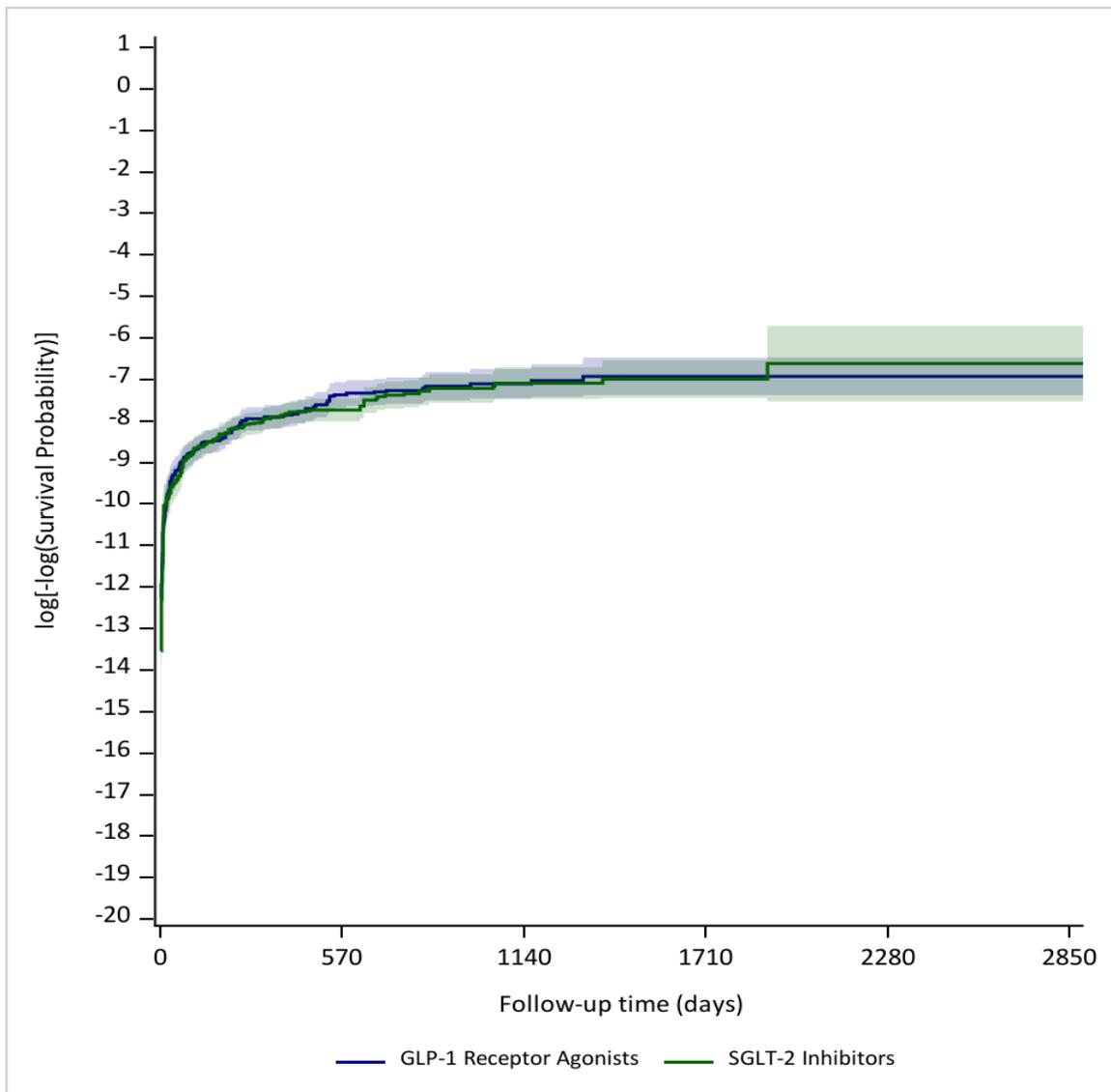


Figure 10aq. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

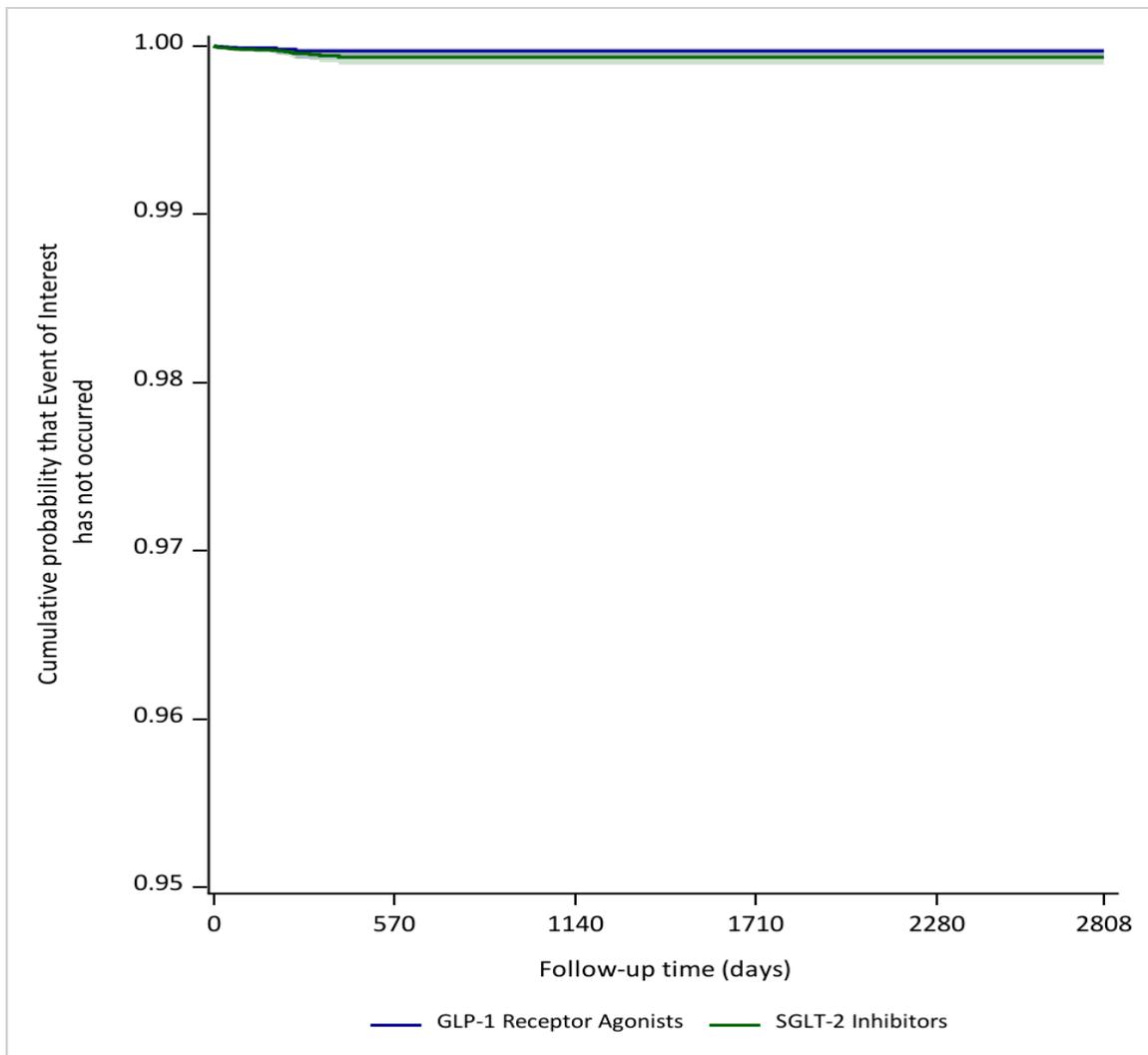


Figure 10ar. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

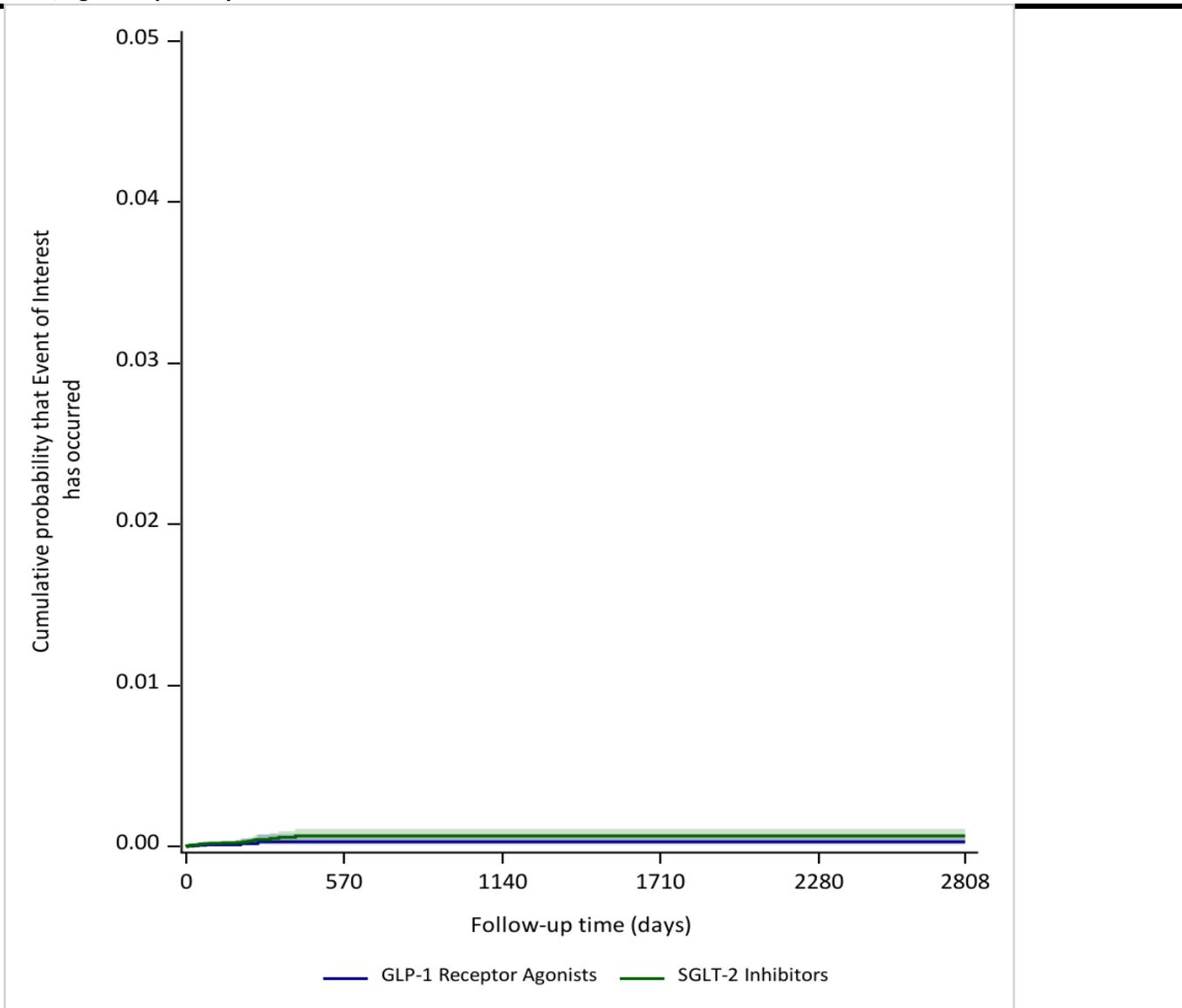


Figure 10as. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

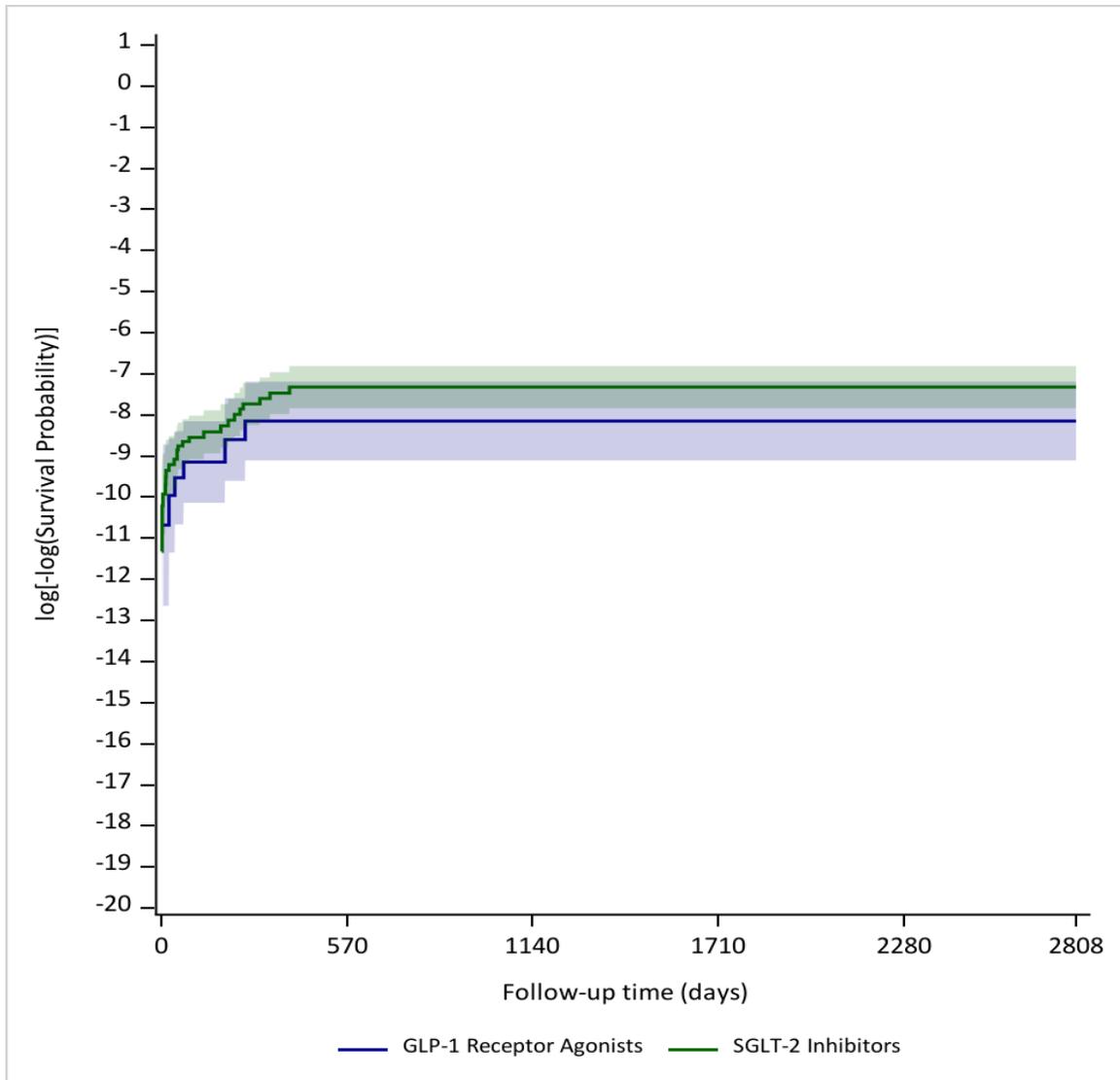


Figure 10at. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

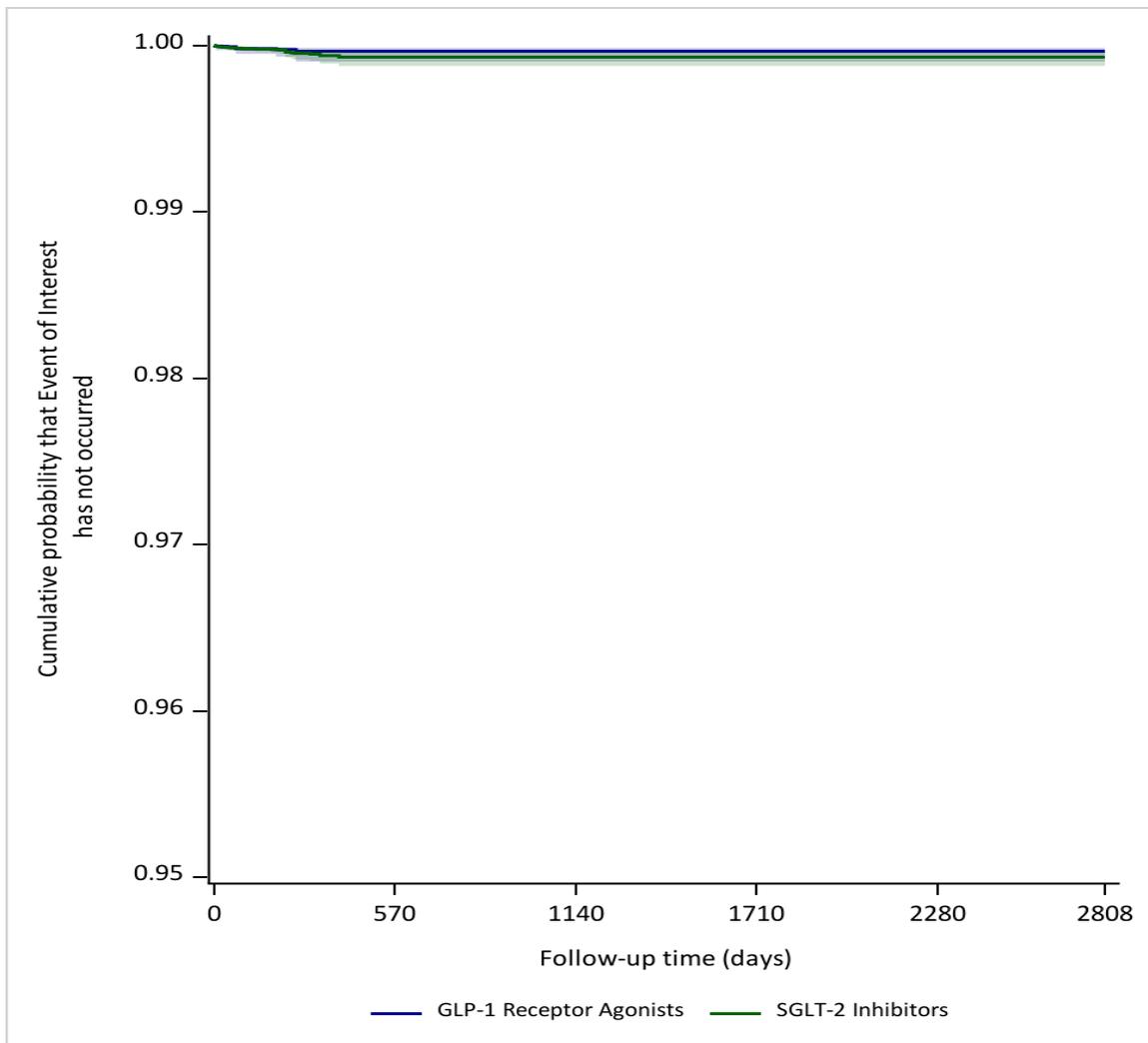


Figure 10au. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

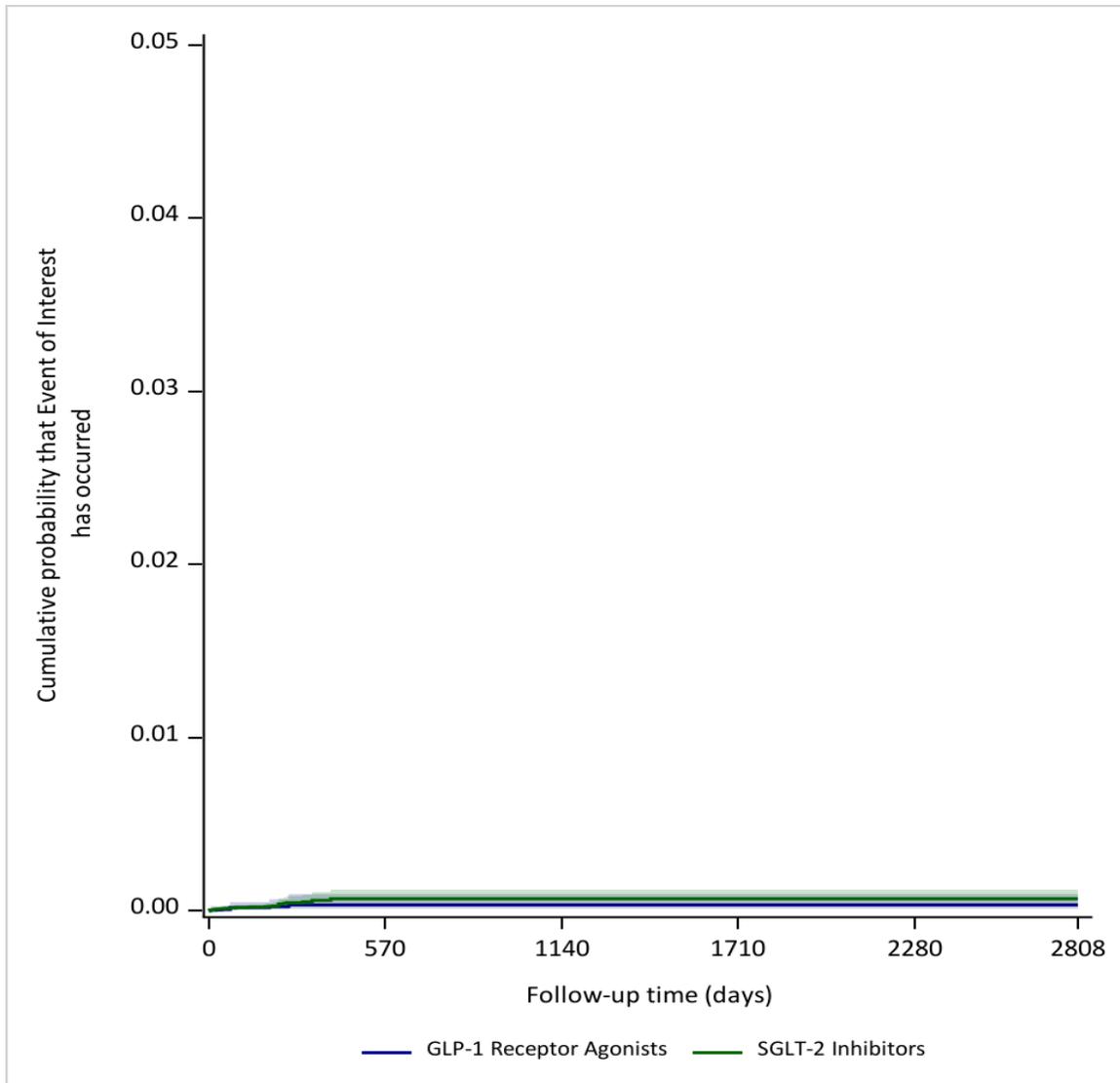


Figure 10av. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

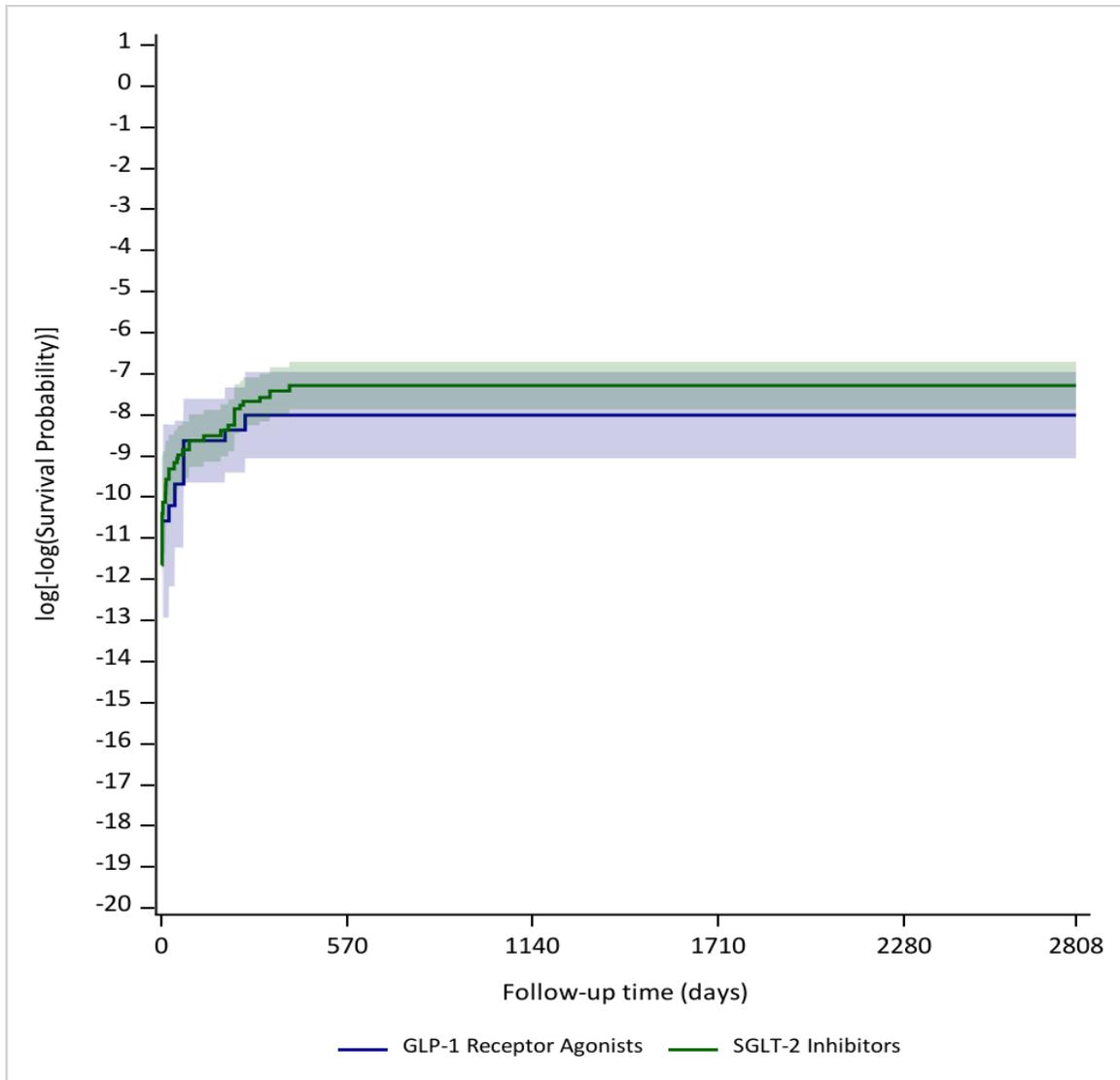


Figure 11a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

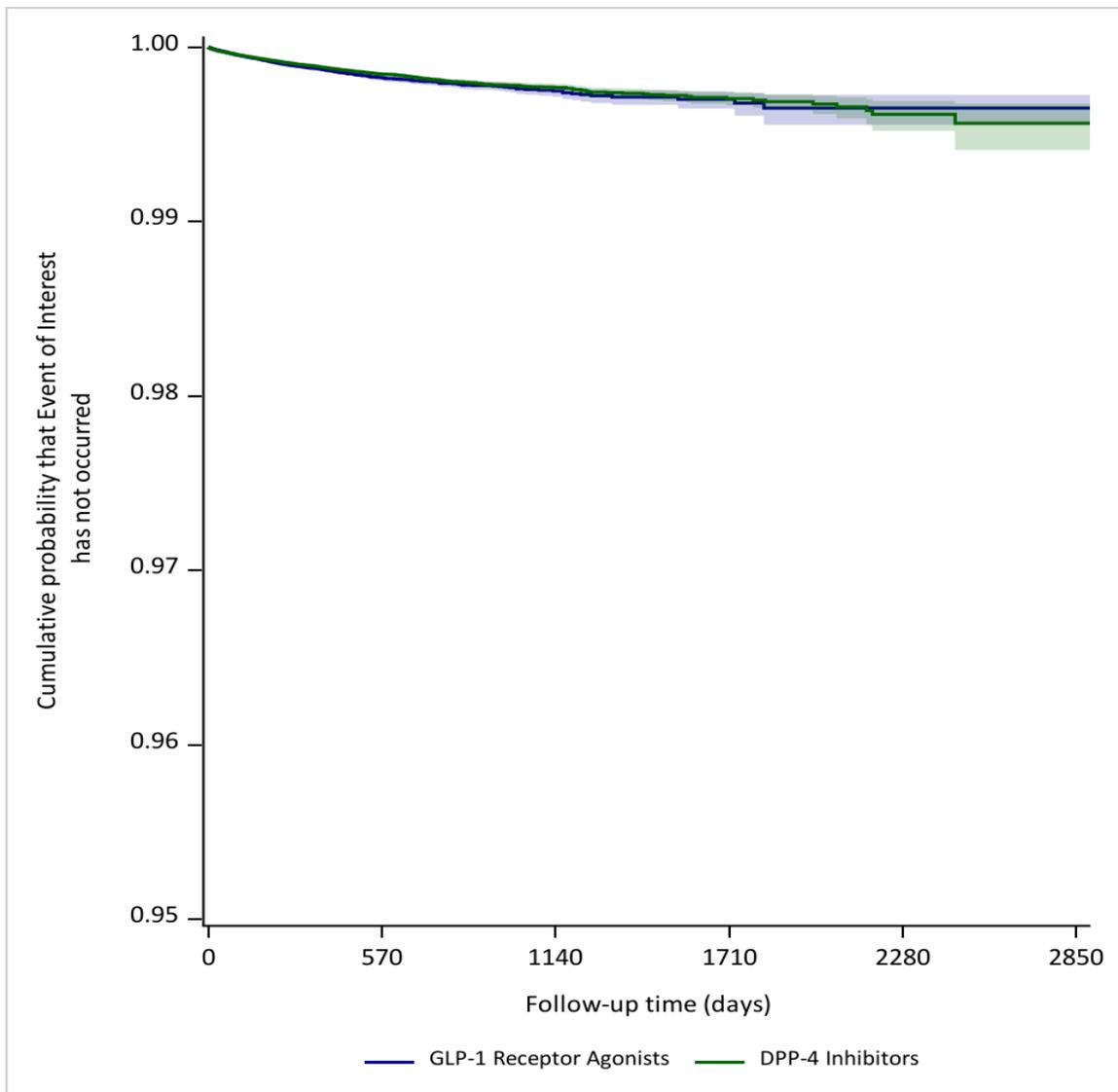


Figure 11b. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

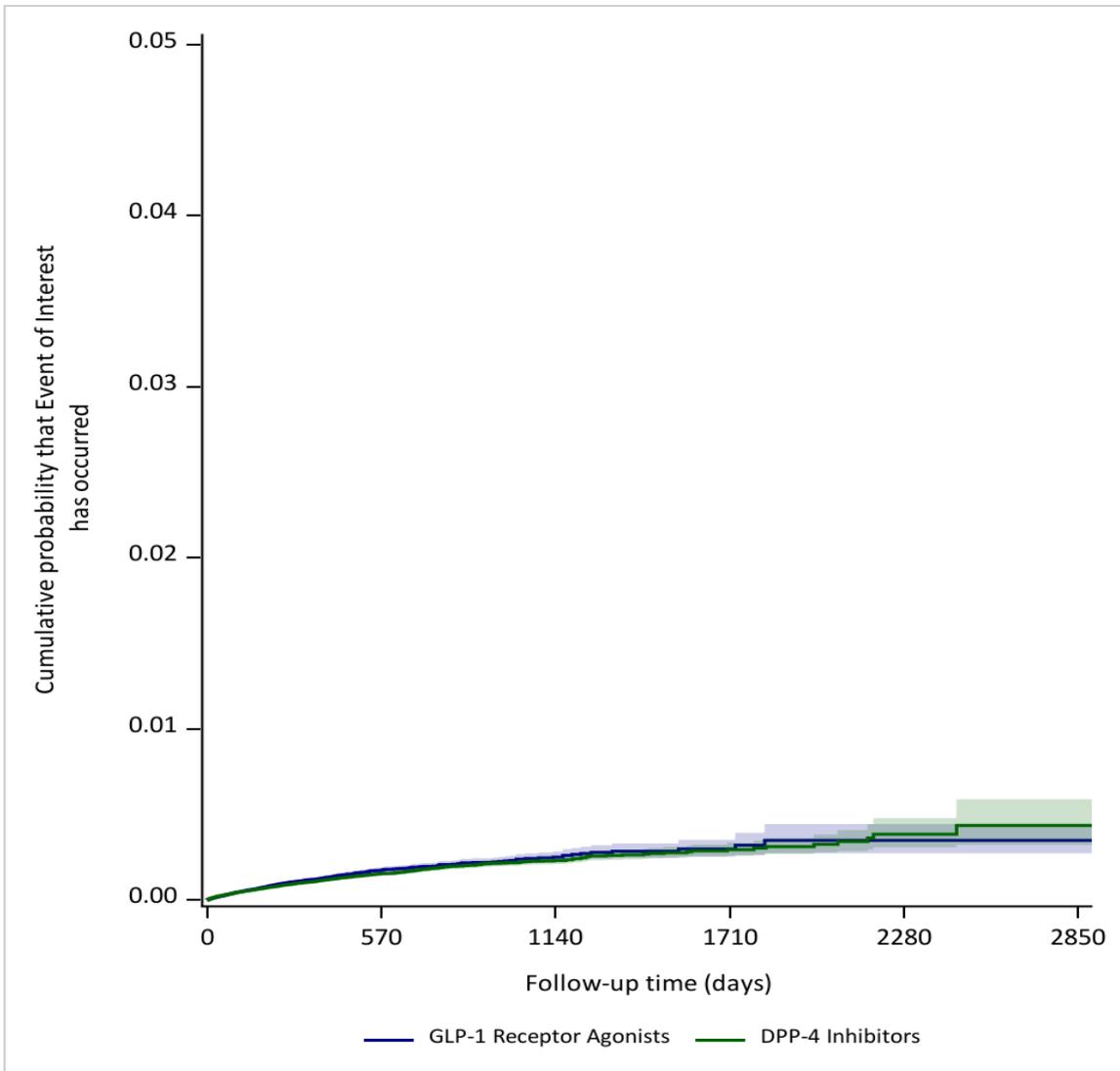


Figure 11c. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

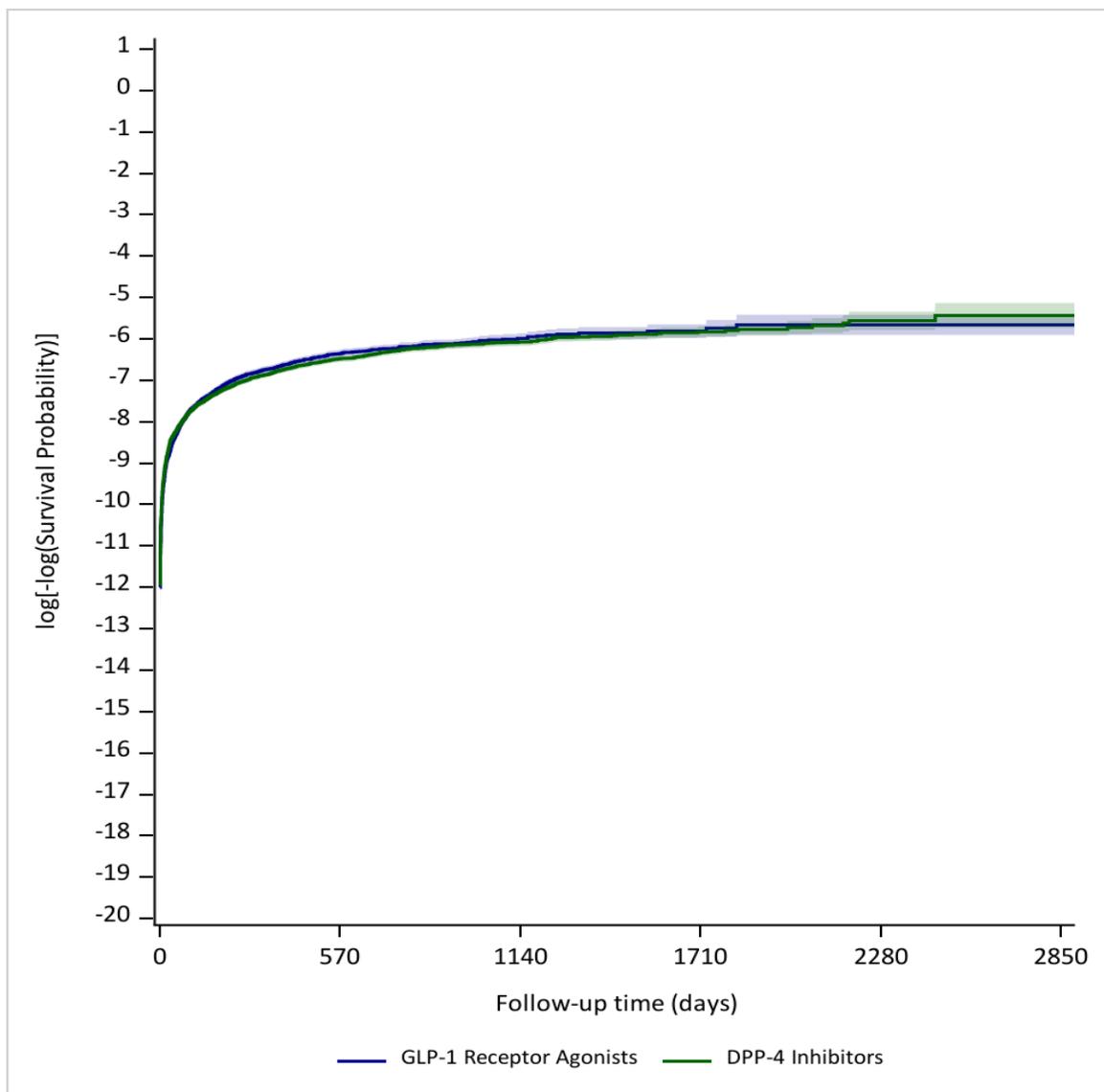


Figure 11d. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

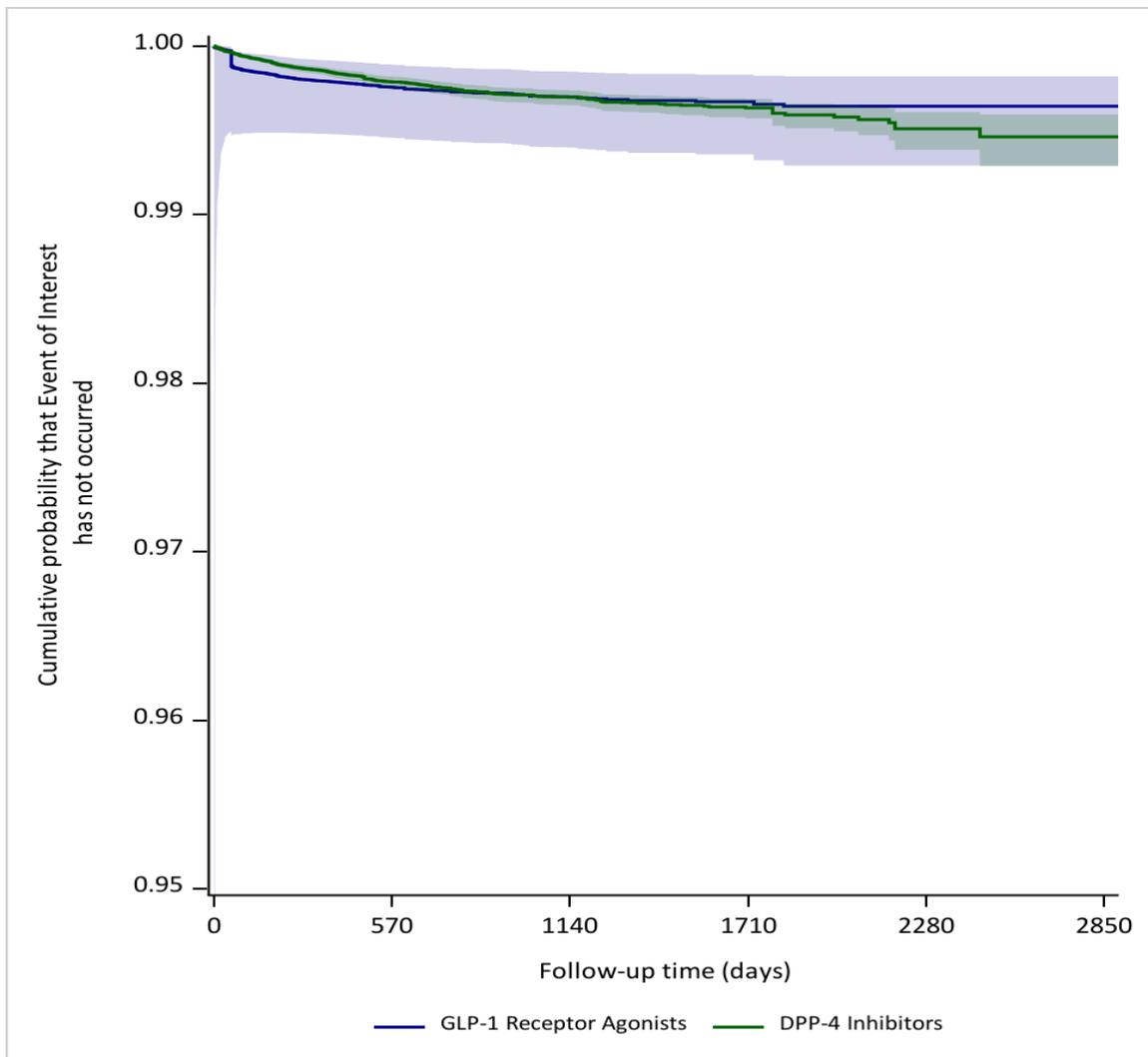


Figure 11e. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

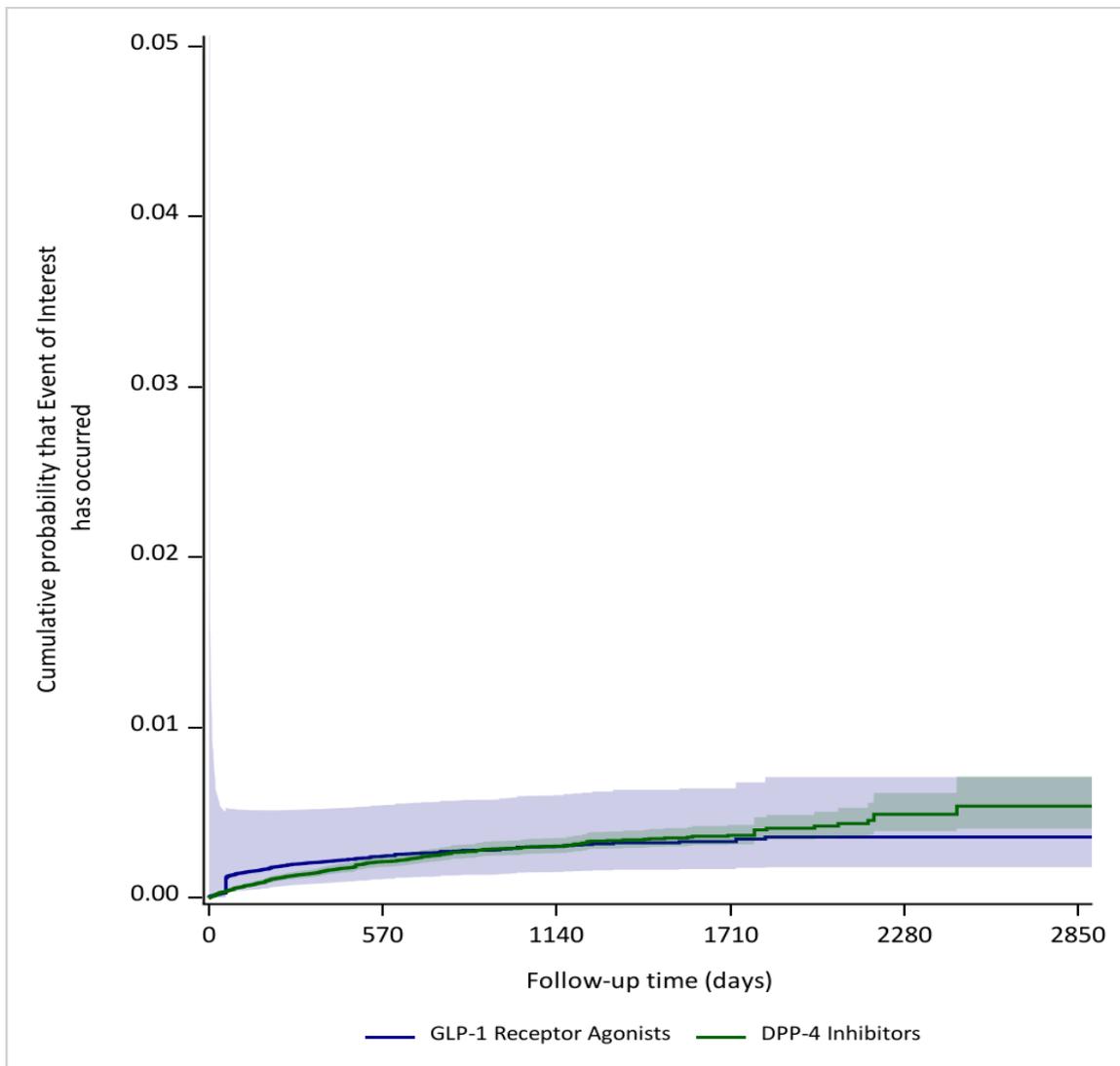


Figure 11f. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

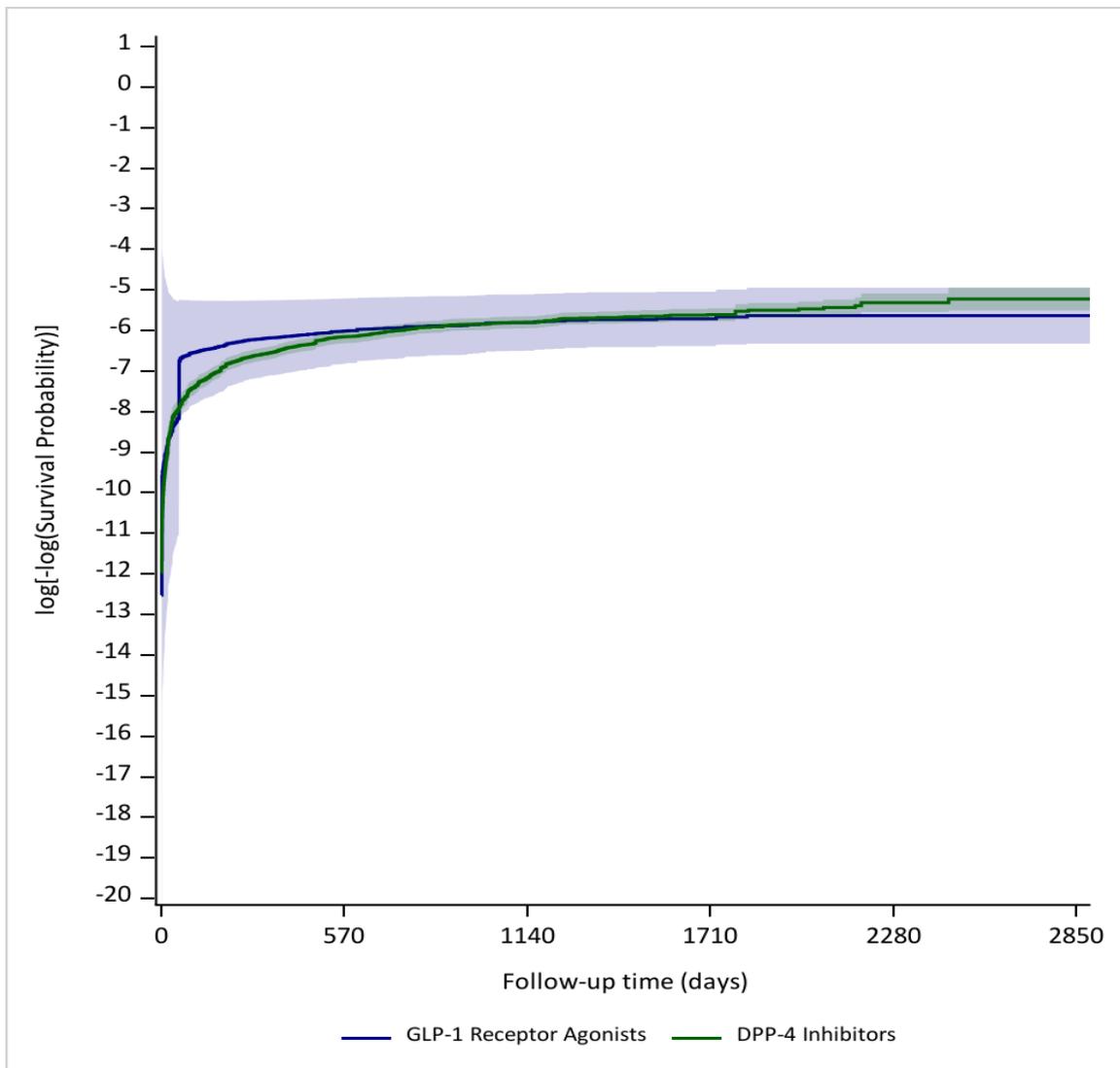


Figure 11g. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

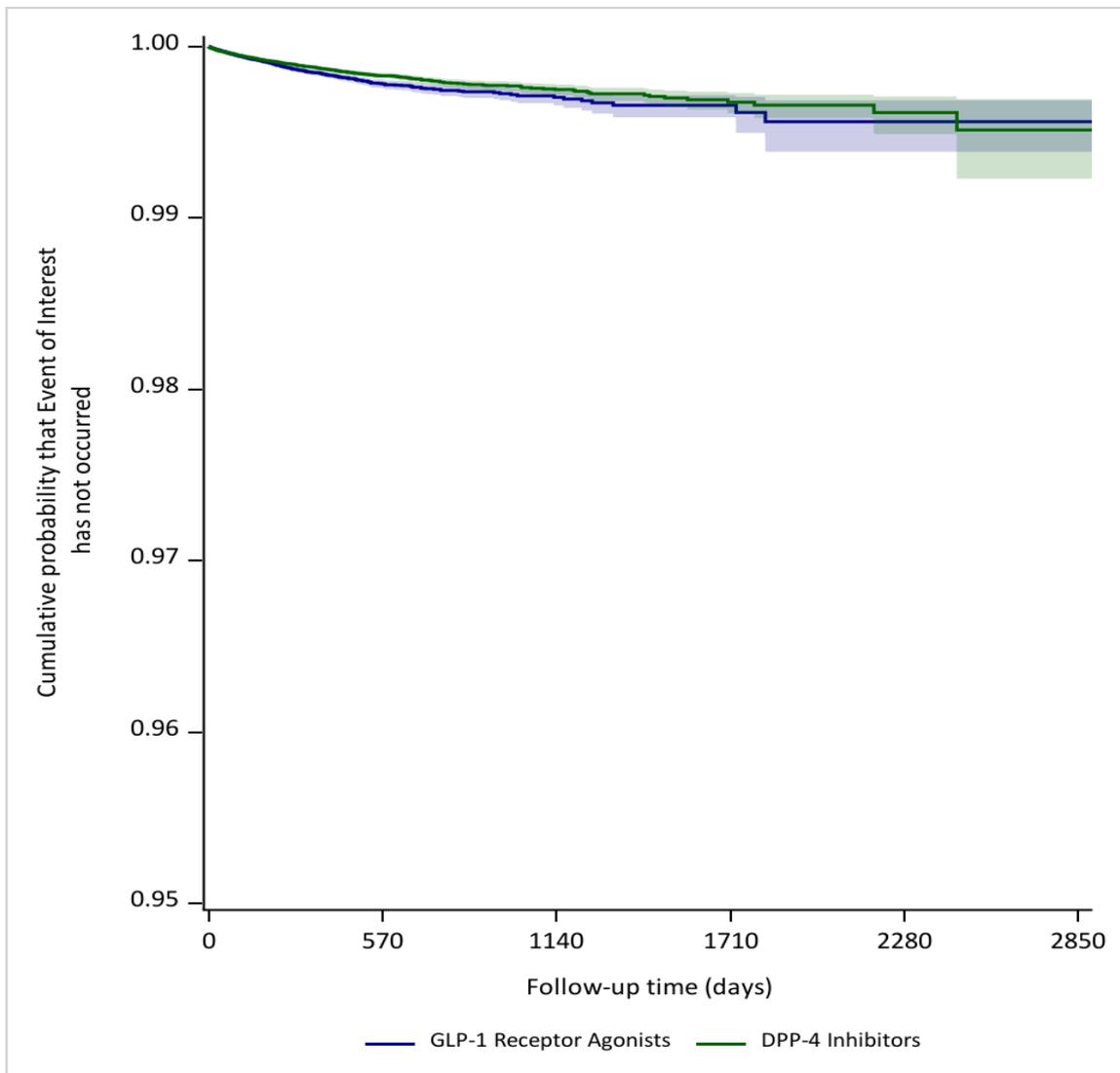


Figure 11h. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

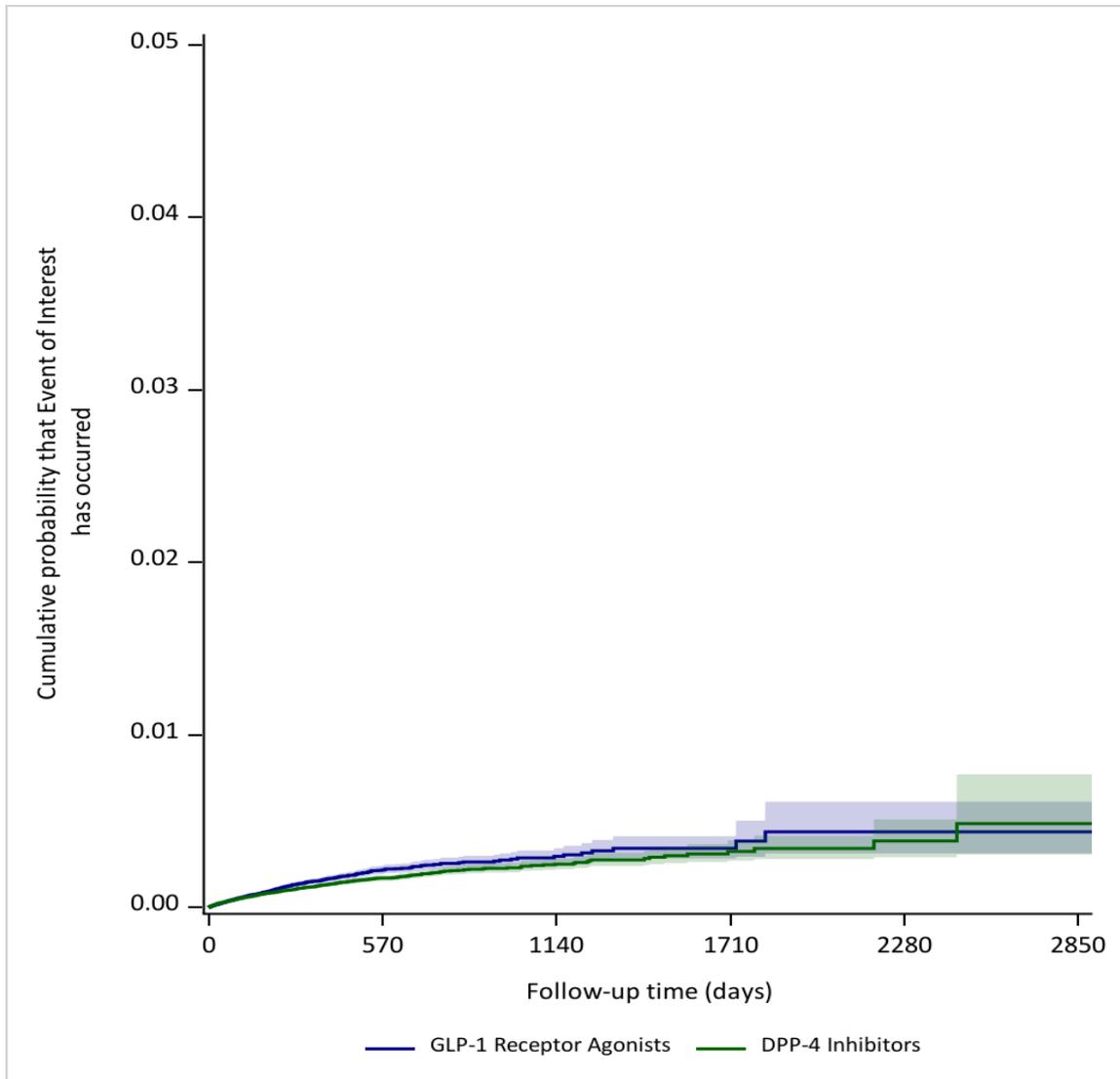


Figure 11i. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

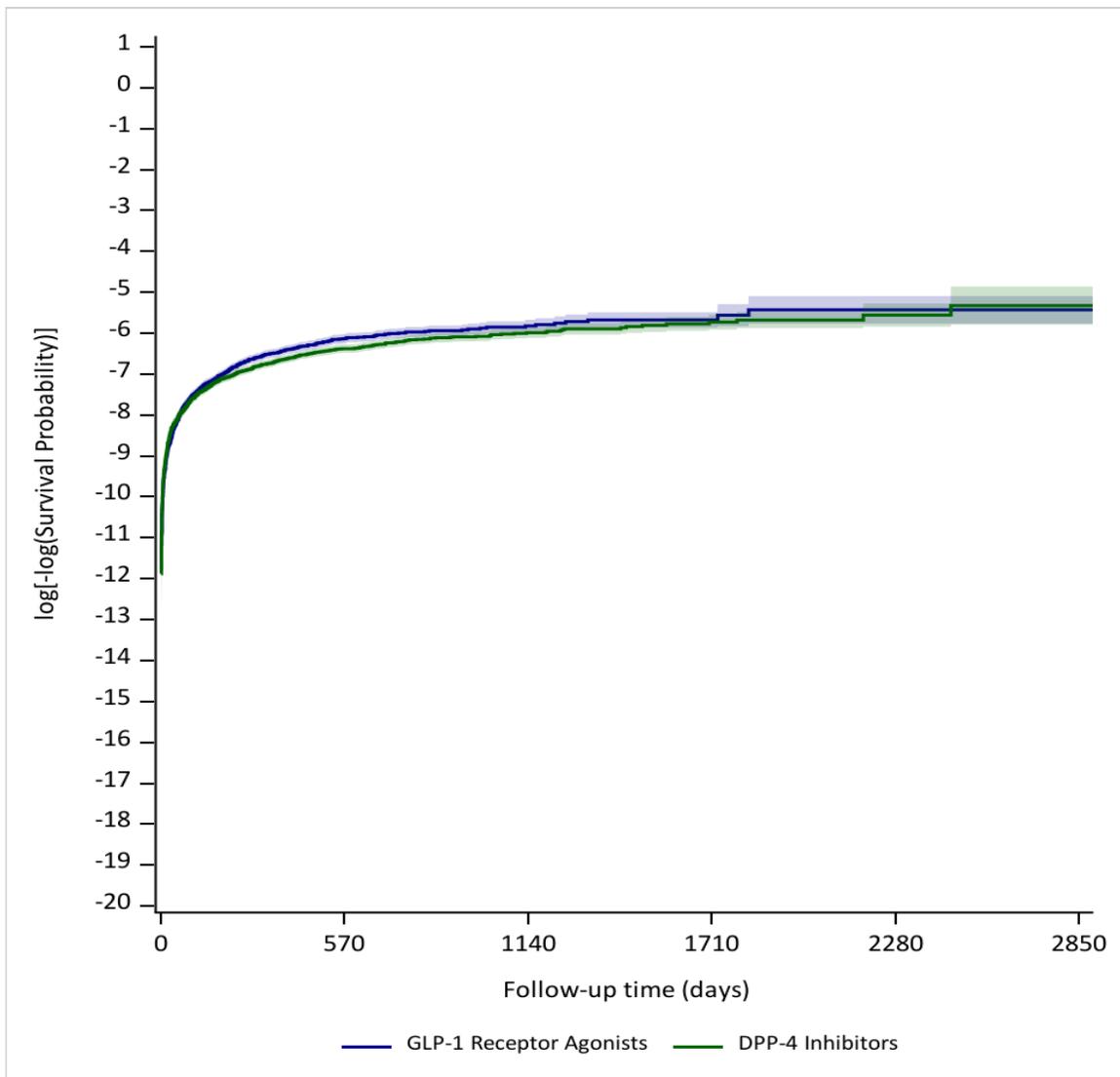


Figure 11j. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

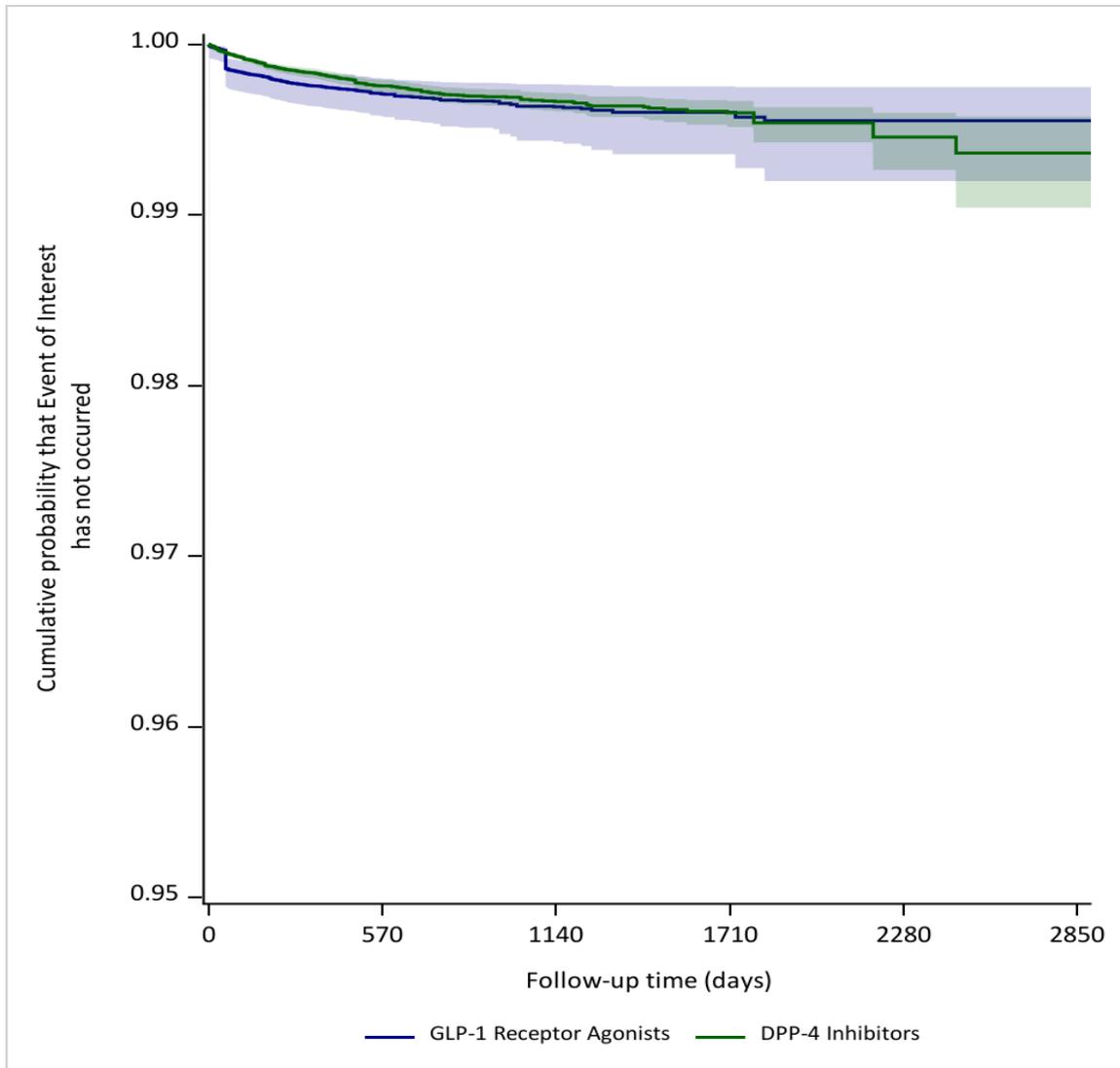


Figure 11k. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation after in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

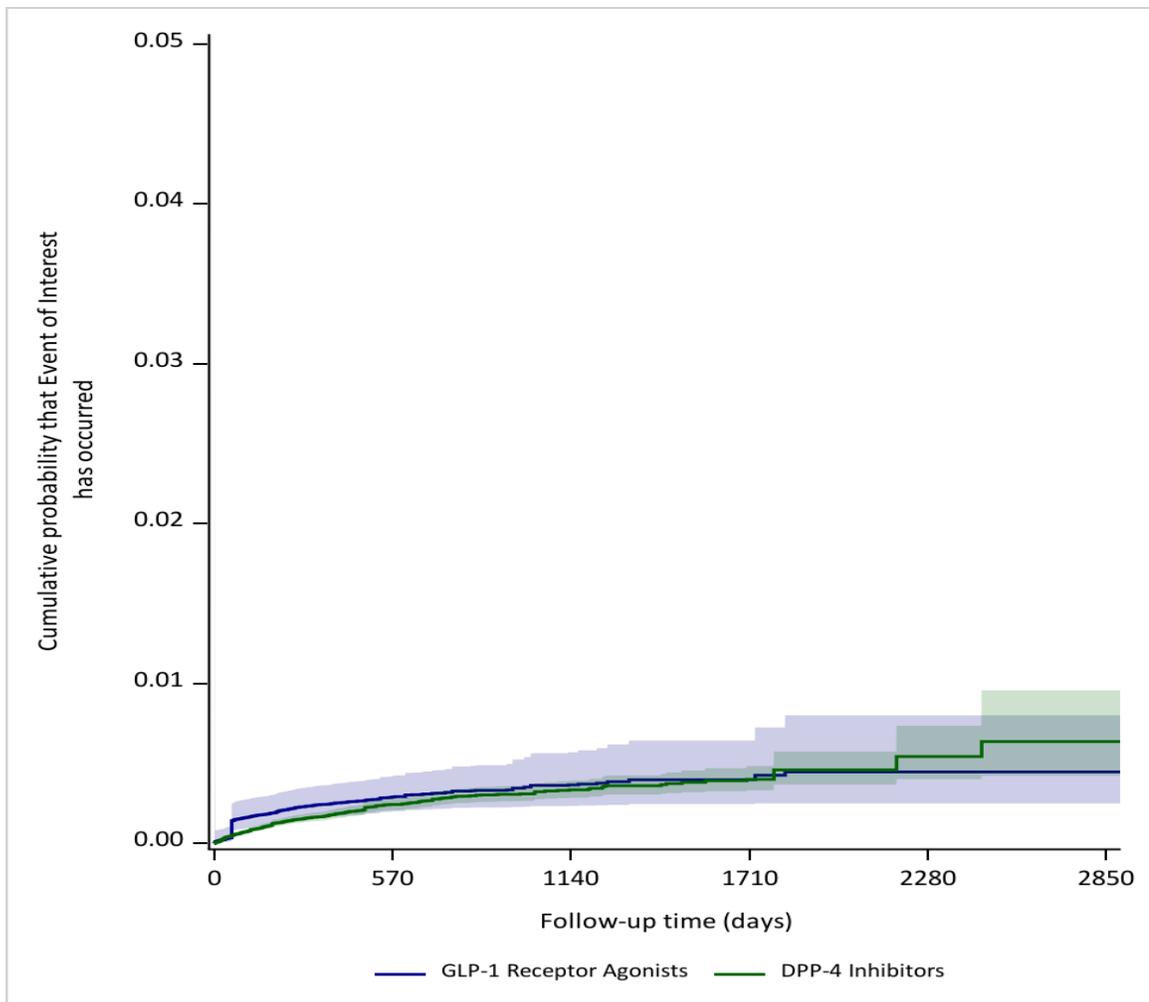


Figure 11l. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

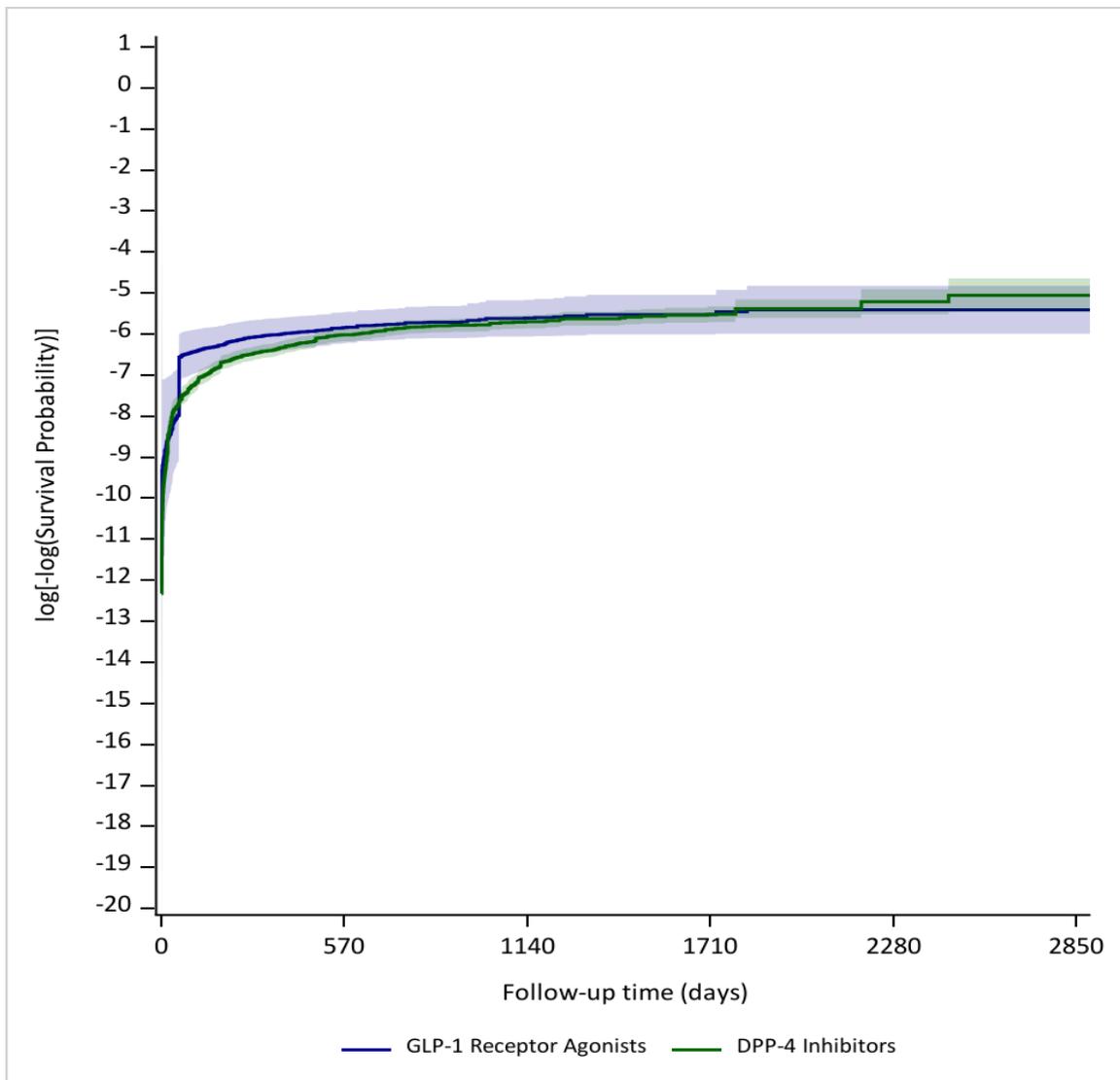


Figure 11m. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

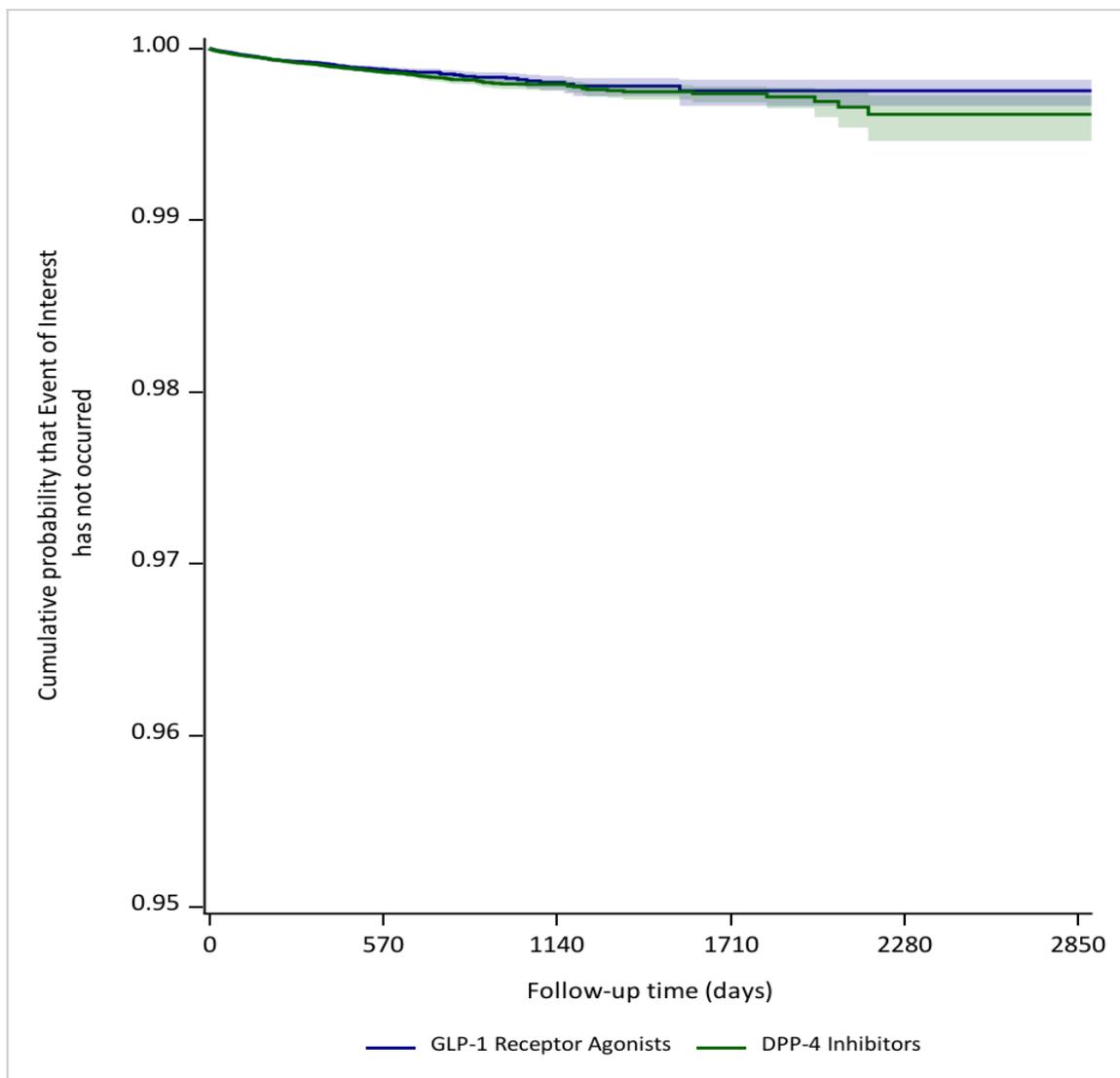


Figure 11n. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

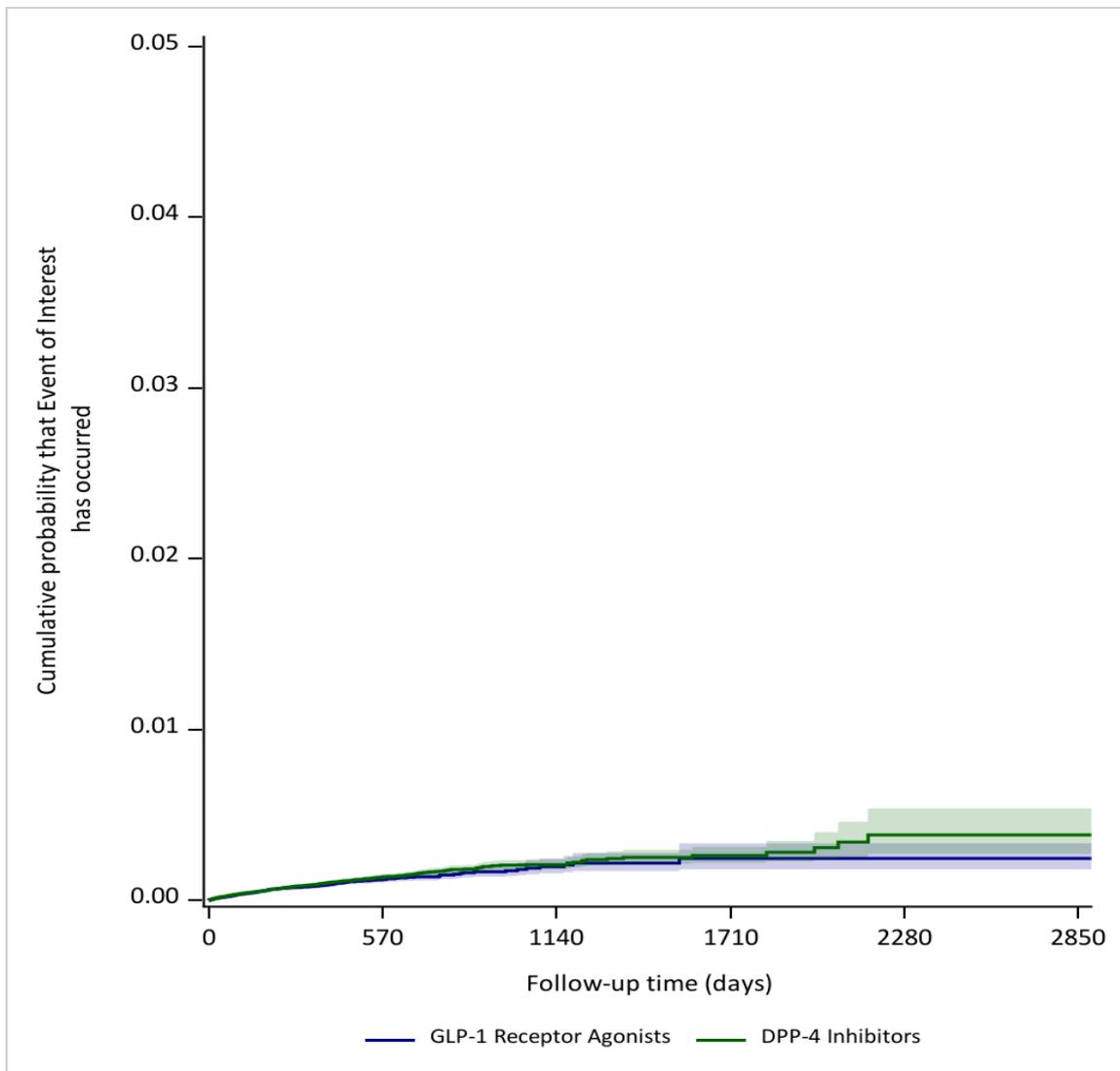


Figure 11o. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

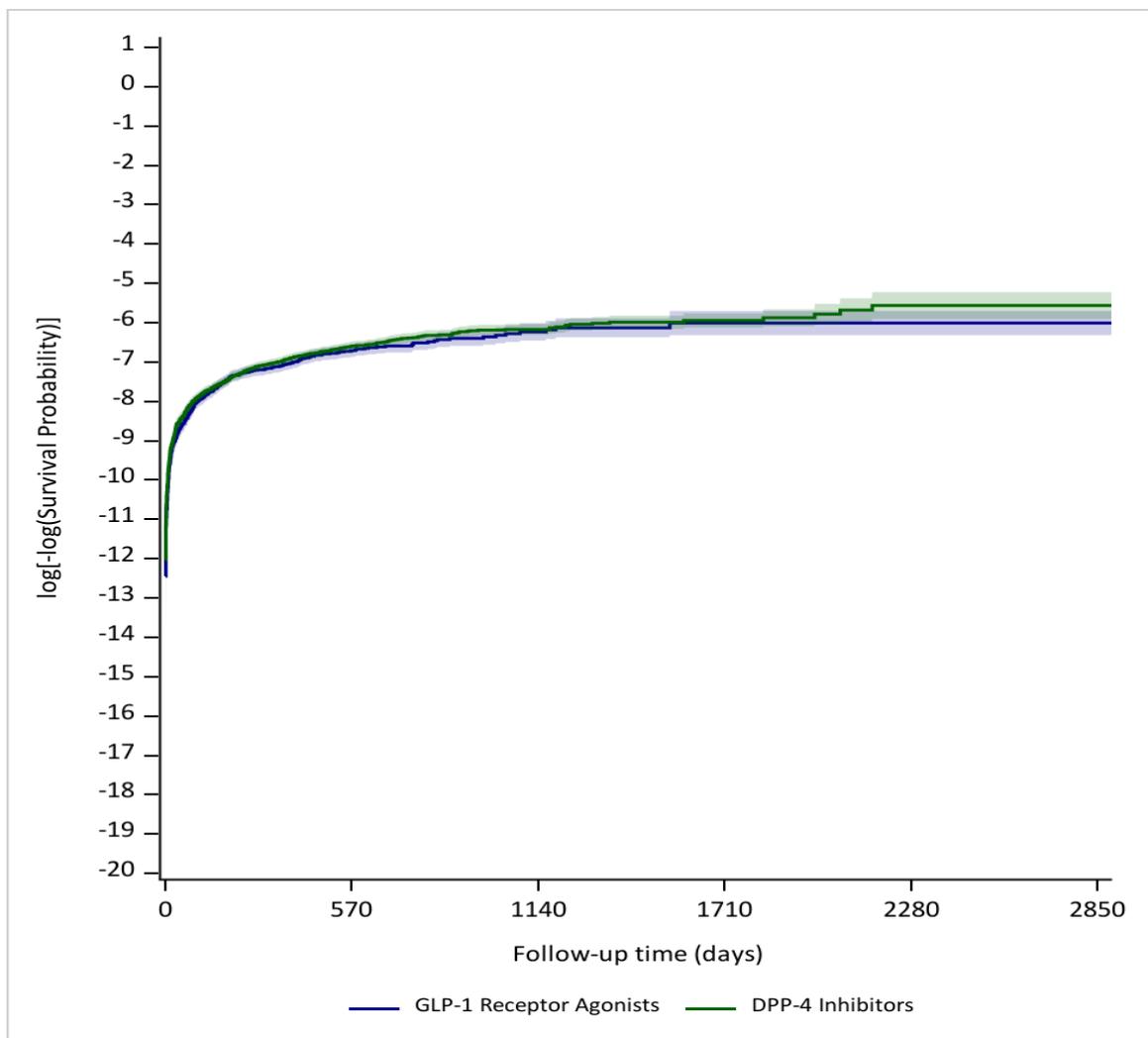


Figure 11p. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

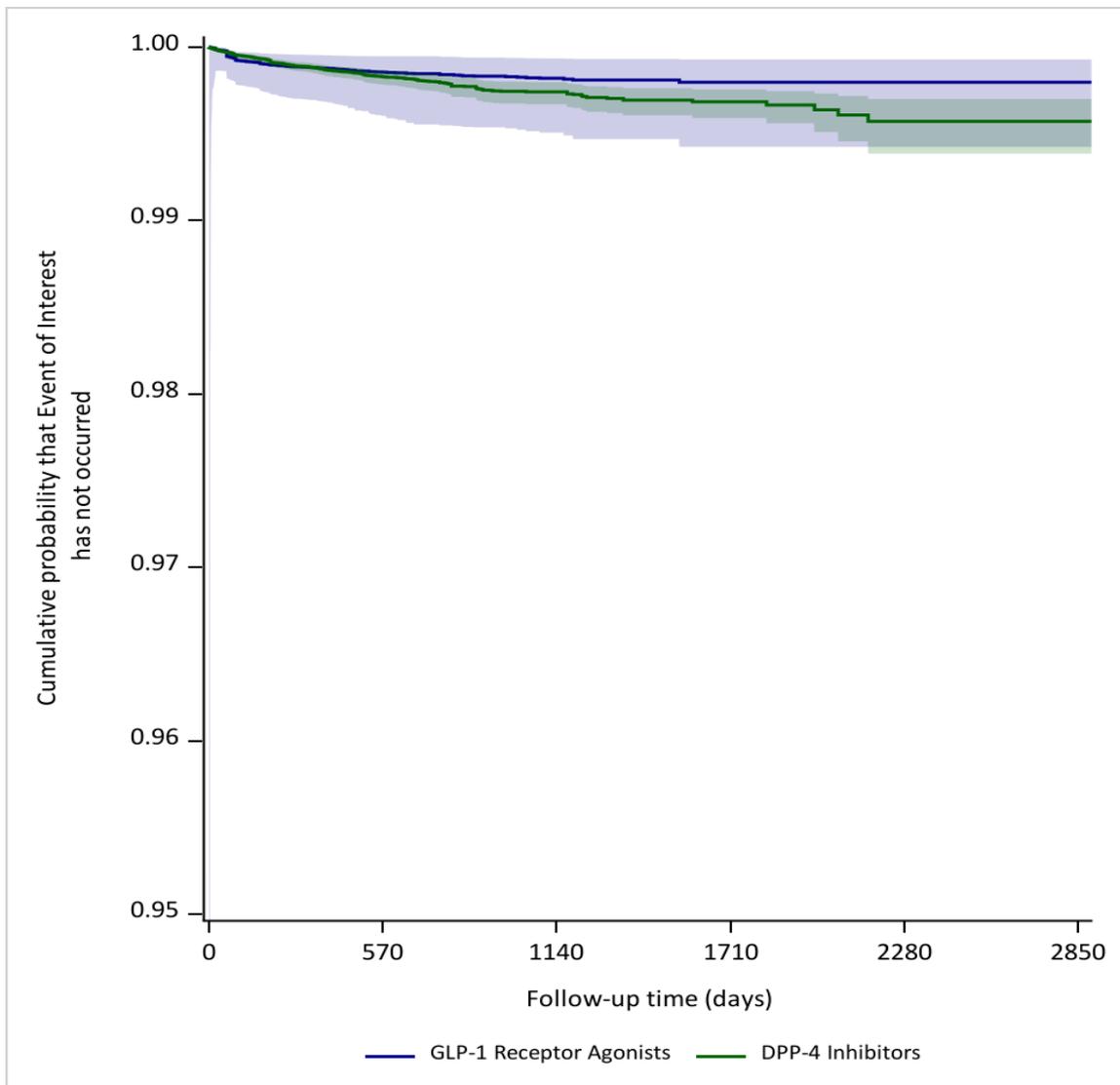


Figure 11q. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

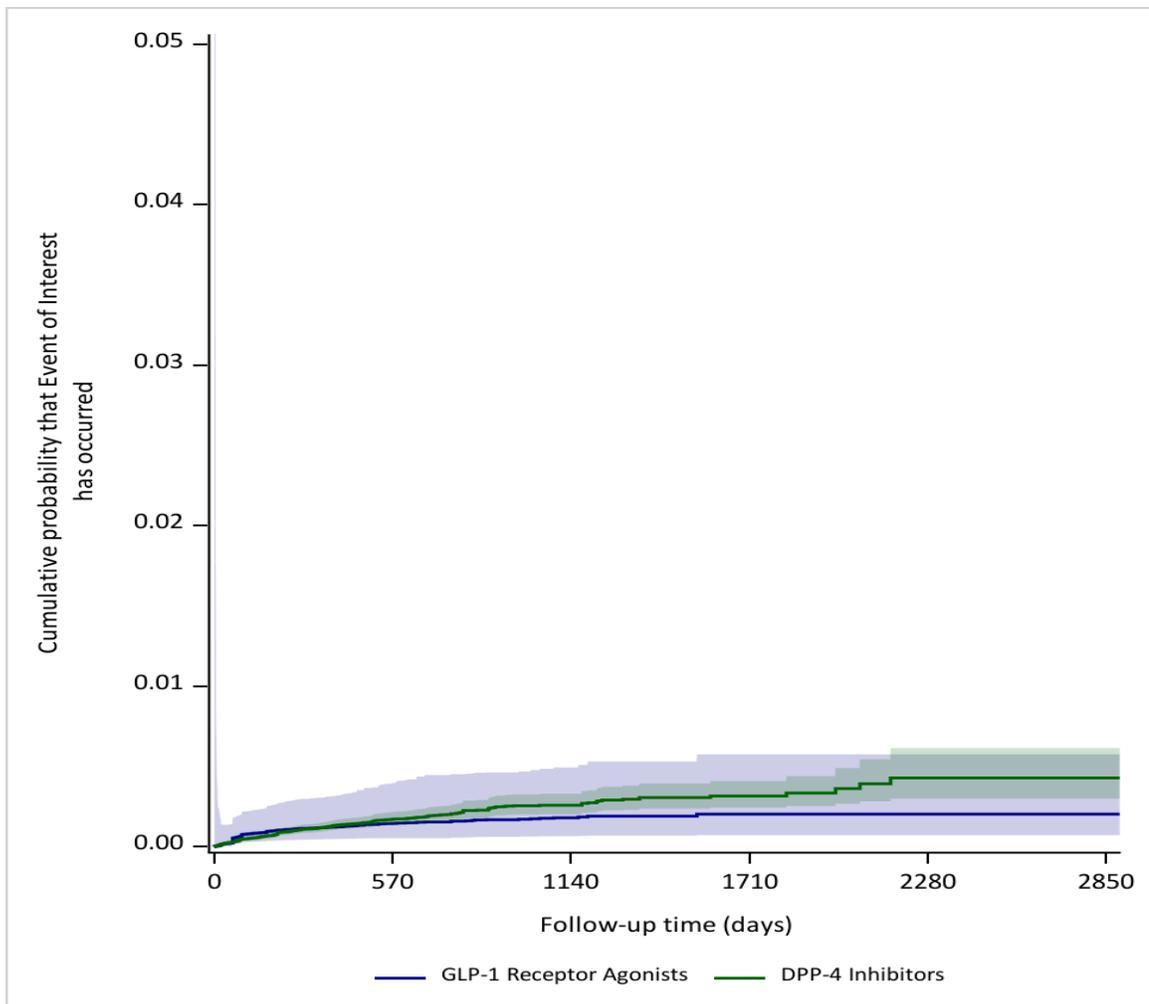


Figure 11r. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

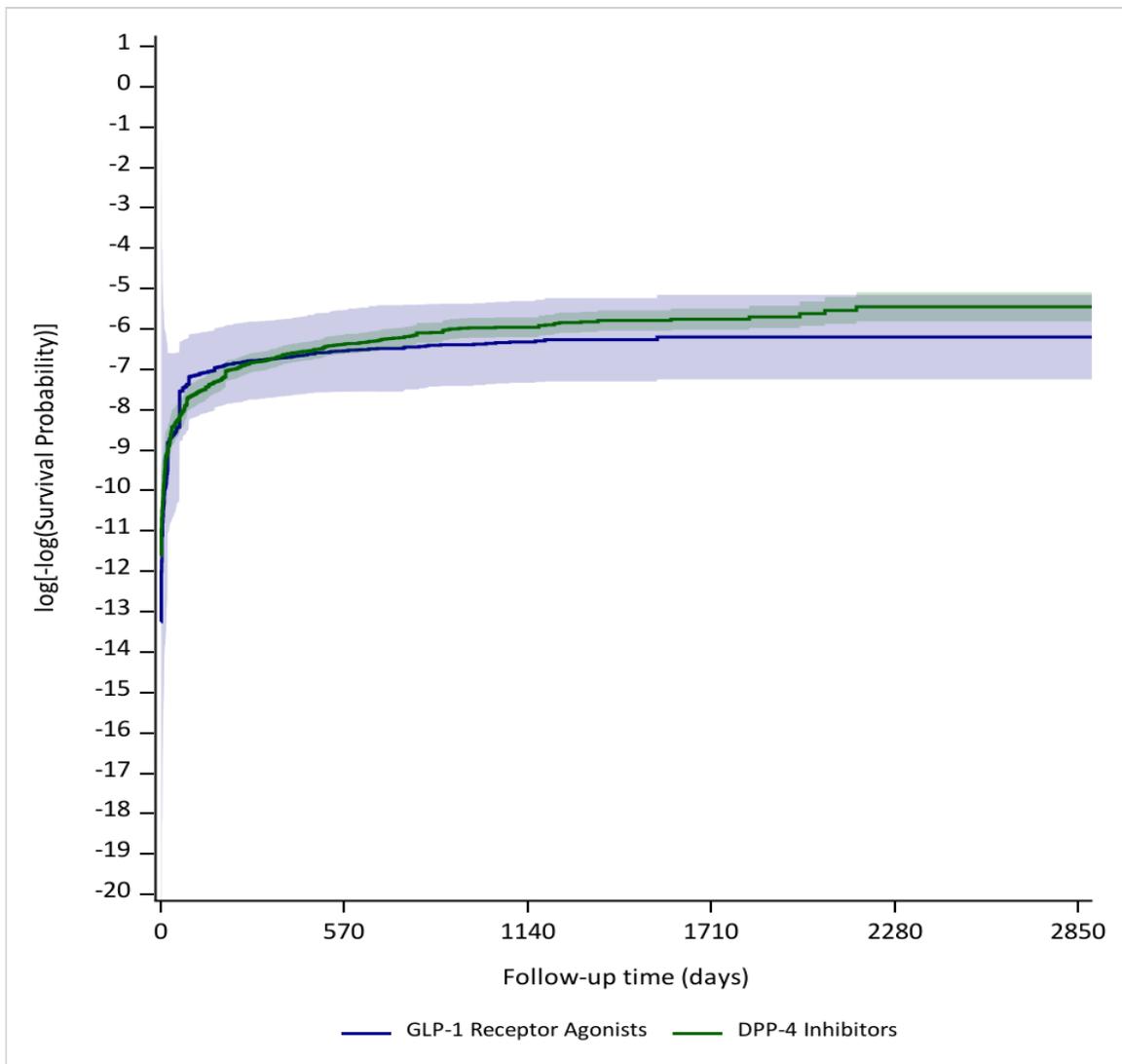


Figure 11s. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

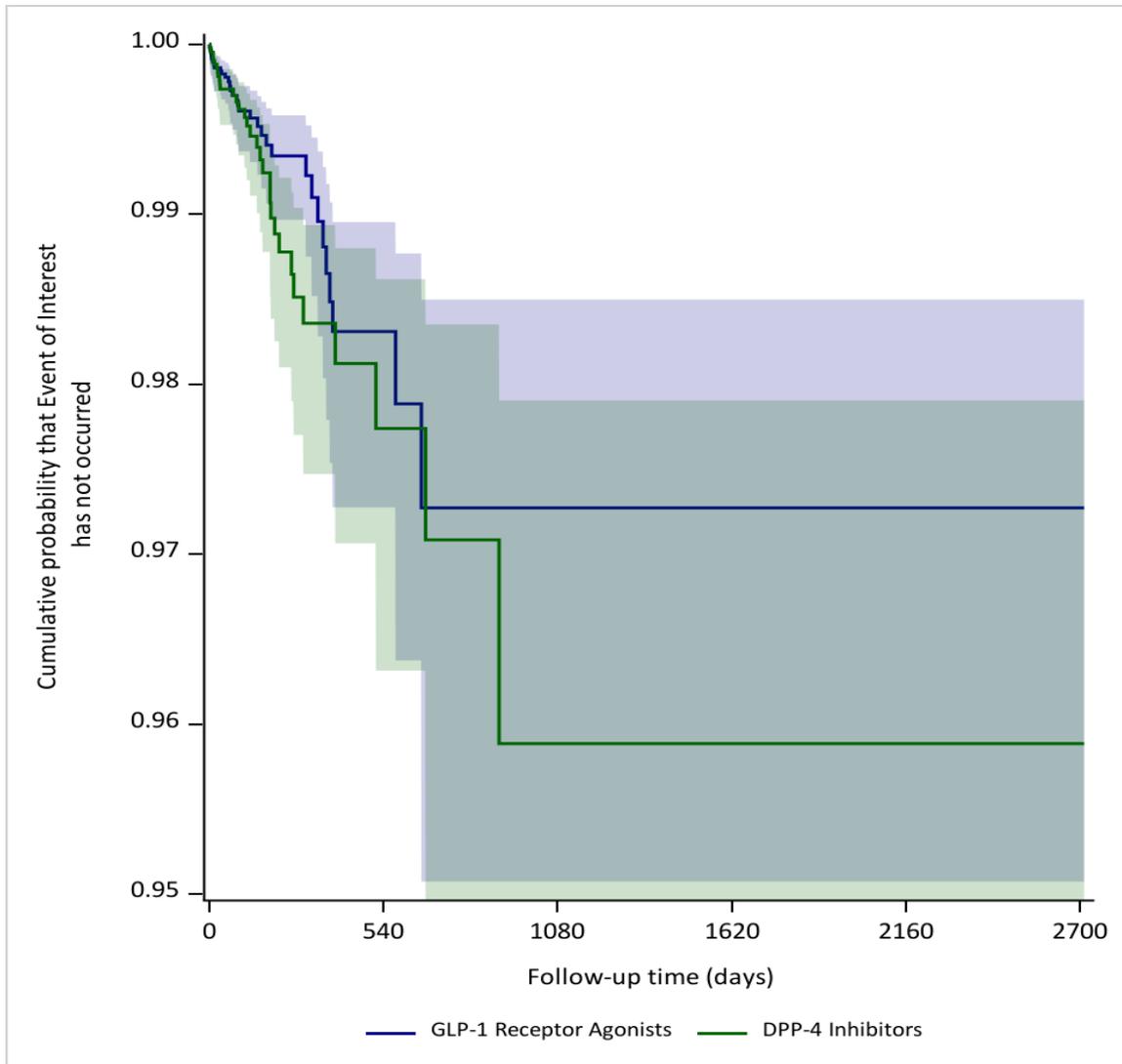


Figure 11t. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

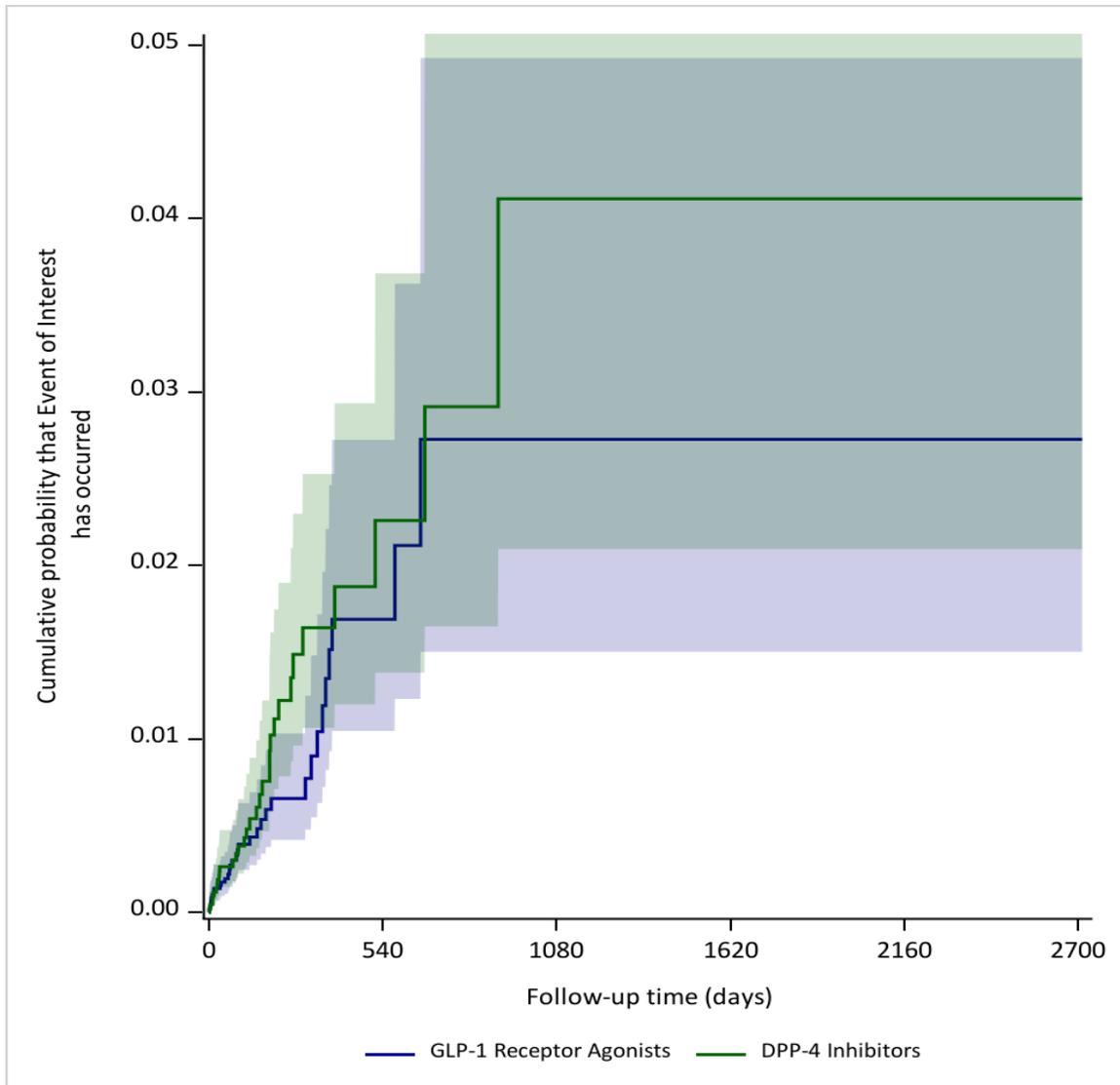


Figure 11u. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

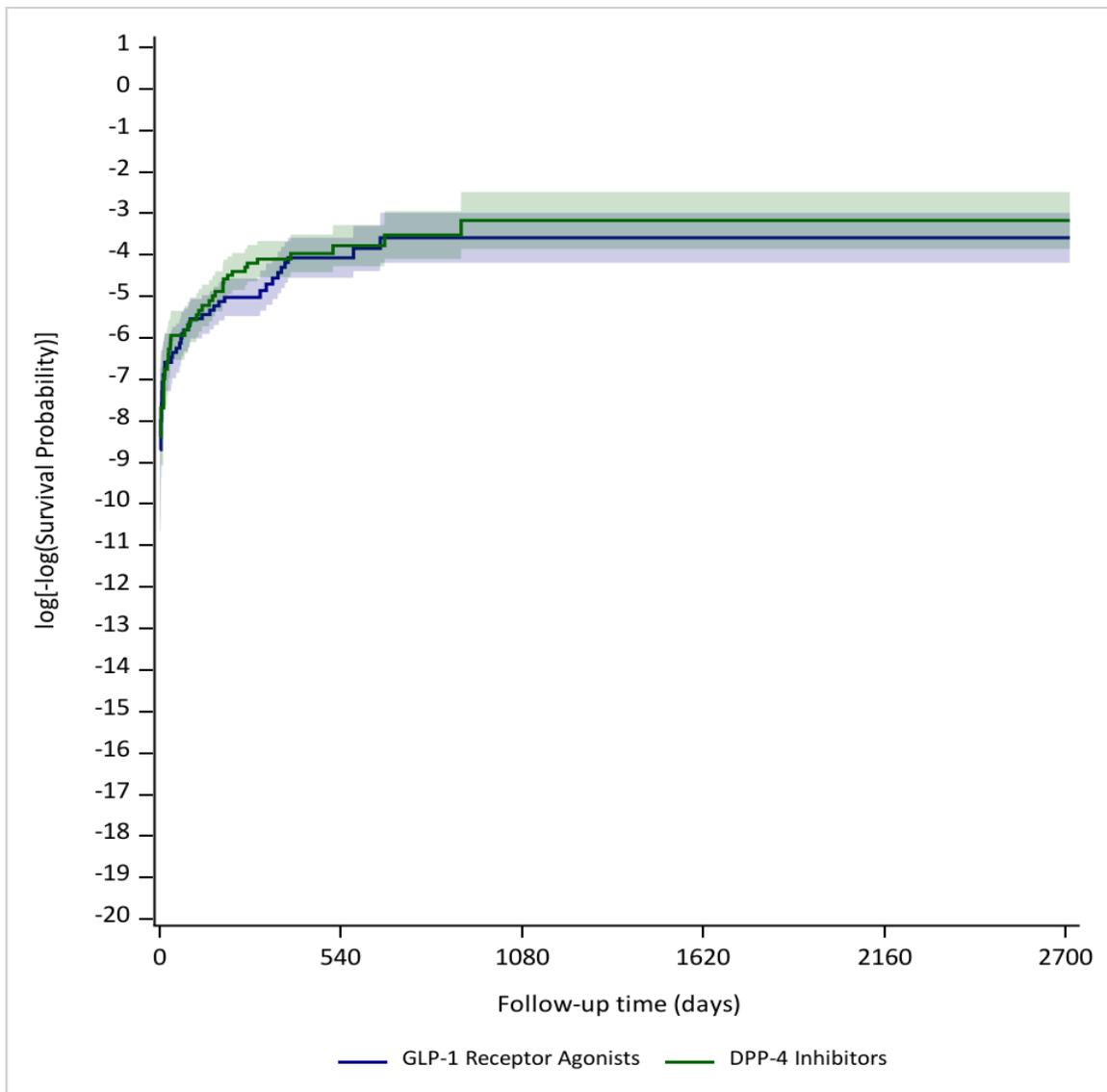


Figure 11v. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 0% truncation after in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

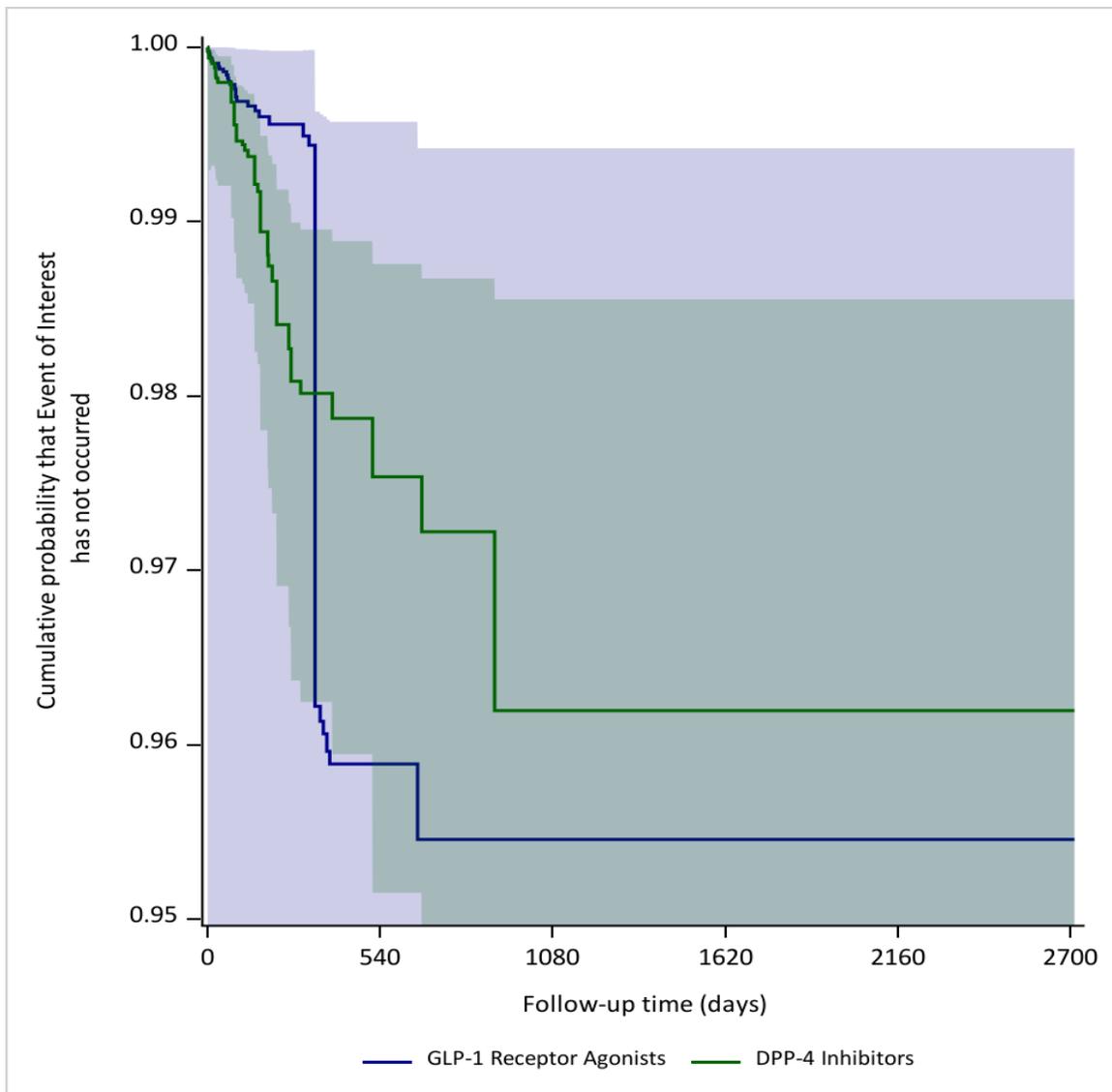


Figure 11w. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation after in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

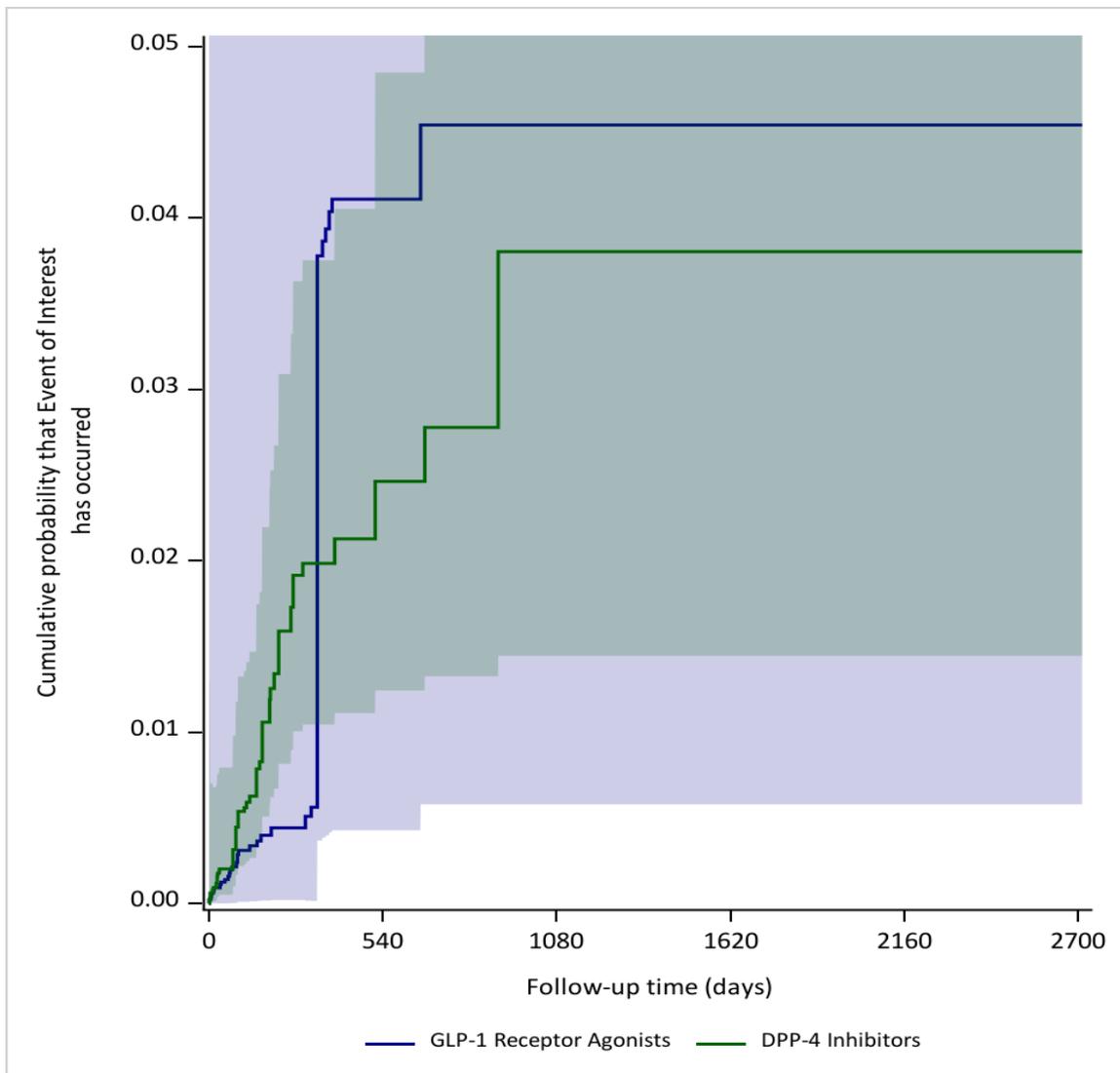


Figure 11x. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

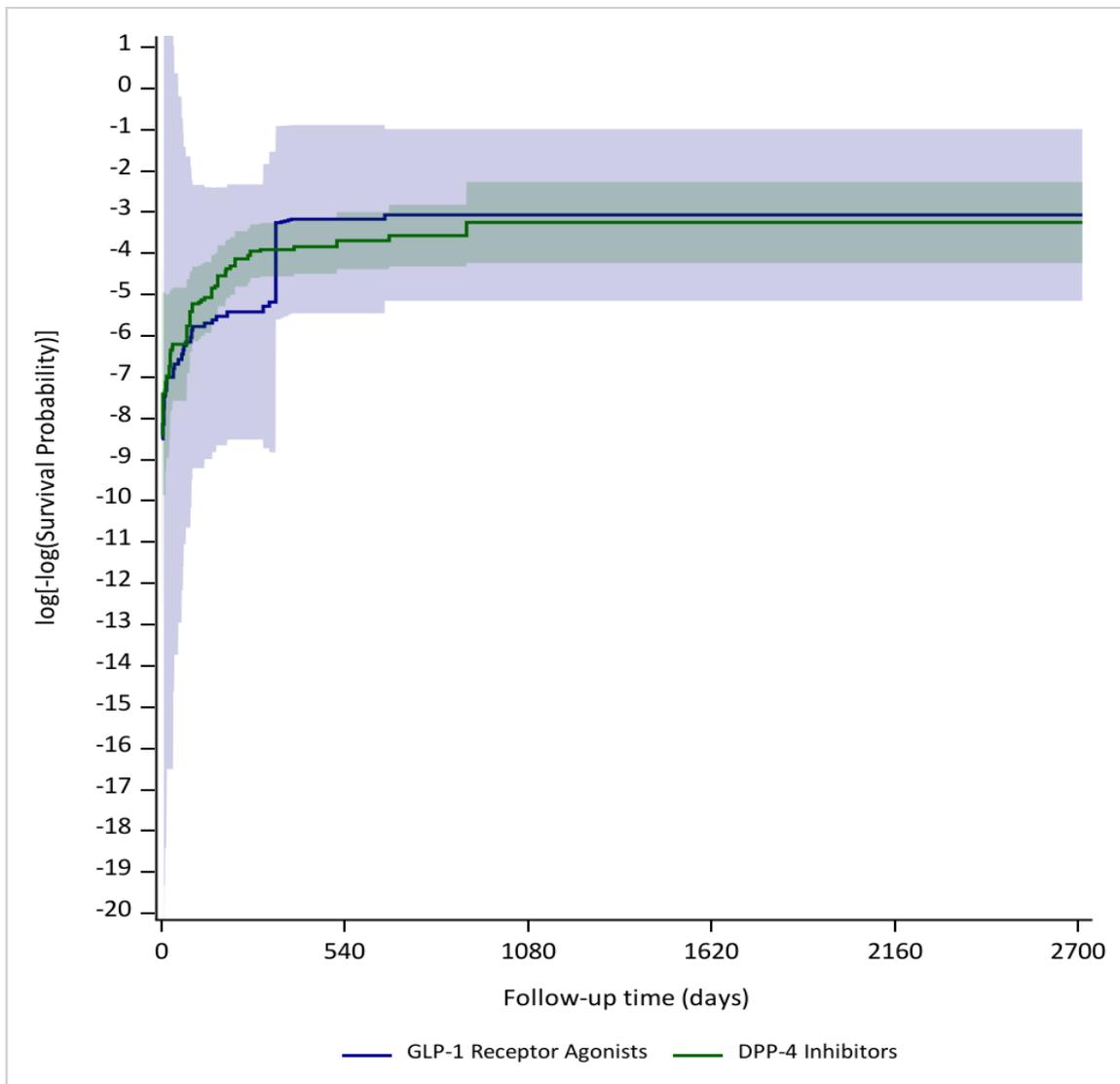


Figure 11y. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

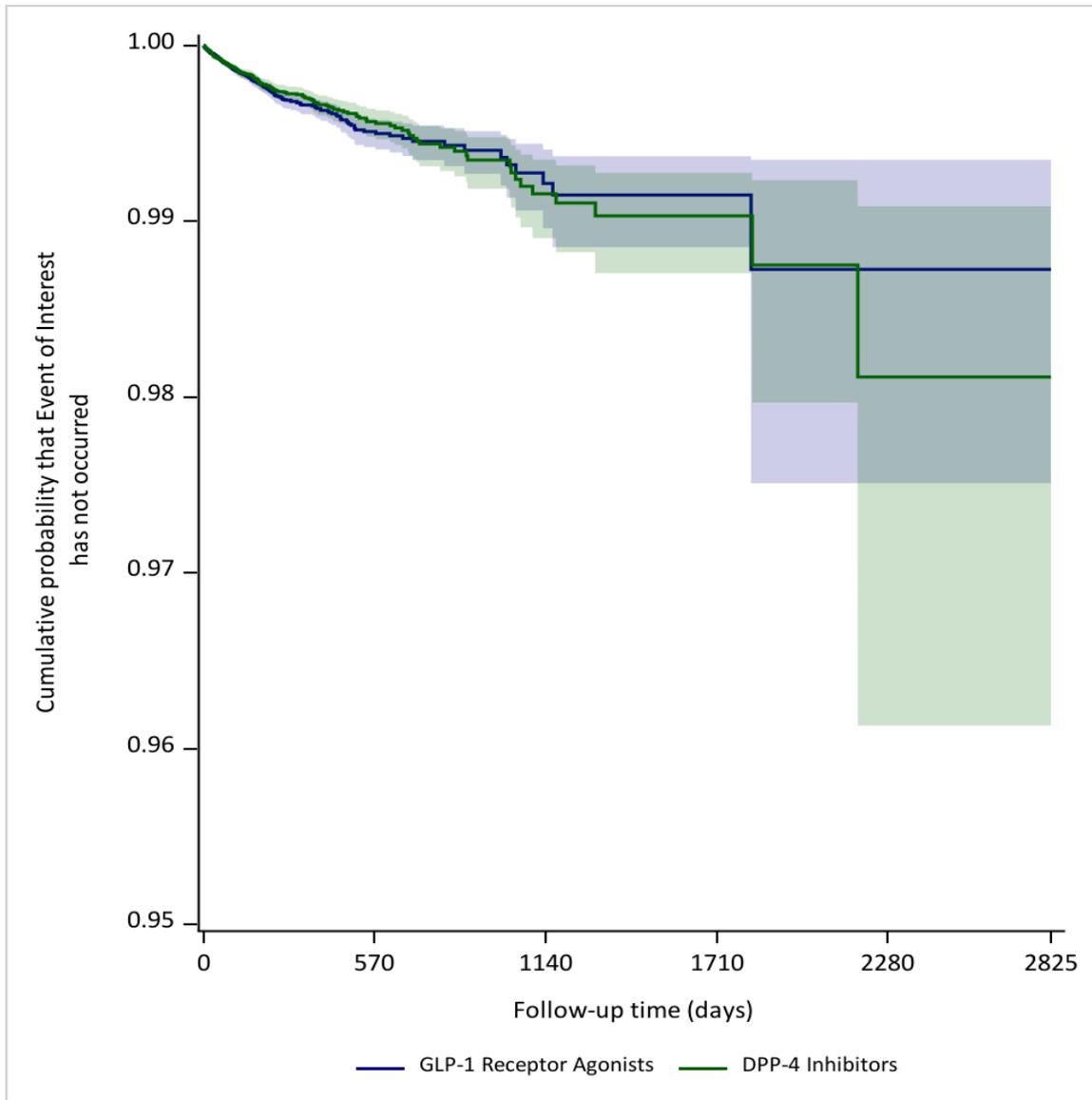


Figure 11z. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

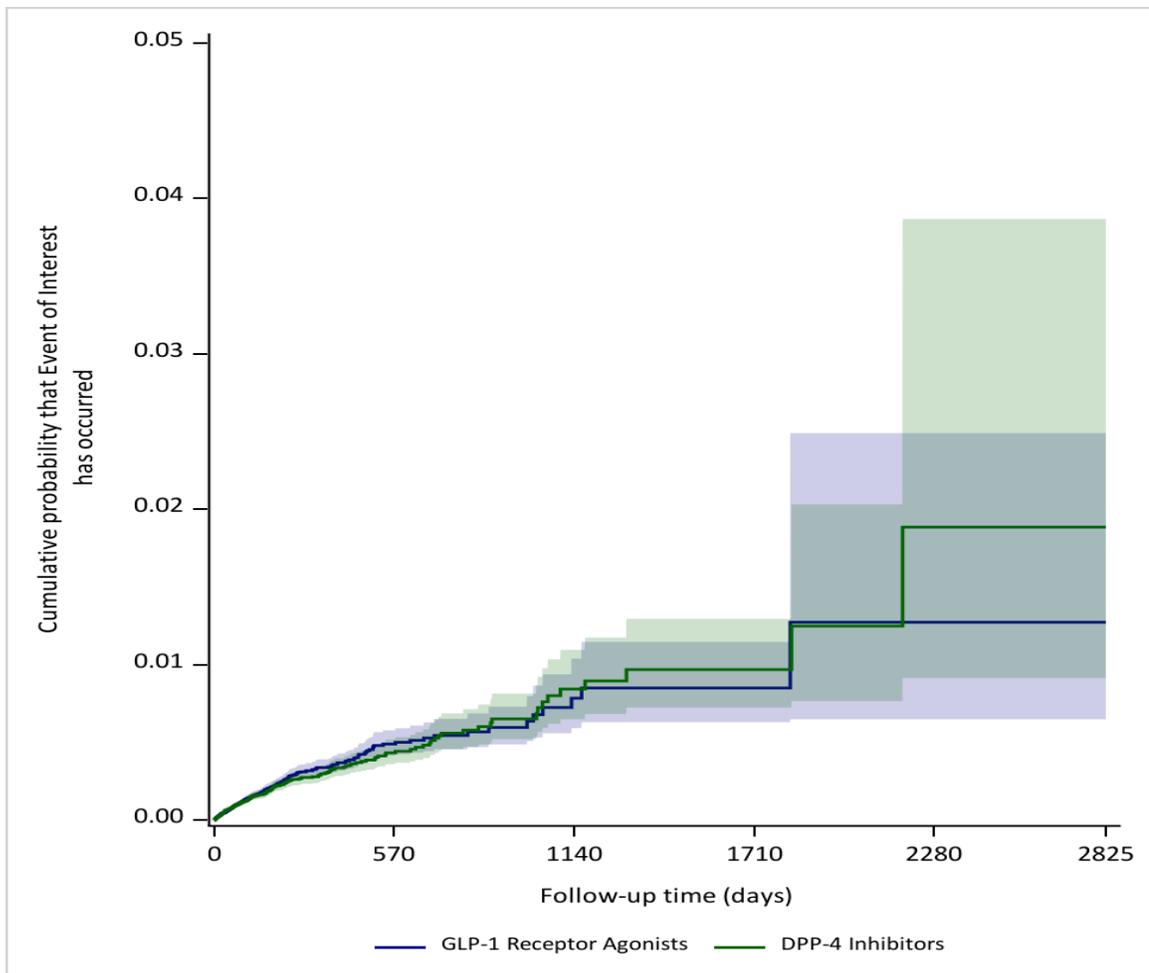


Figure 11aa. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

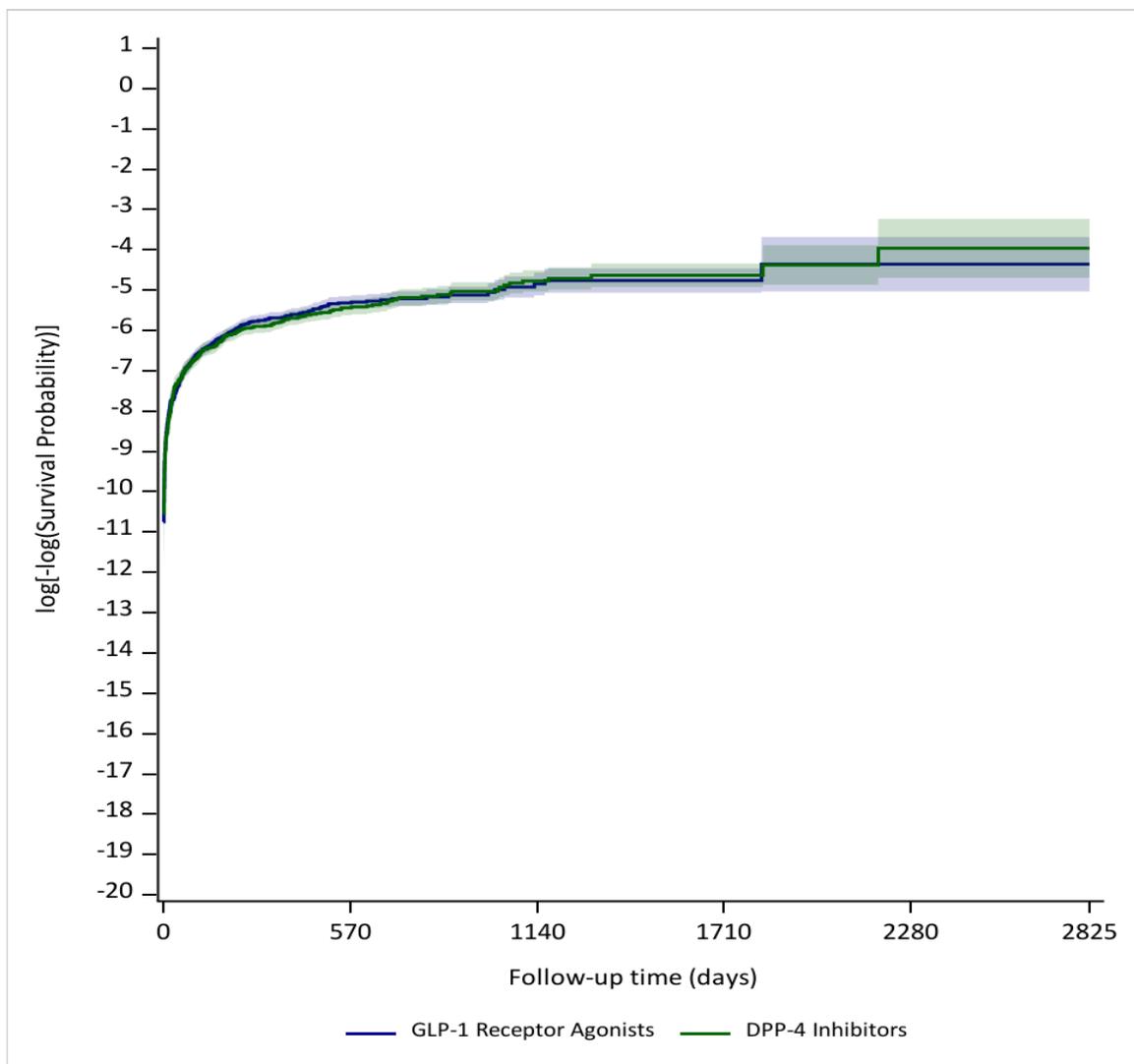


Figure 11ab. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

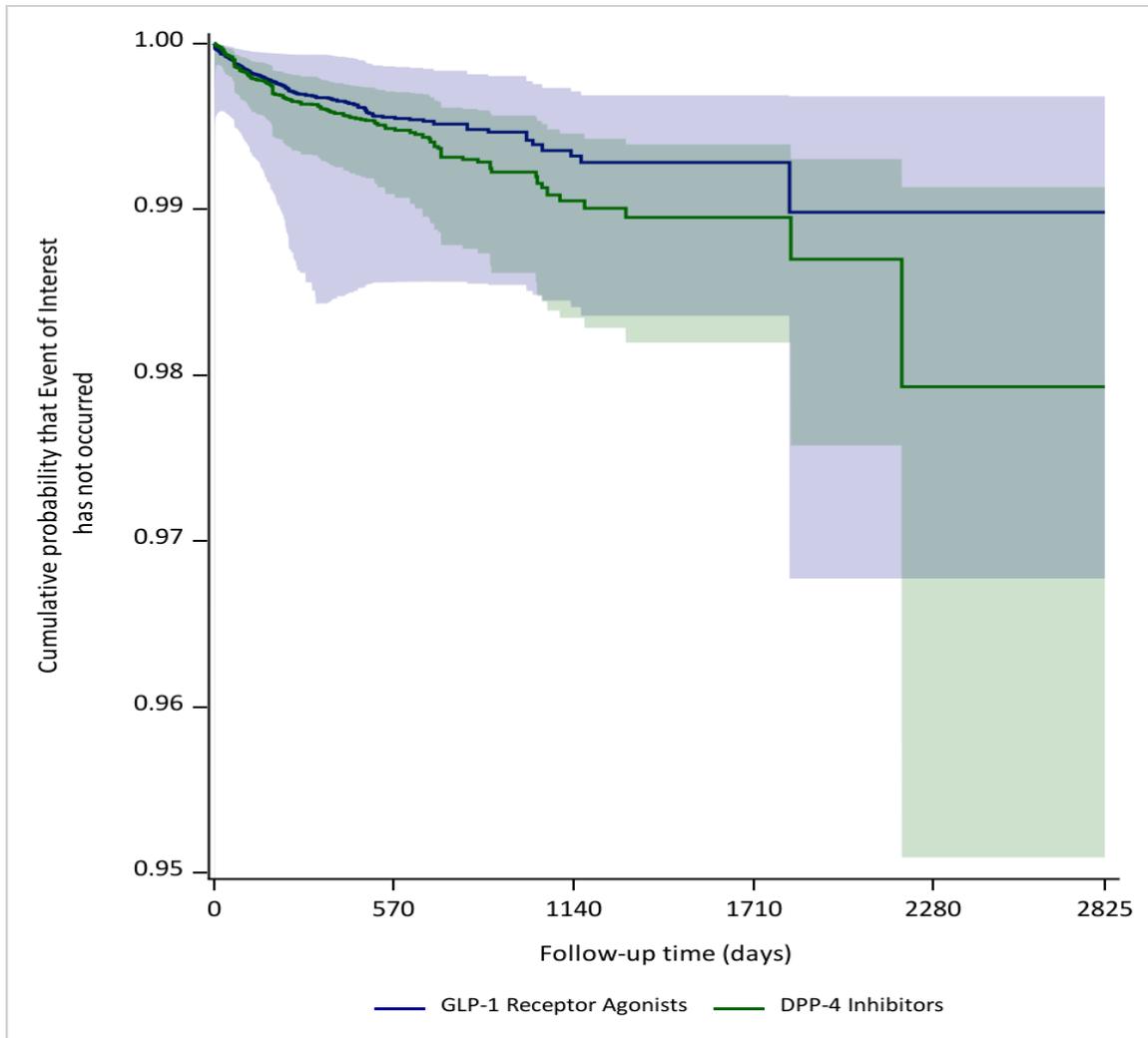


Figure 11ac. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation after in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

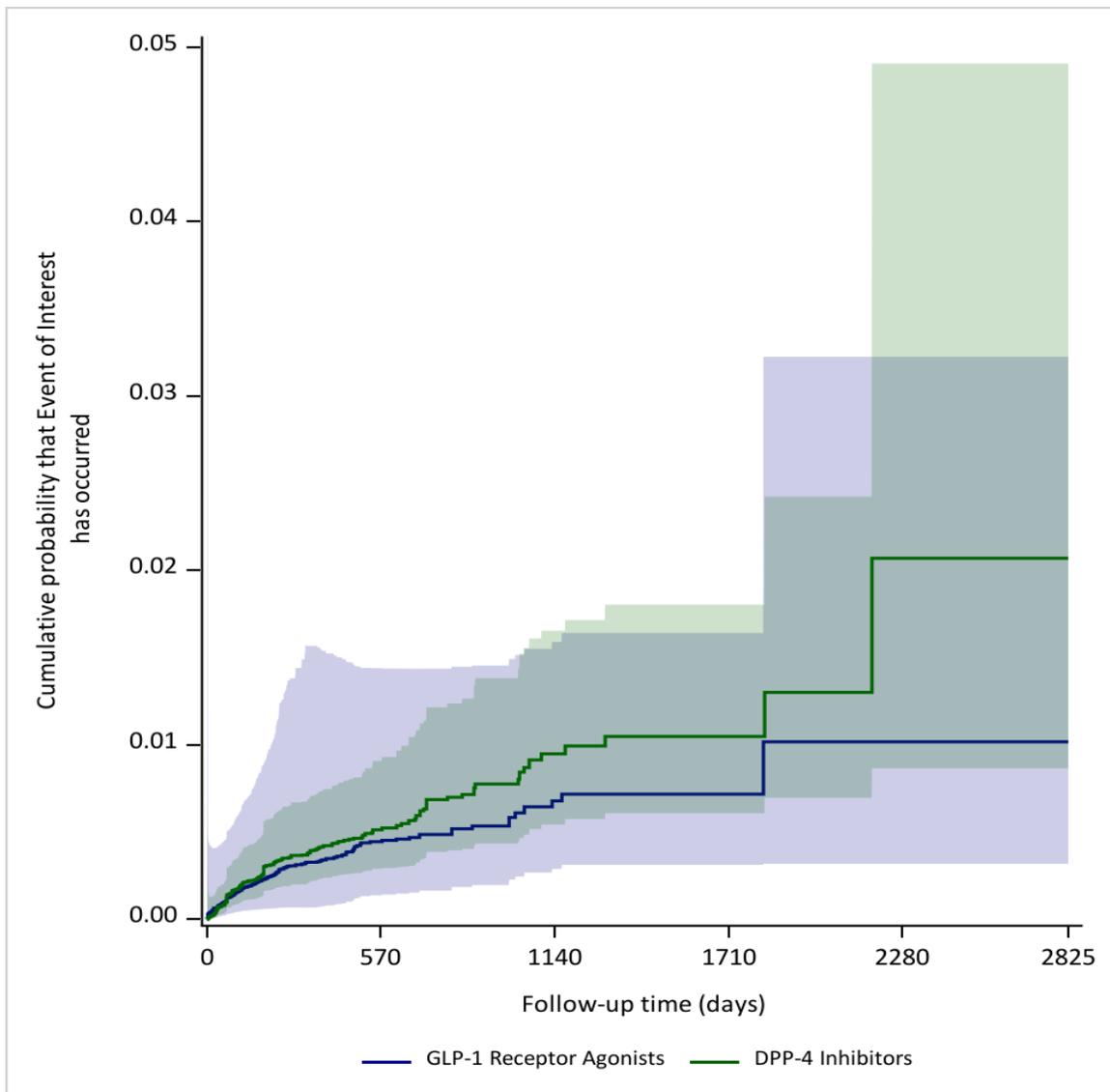


Figure 11ad. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

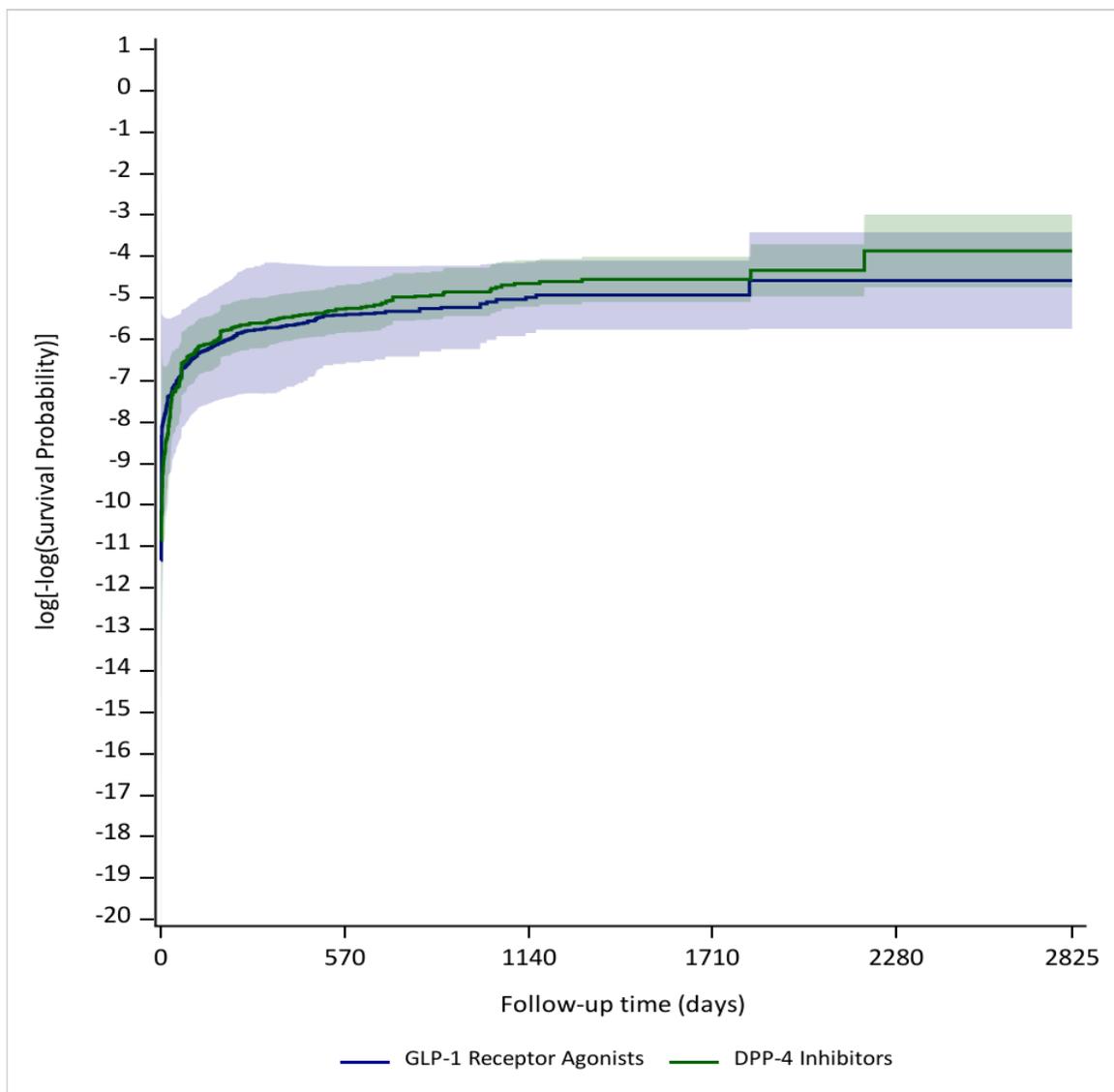


Figure 11ae. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

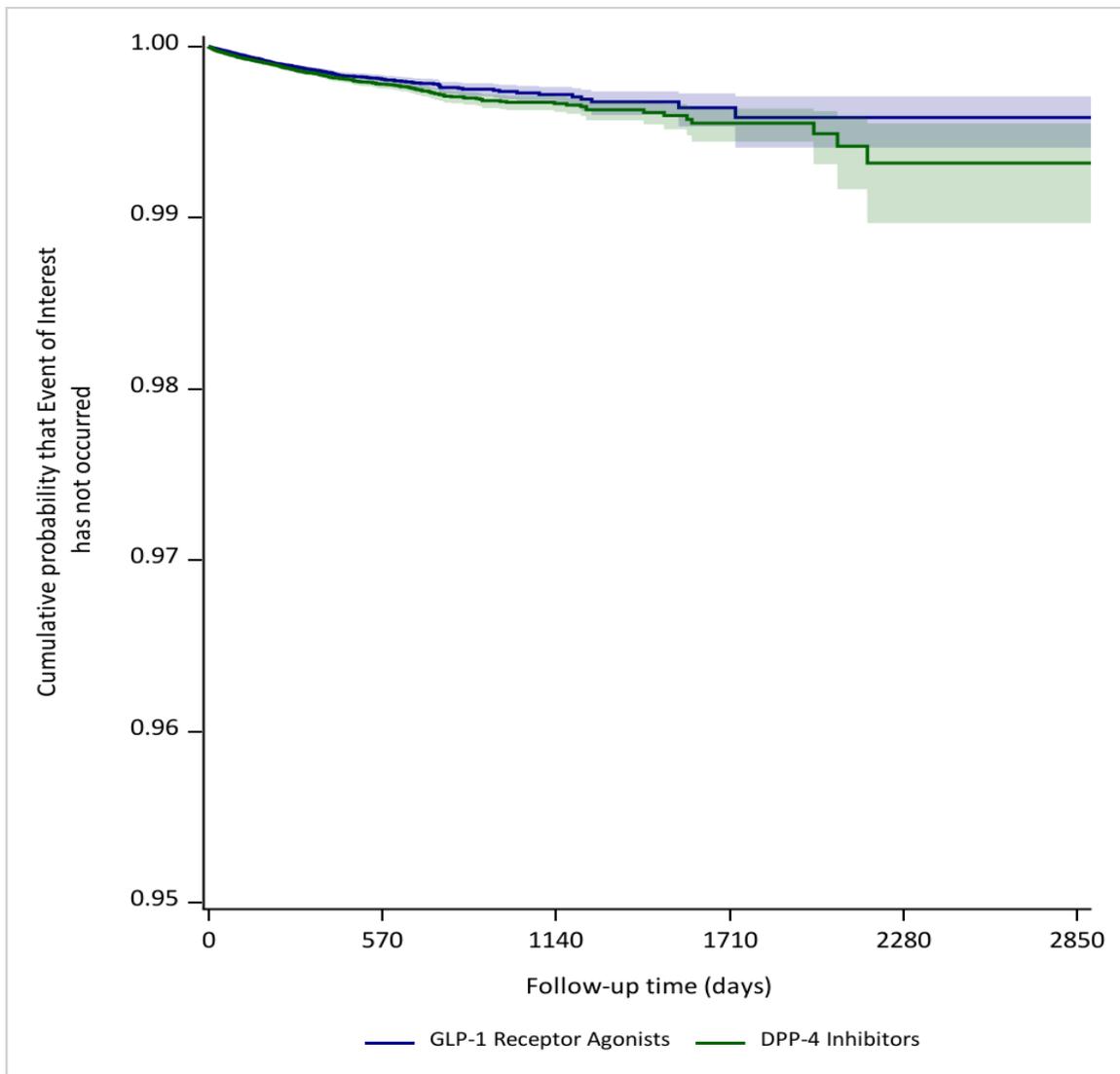


Figure 11af. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

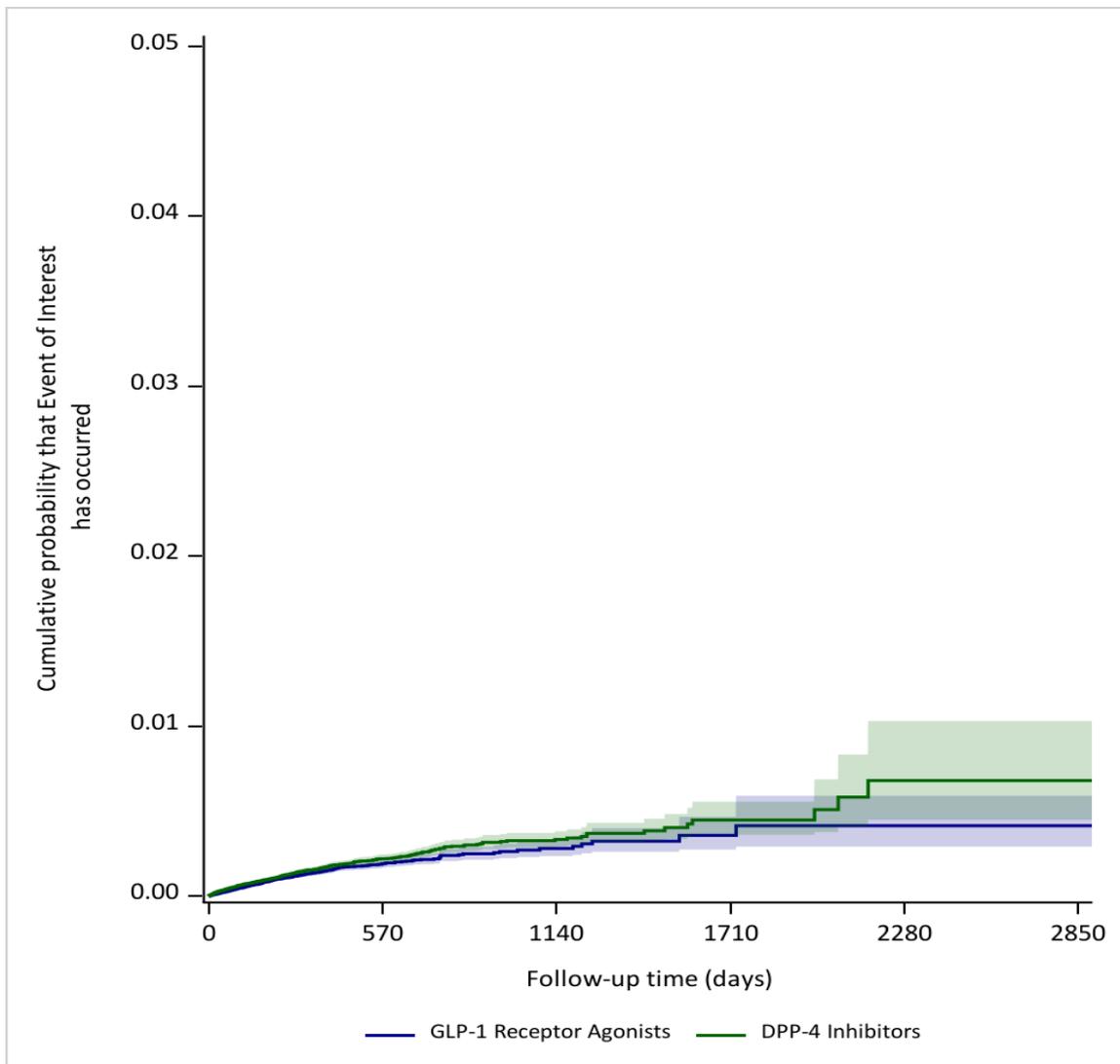


Figure 11ag. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

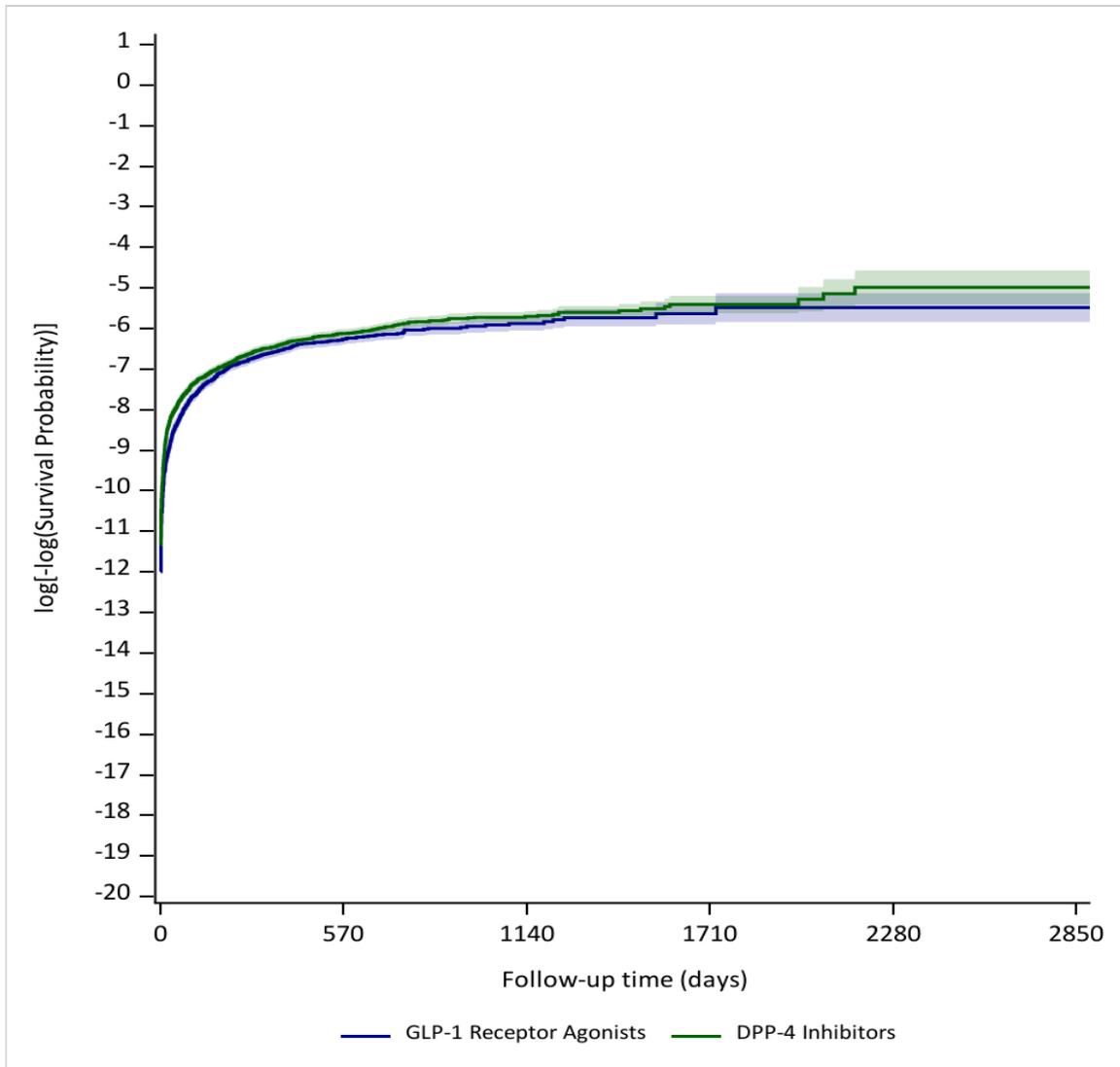


Figure 11ah. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

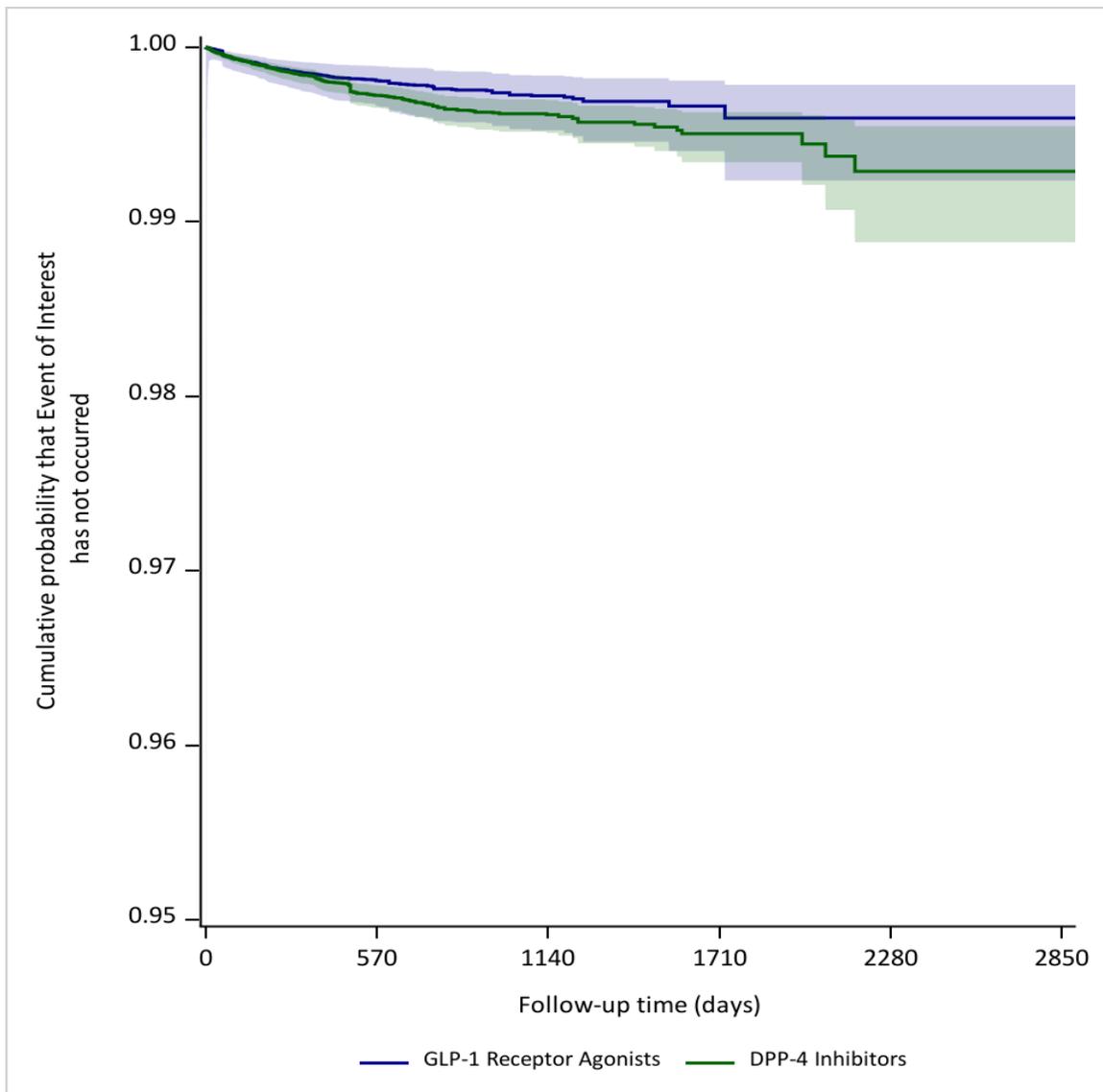


Figure 11ai. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

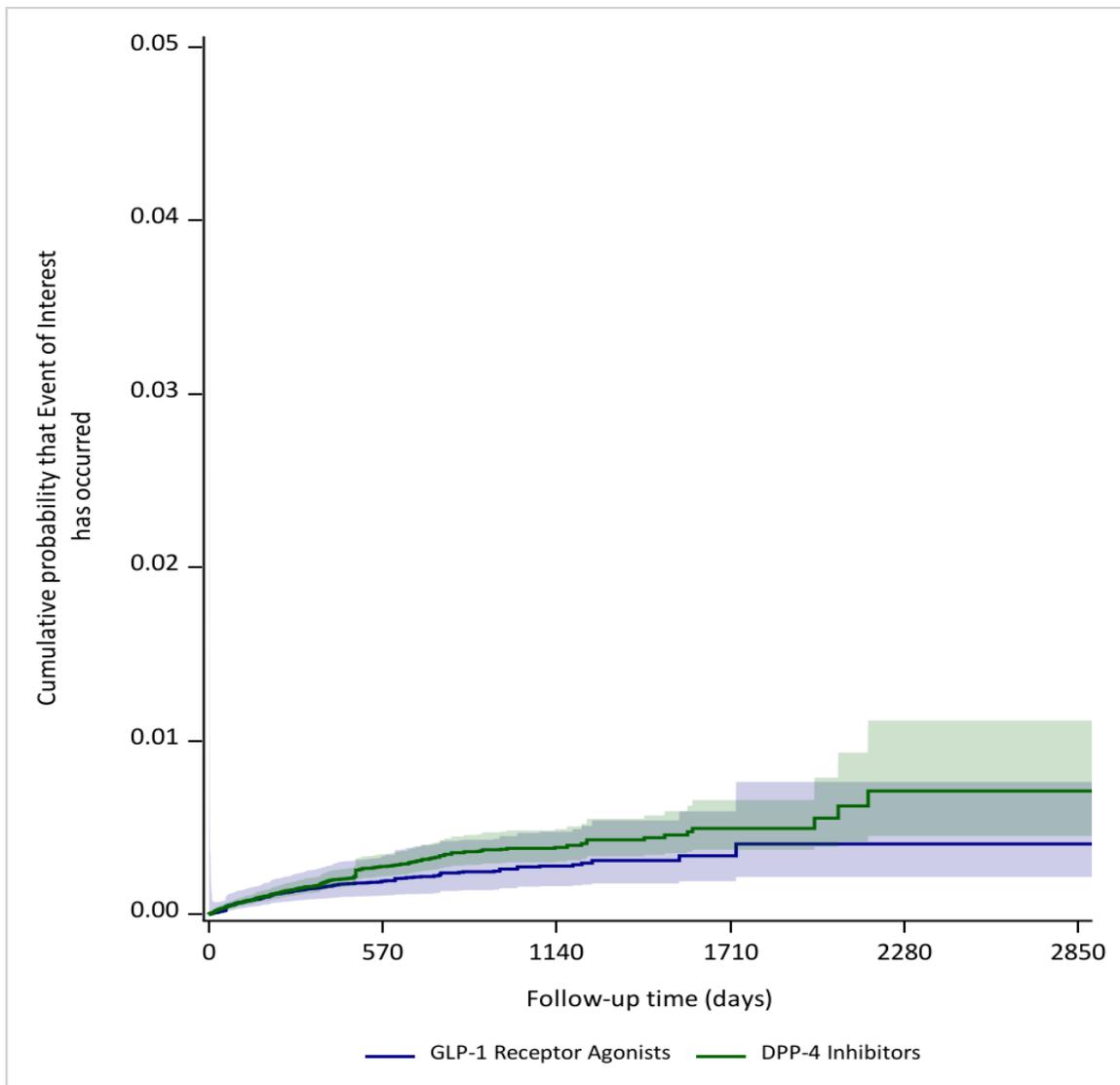


Figure 11aj. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

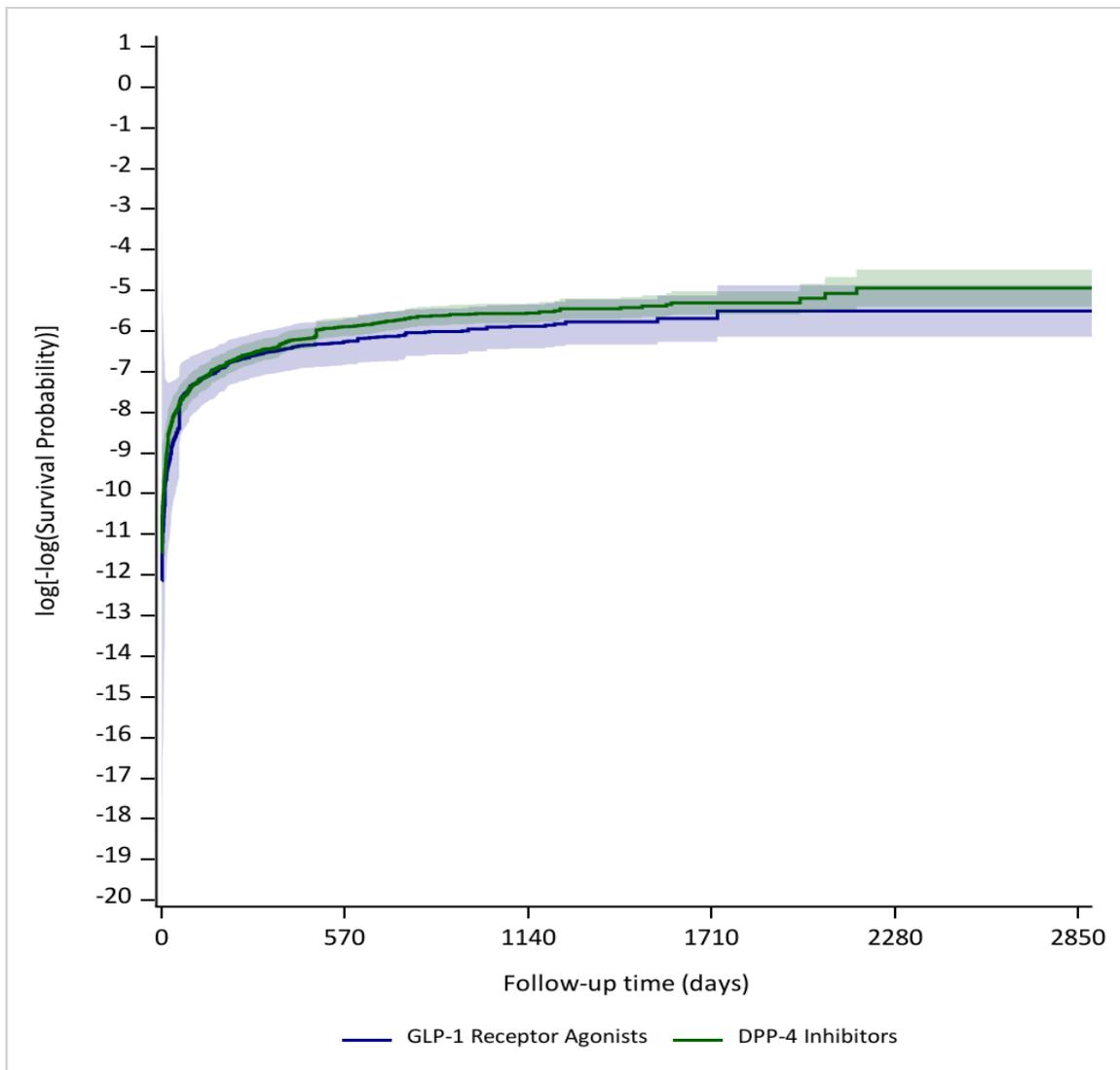


Figure 11ak. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

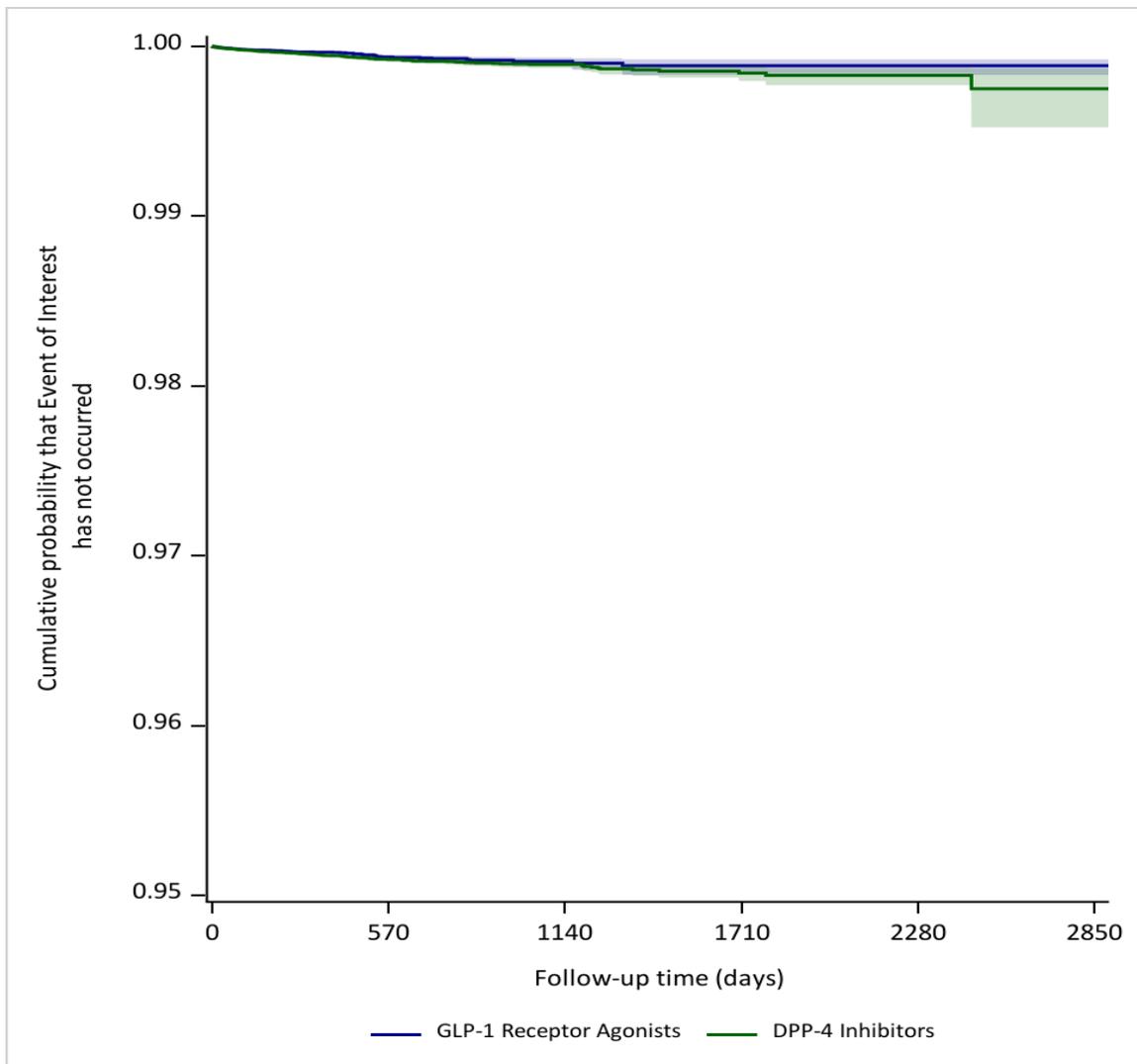


Figure 11a. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

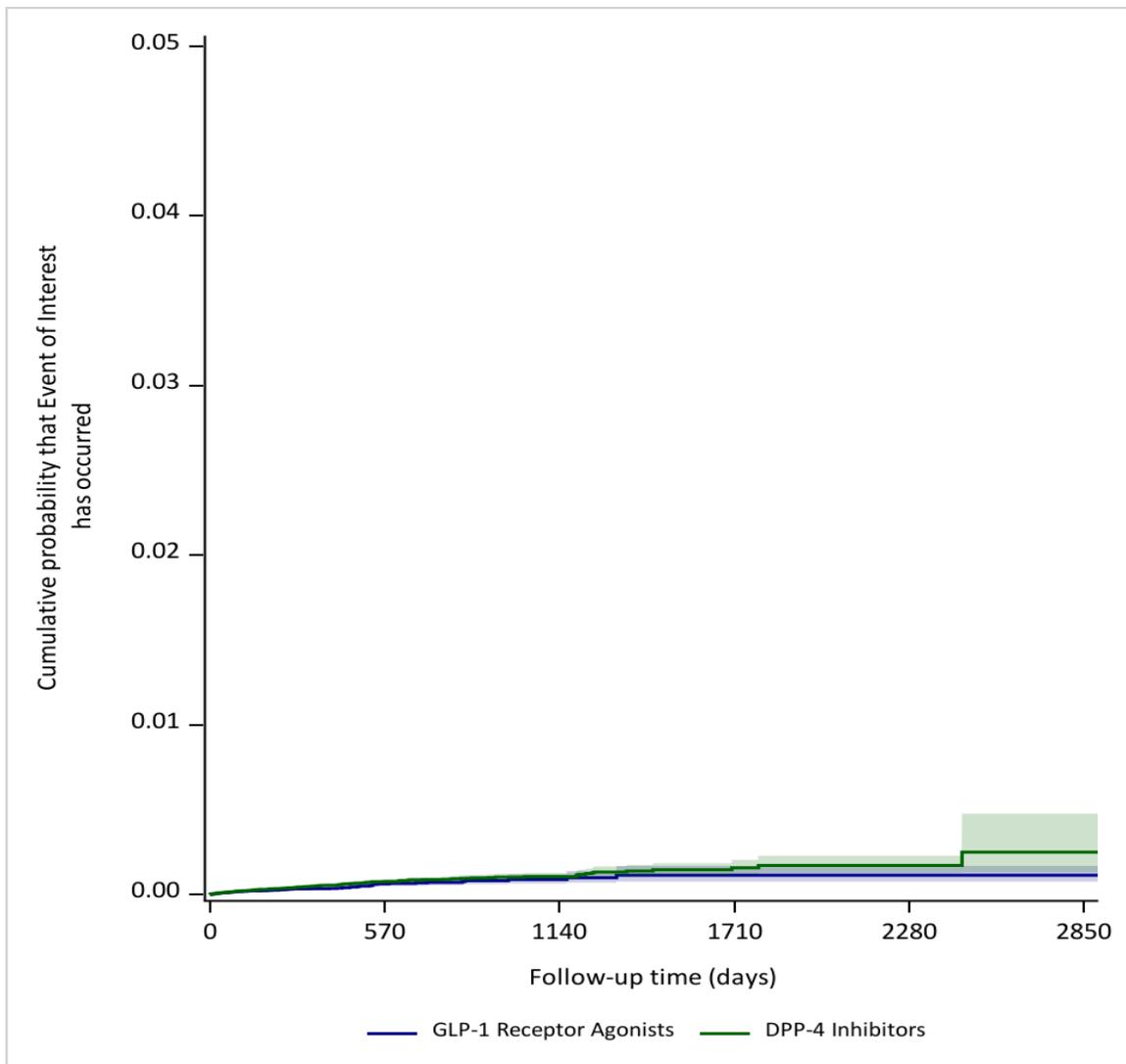


Figure 11am. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

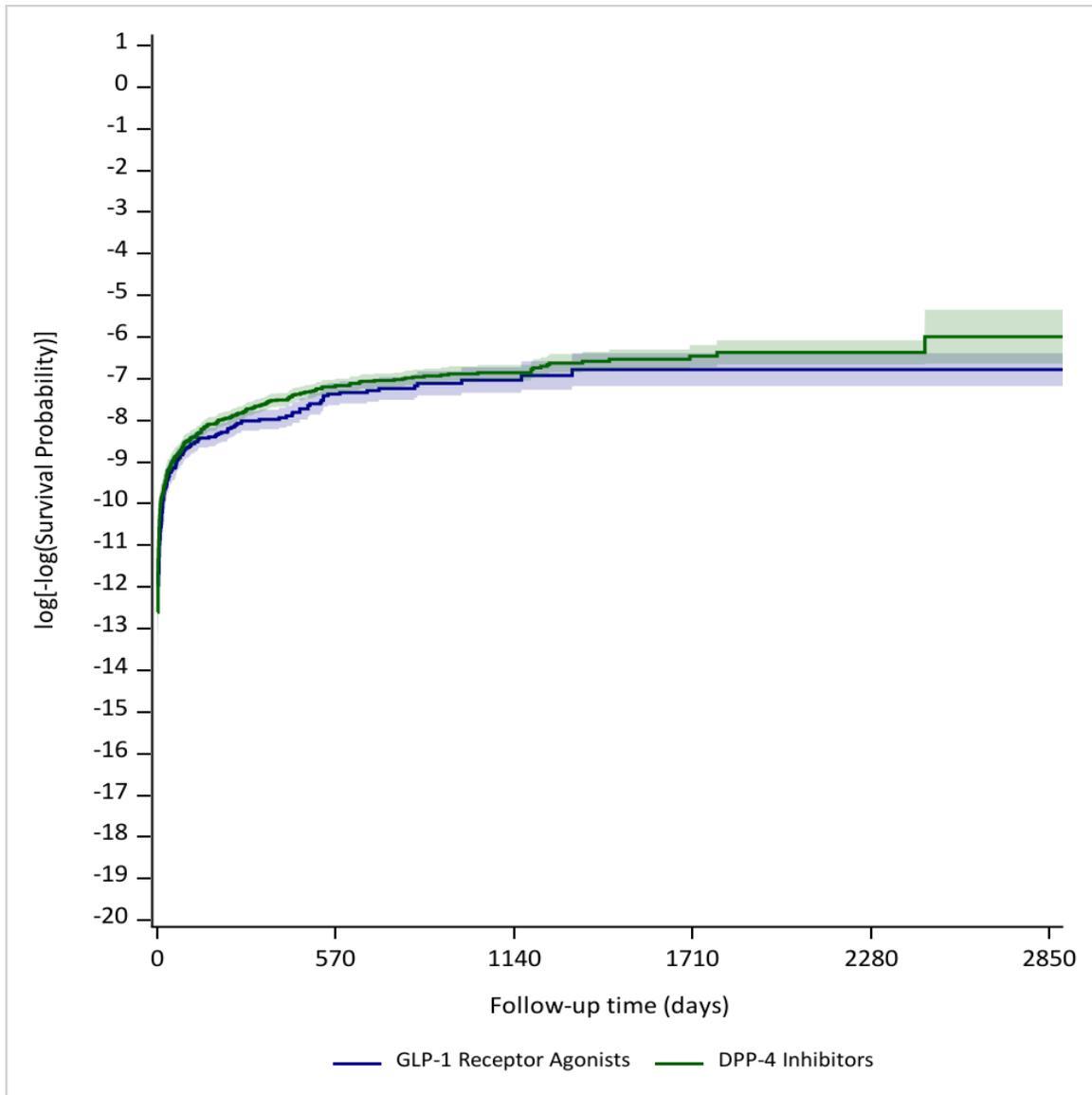


Figure 11an. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

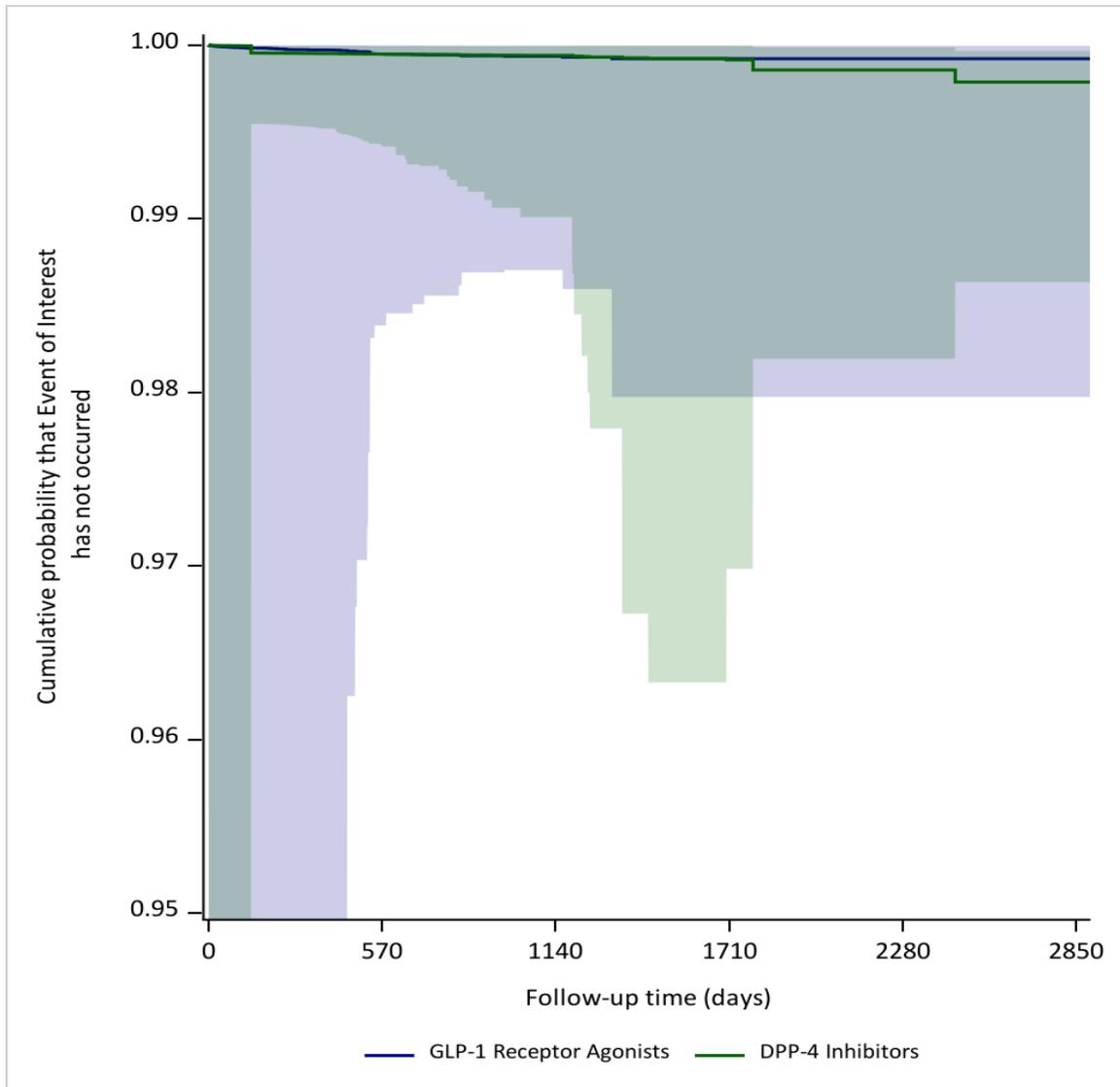


Figure 11ao. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

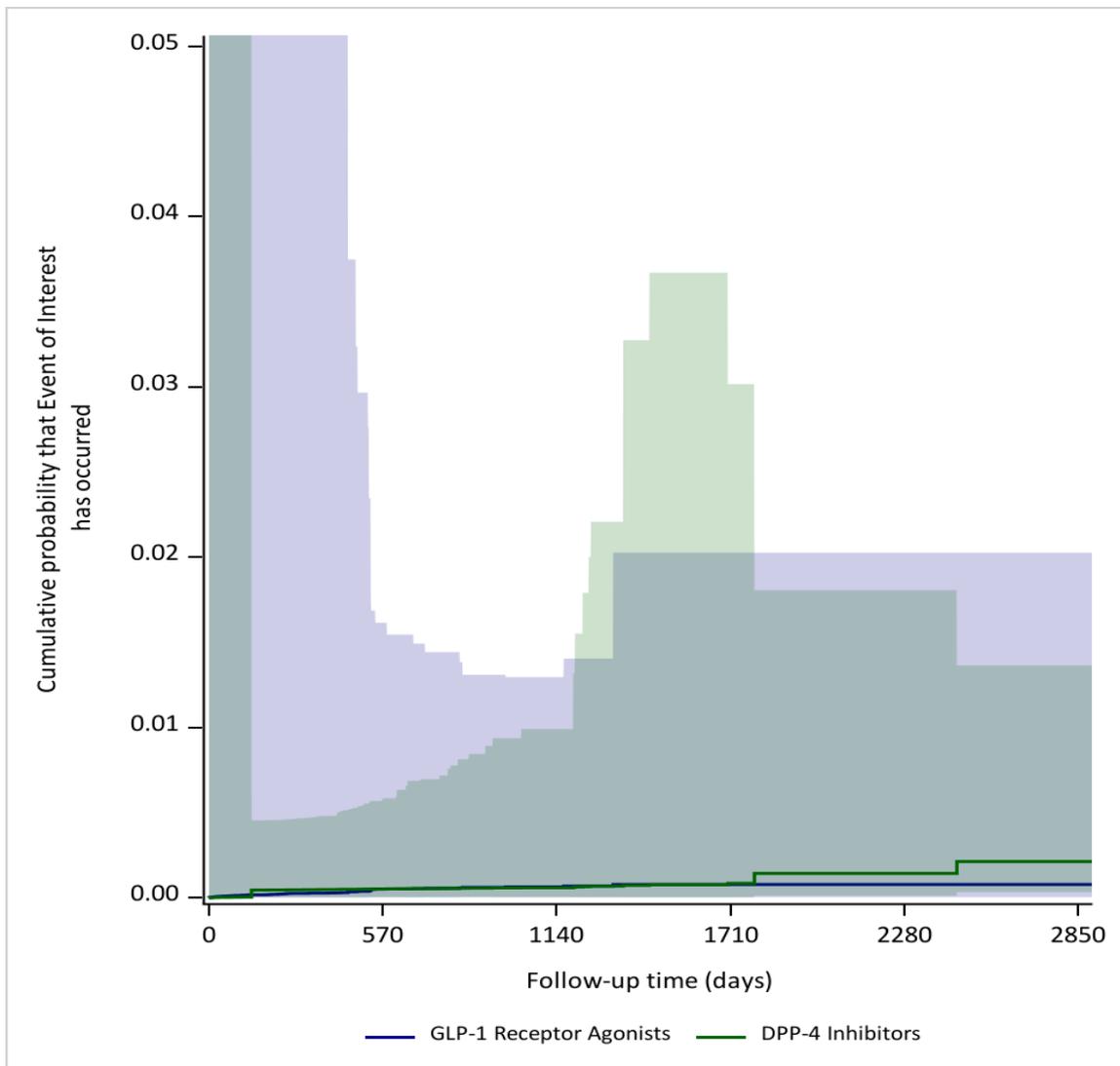


Figure 11ap. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

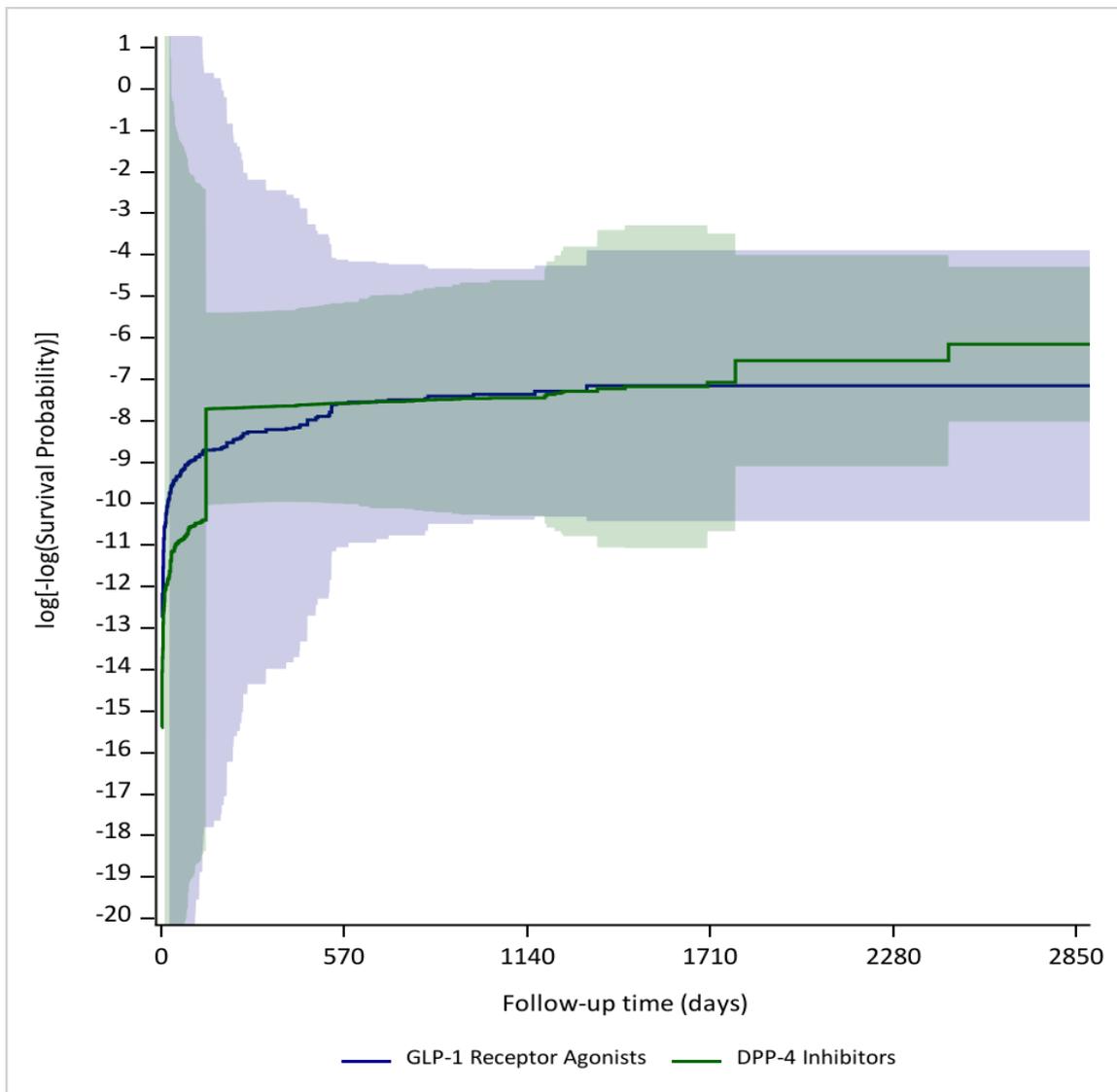


Figure 11aq. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

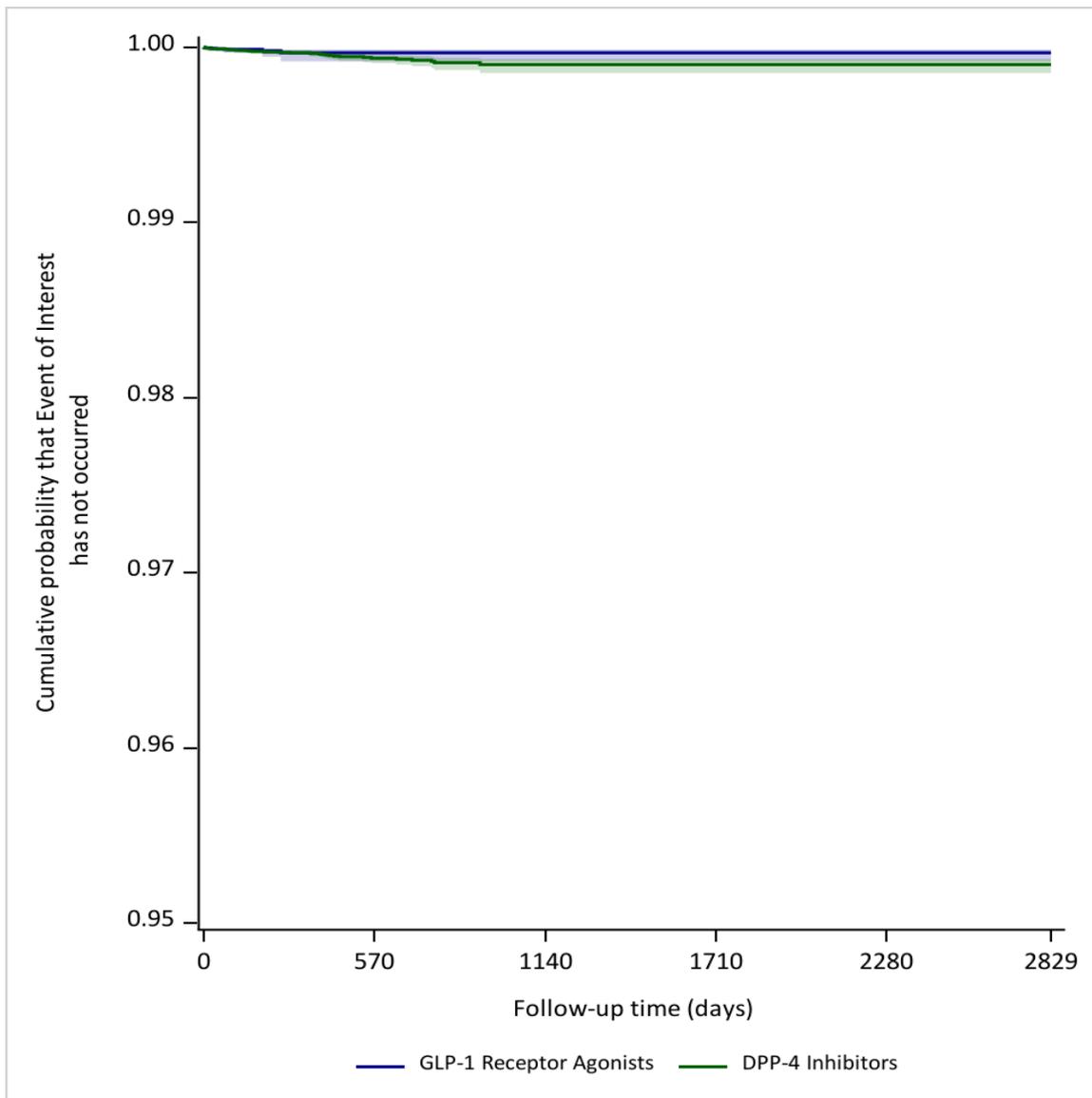


Figure 11ar. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

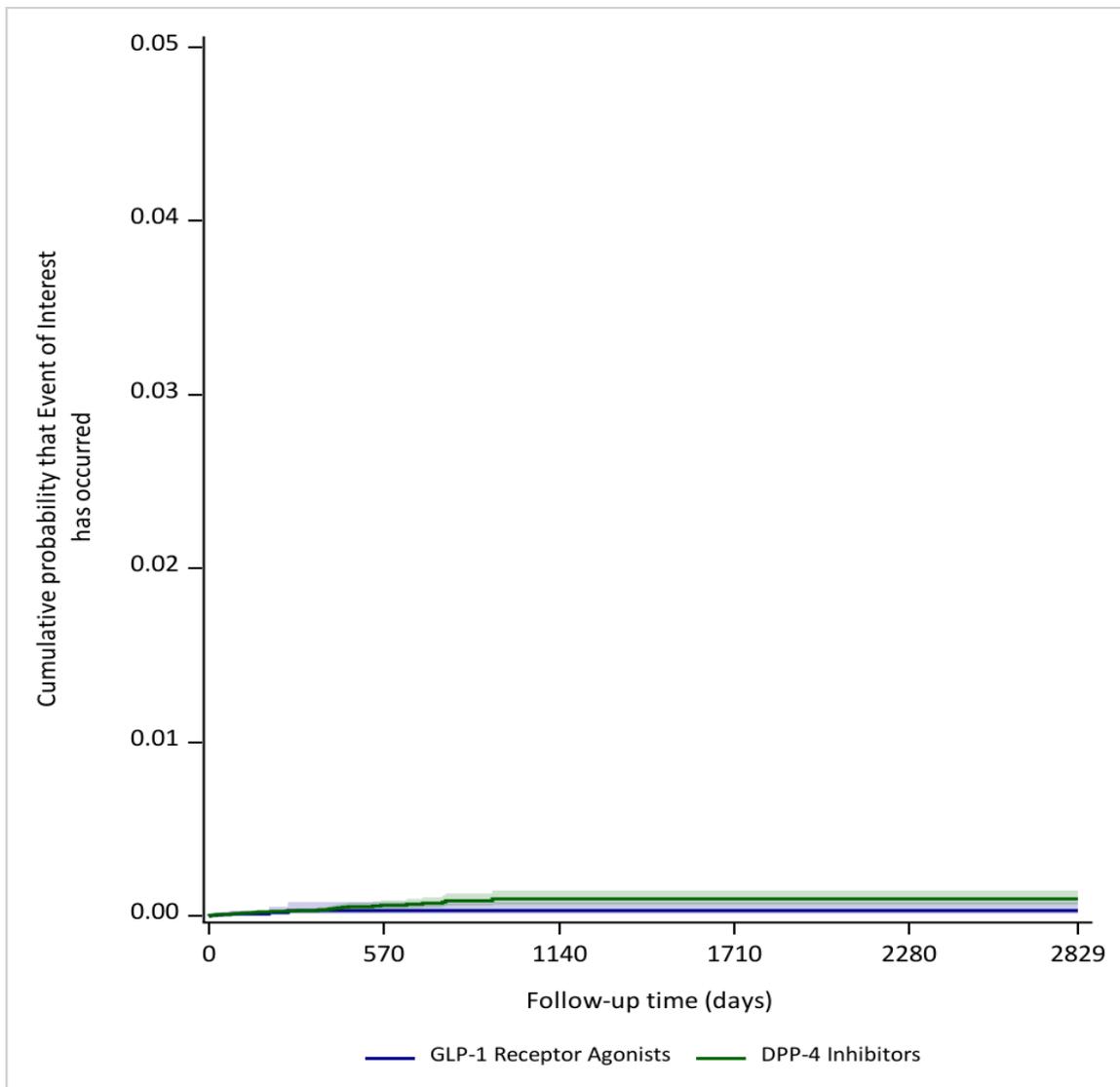


Figure 11as. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

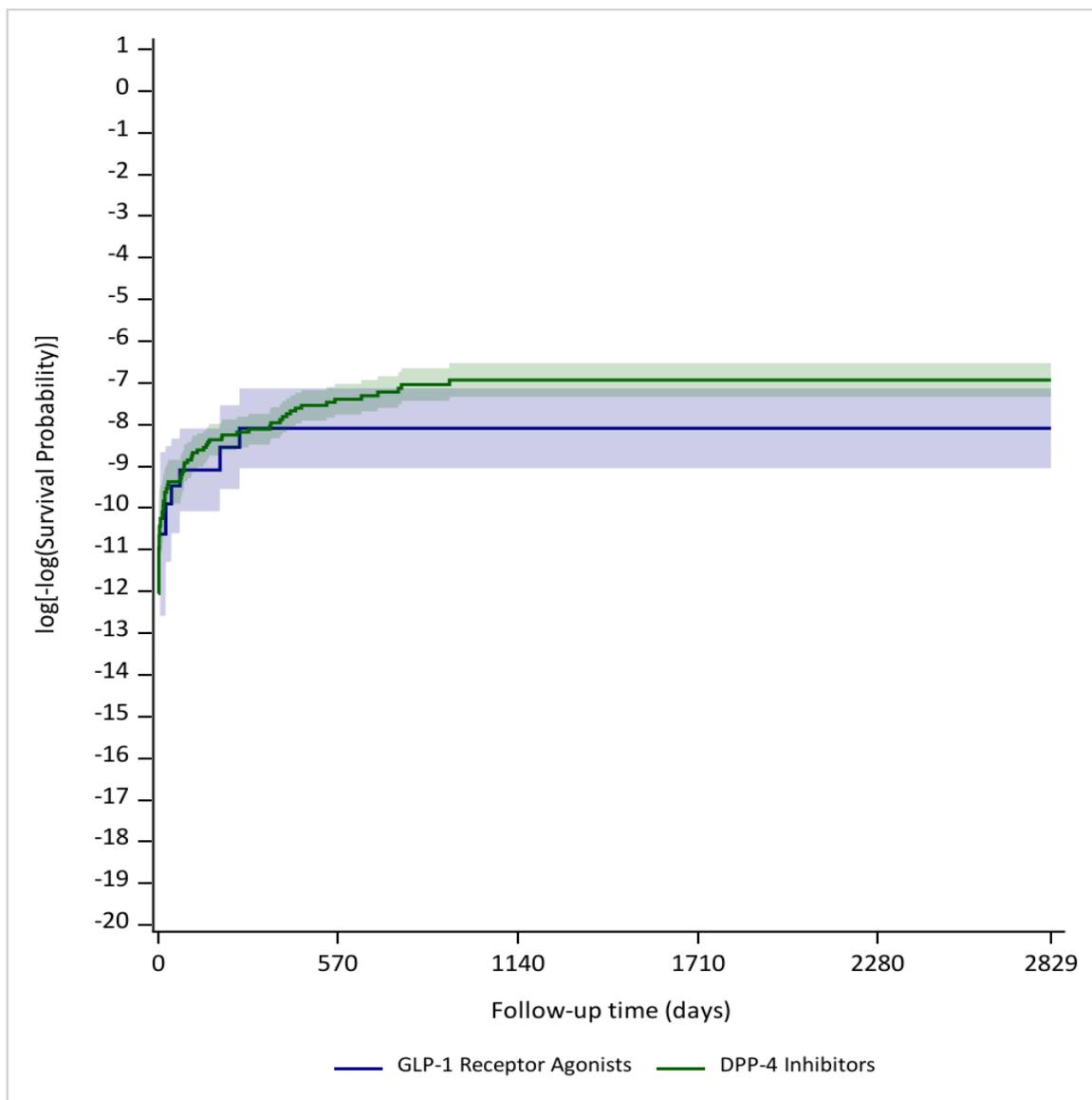


Figure 11at. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

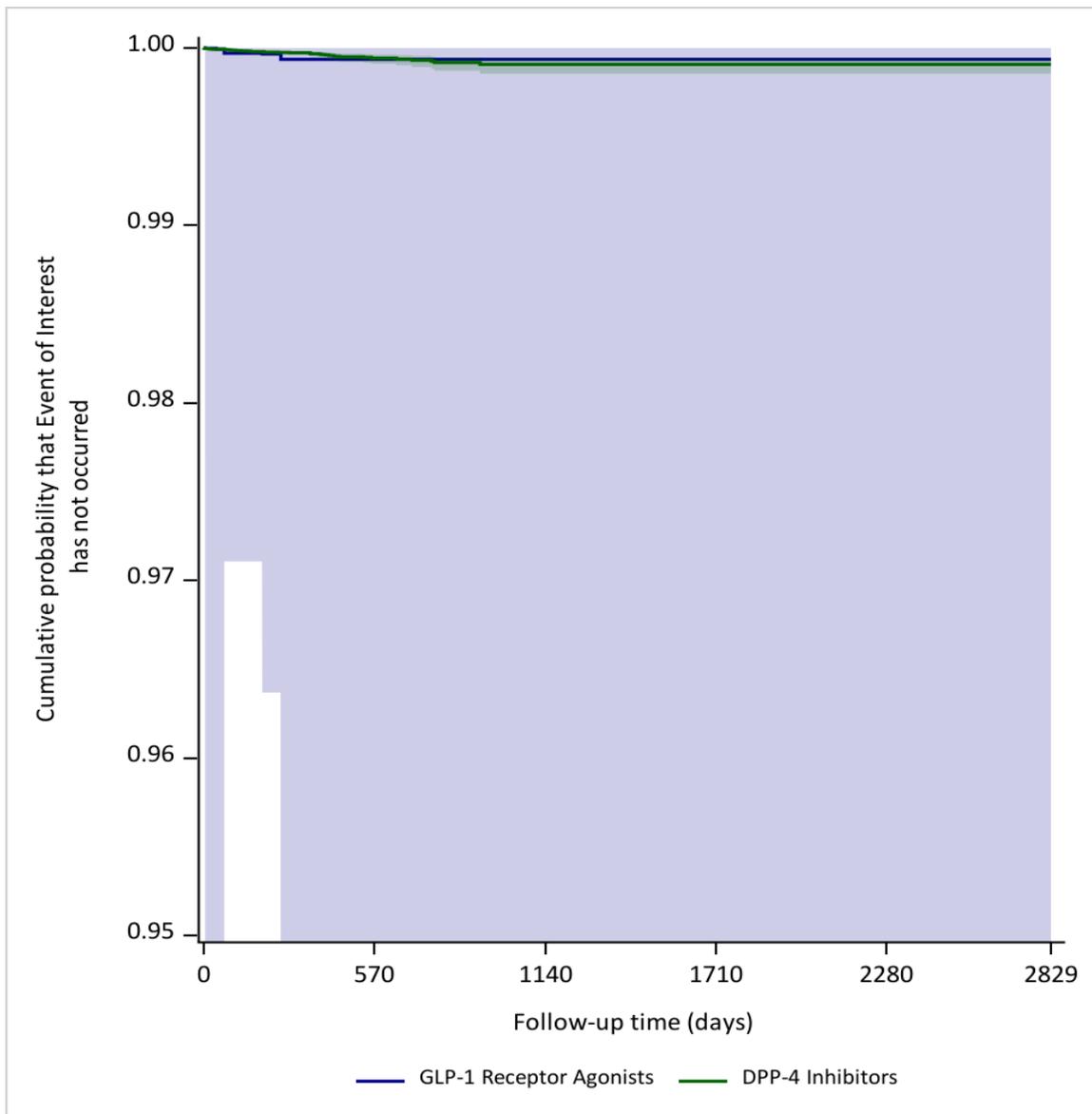


Figure 11au. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

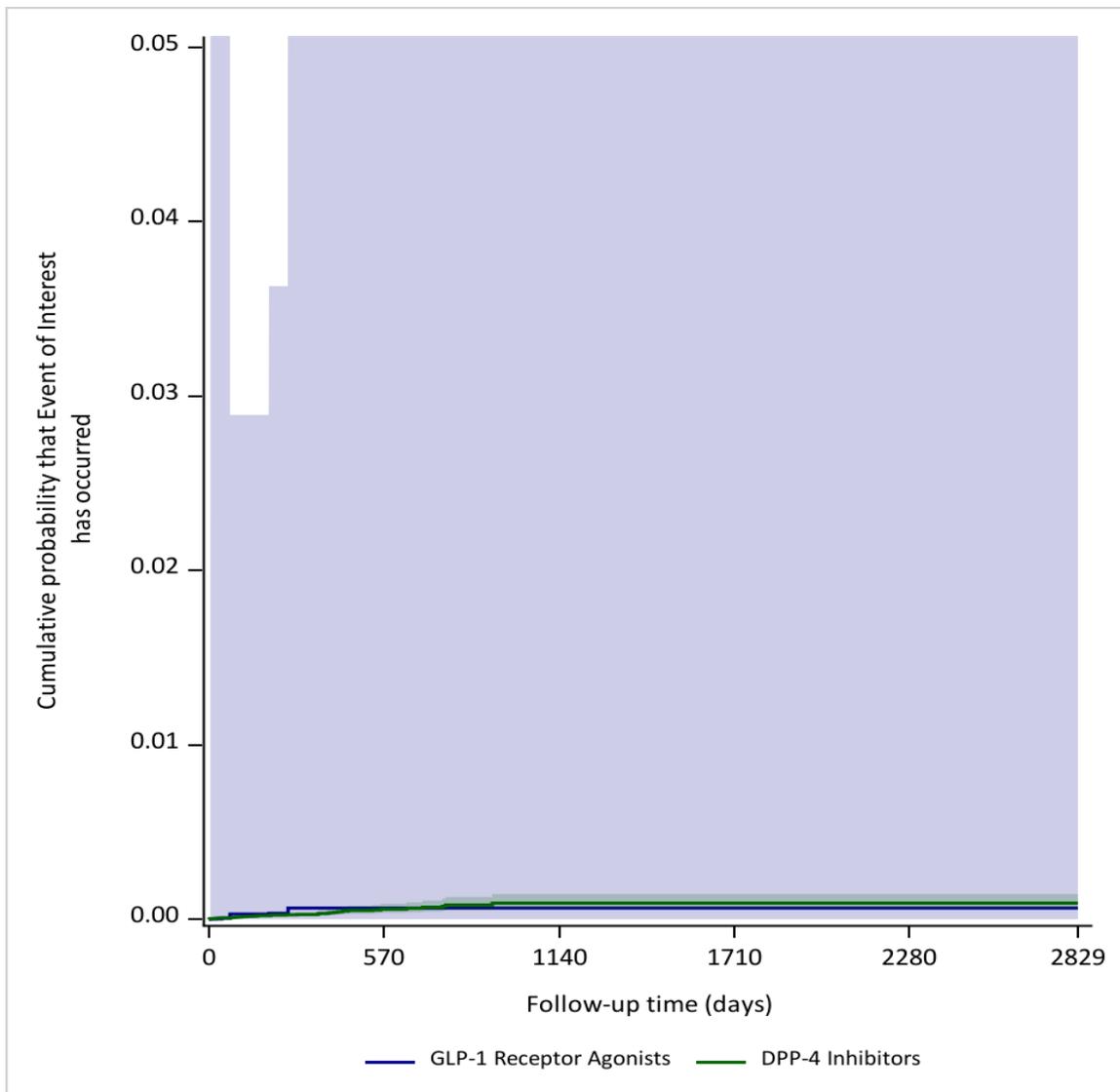


Figure 11av. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

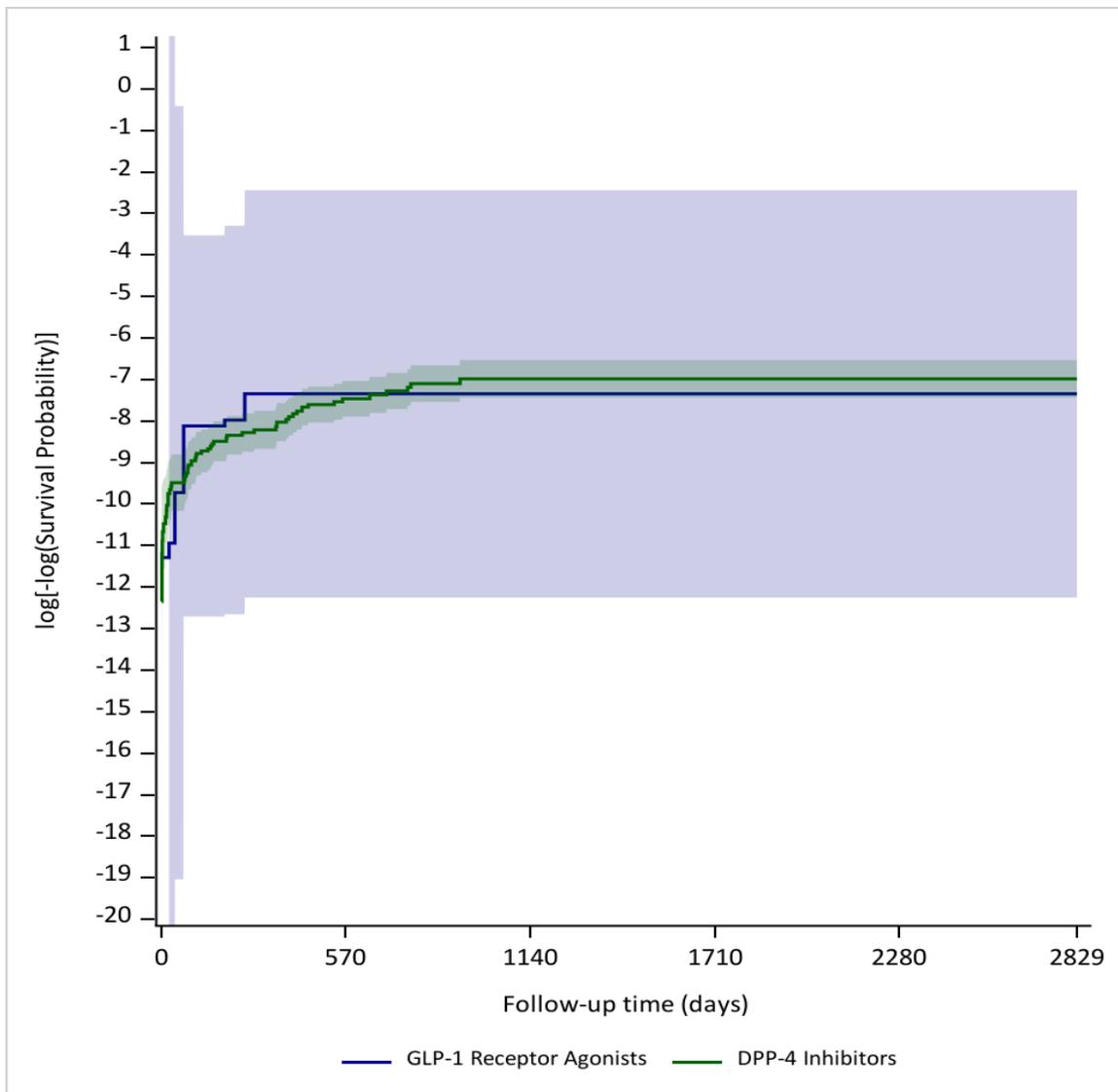


Figure 12a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

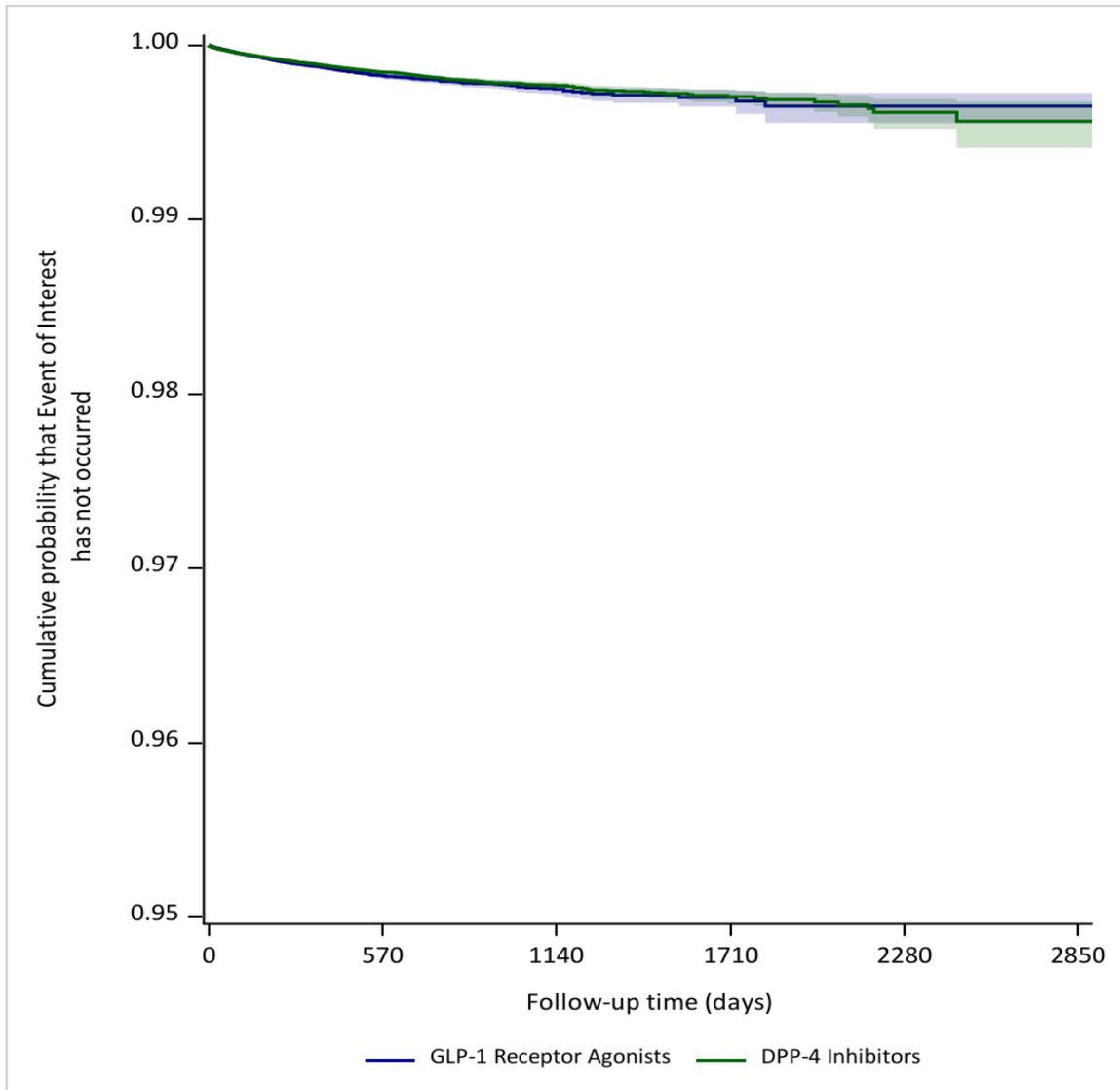


Figure 12b. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

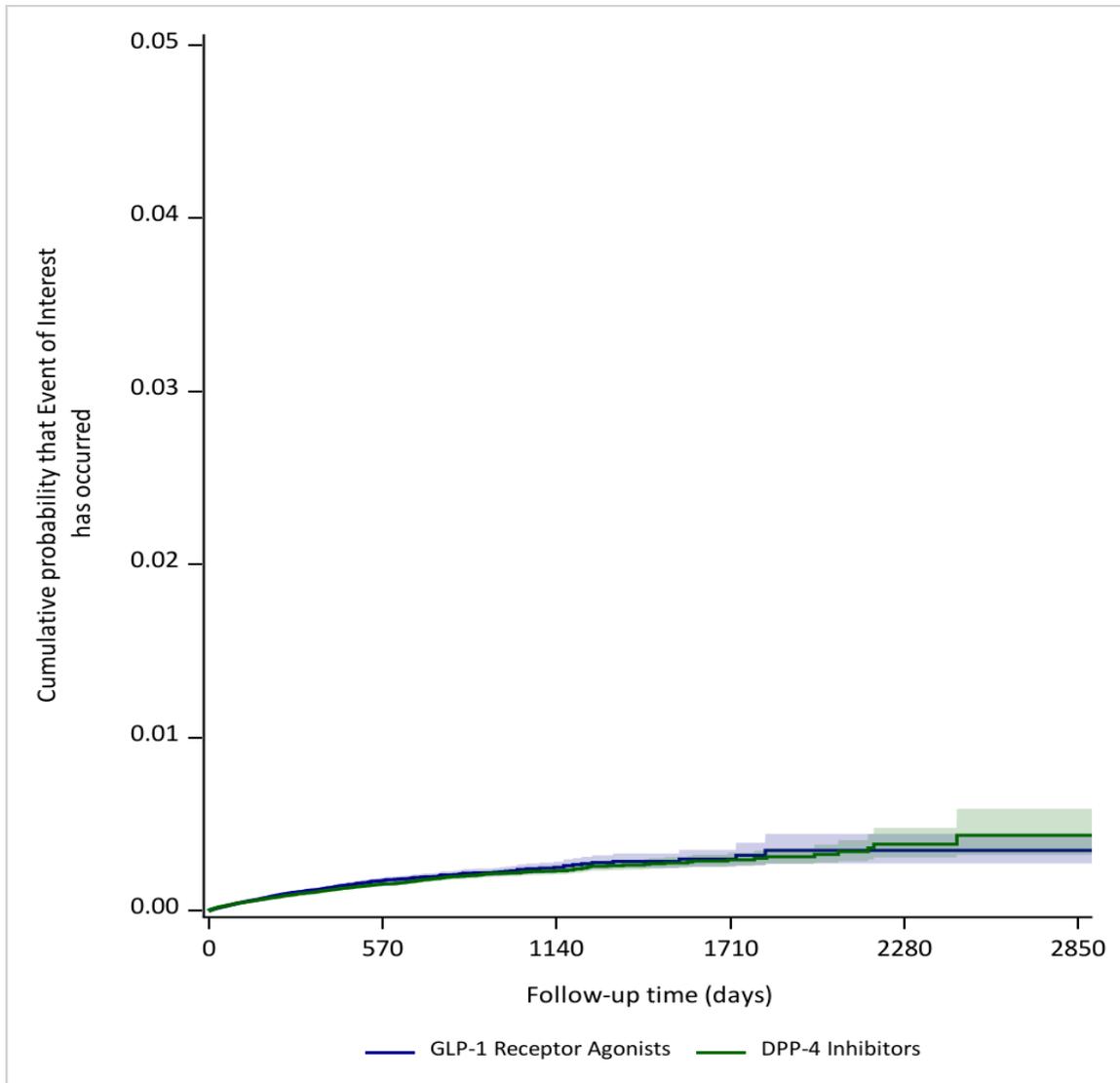


Figure 12c. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

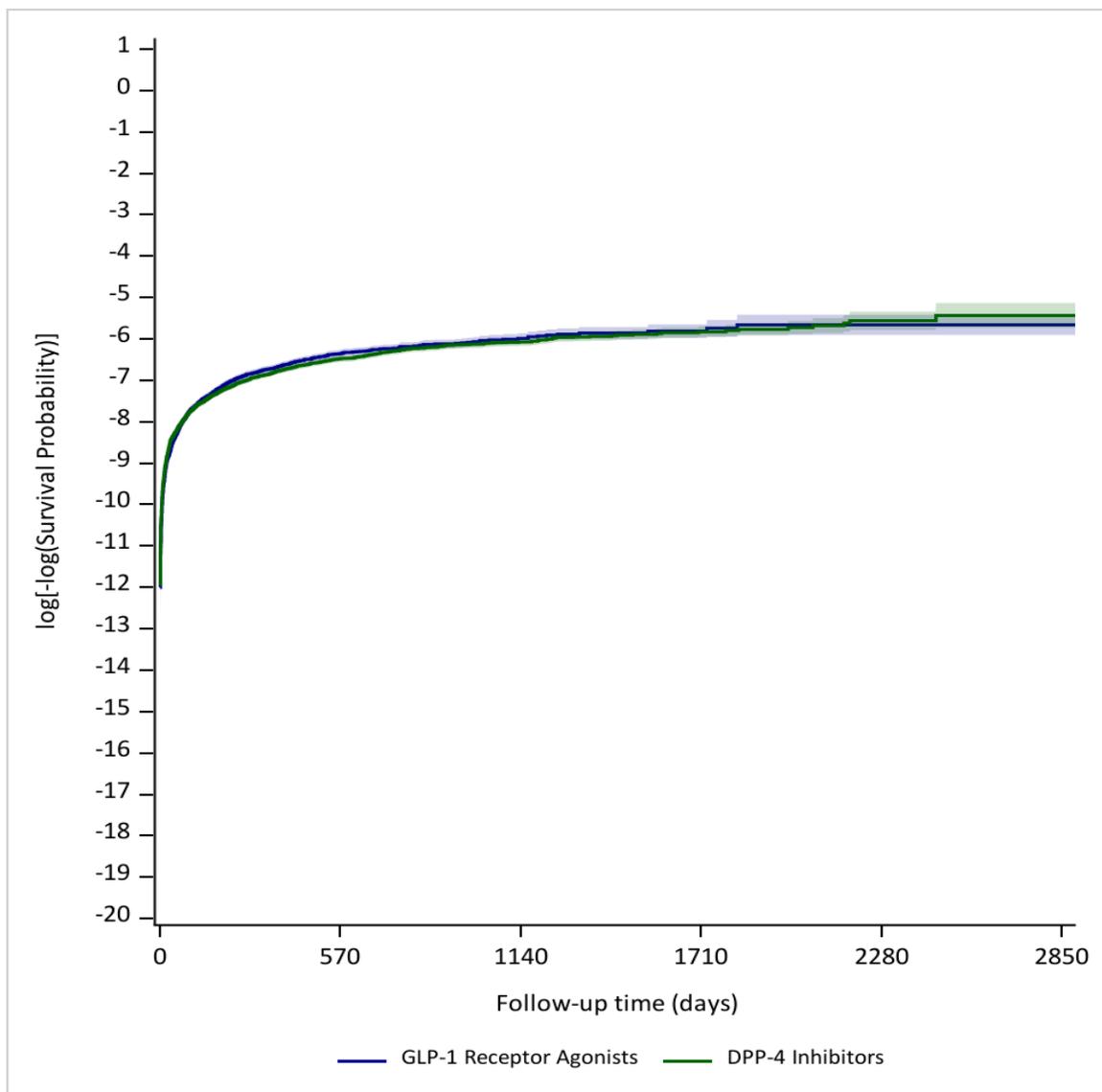


Figure 12d. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

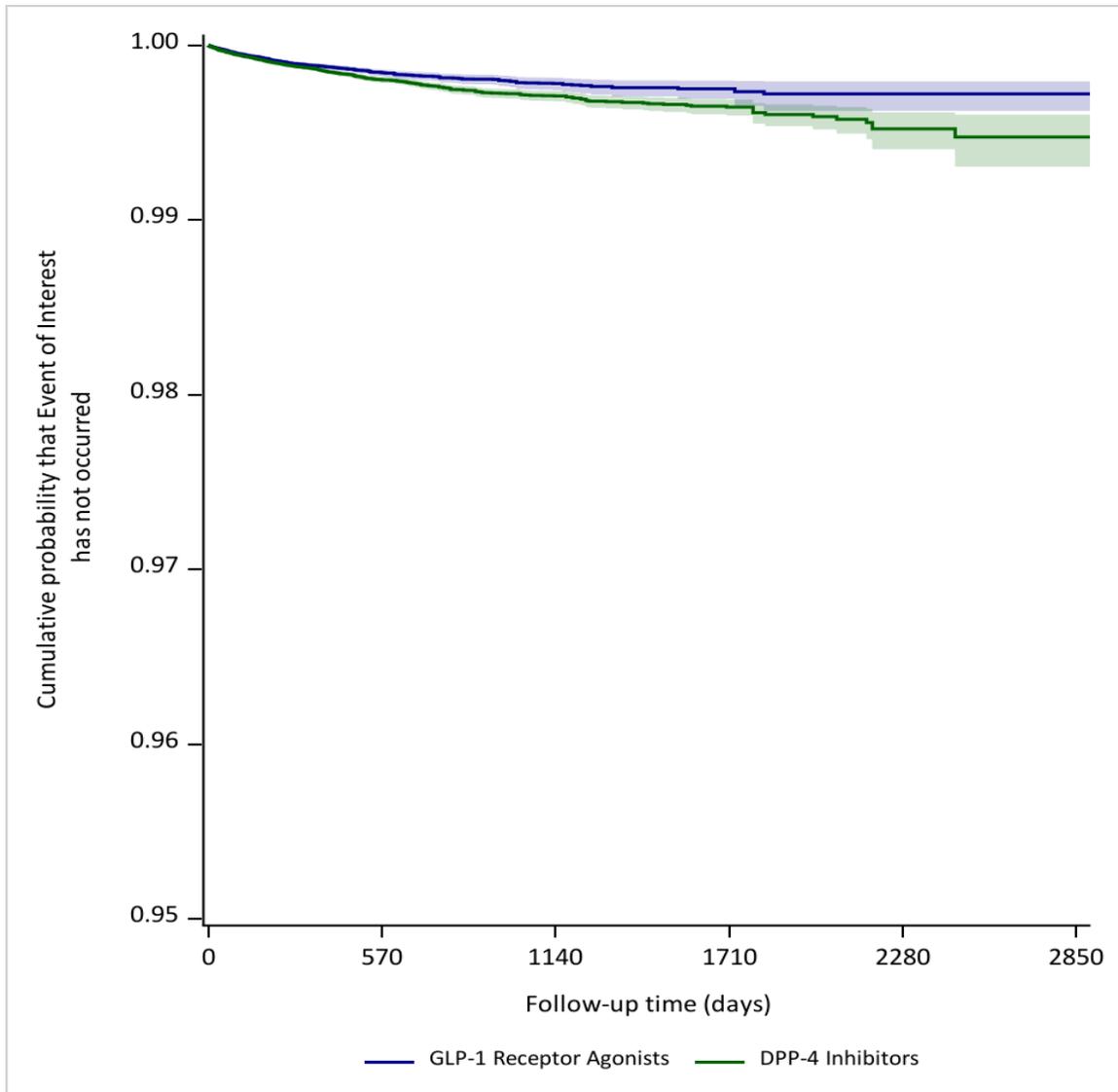


Figure 12e. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

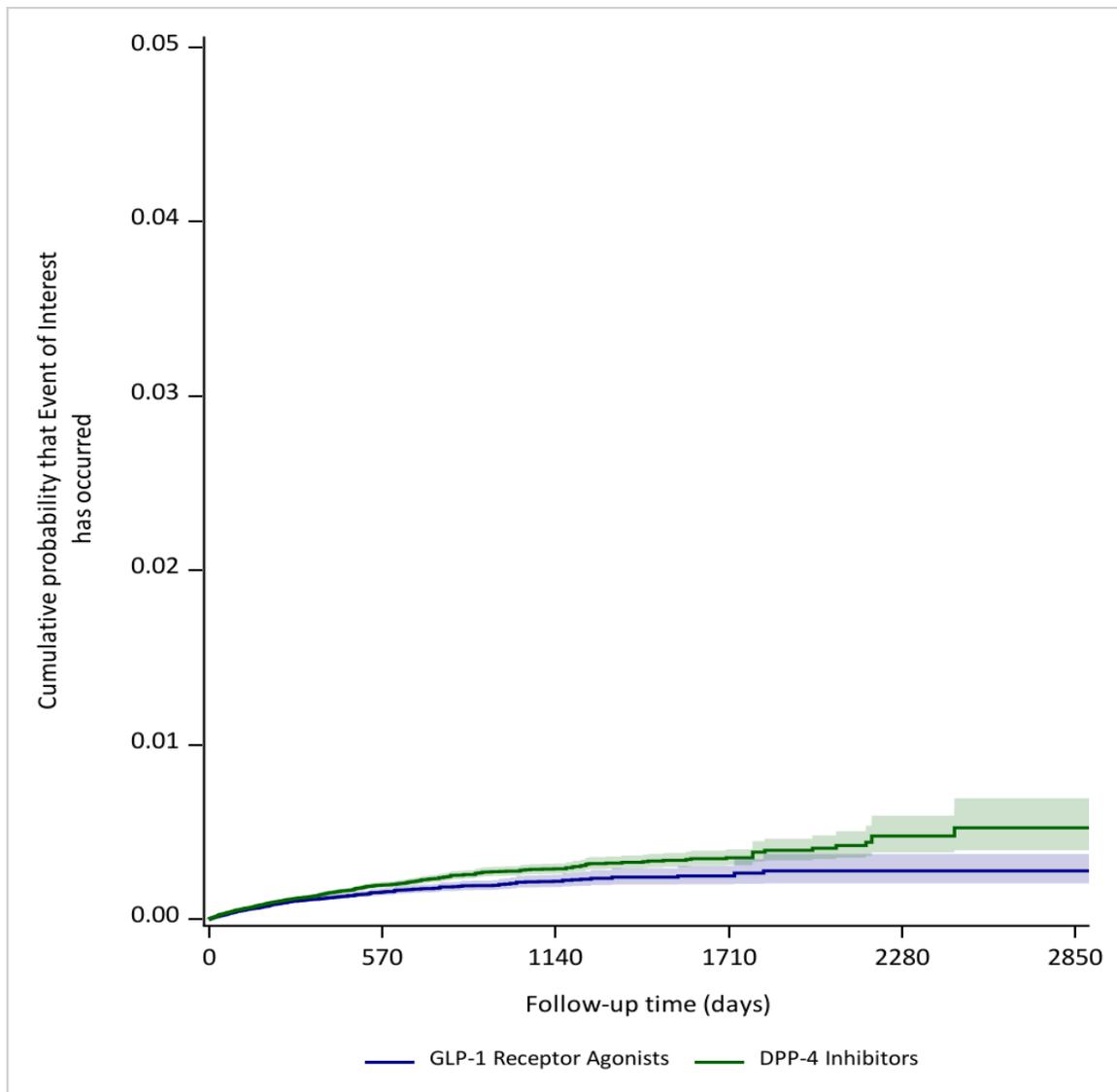


Figure 12f. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

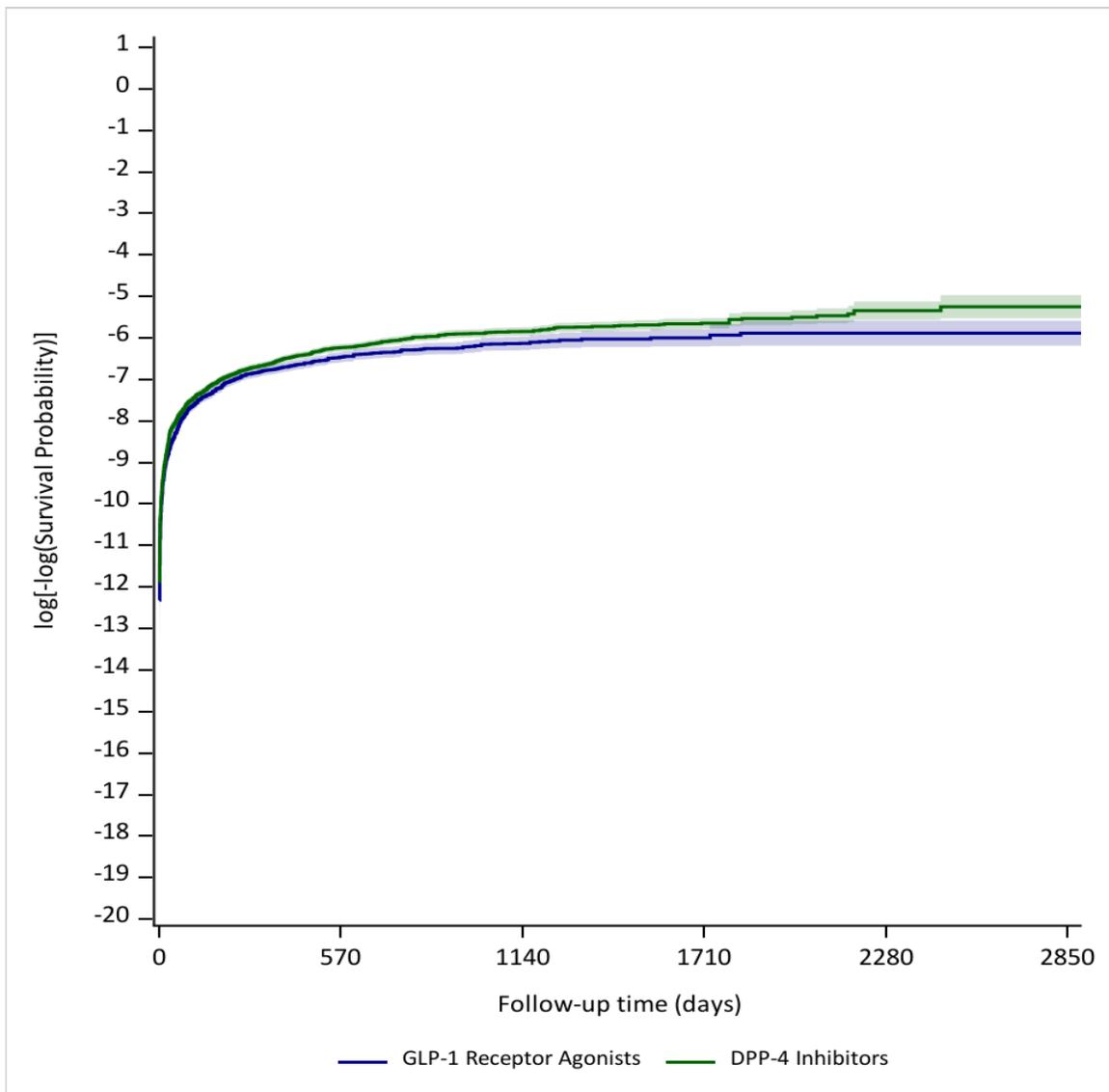


Figure 12g. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

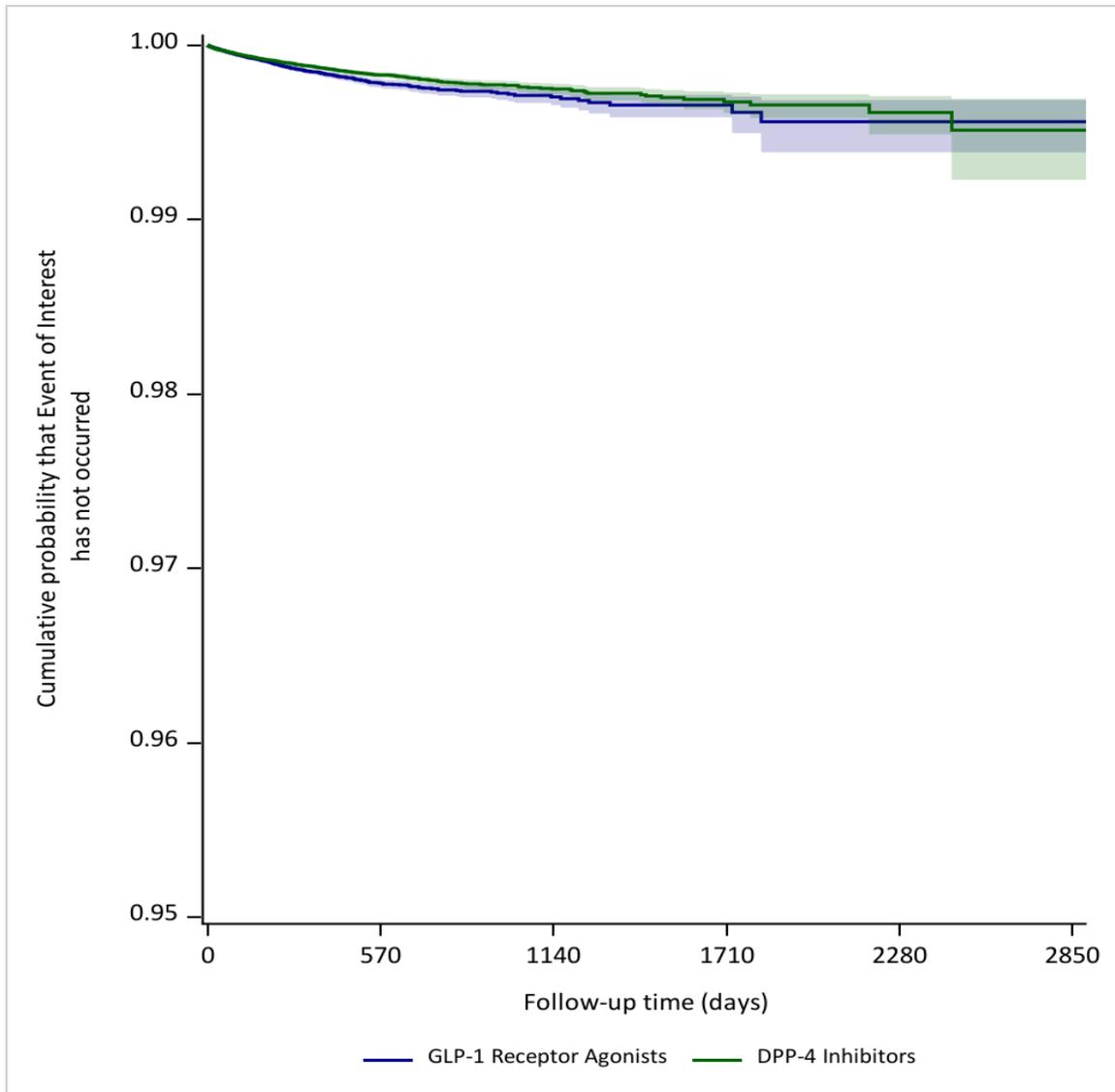


Figure 12h. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

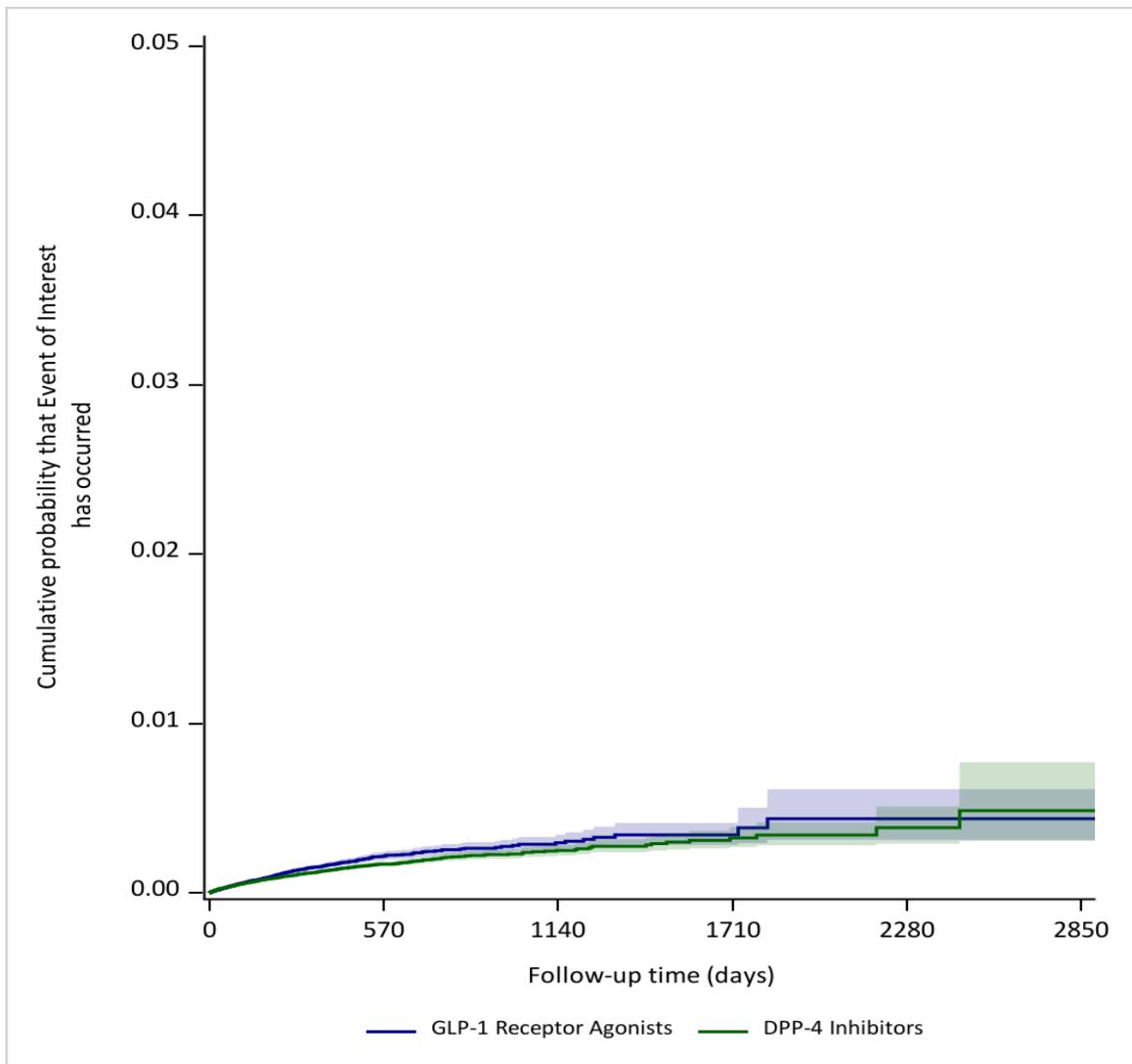


Figure 12i. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

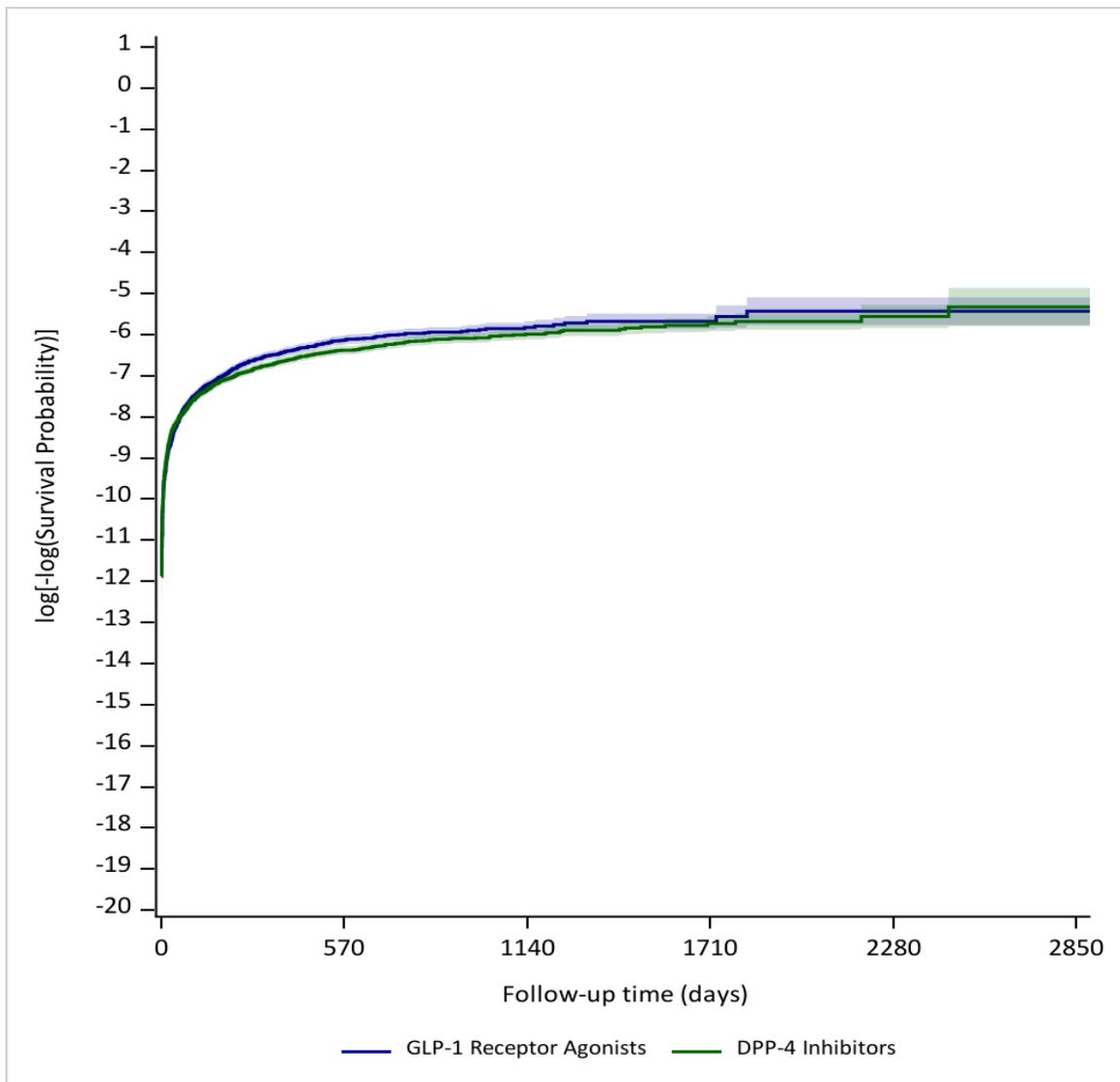


Figure 12j. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

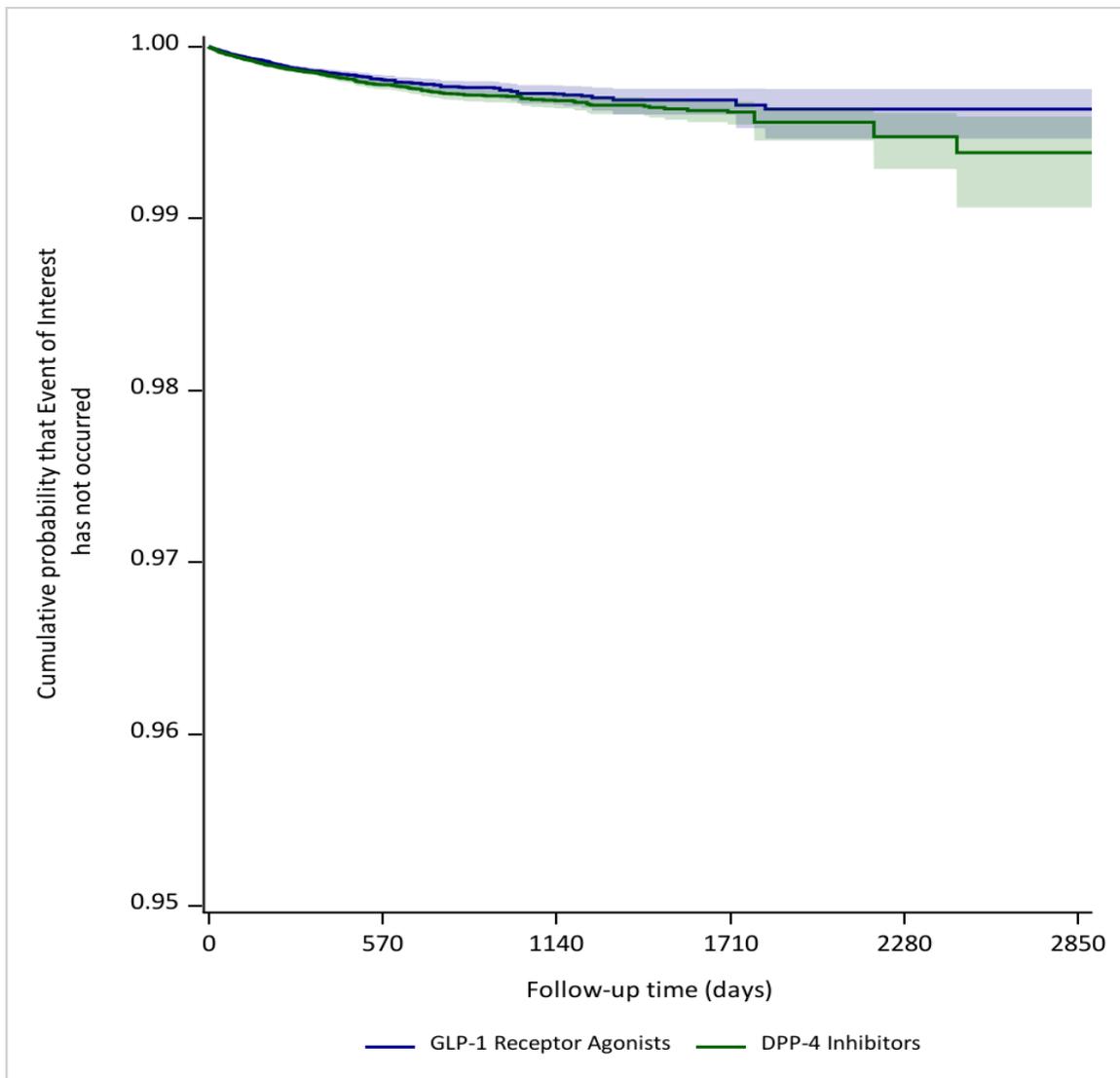


Figure 12k. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

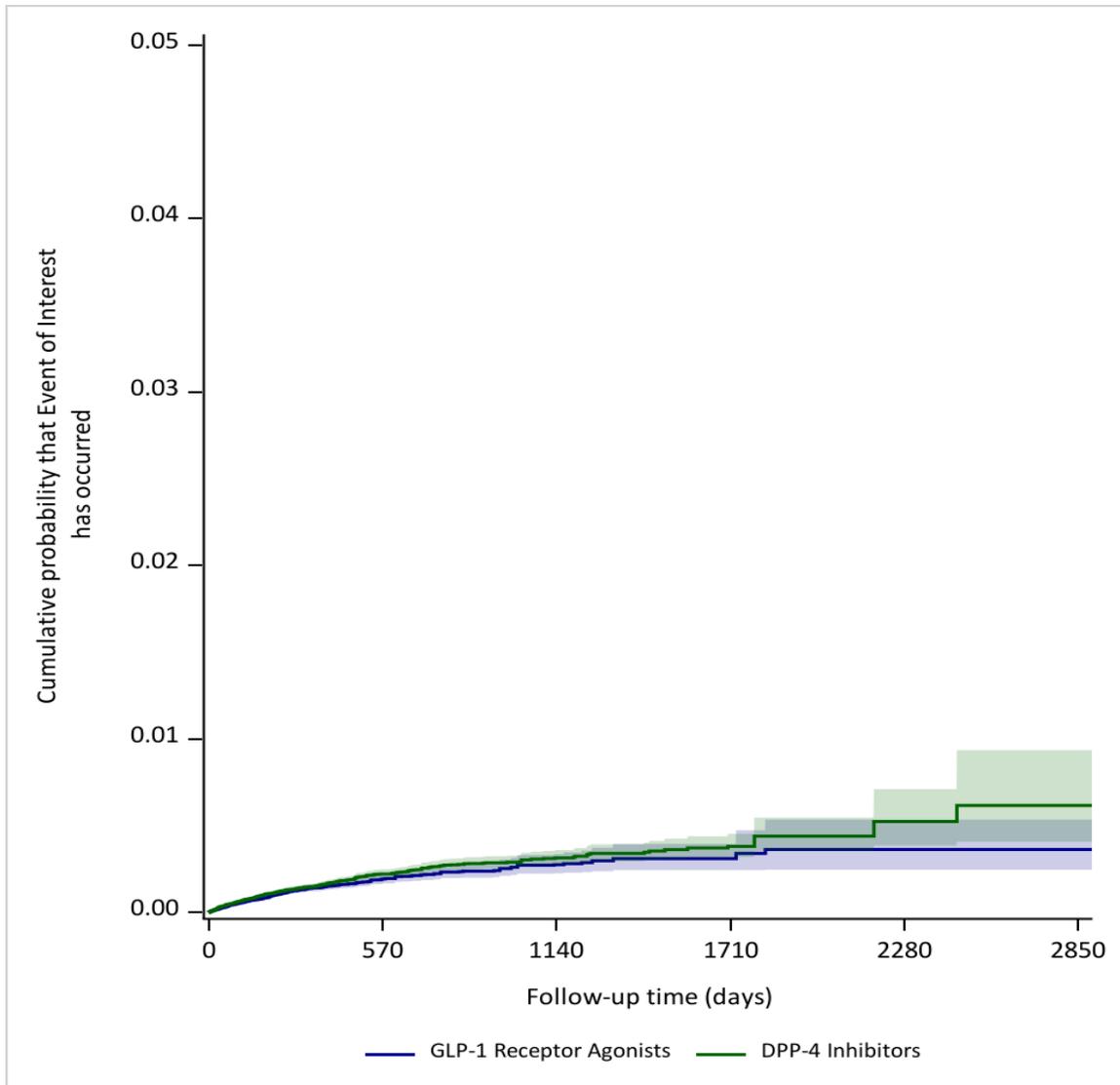


Figure 12l. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

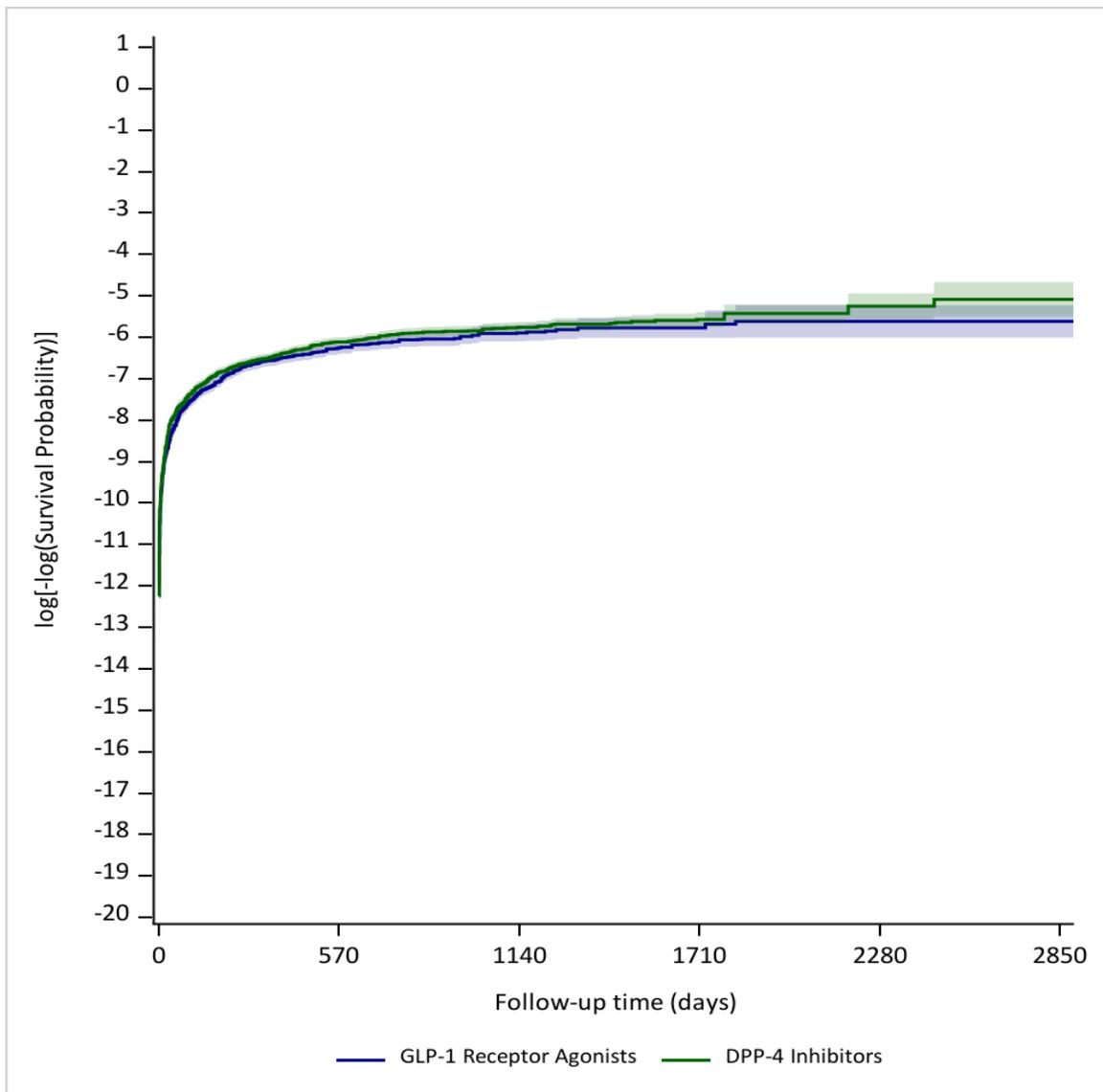


Figure 12m. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

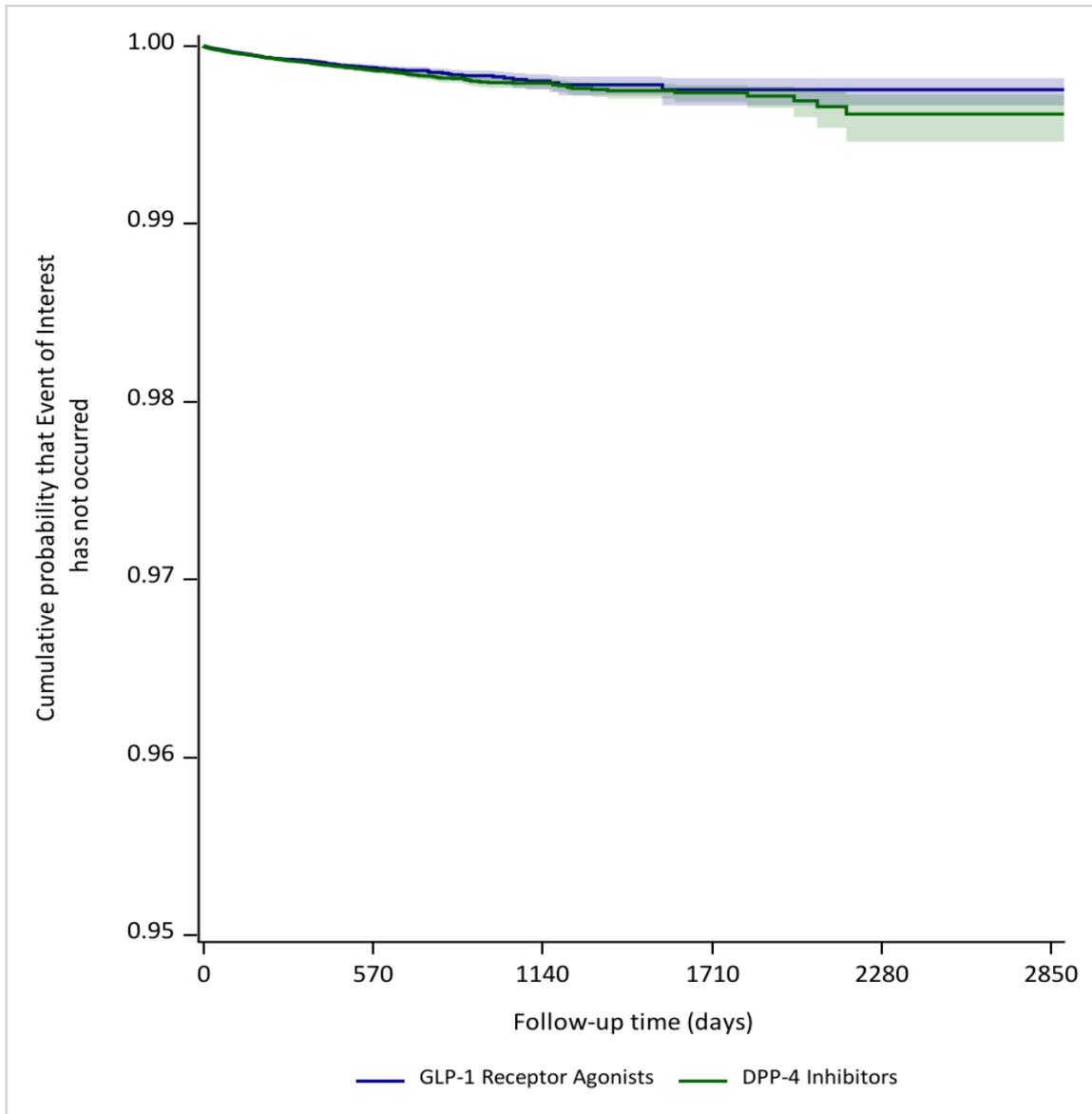


Figure 12n. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

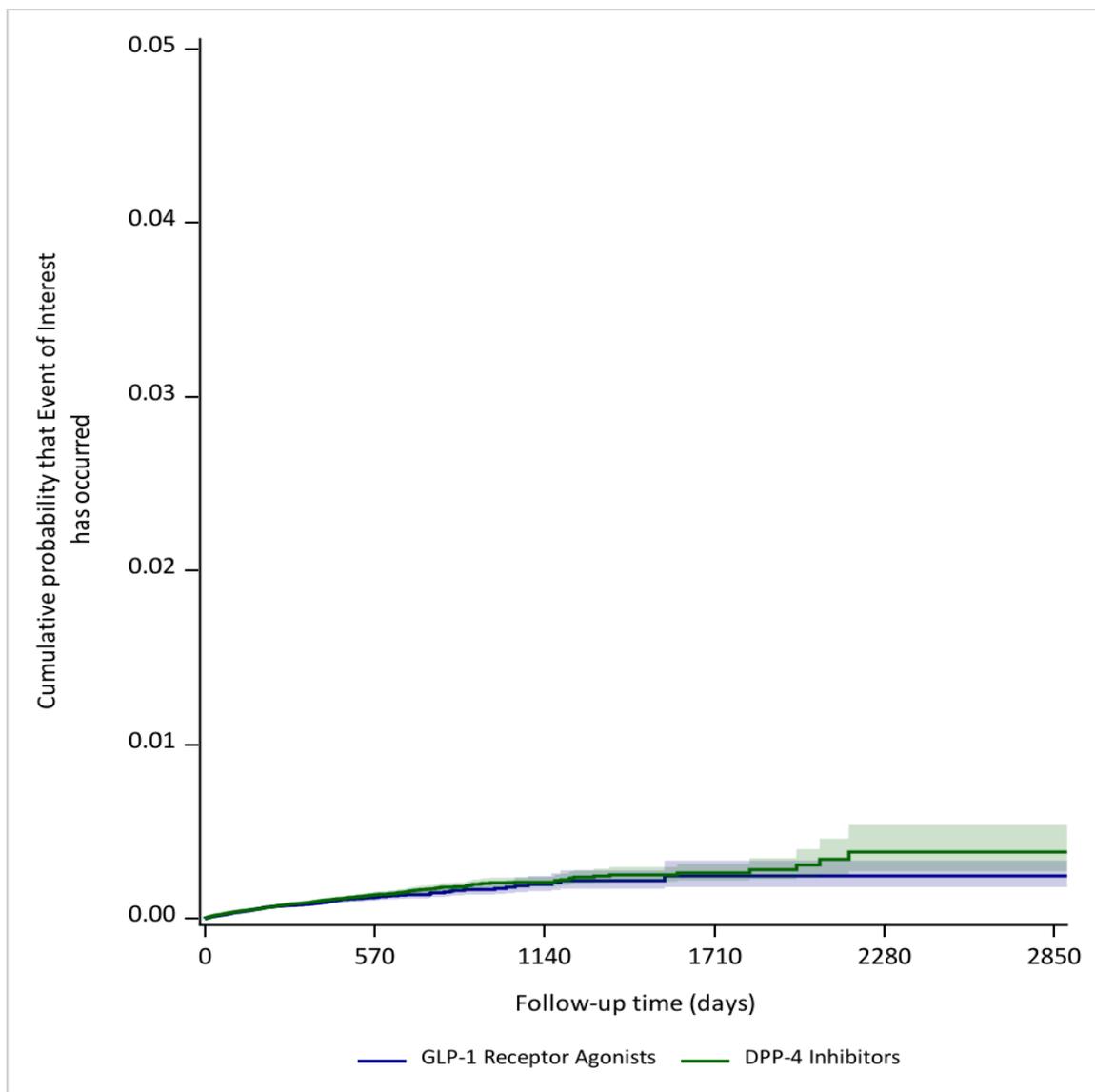


Figure 12o. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

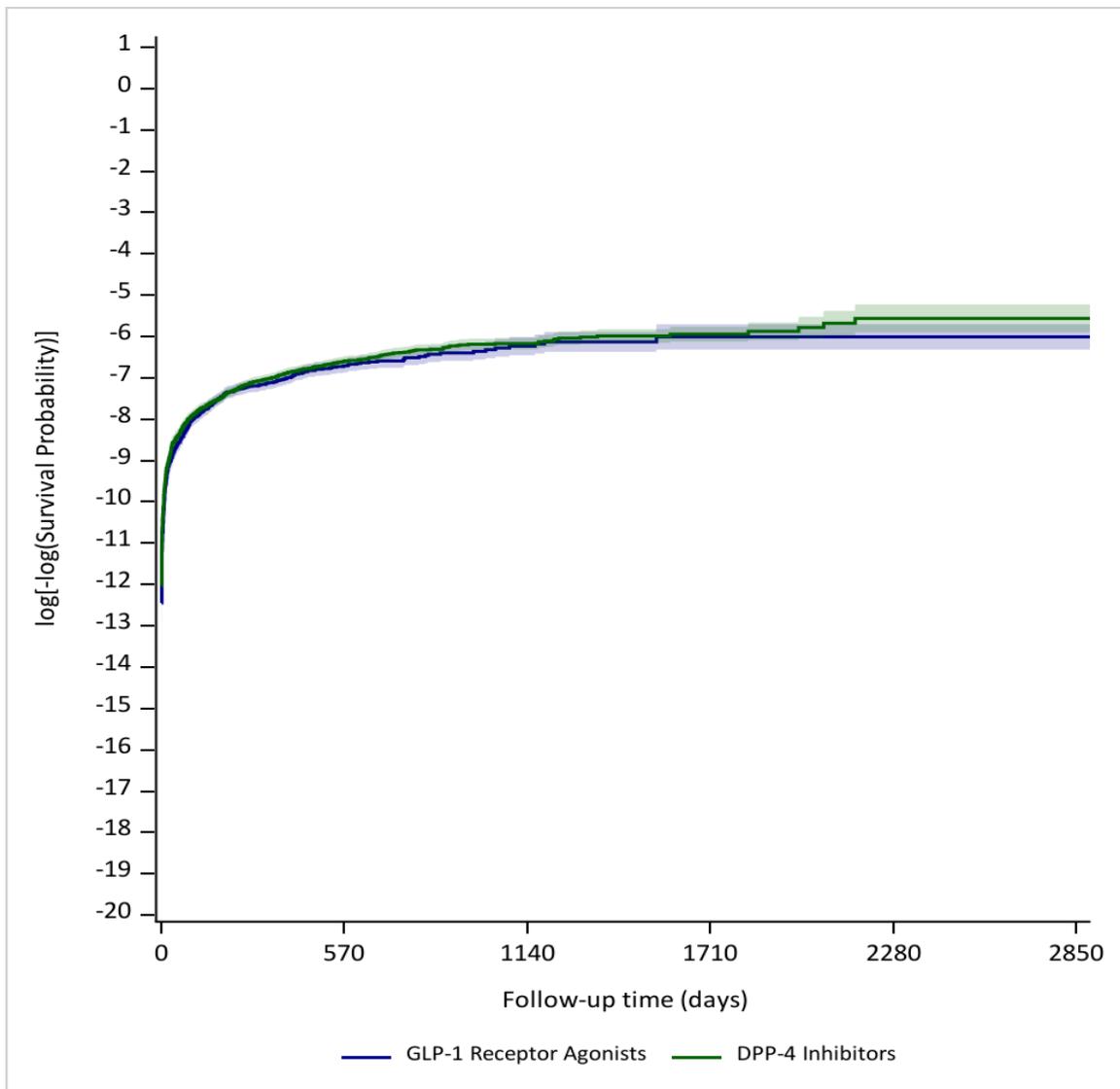


Figure 12p. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

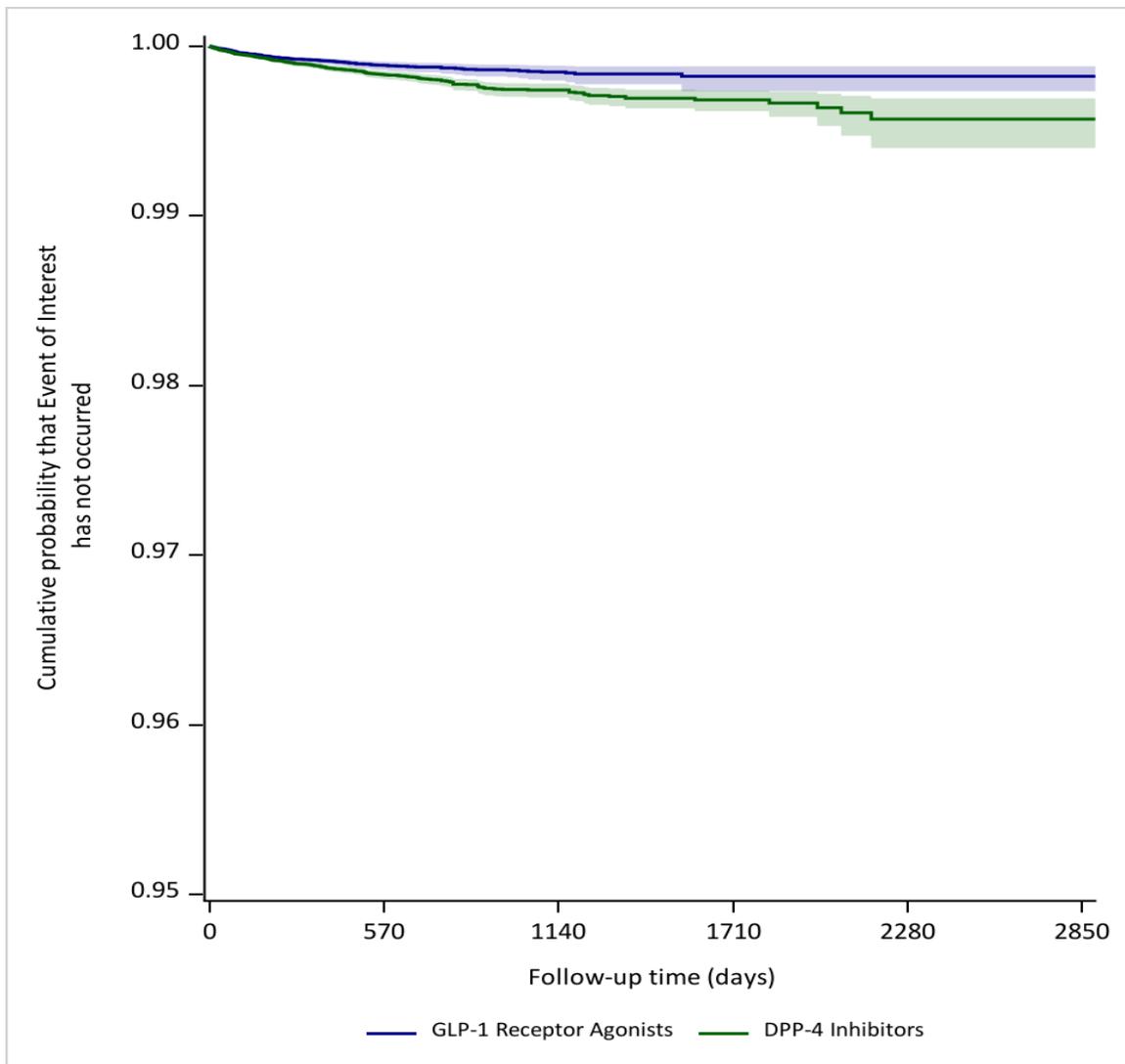


Figure 12q. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

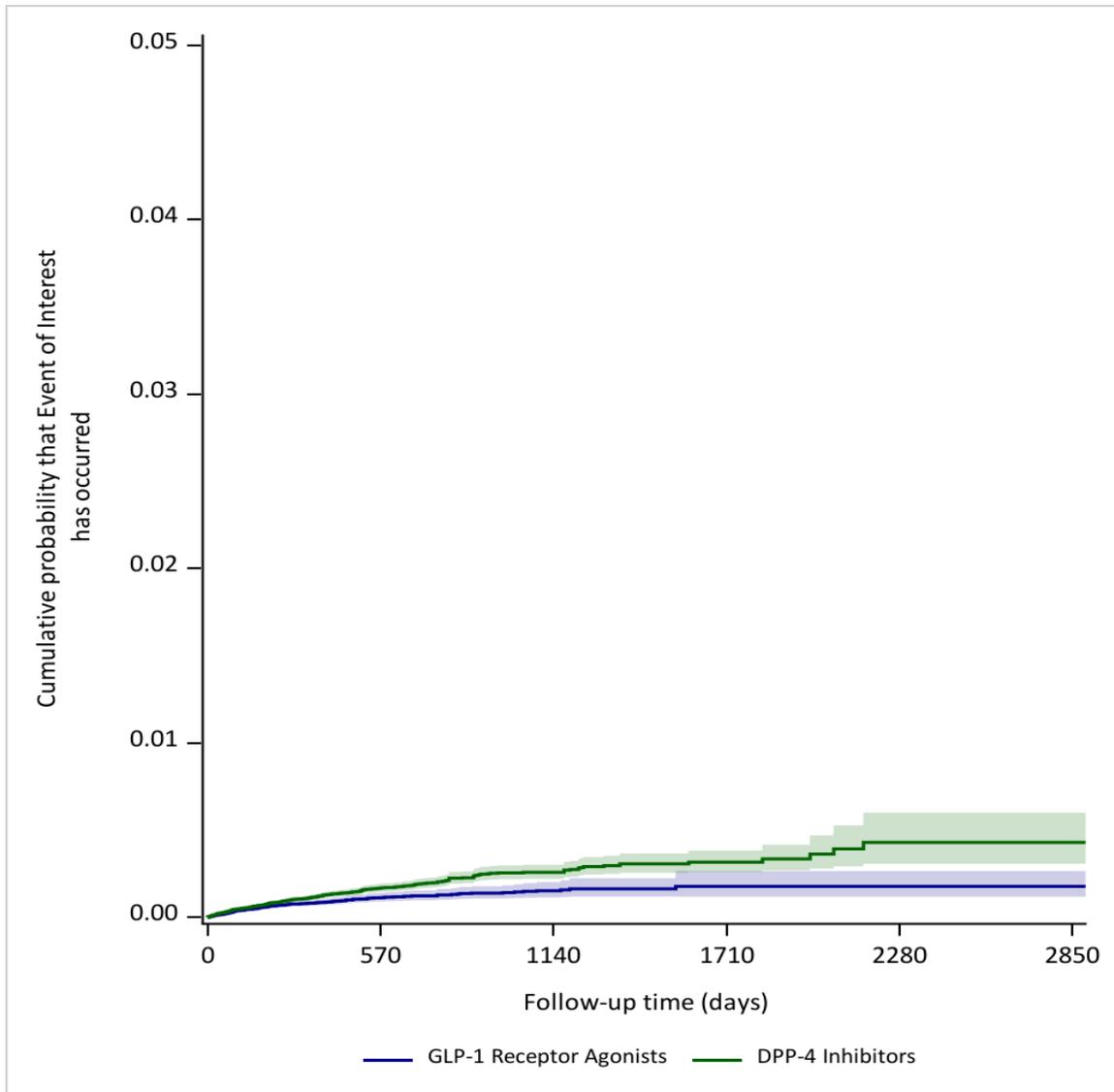


Figure 12r. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

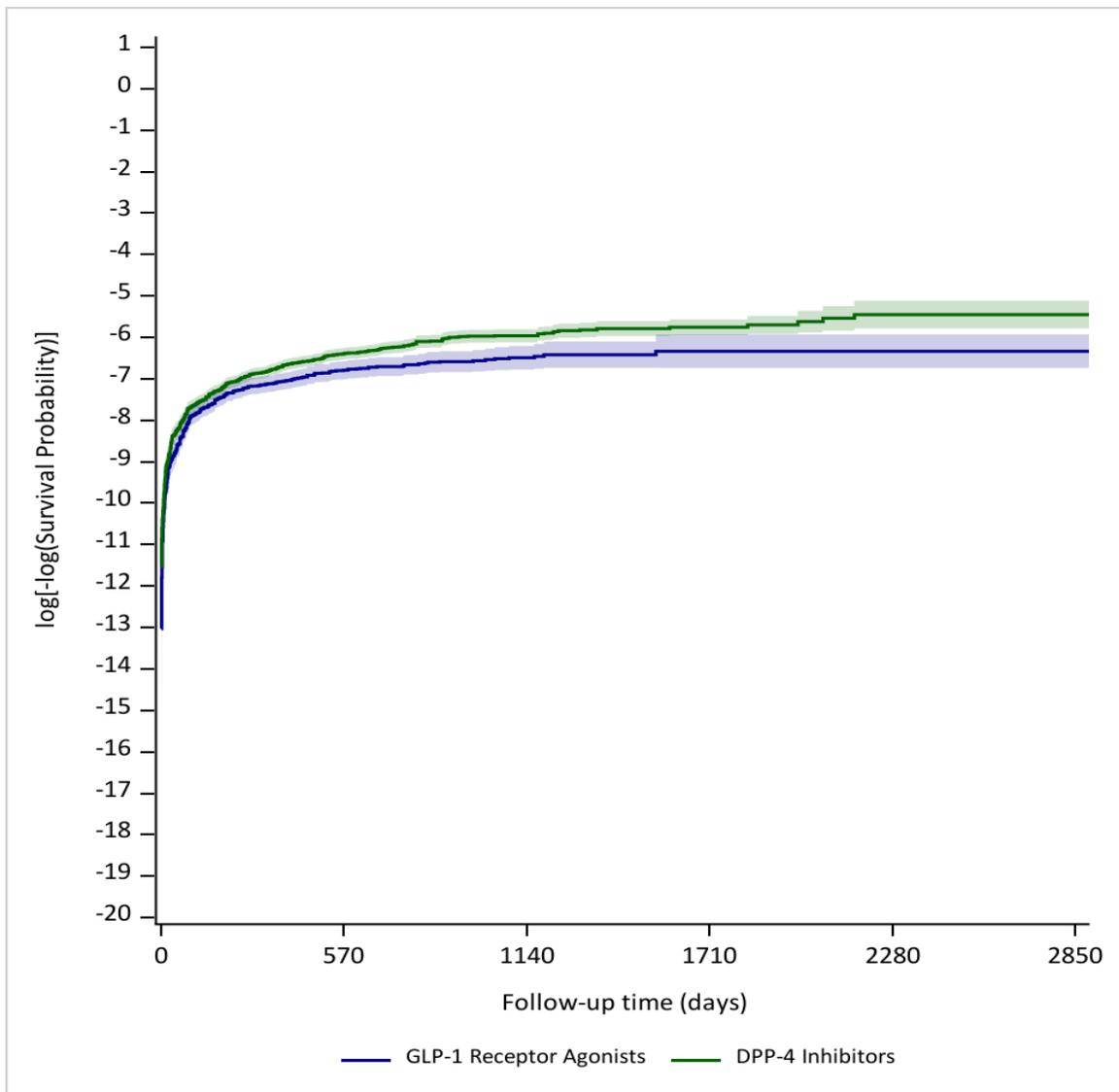


Figure 12s. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

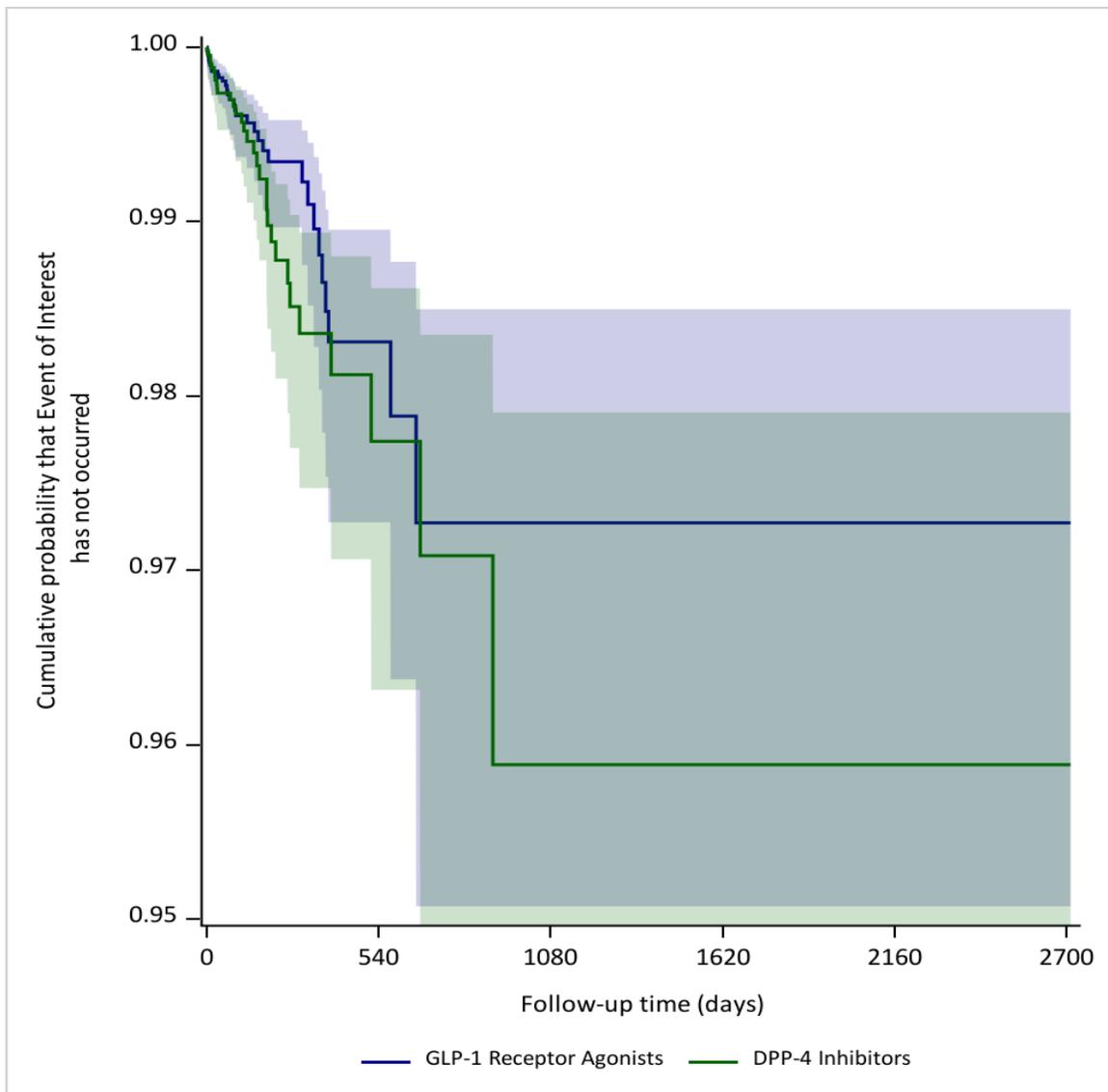


Figure 12t. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

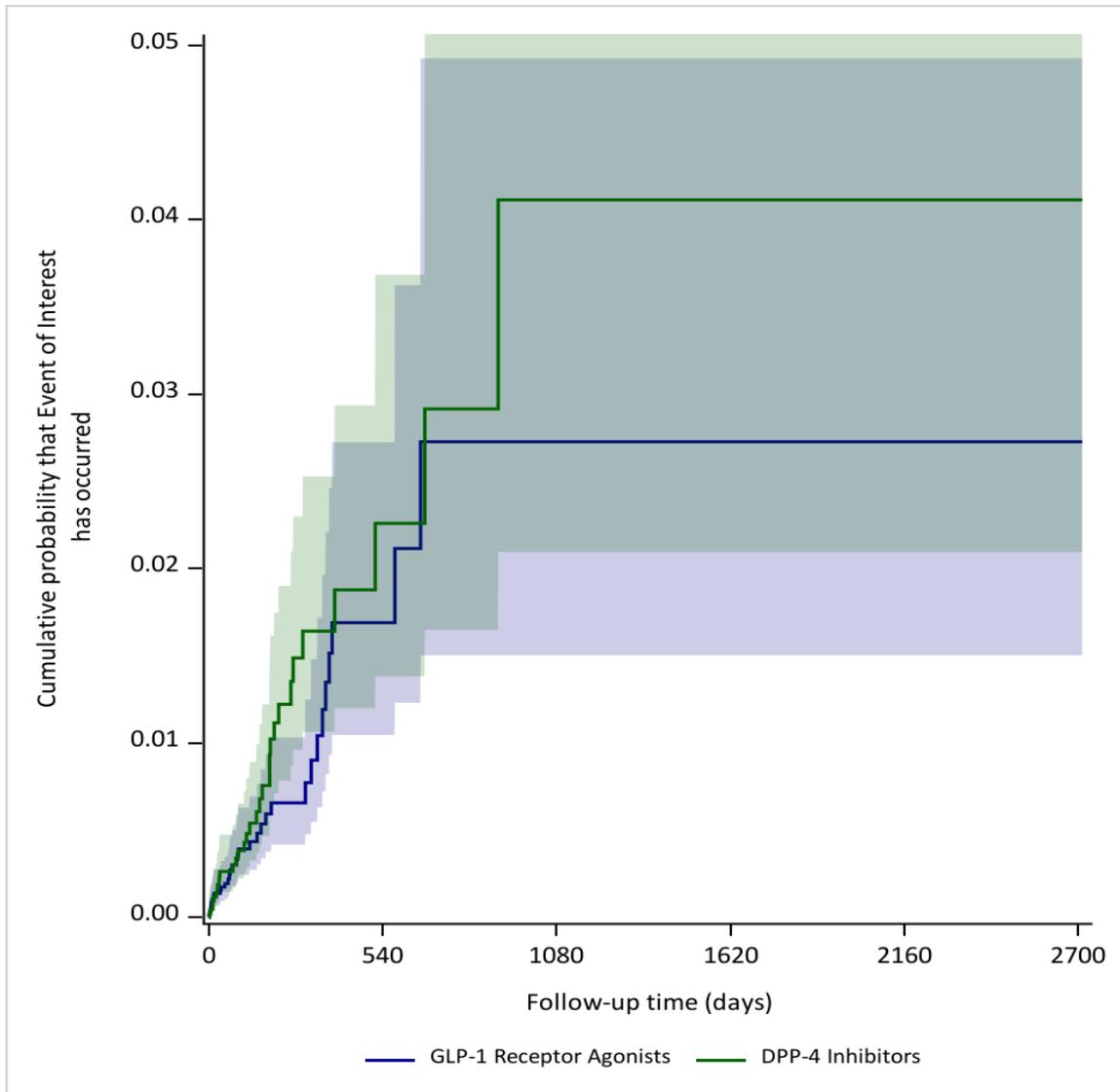


Figure 12u. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

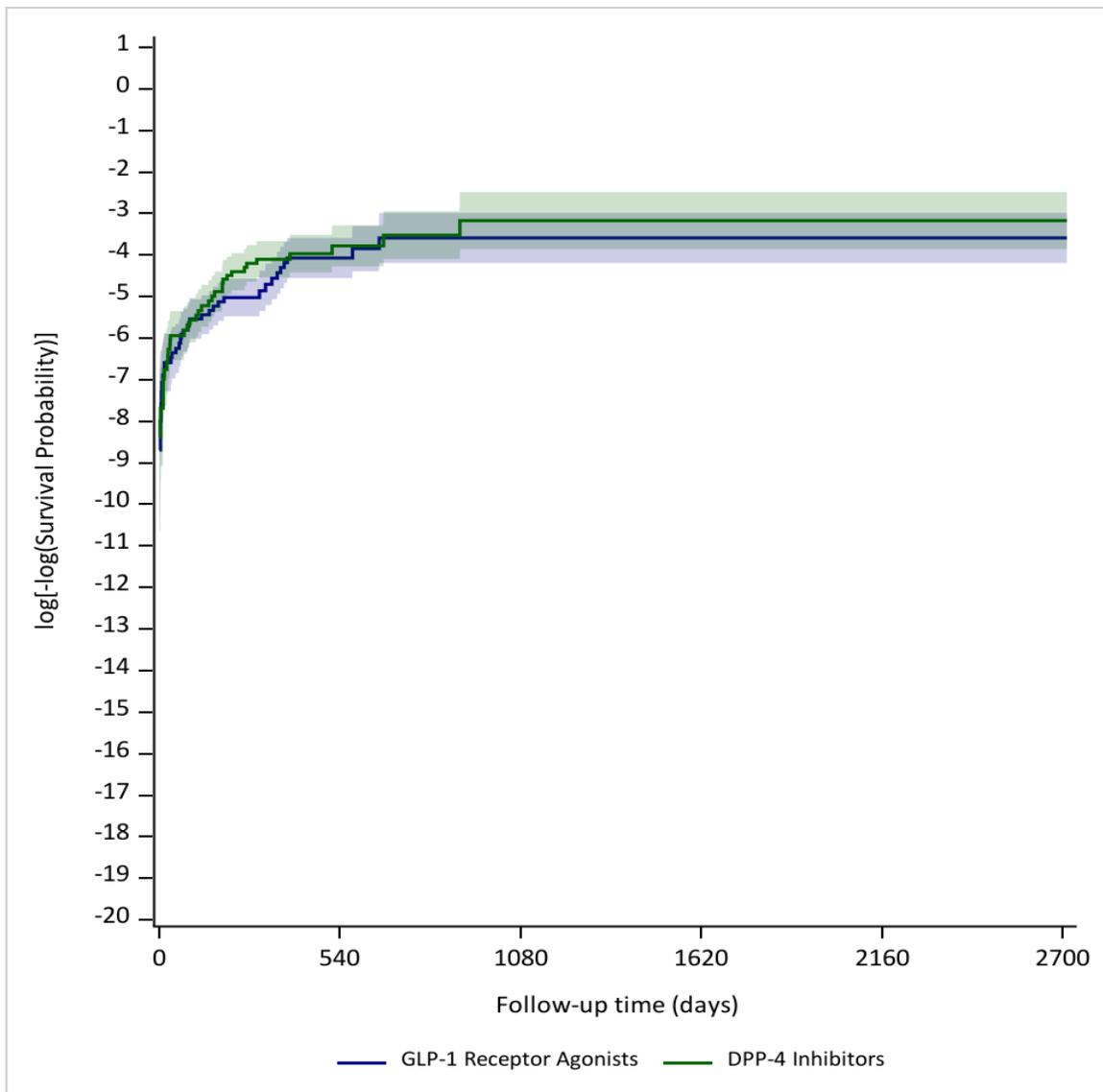


Figure 12v. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

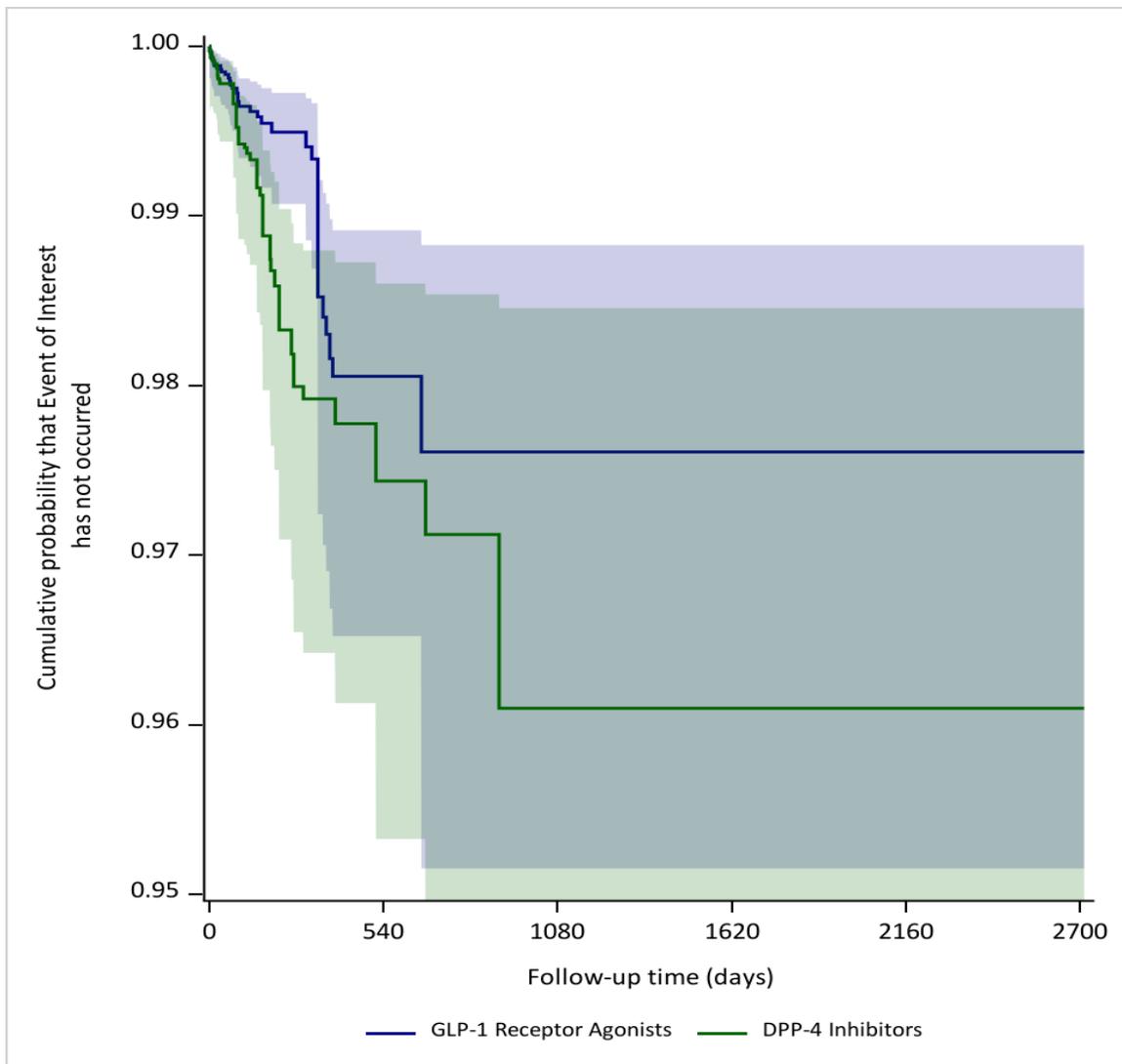


Figure 12w. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

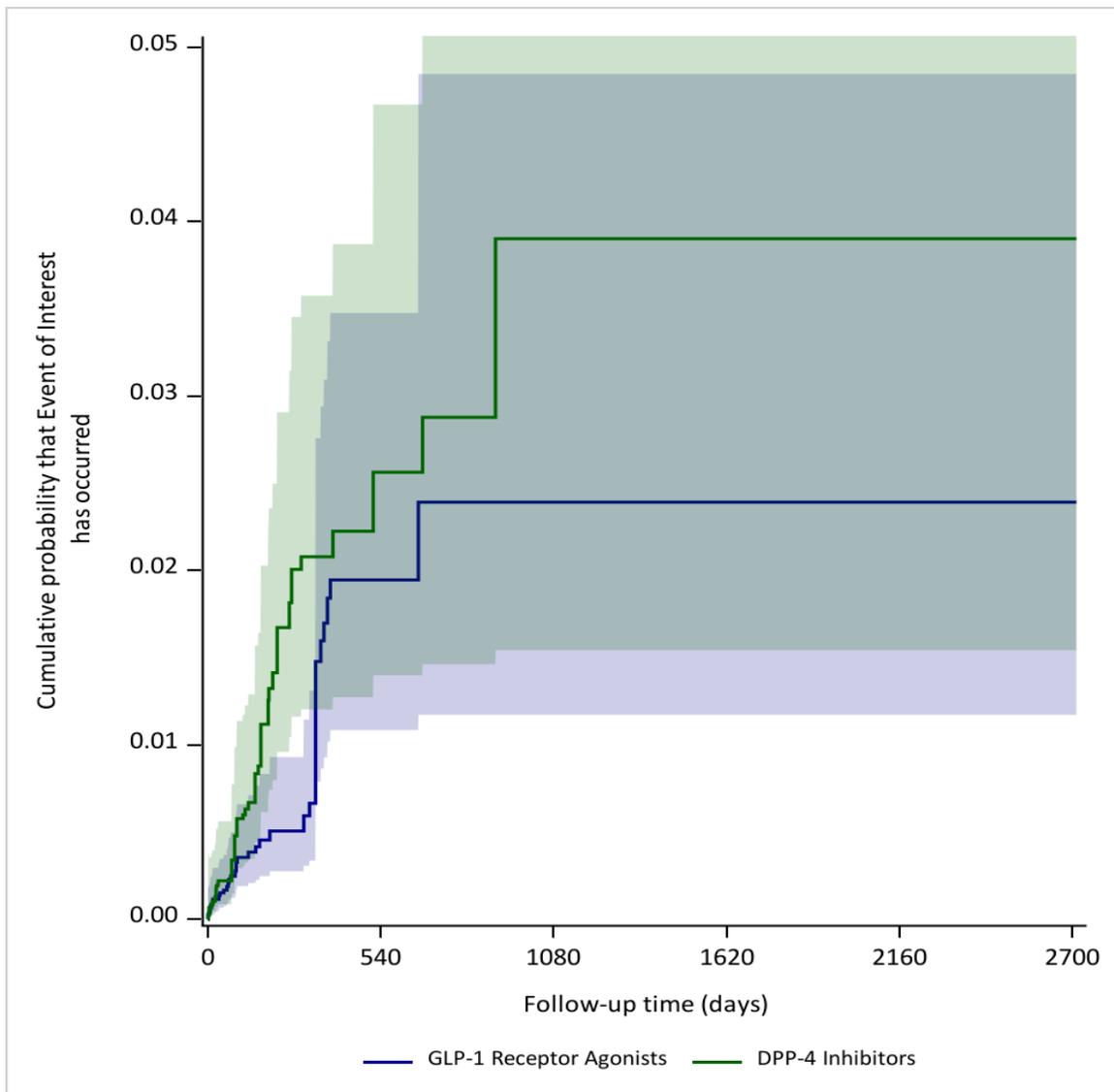


Figure 12x. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

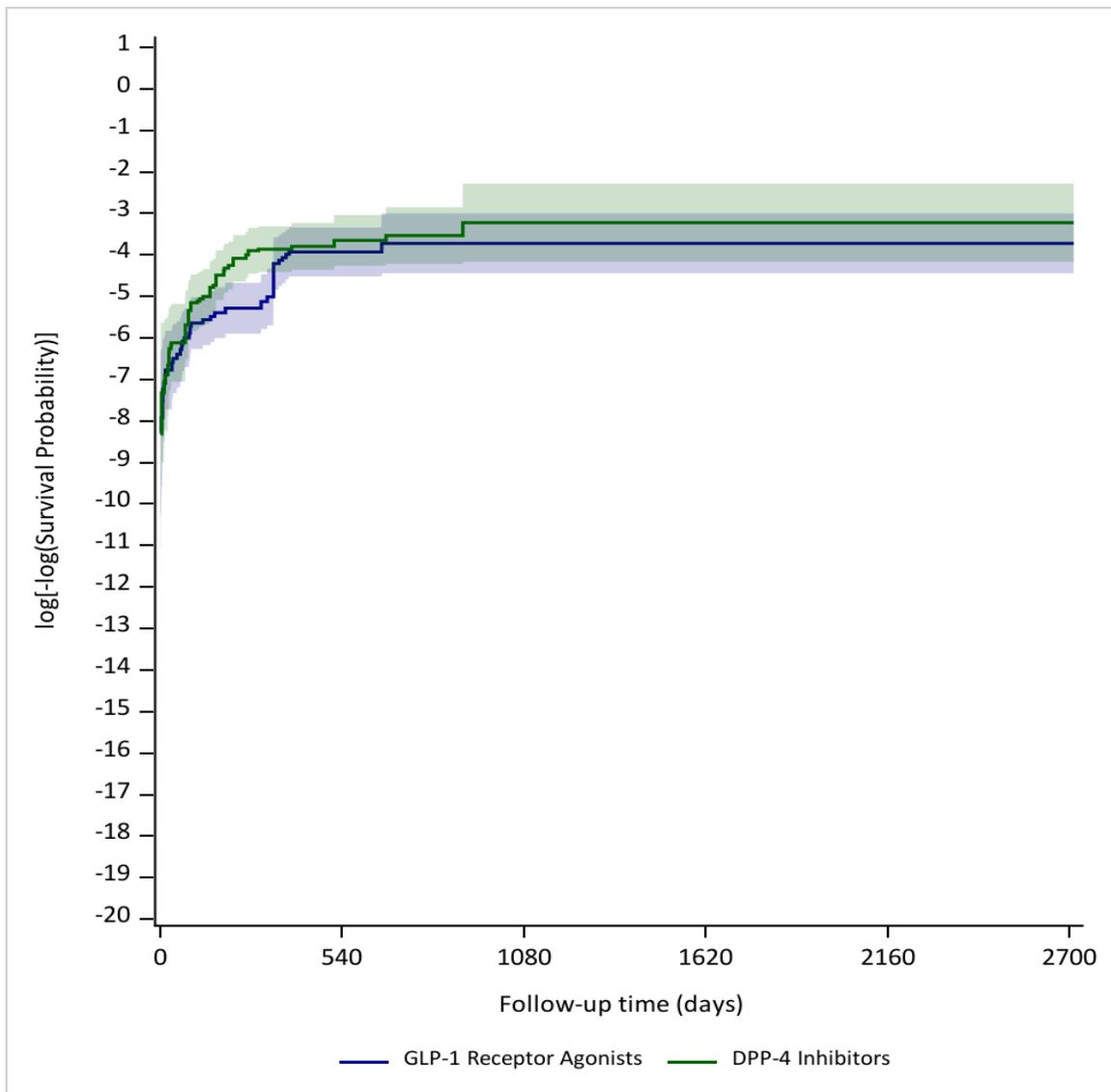


Figure 12y. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

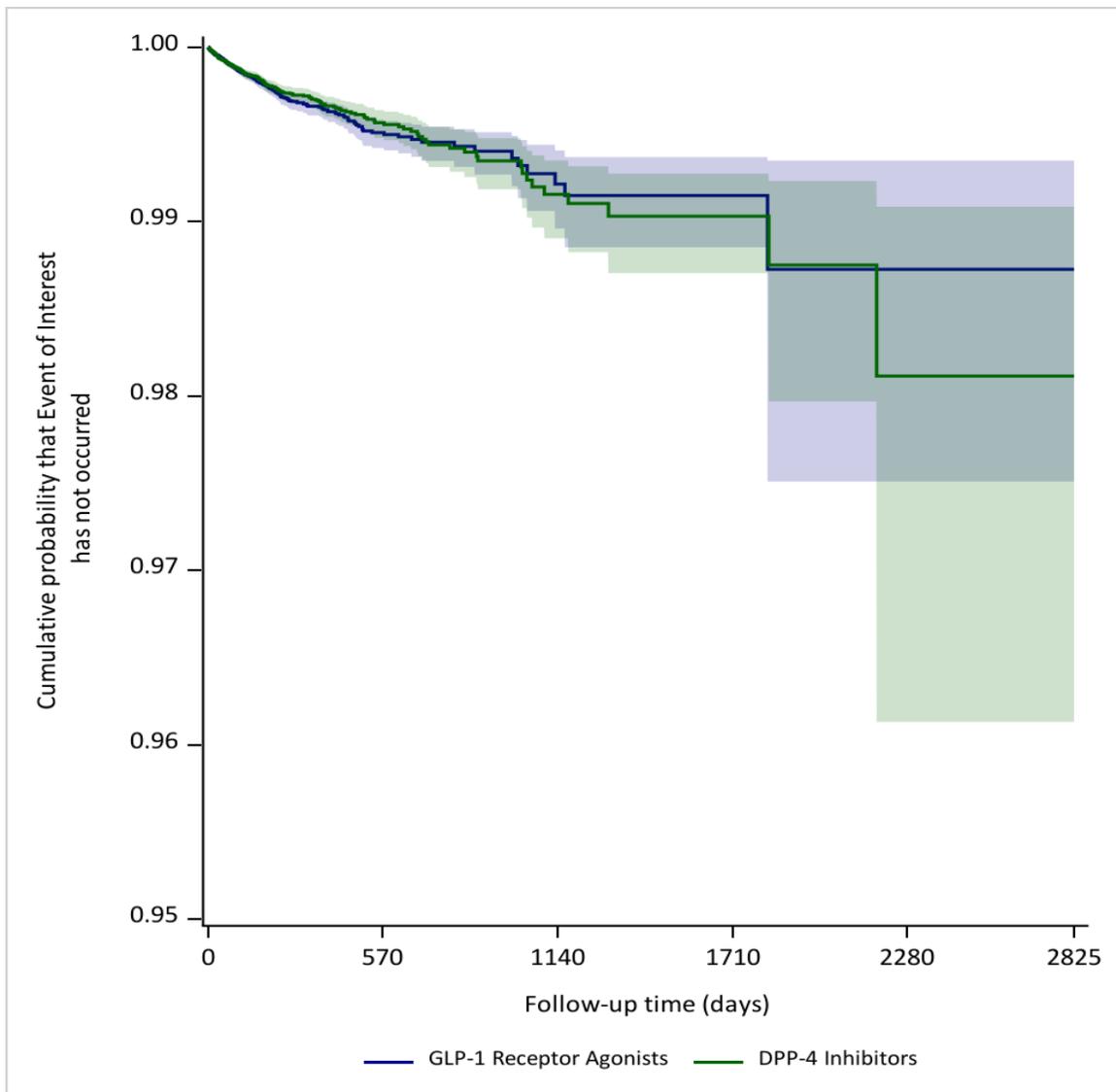


Figure 12z. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

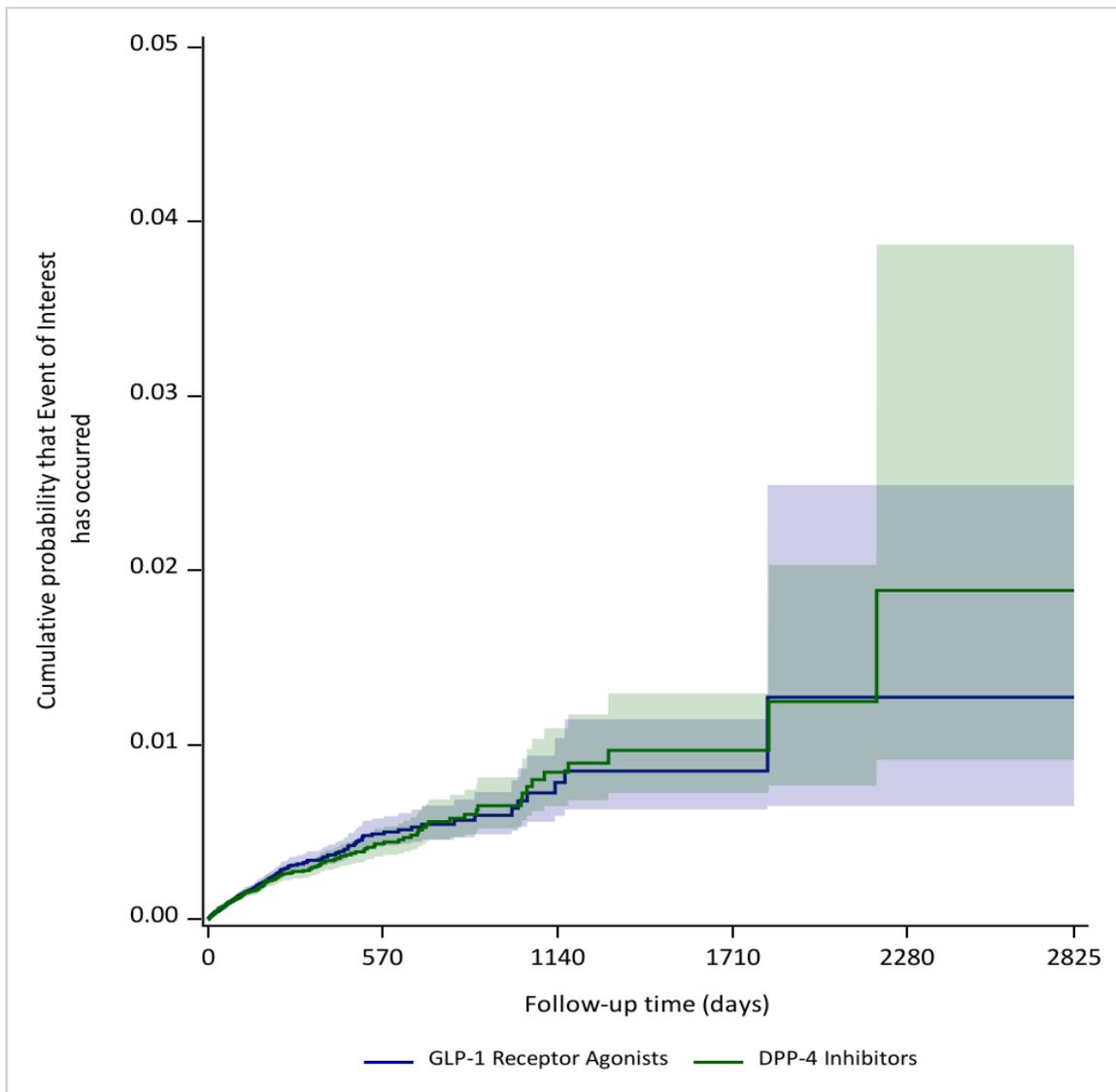


Figure 12aa. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

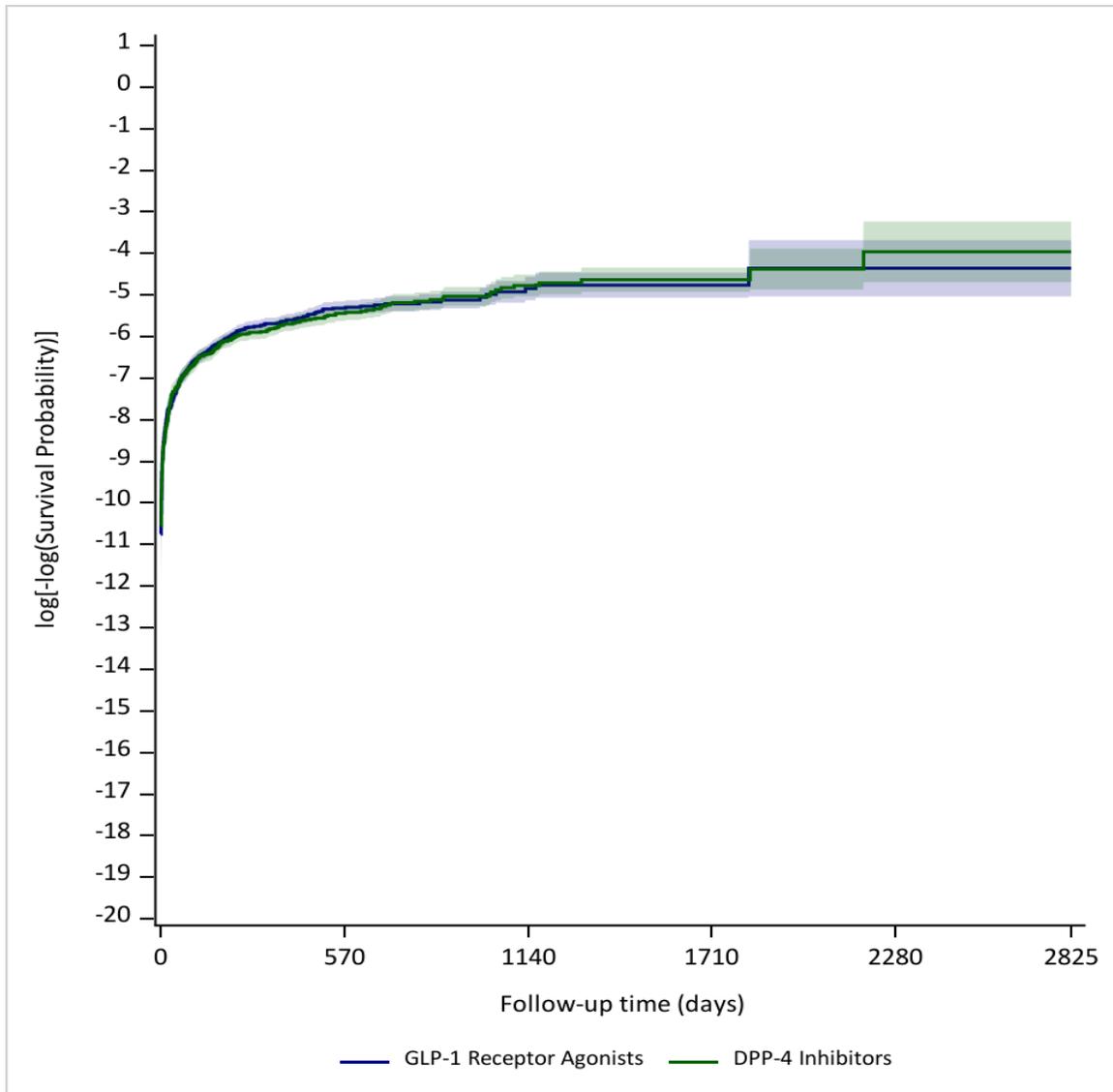


Figure 12ab. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

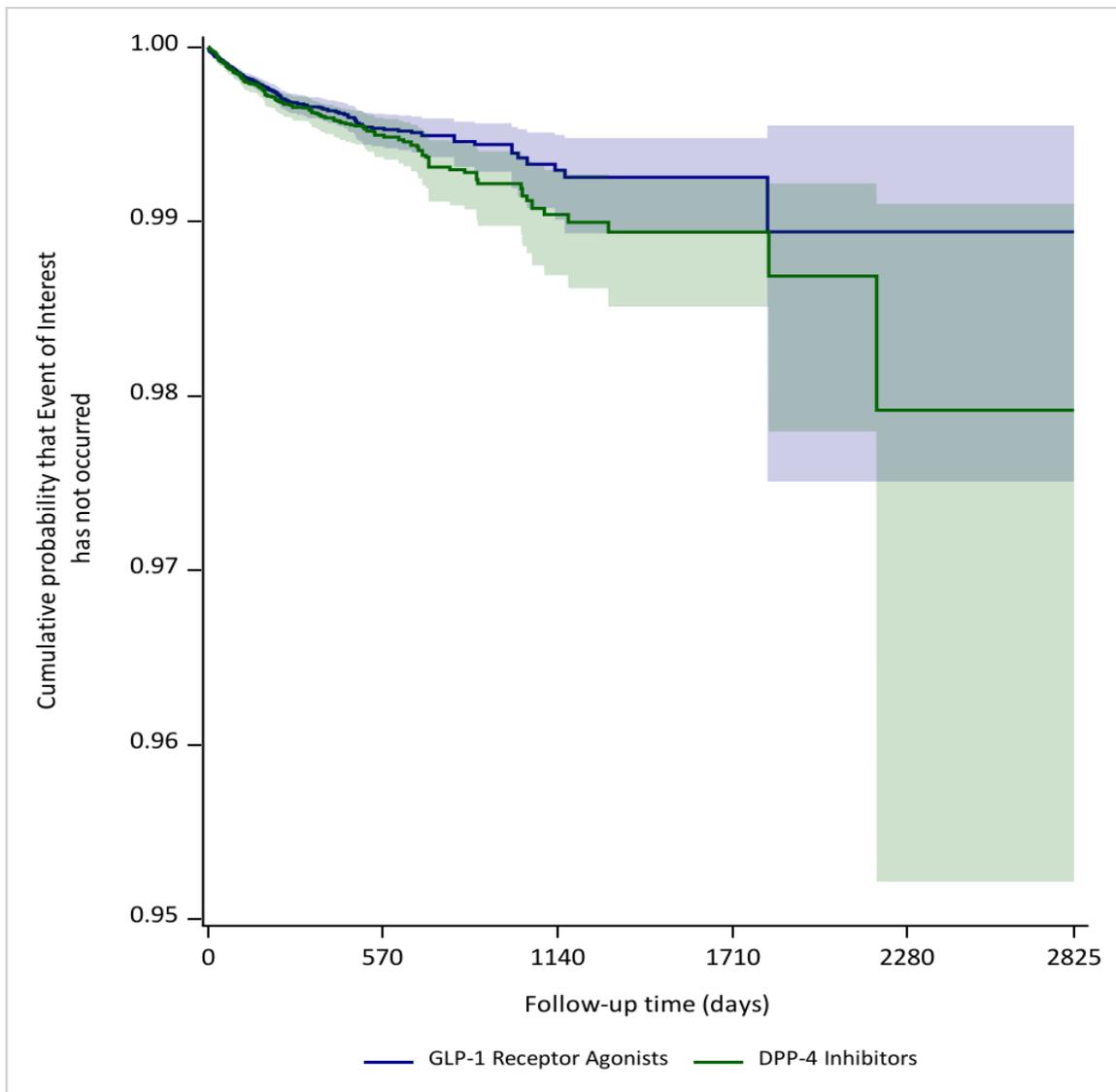


Figure 12ac. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

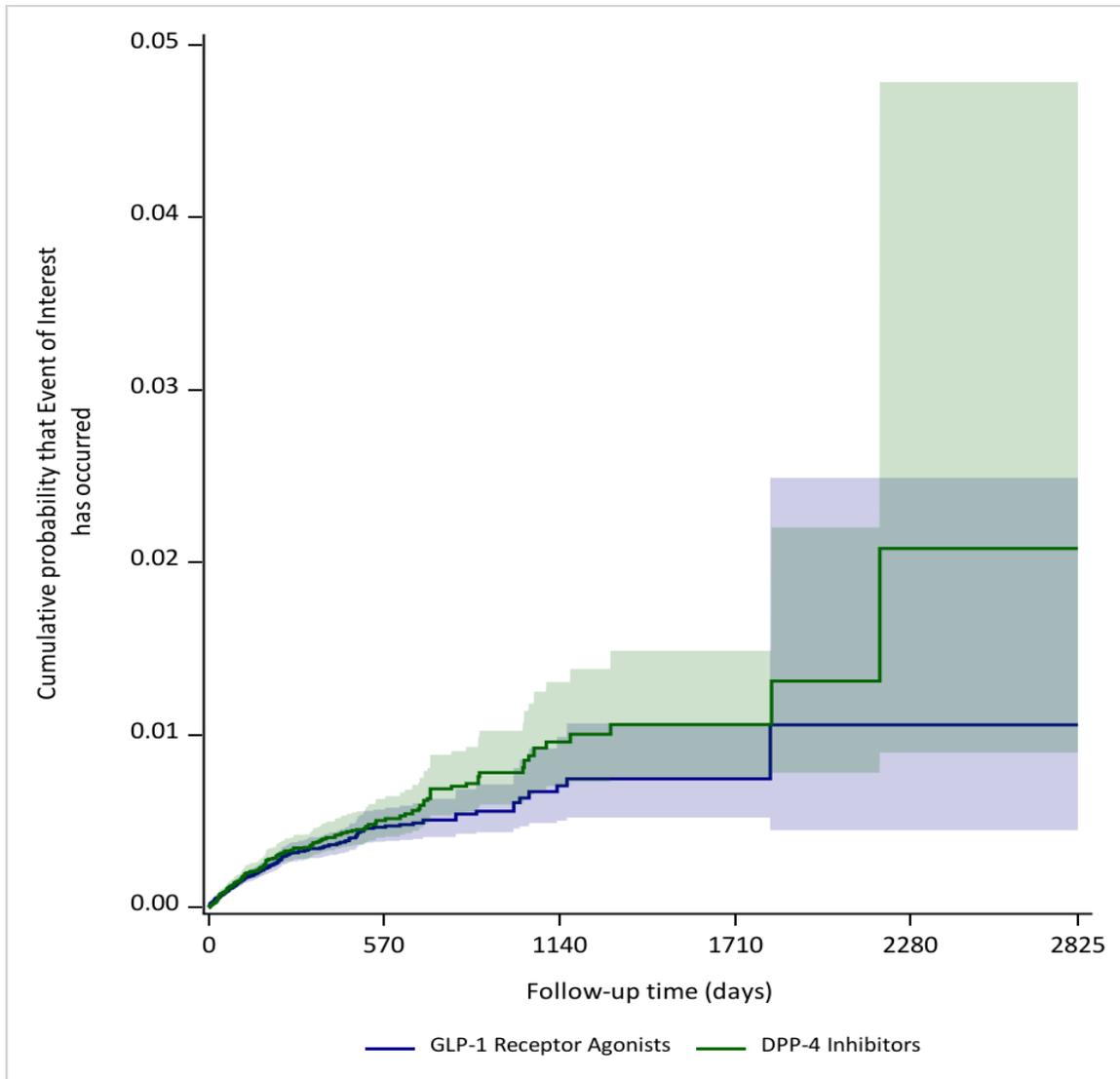


Figure 12ad. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

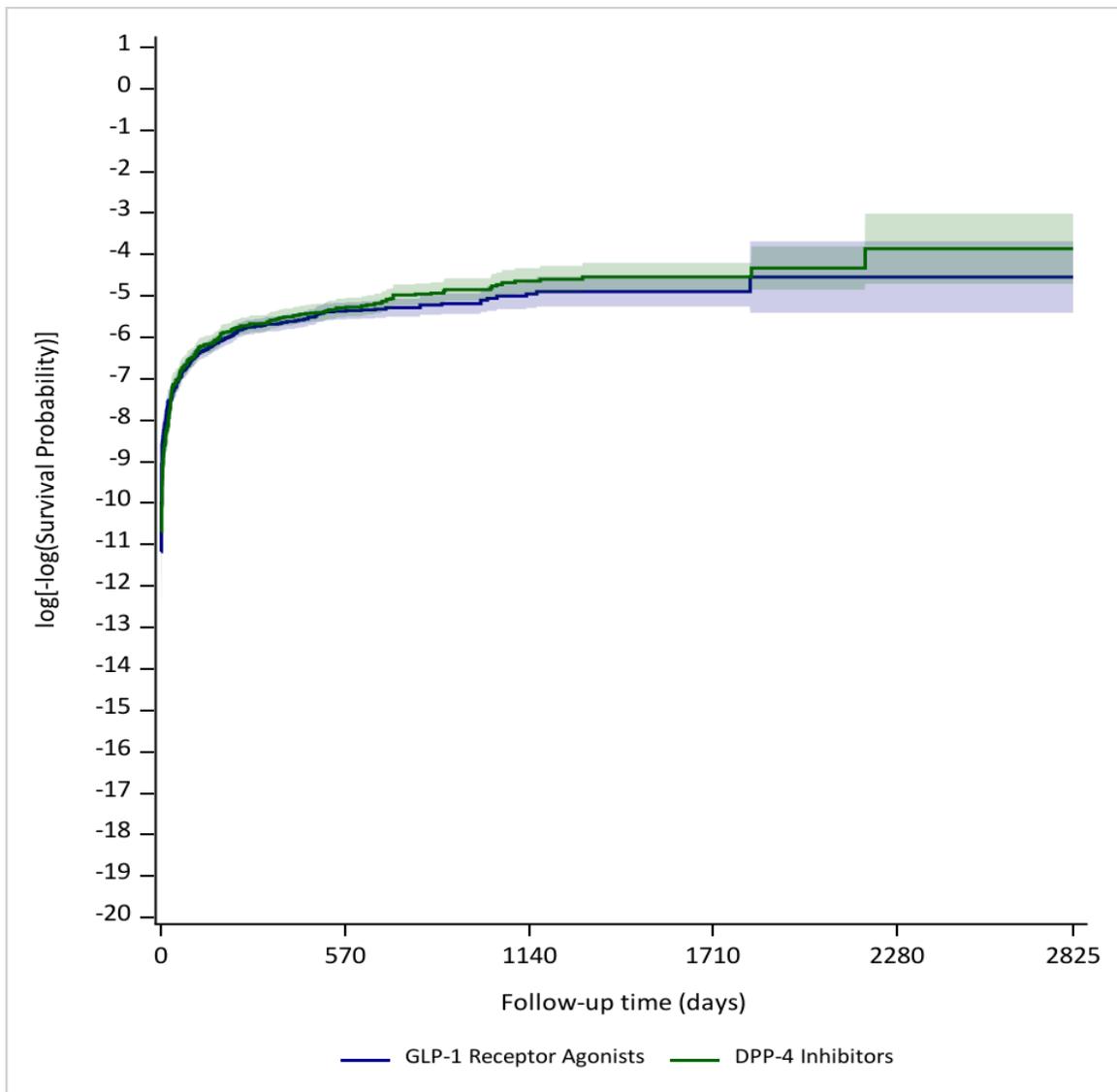


Figure 12ae. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

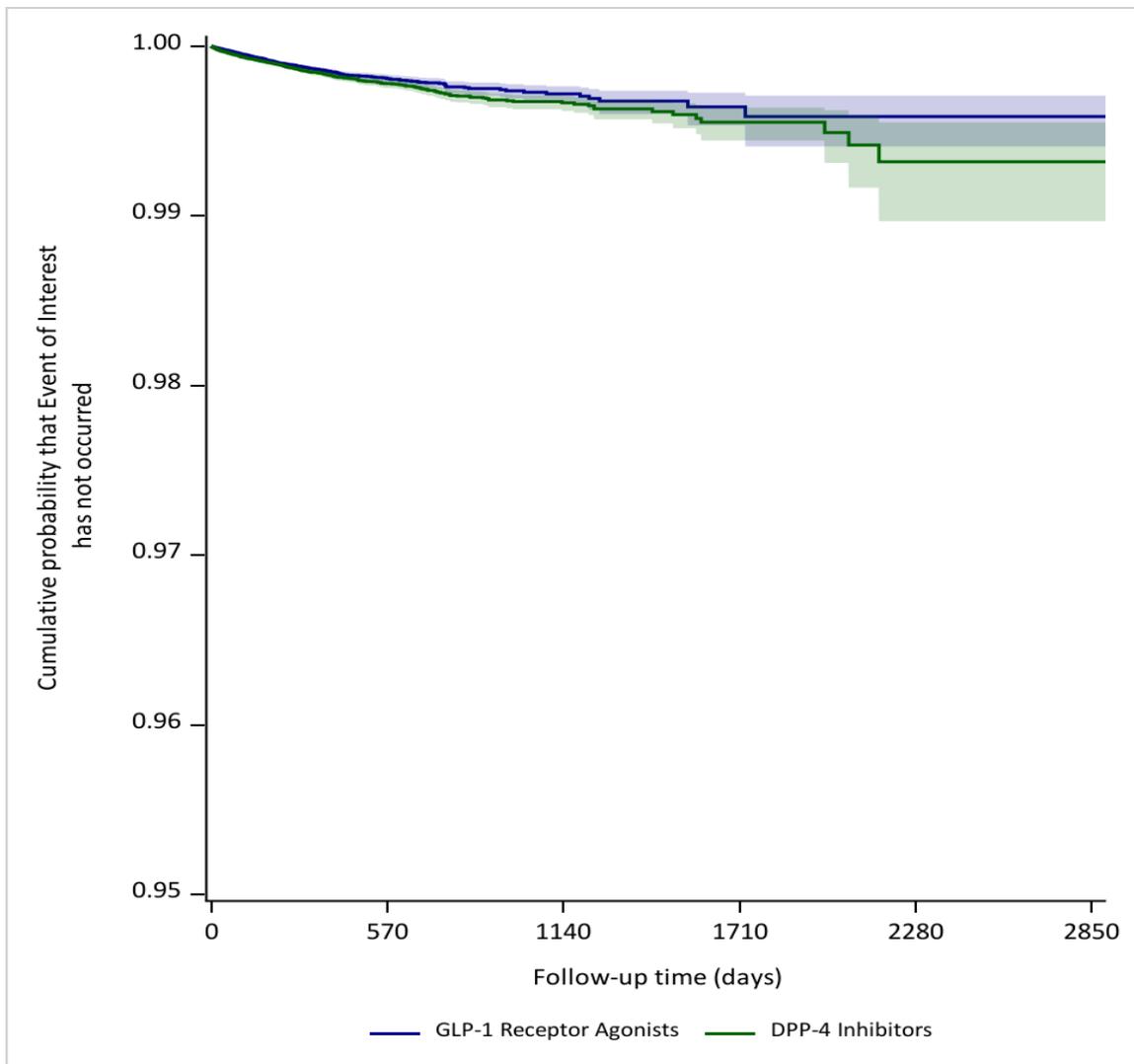


Figure 12af. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

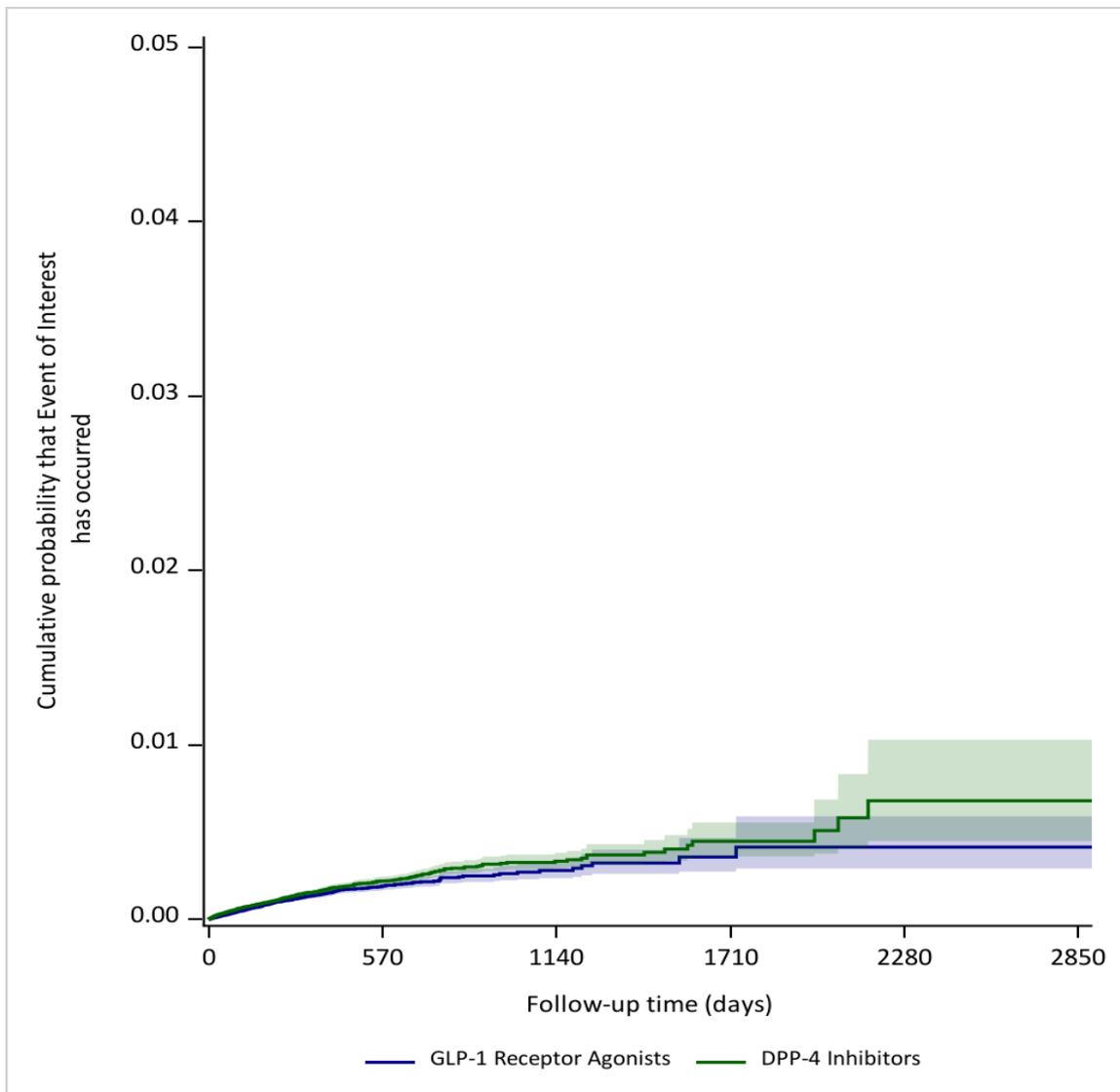


Figure 12ag. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

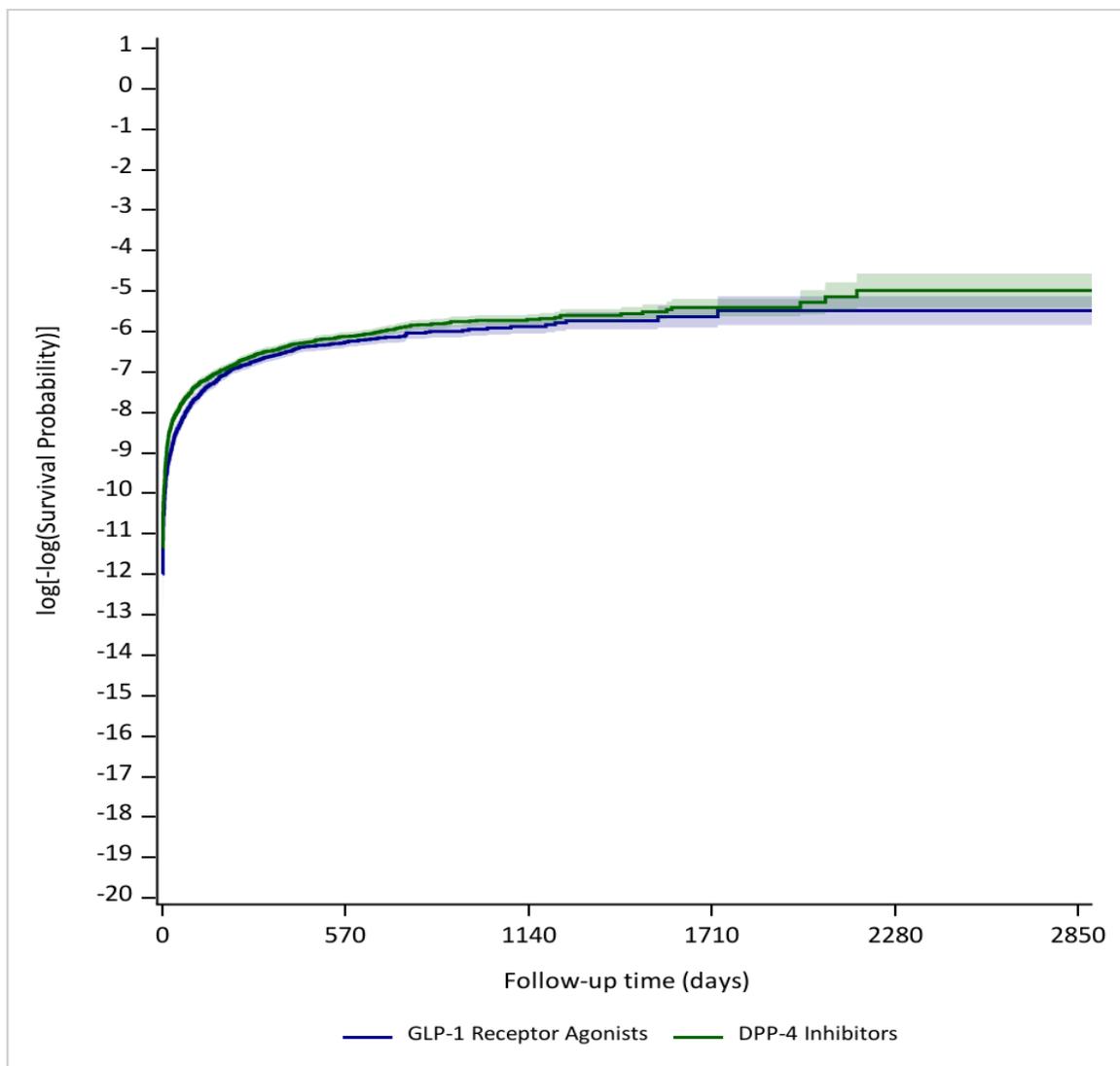


Figure 12ah. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 1% truncation after in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

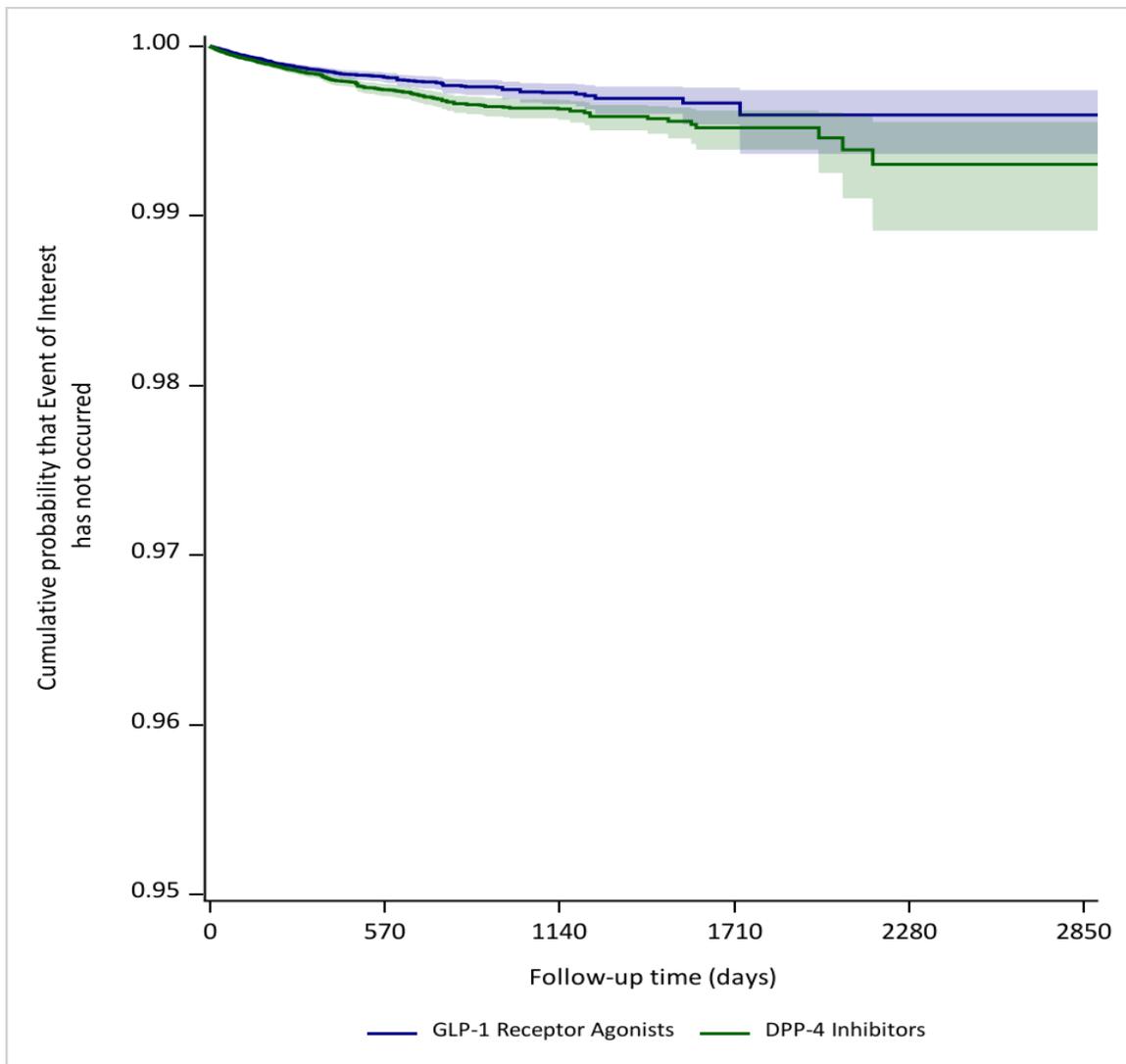


Figure 12ai. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

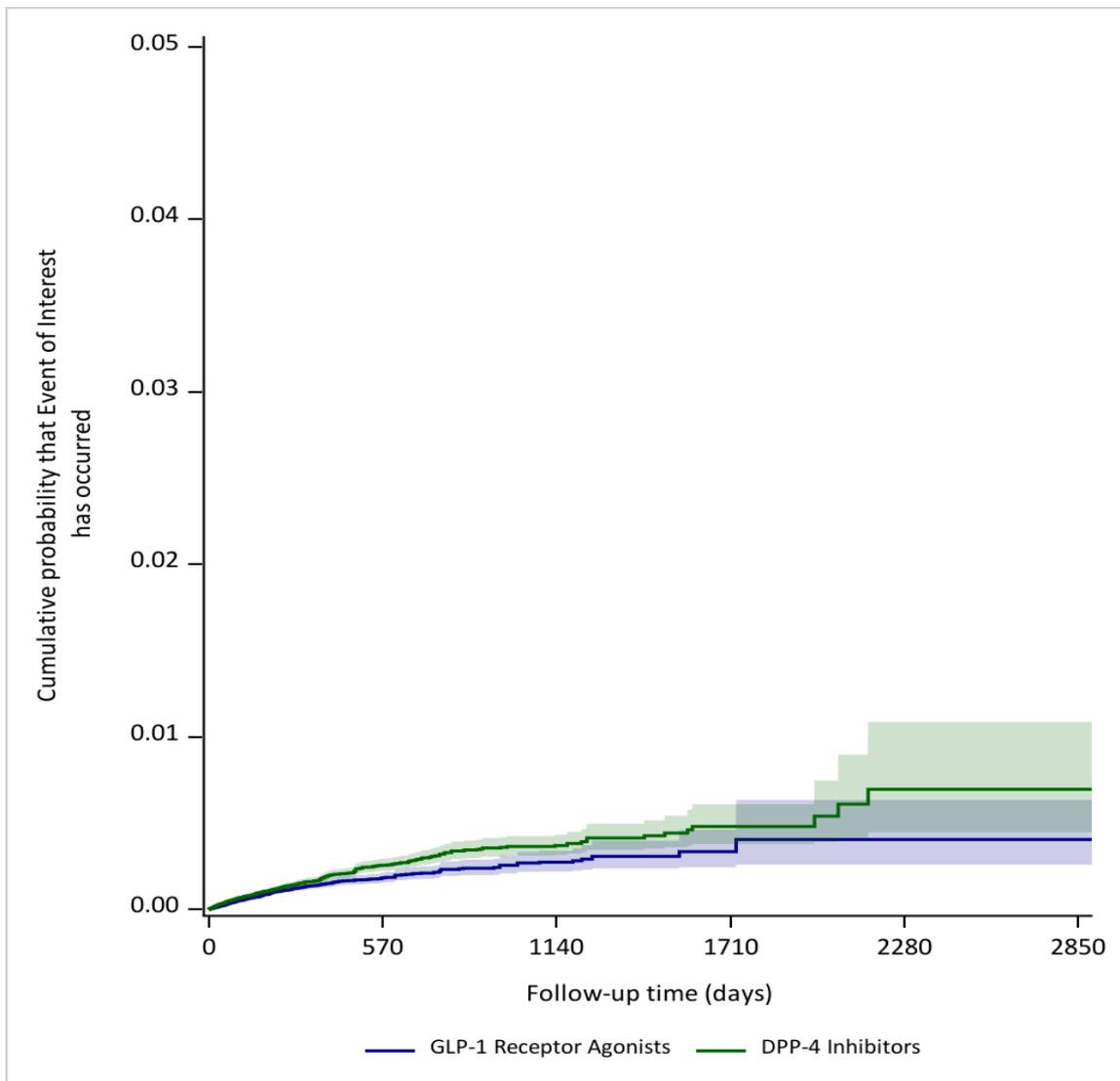


Figure 12aj. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

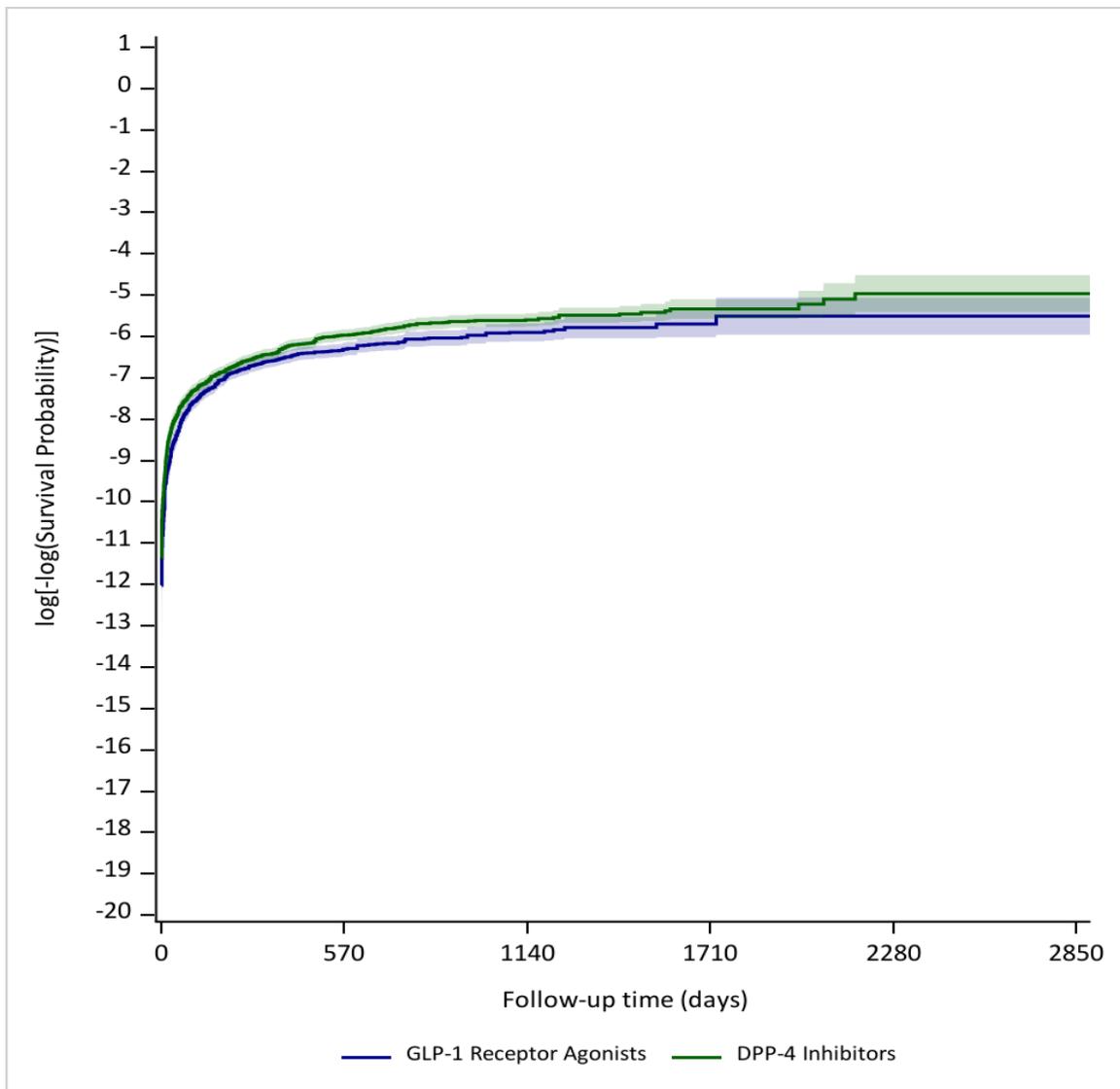


Figure 12ak. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

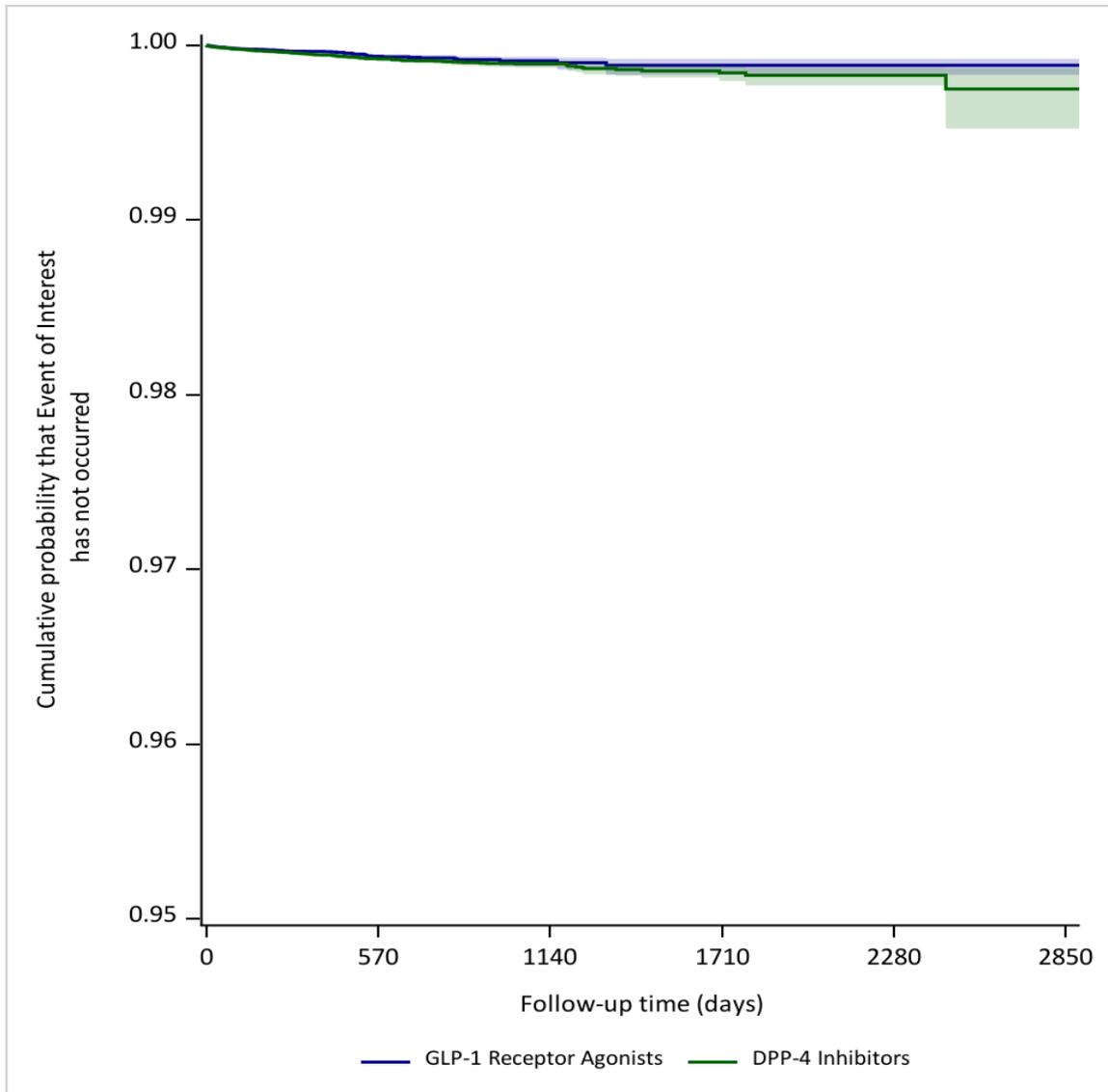


Figure 12a. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

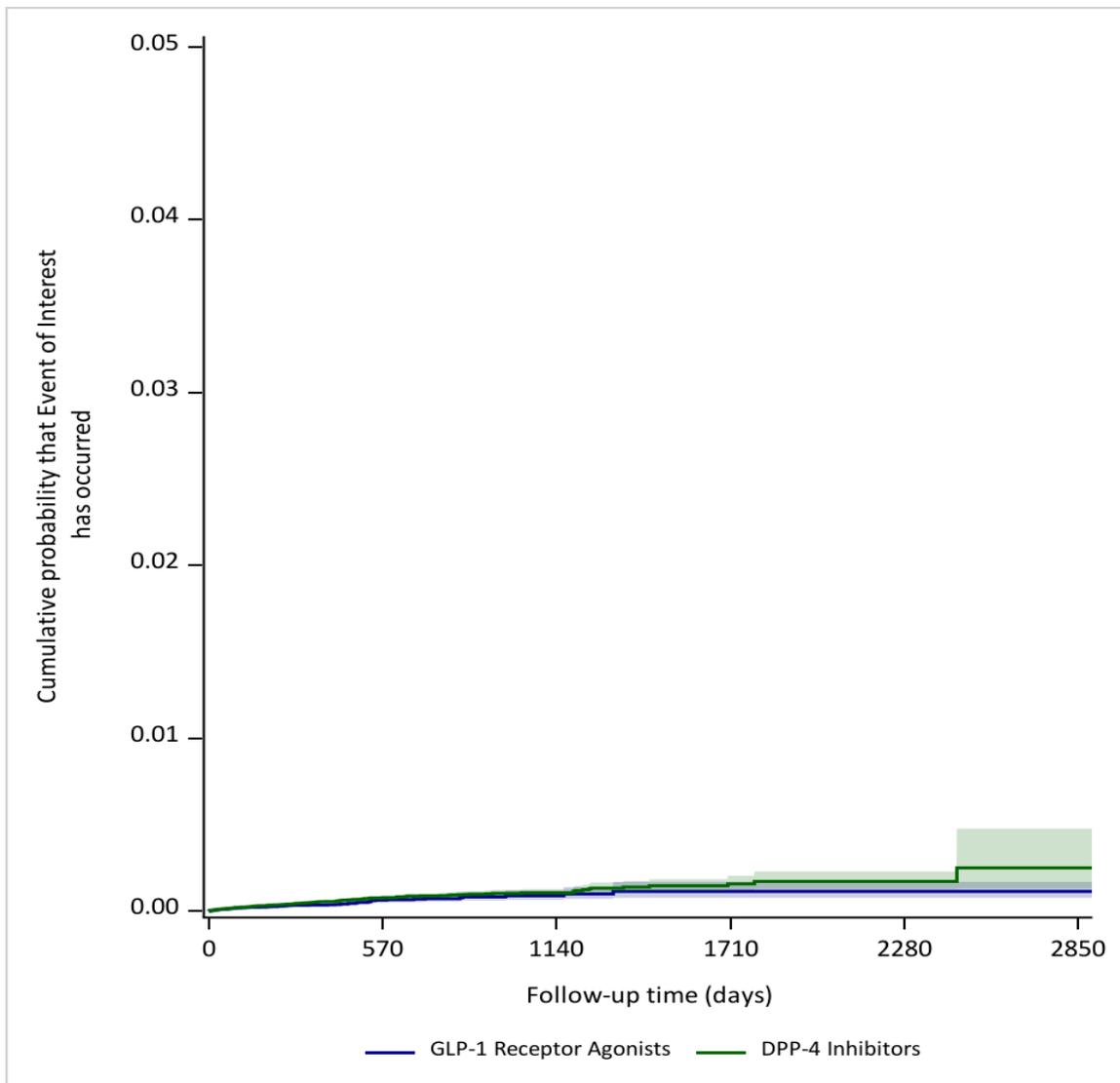


Figure 12am. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

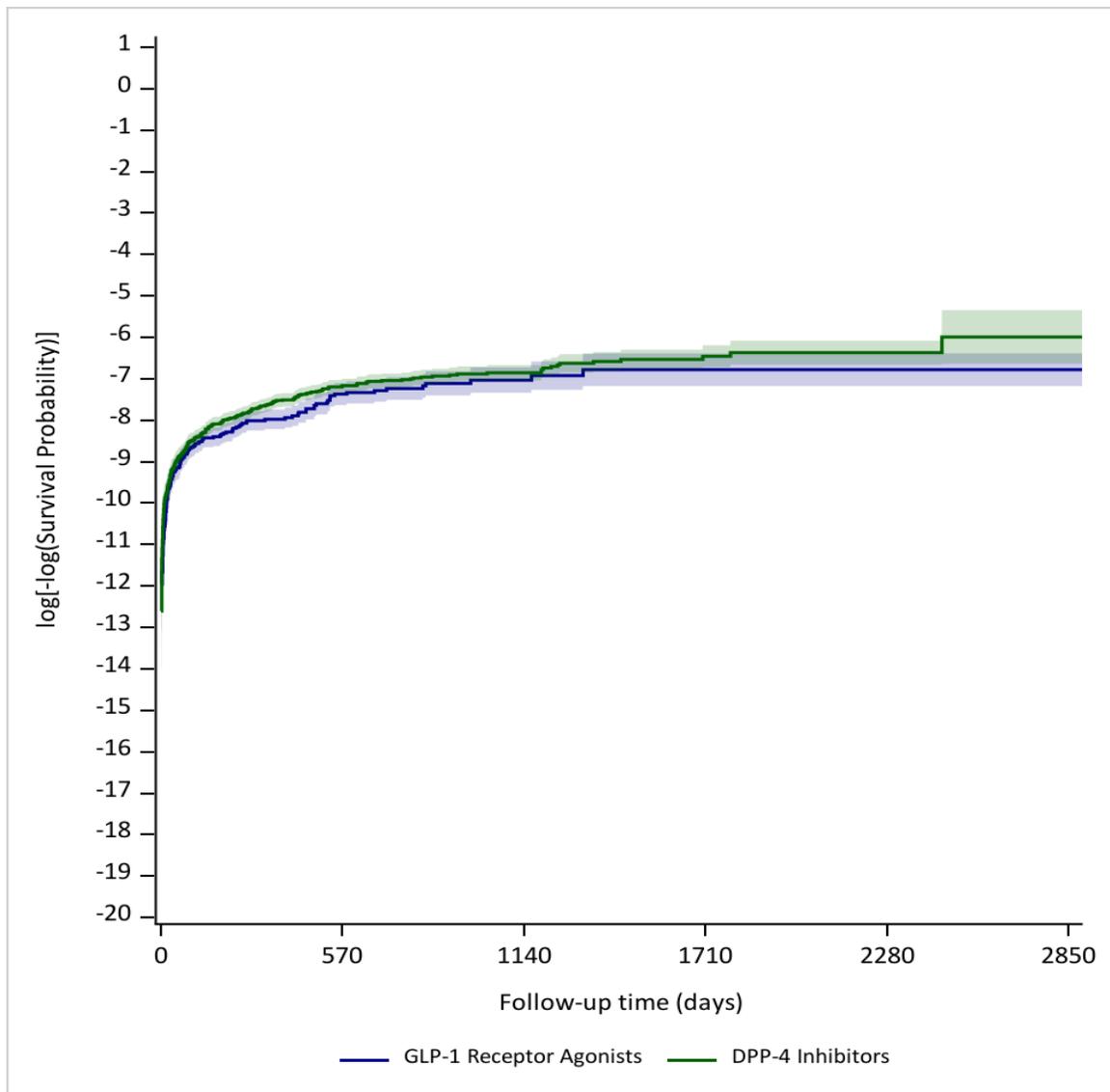


Figure 12an. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

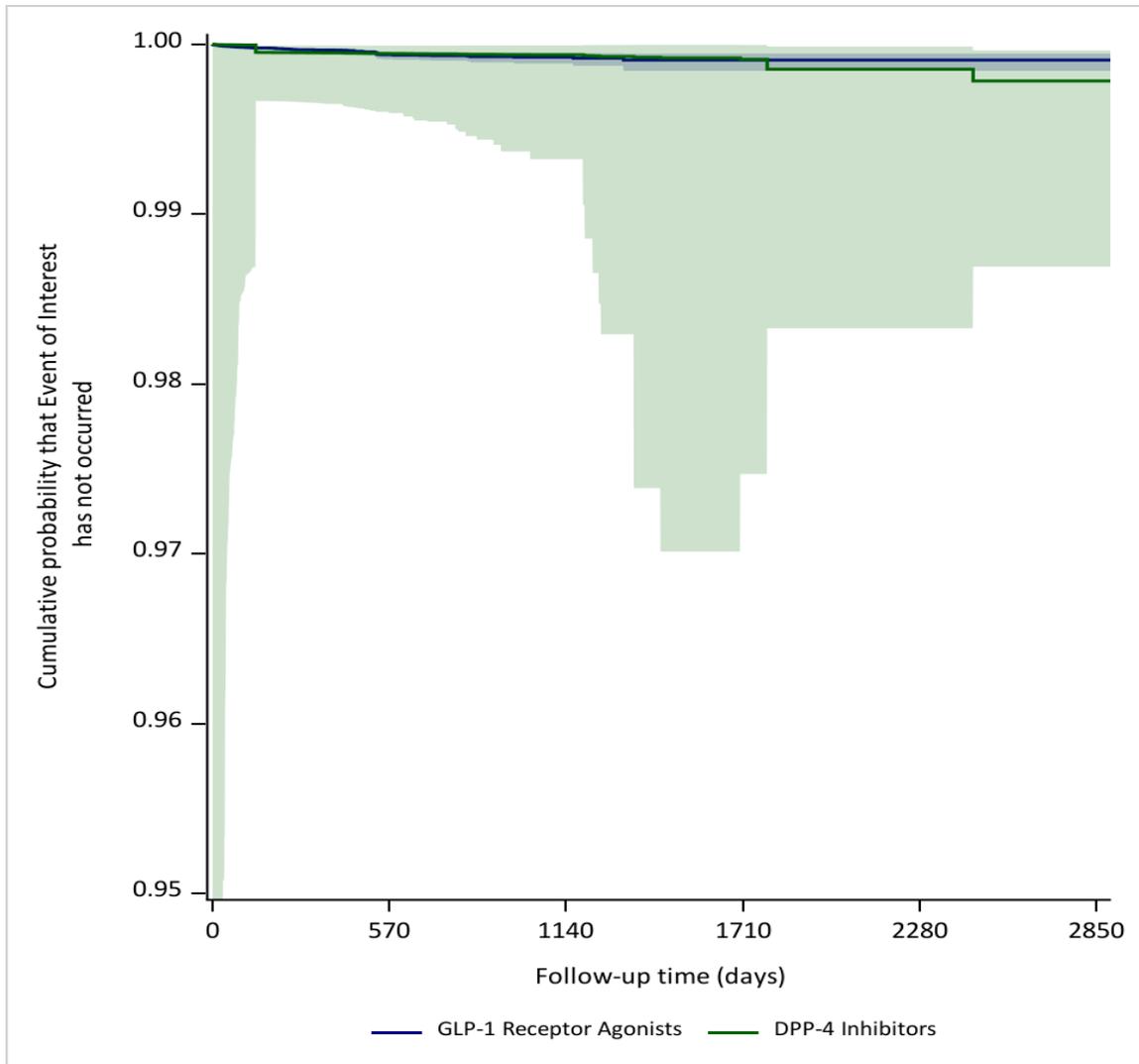


Figure 12ao. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring from [Date] to September 30, [Year]

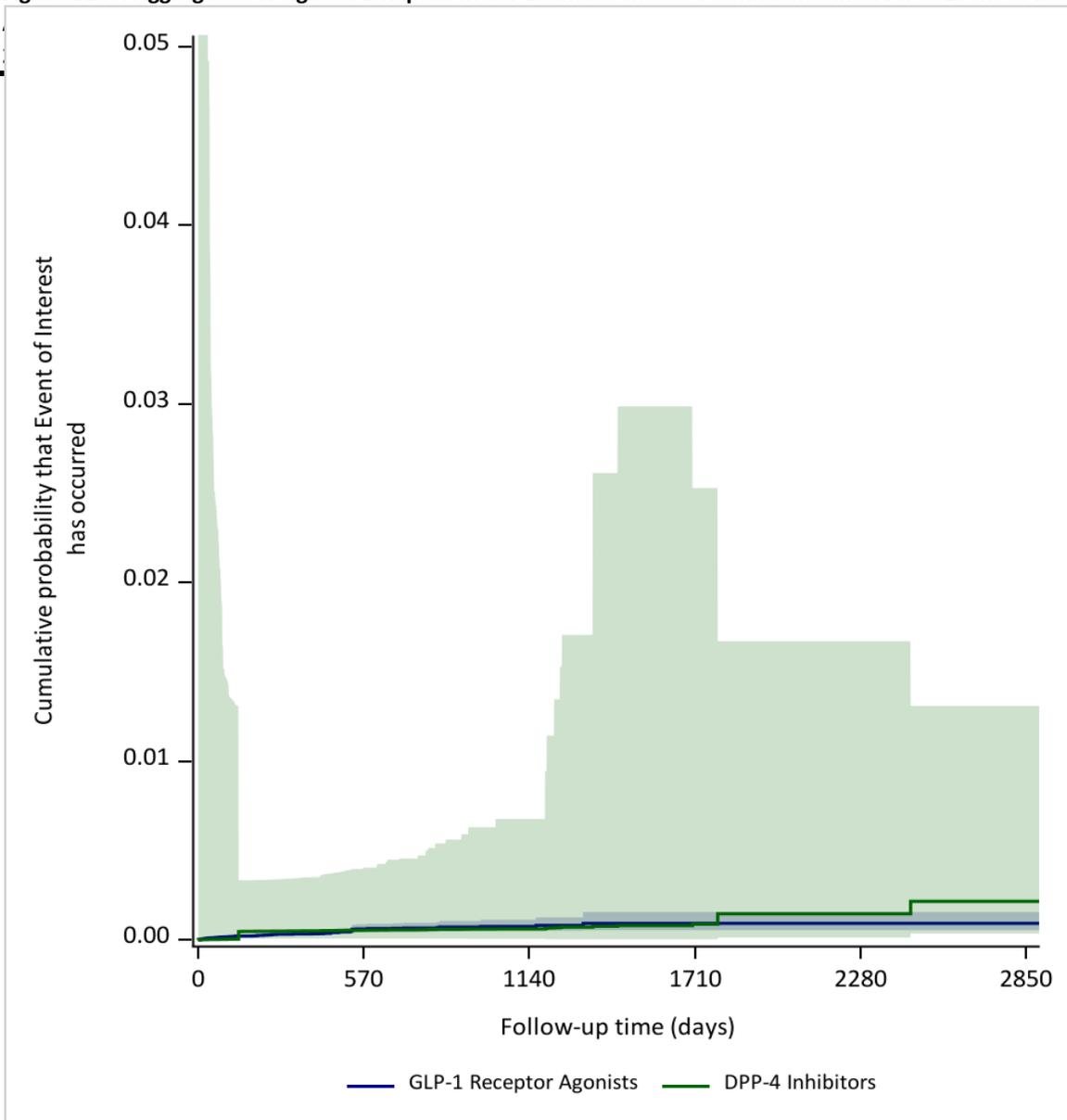


Figure 12ap. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

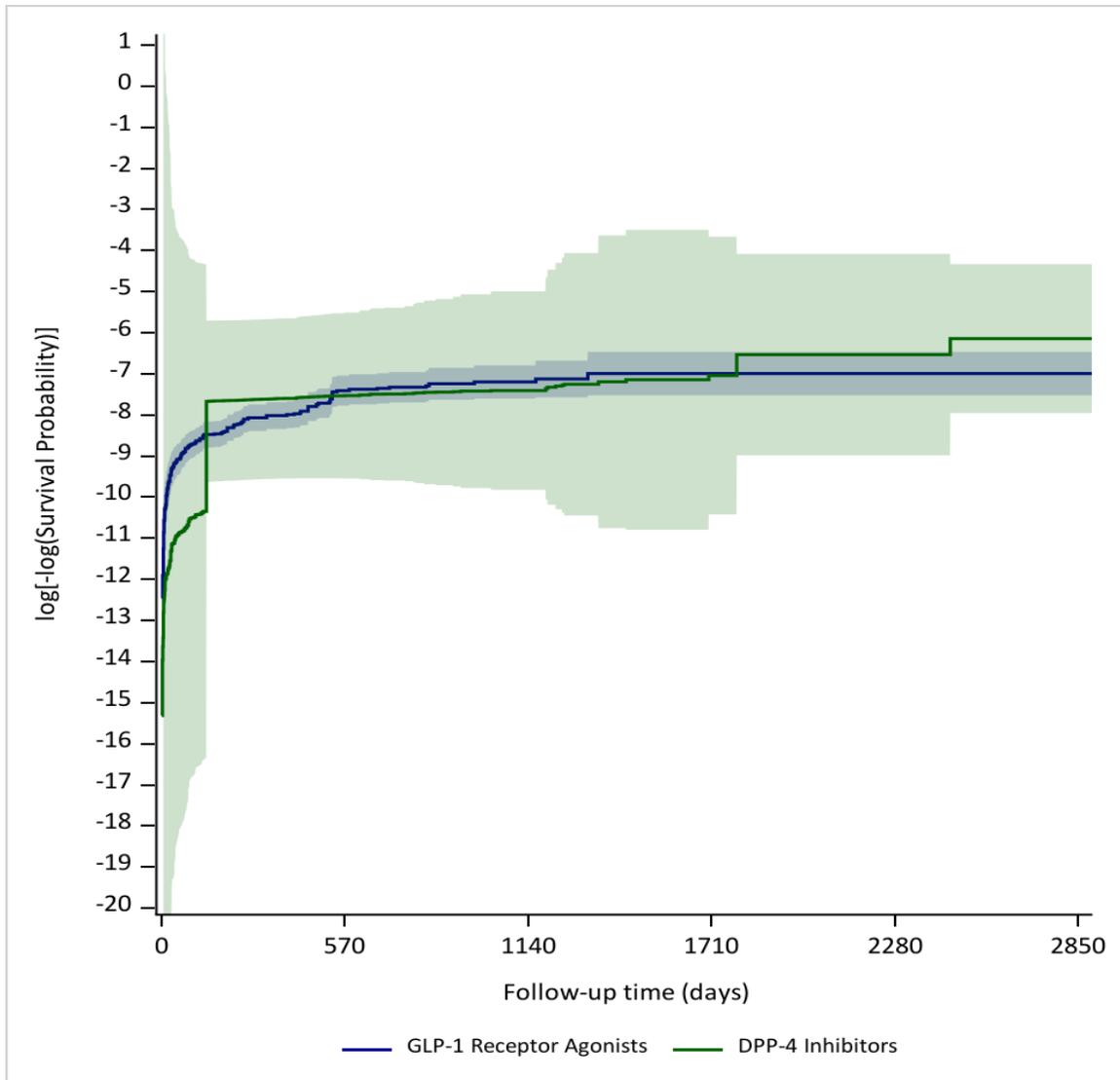


Figure 12aq. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

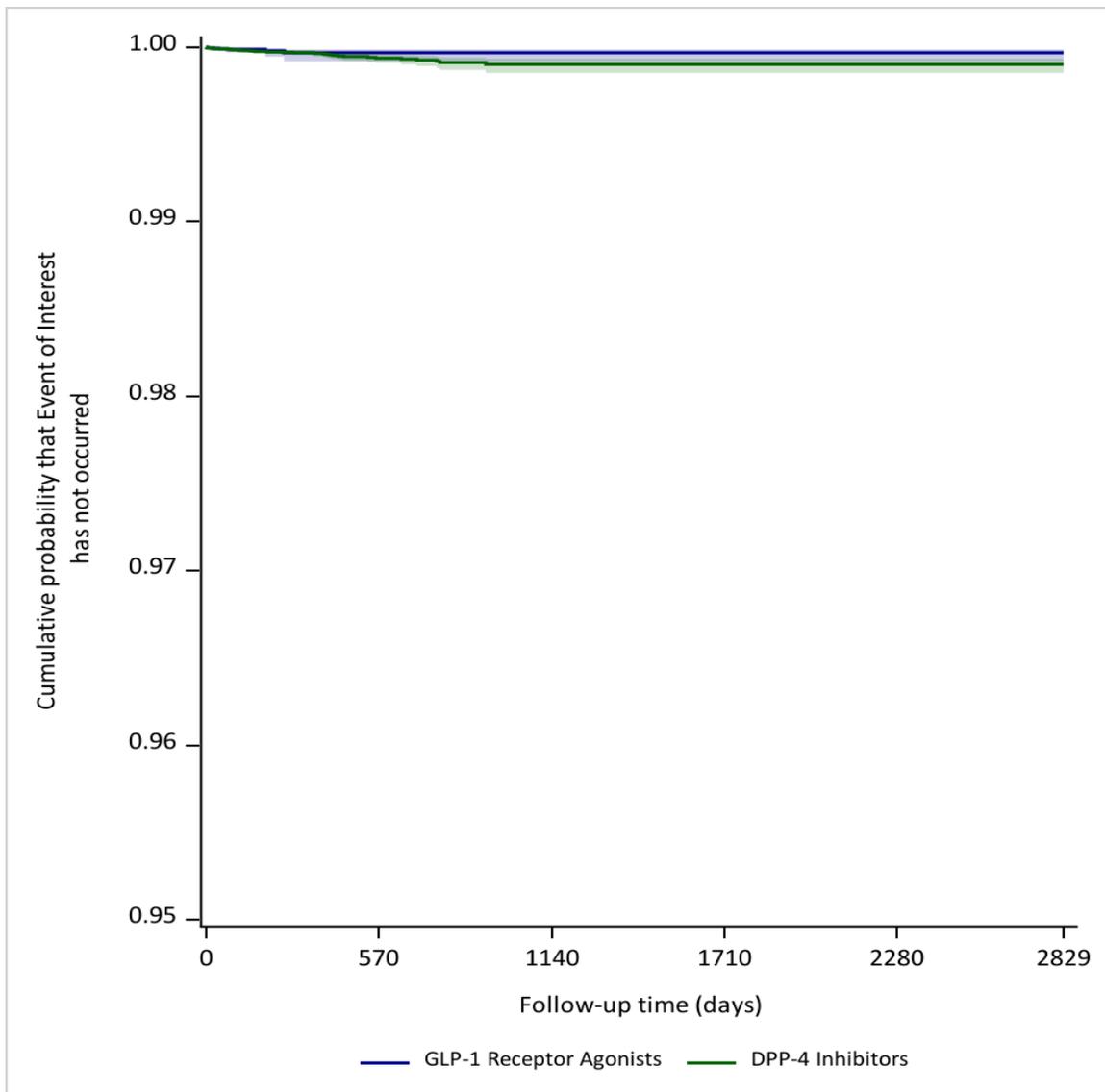


Figure 12ar. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

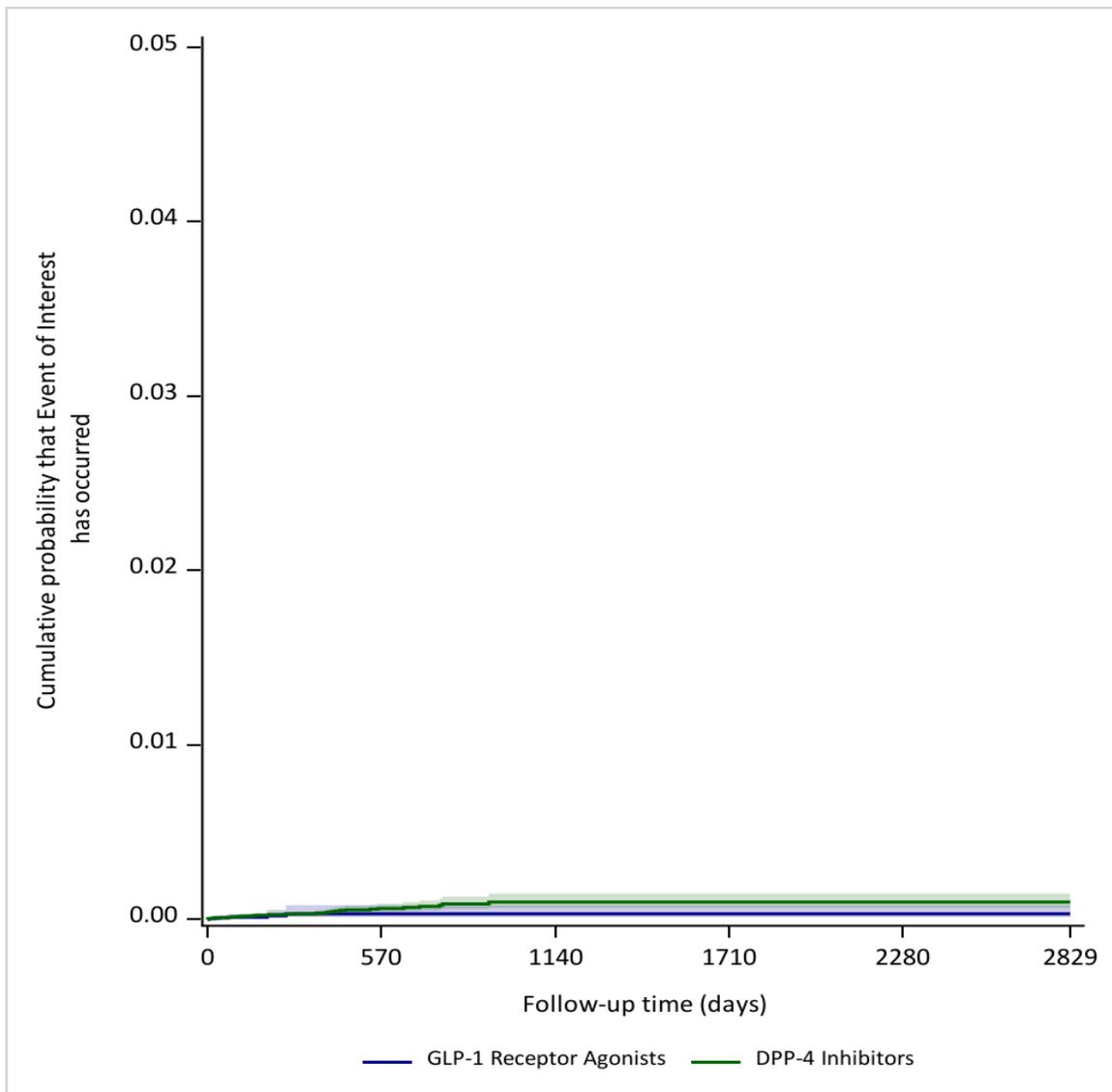


Figure 12as. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

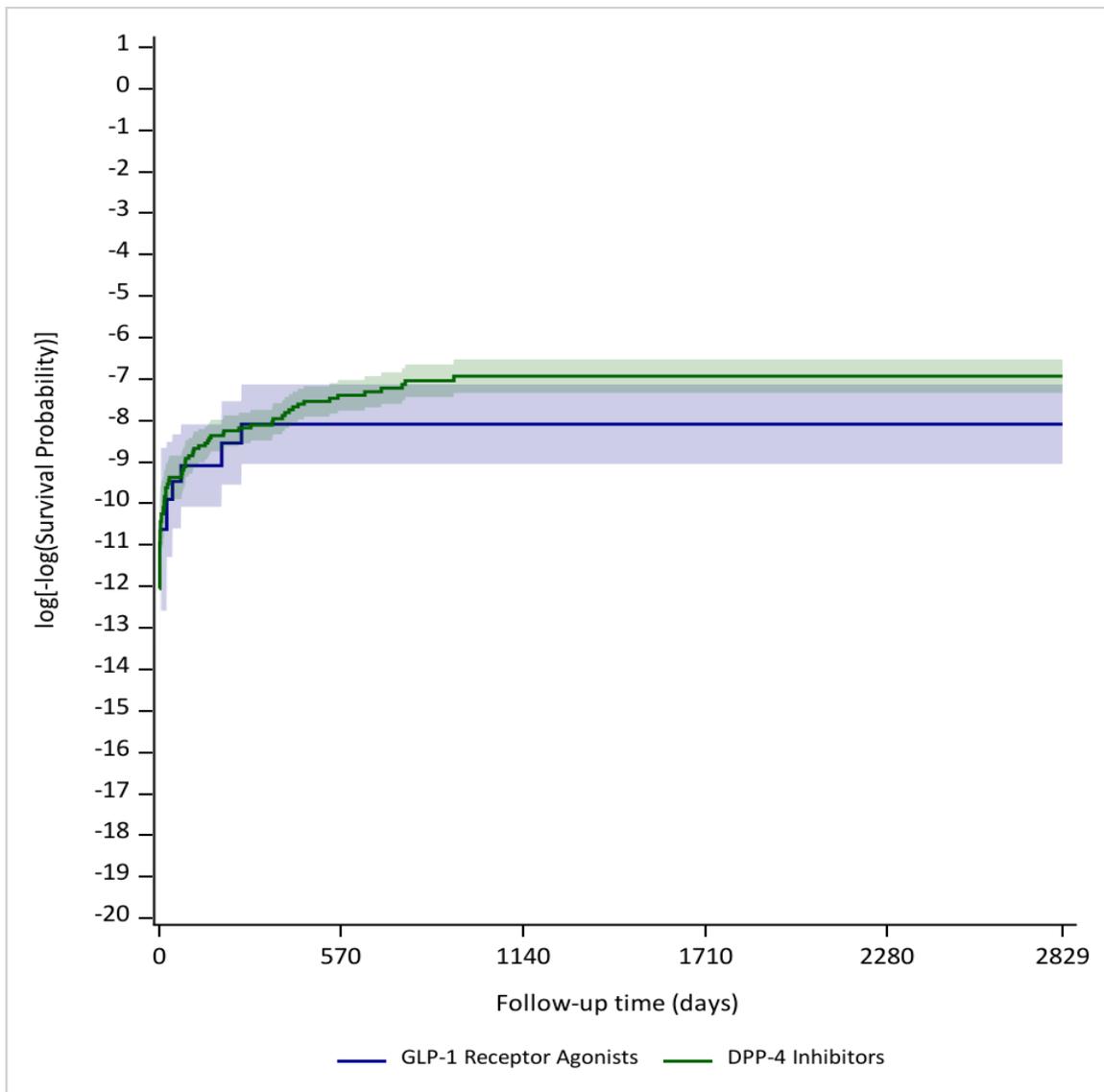


Figure 12at. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

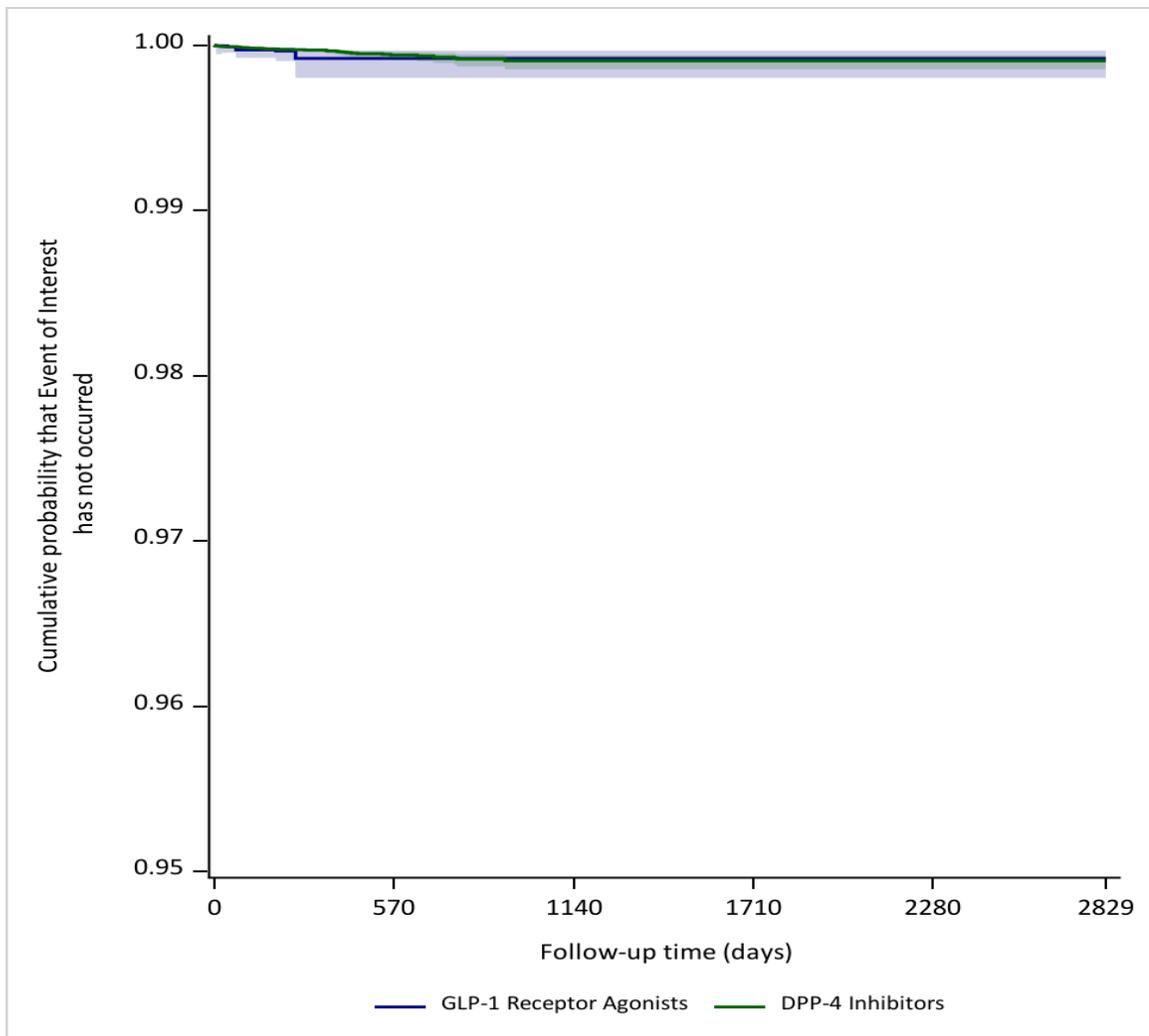


Figure 12au. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

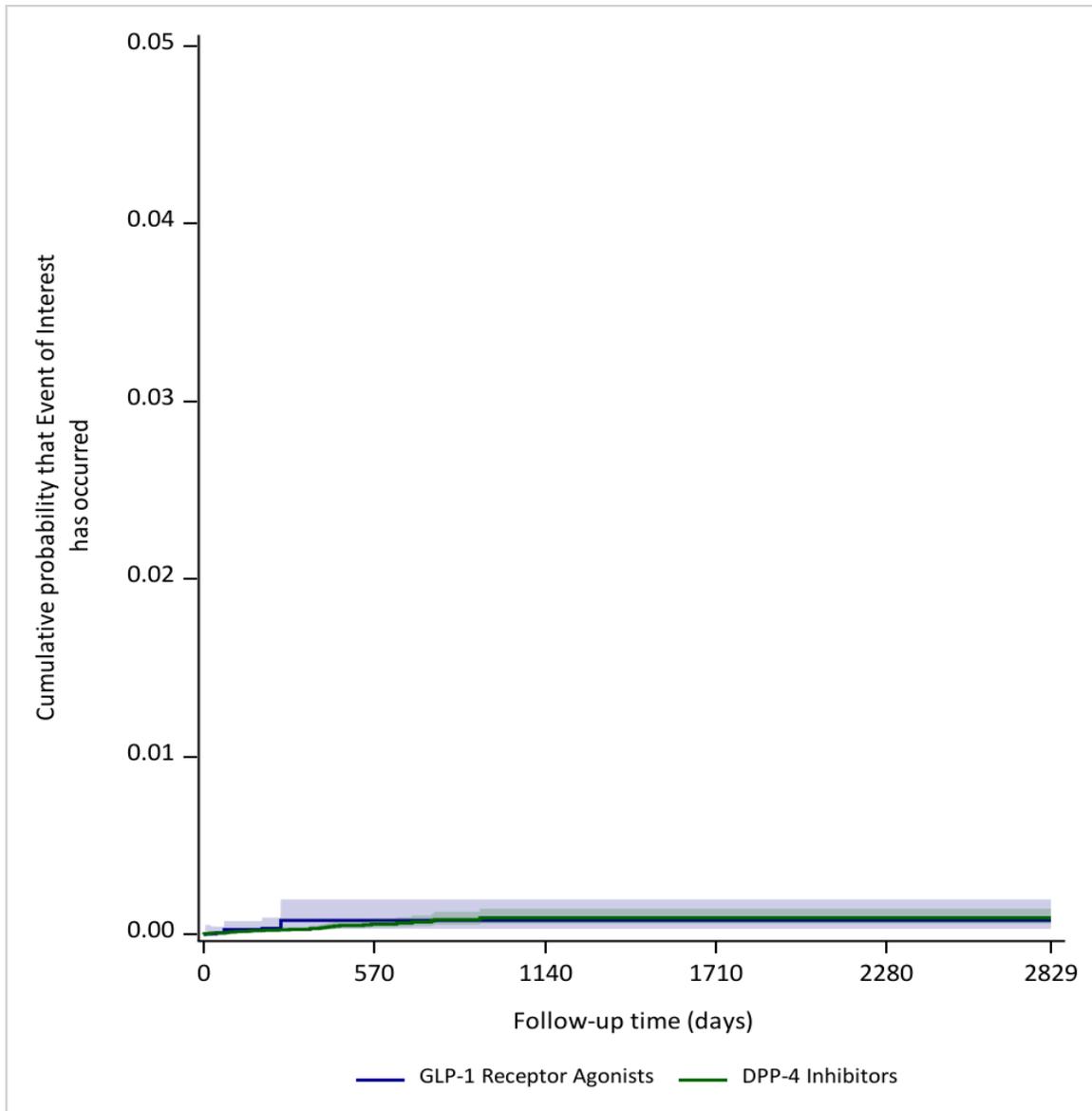


Figure 12av. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

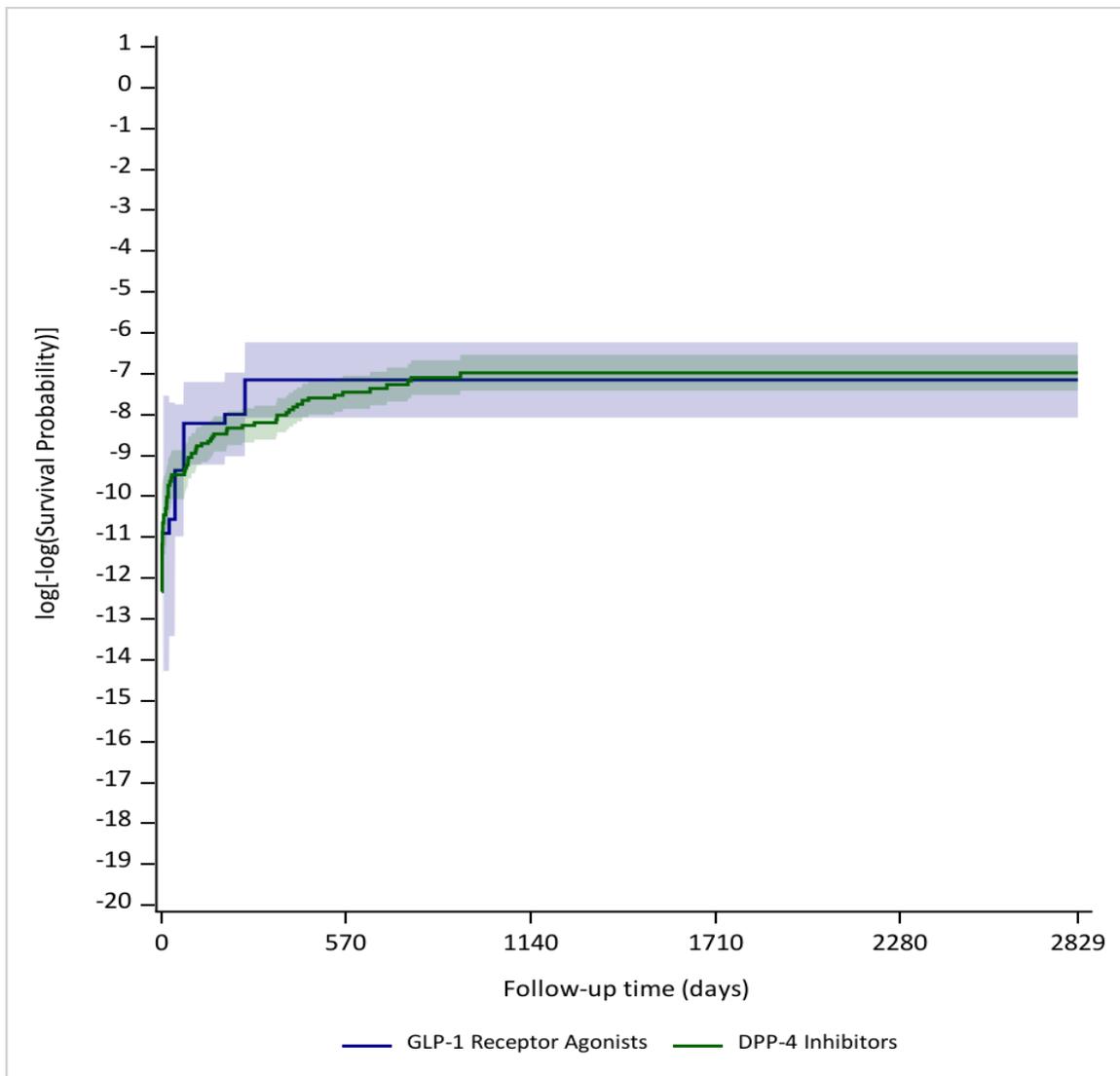


Figure 13a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

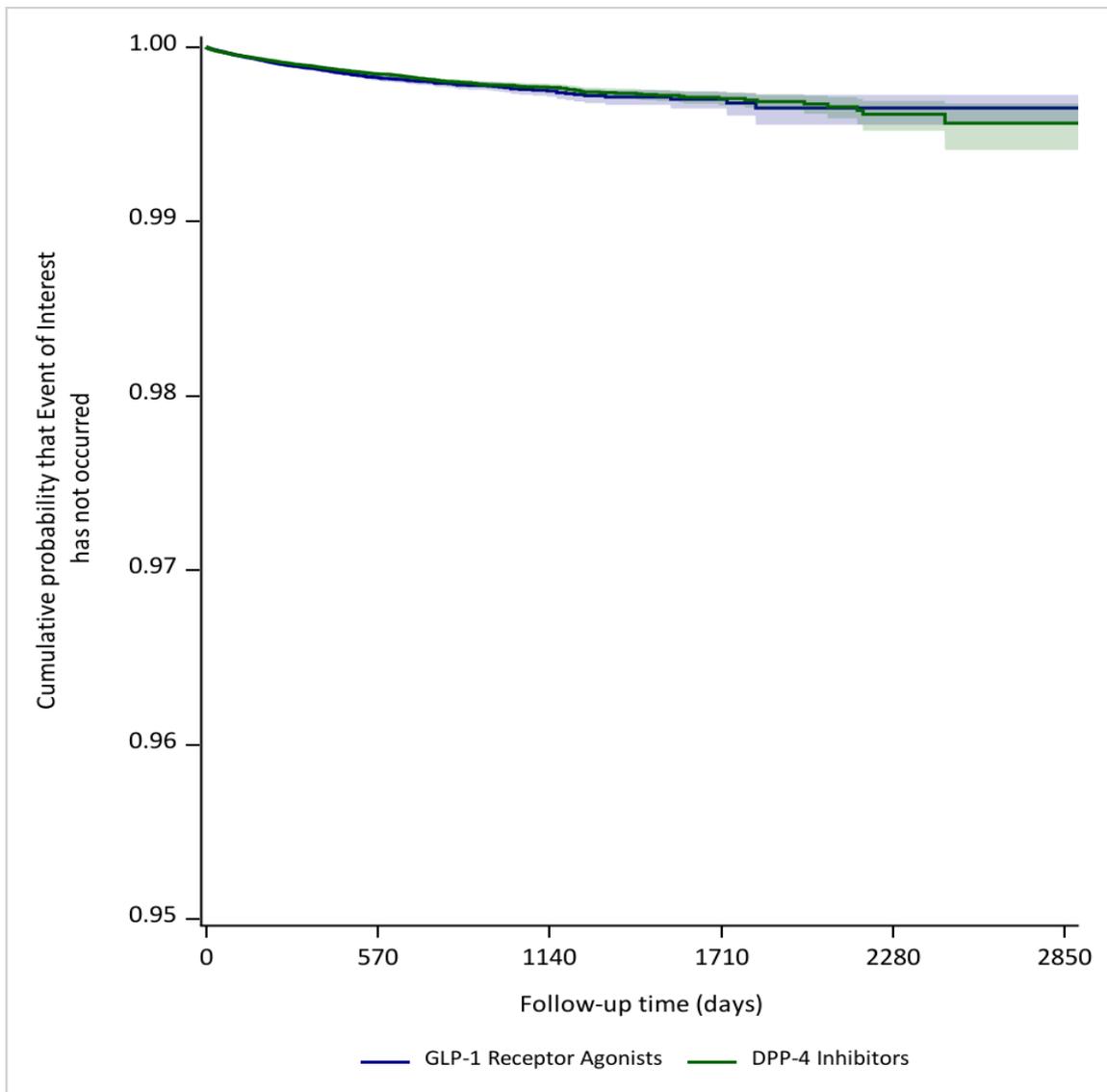


Figure 13b. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

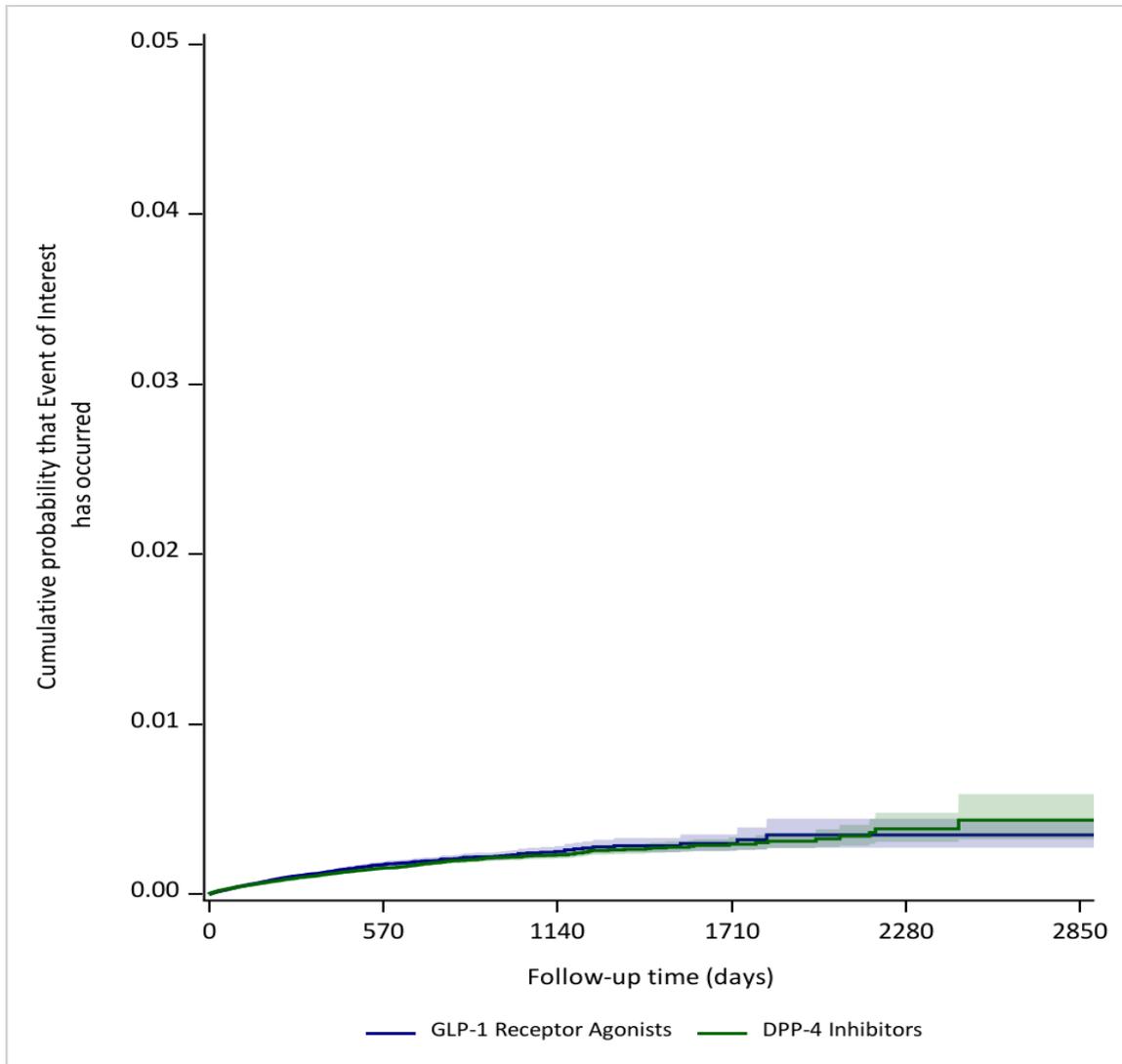


Figure 13c. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

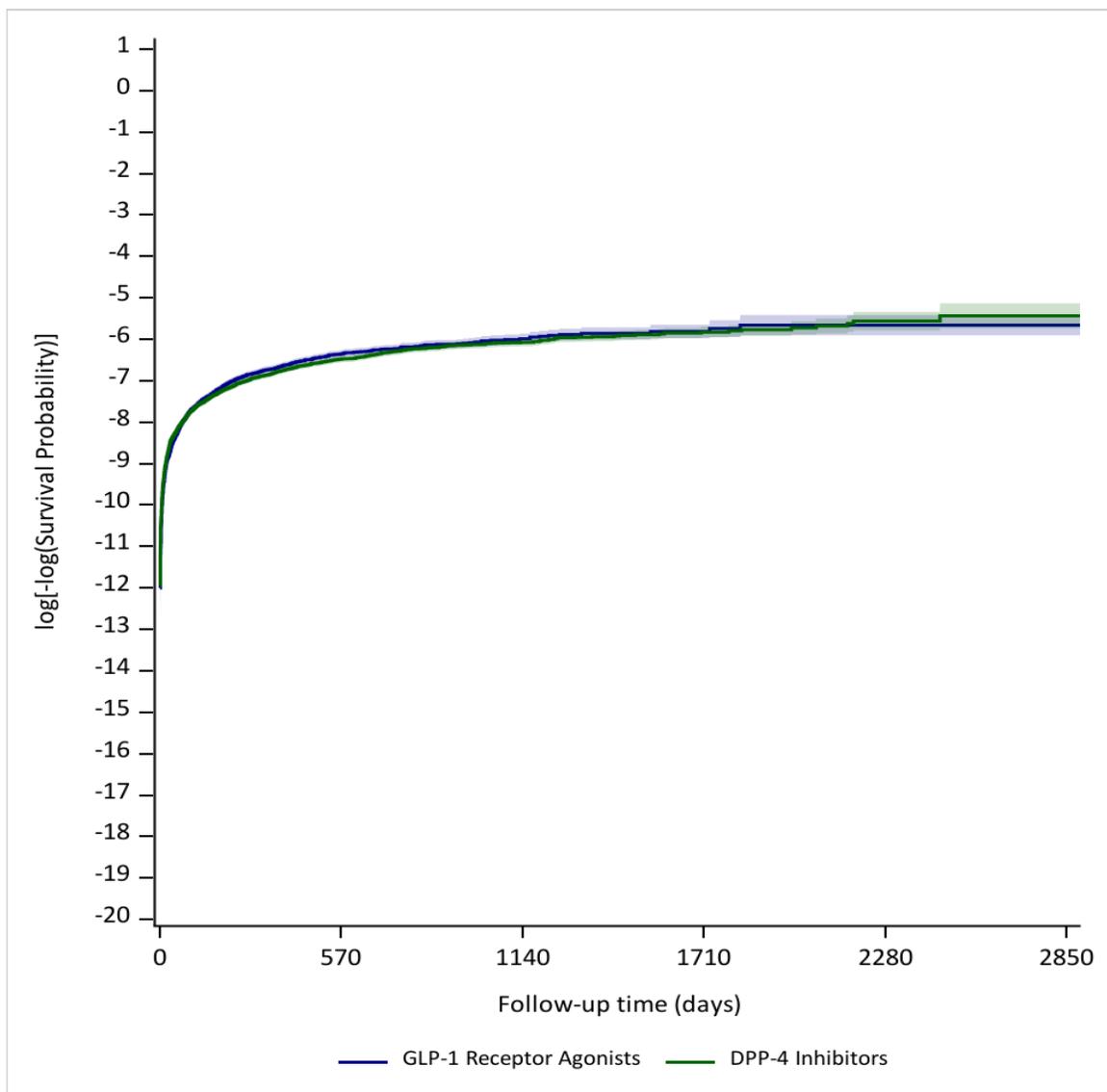


Figure 13d. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation after in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

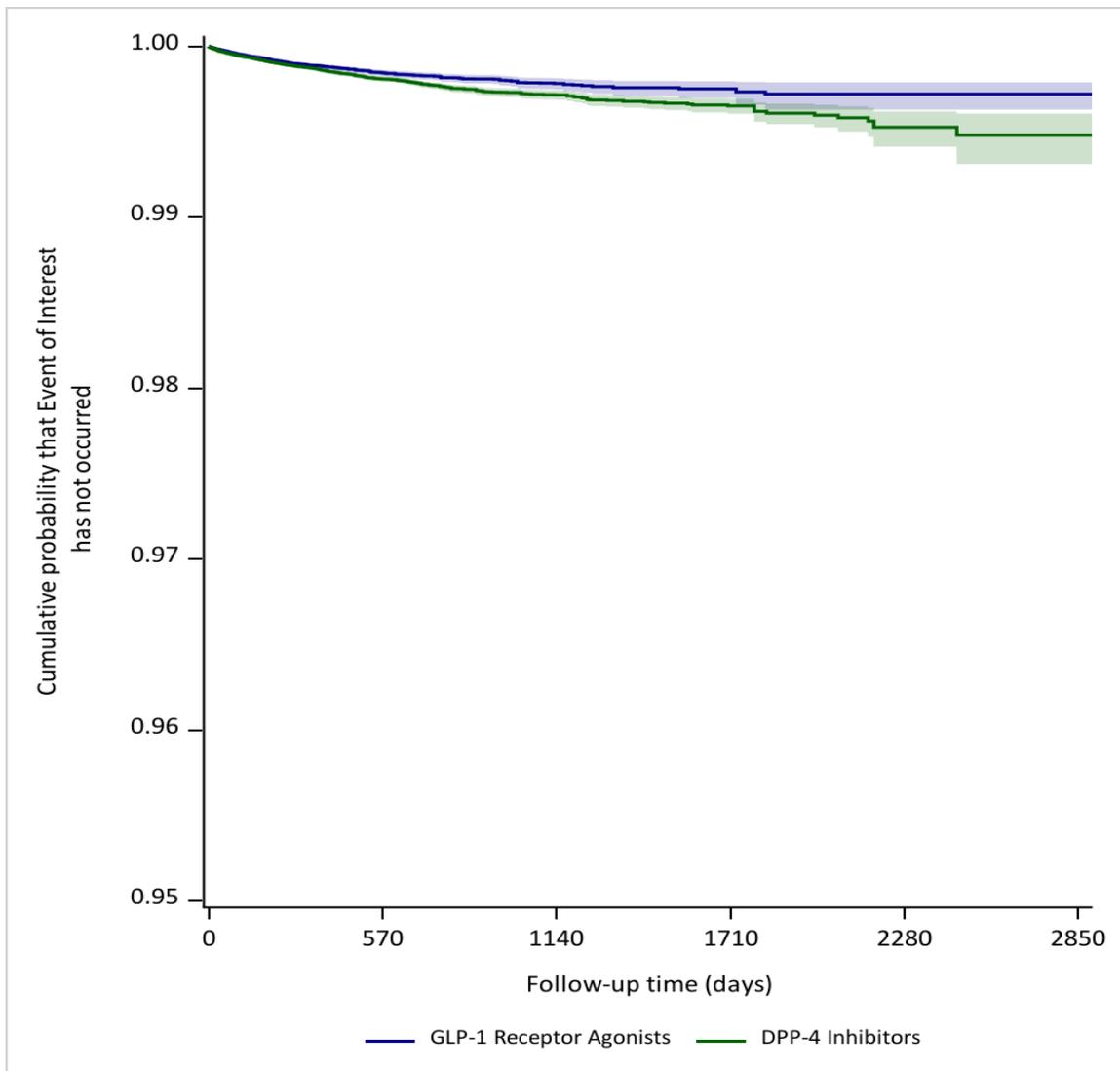


Figure 13e. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

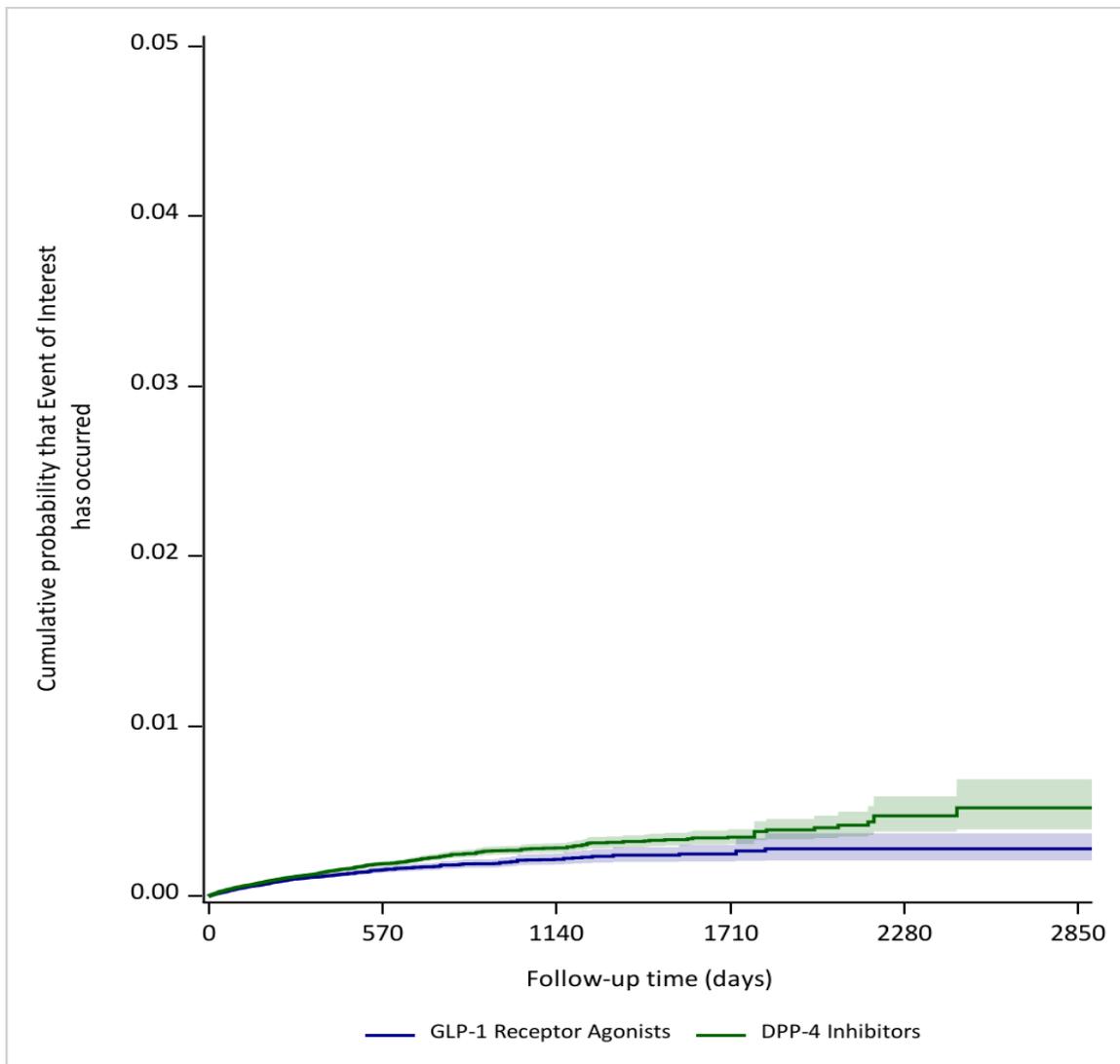


Figure 13f. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023

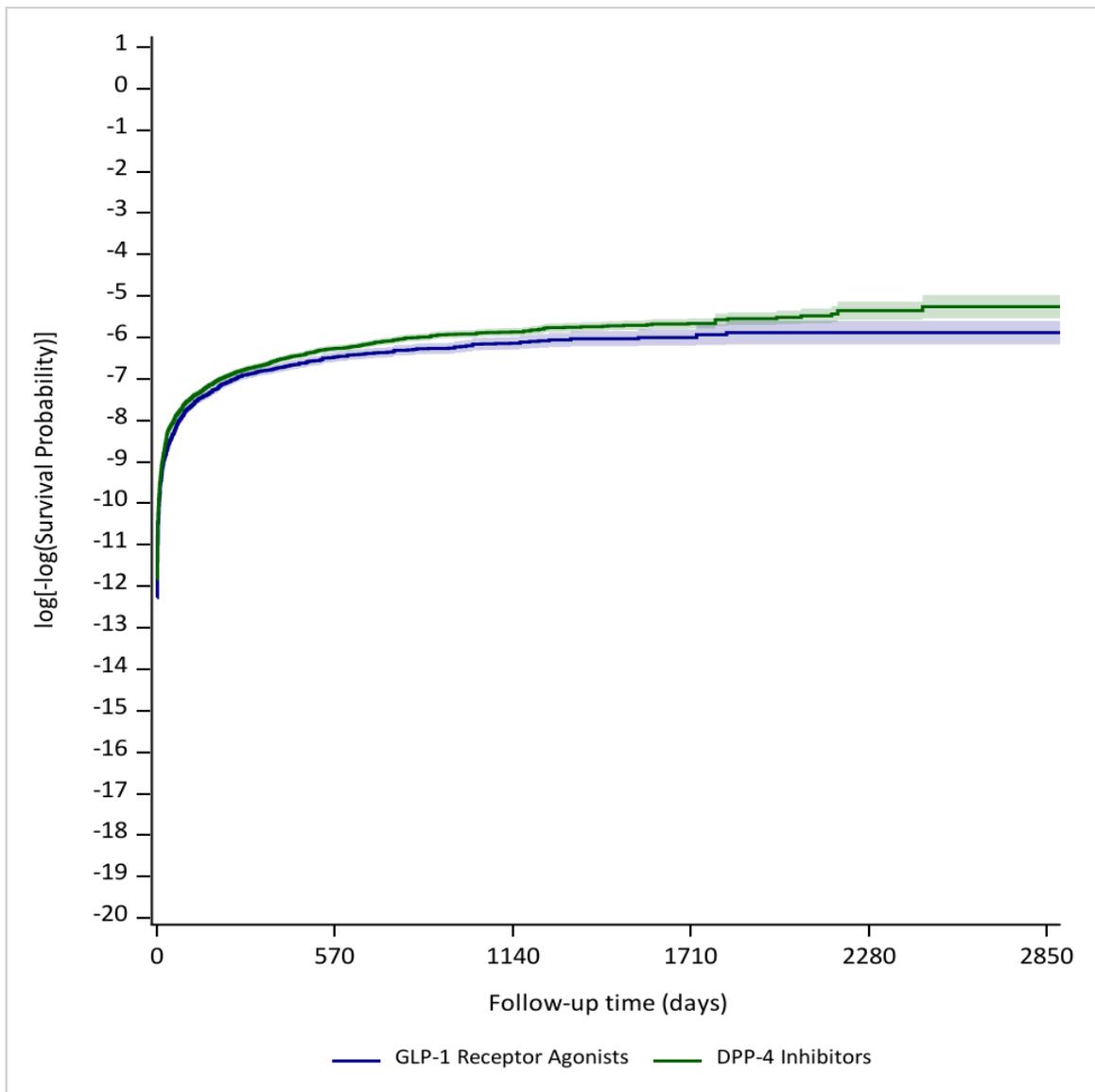


Figure 13g. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

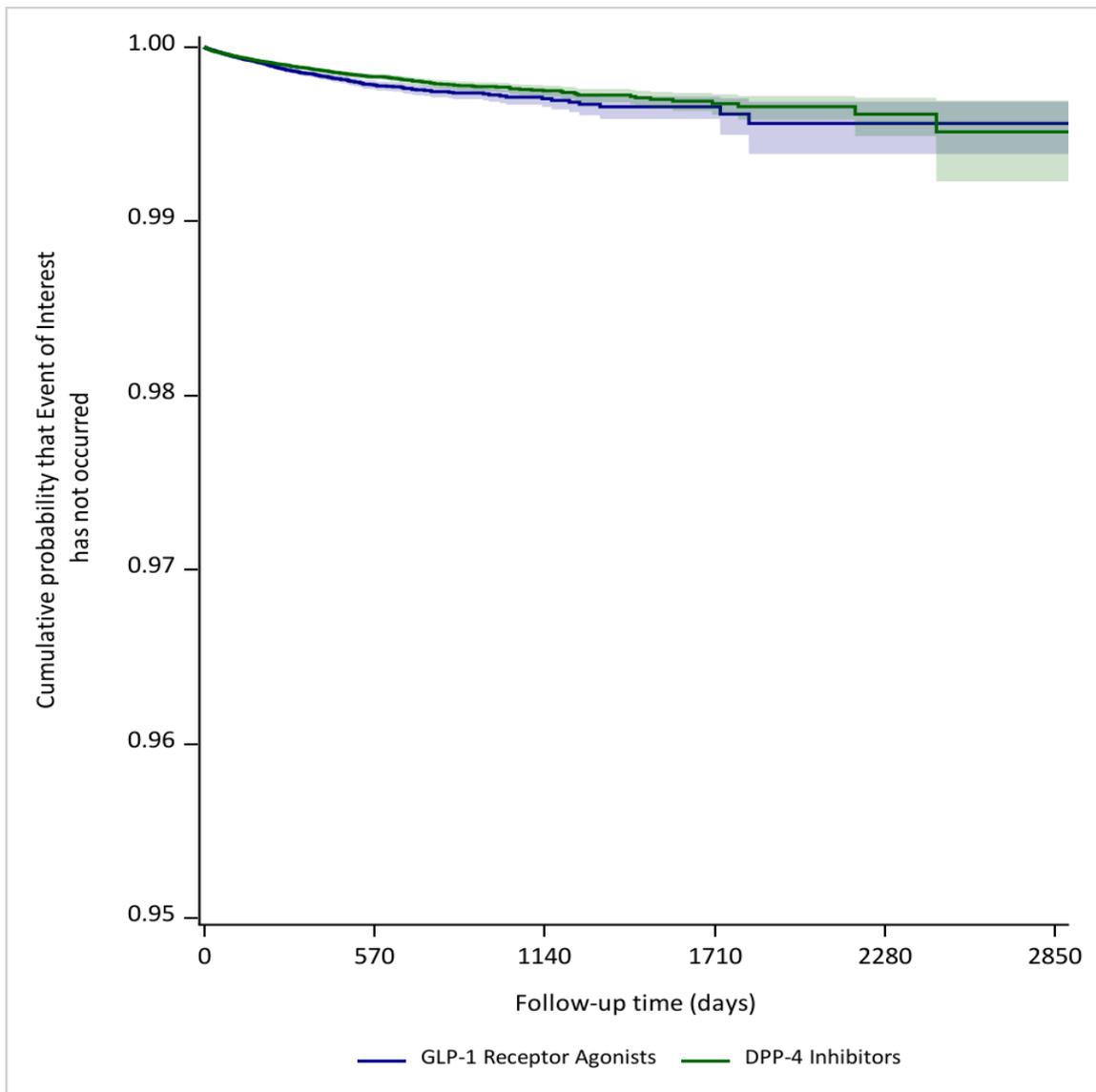


Figure 13h. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

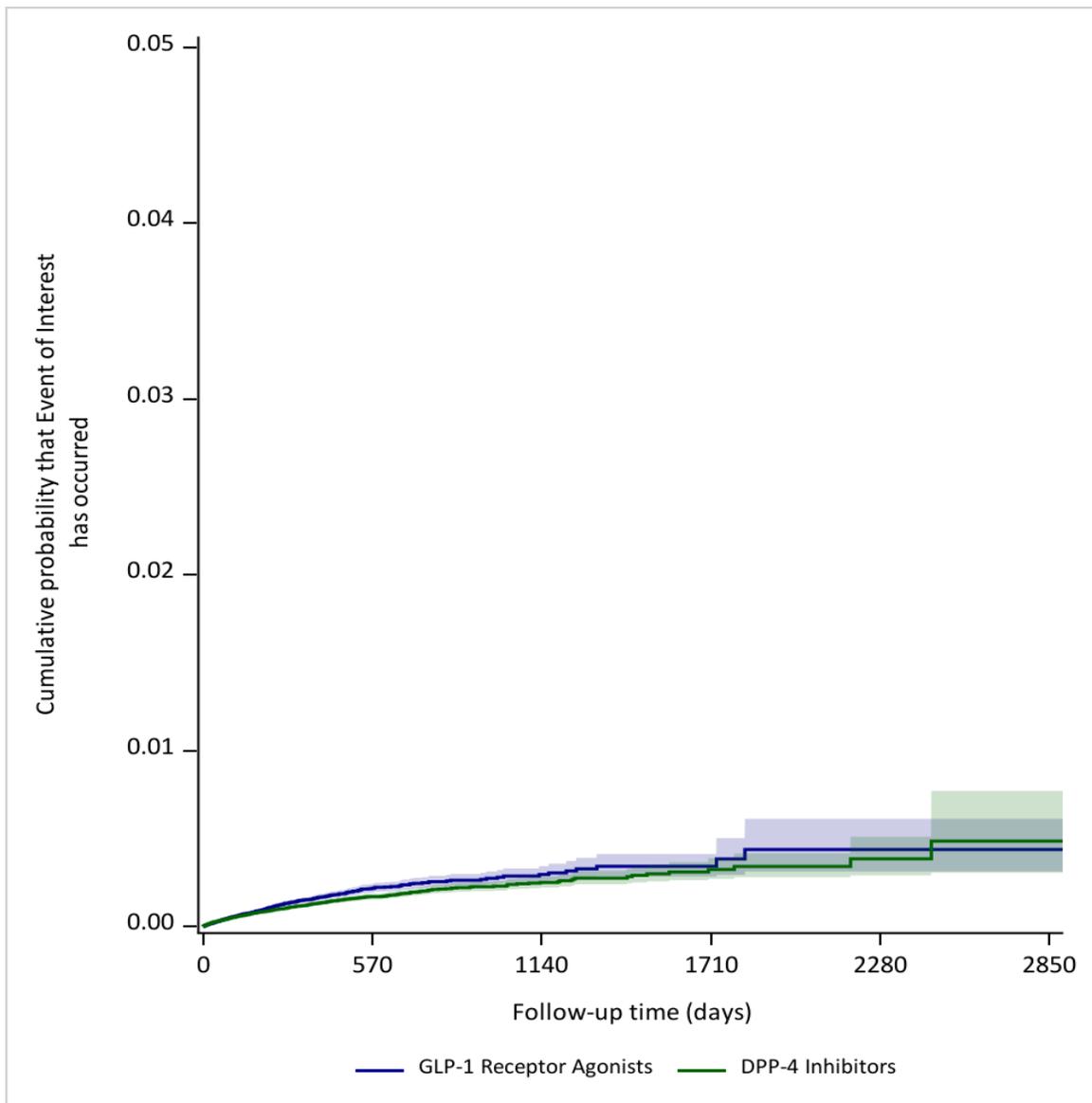


Figure 13i. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

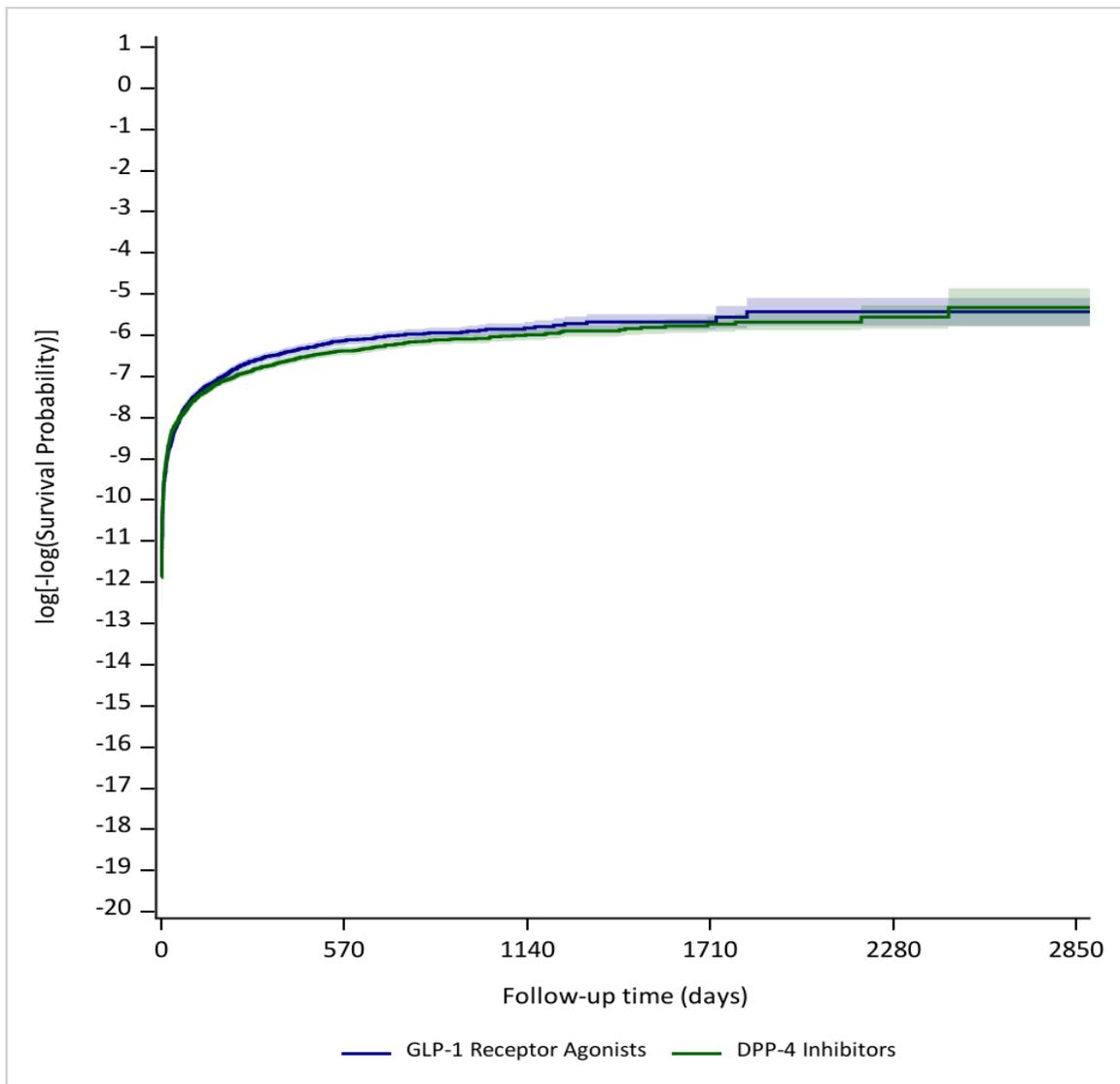


Figure 13j. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

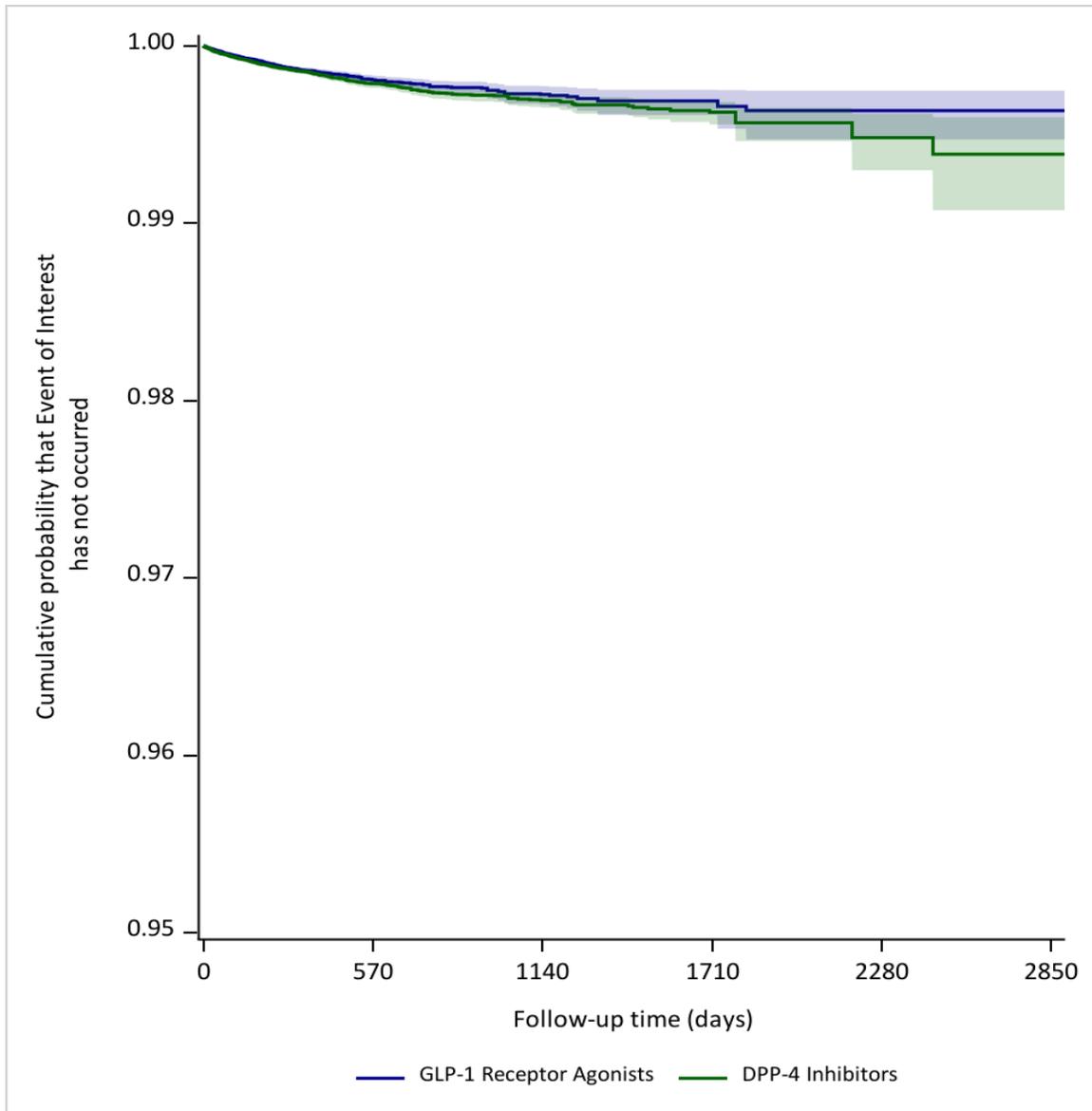


Figure 13k. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

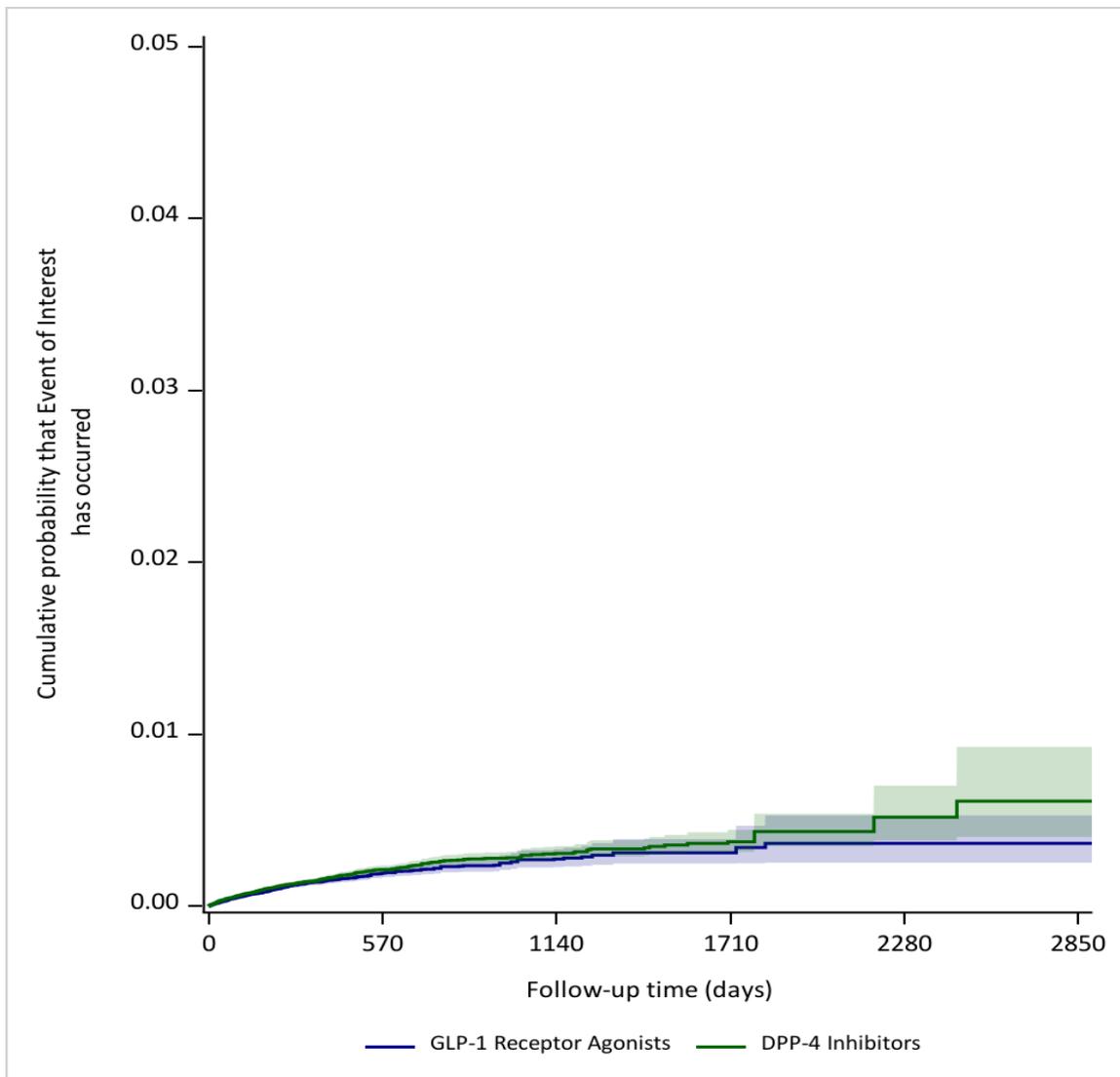


Figure 13l. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Female

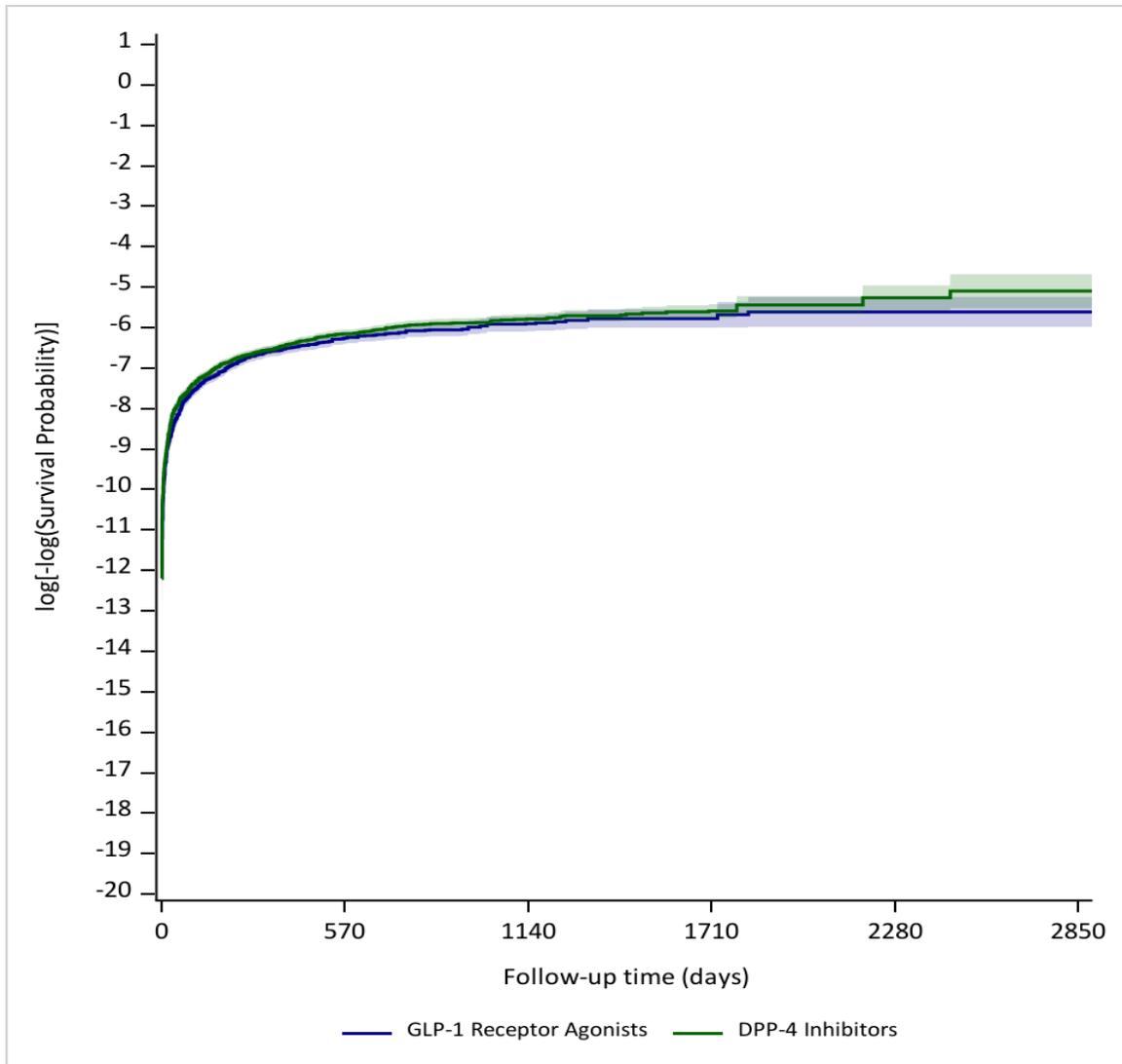


Figure 13m. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

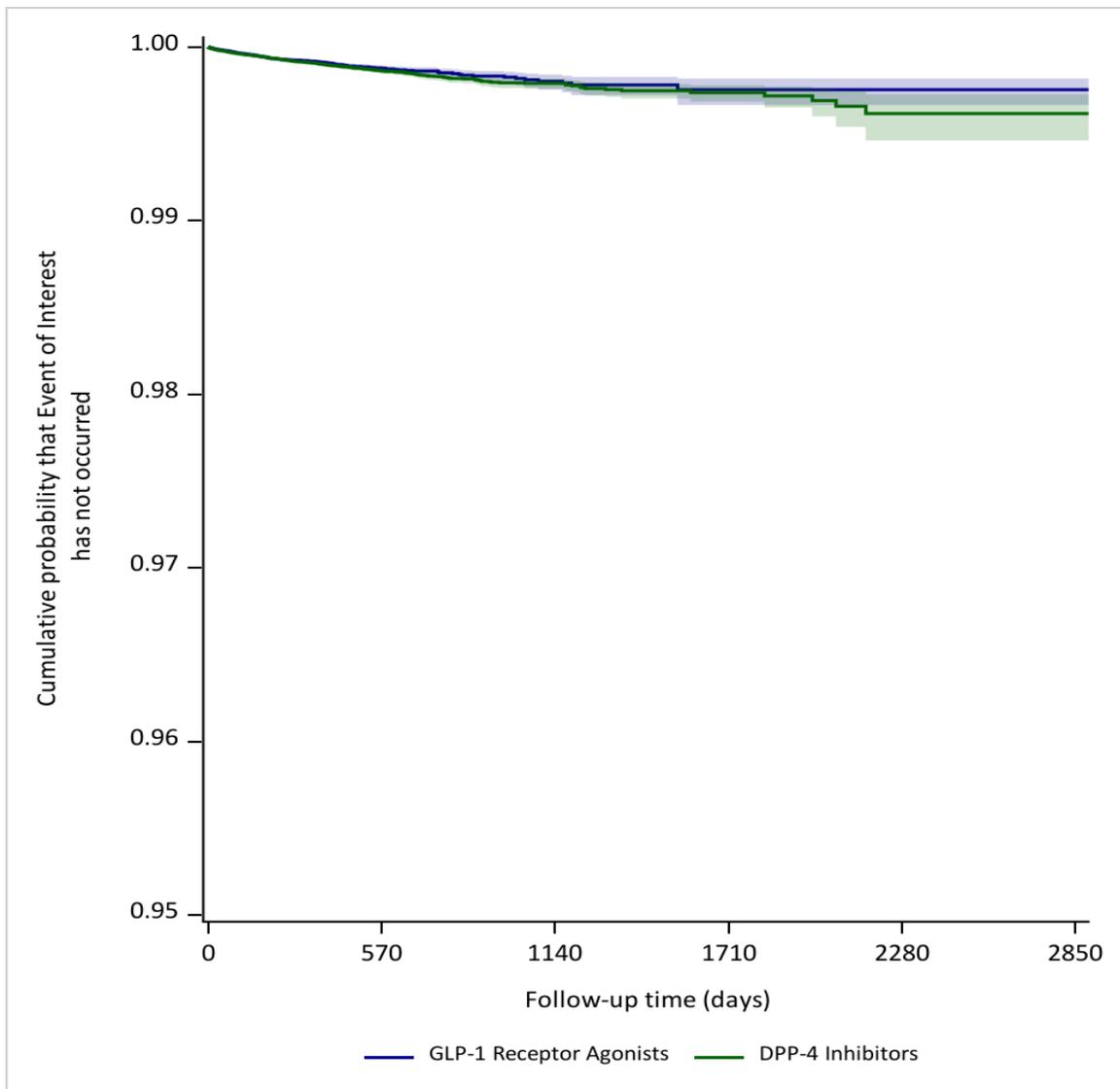


Figure 13n. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

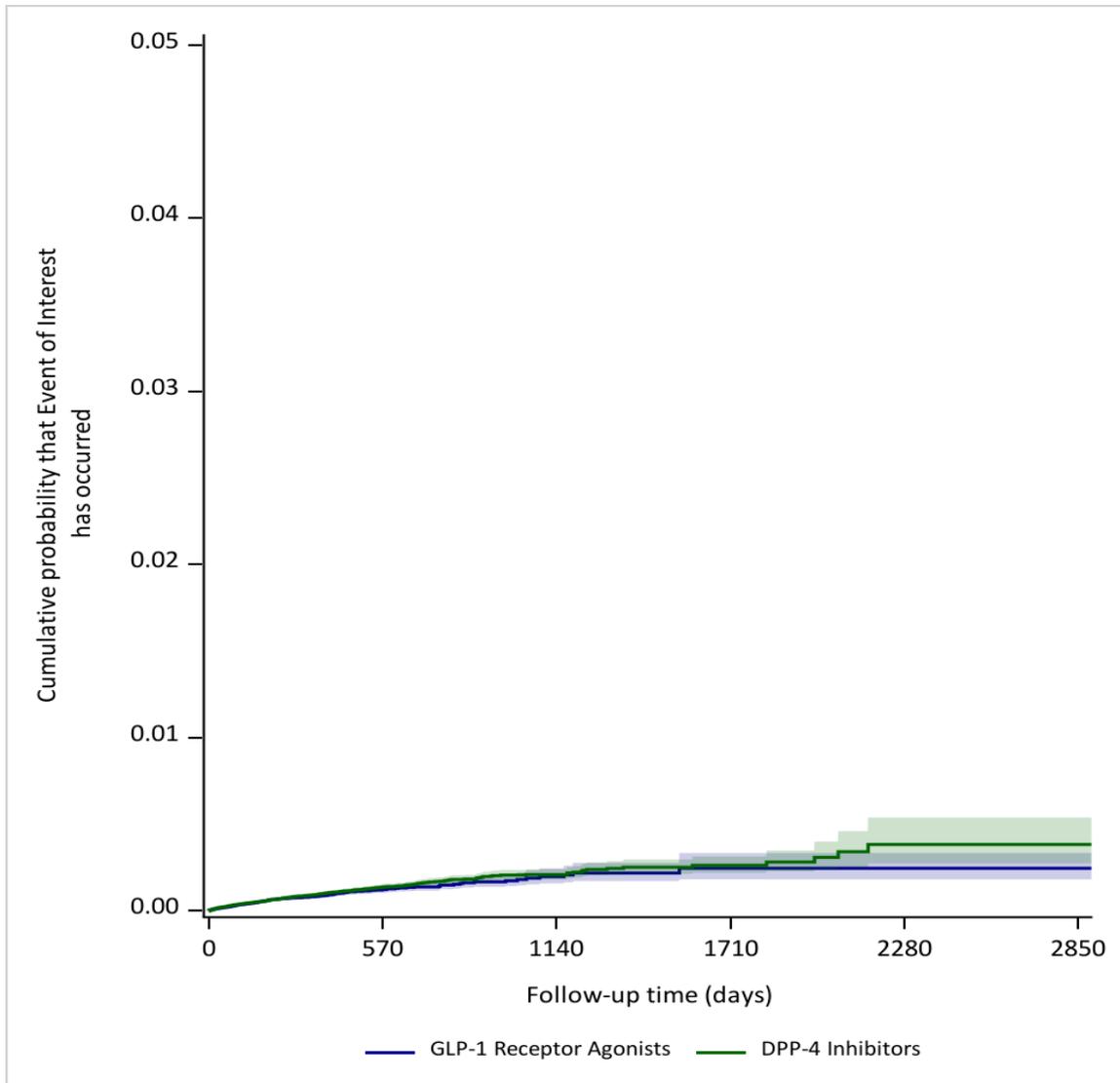


Figure 13o. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

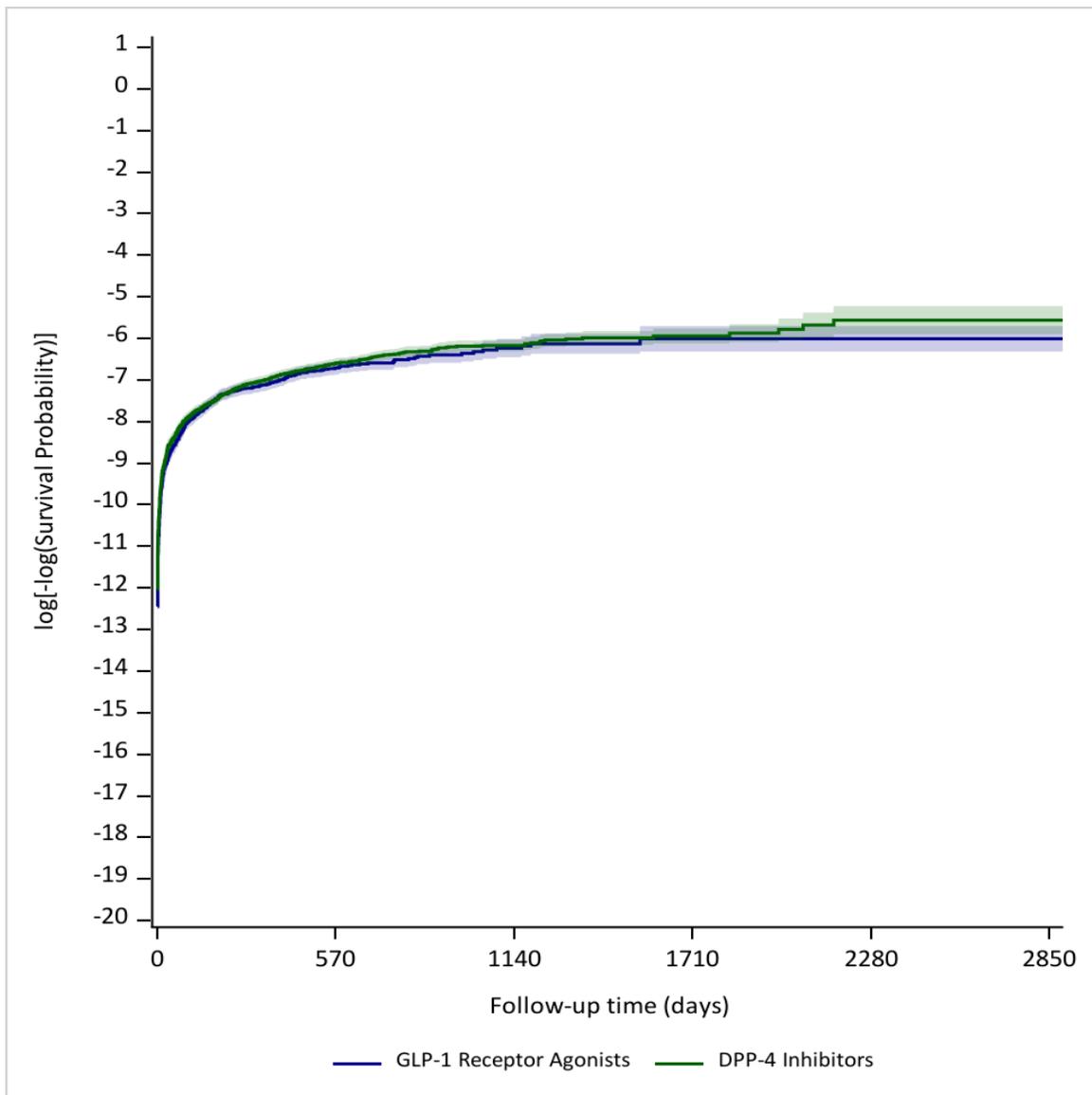


Figure 13p. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

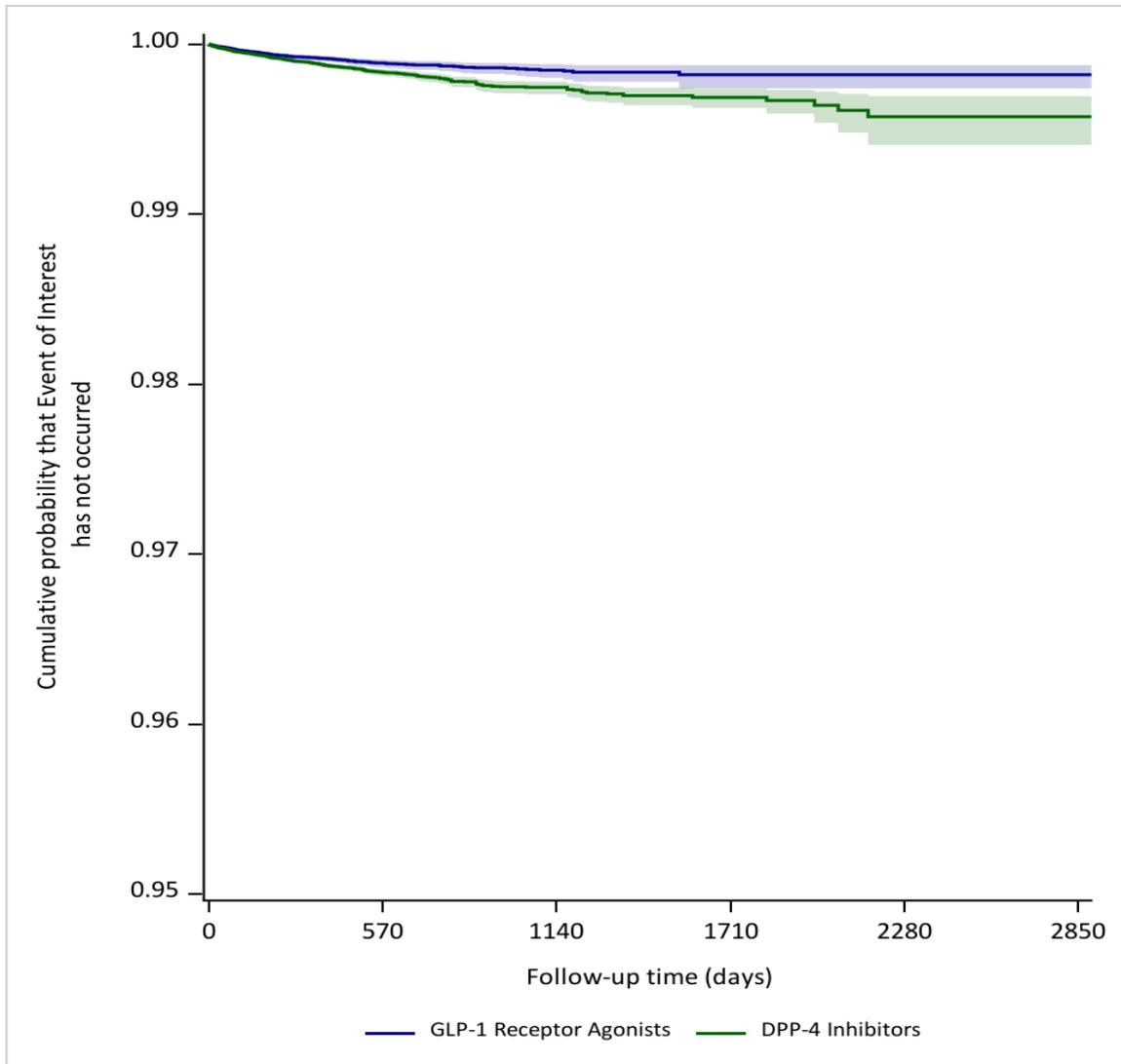


Figure 13q. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

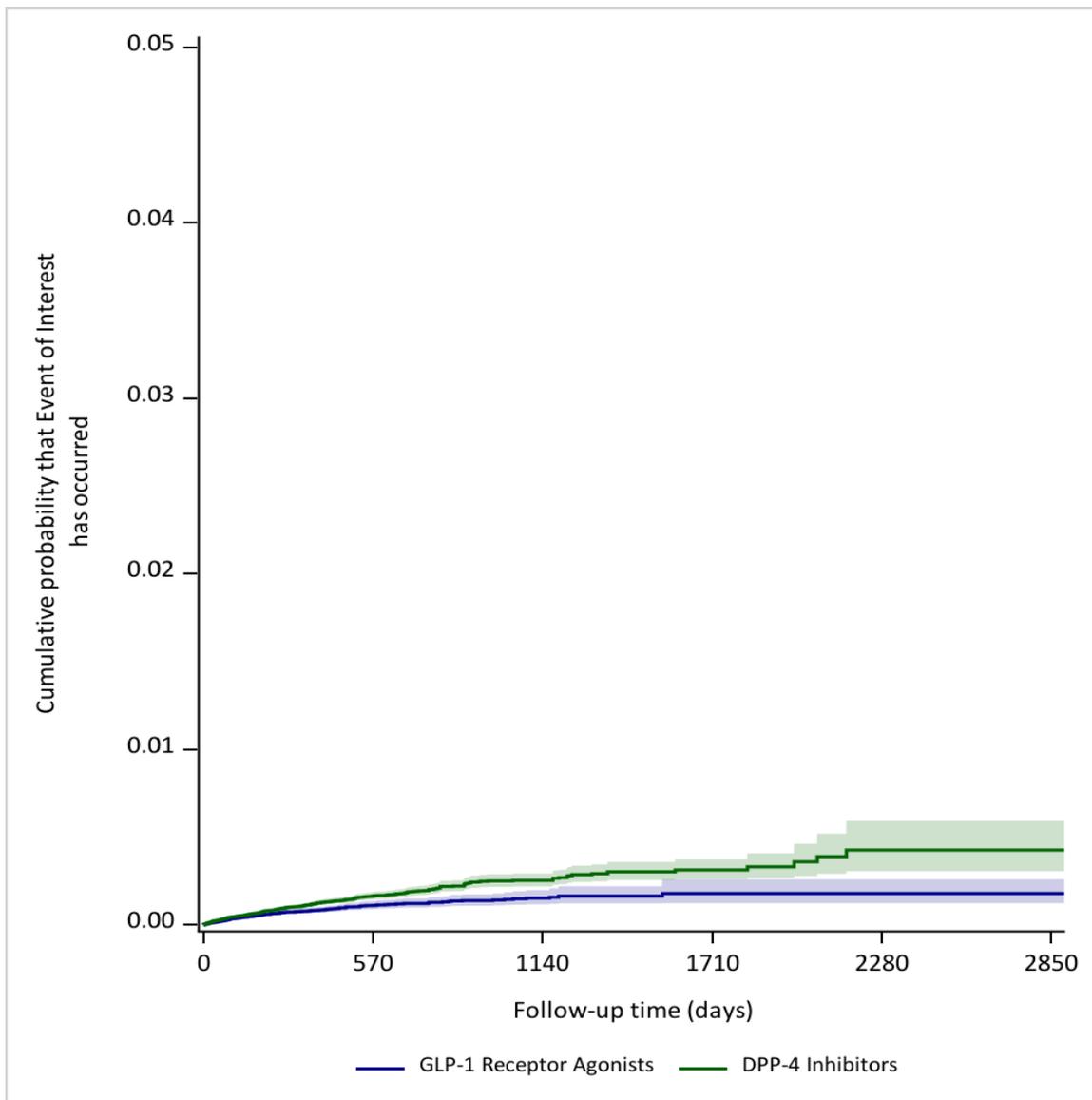


Figure 13r. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Sex: Male

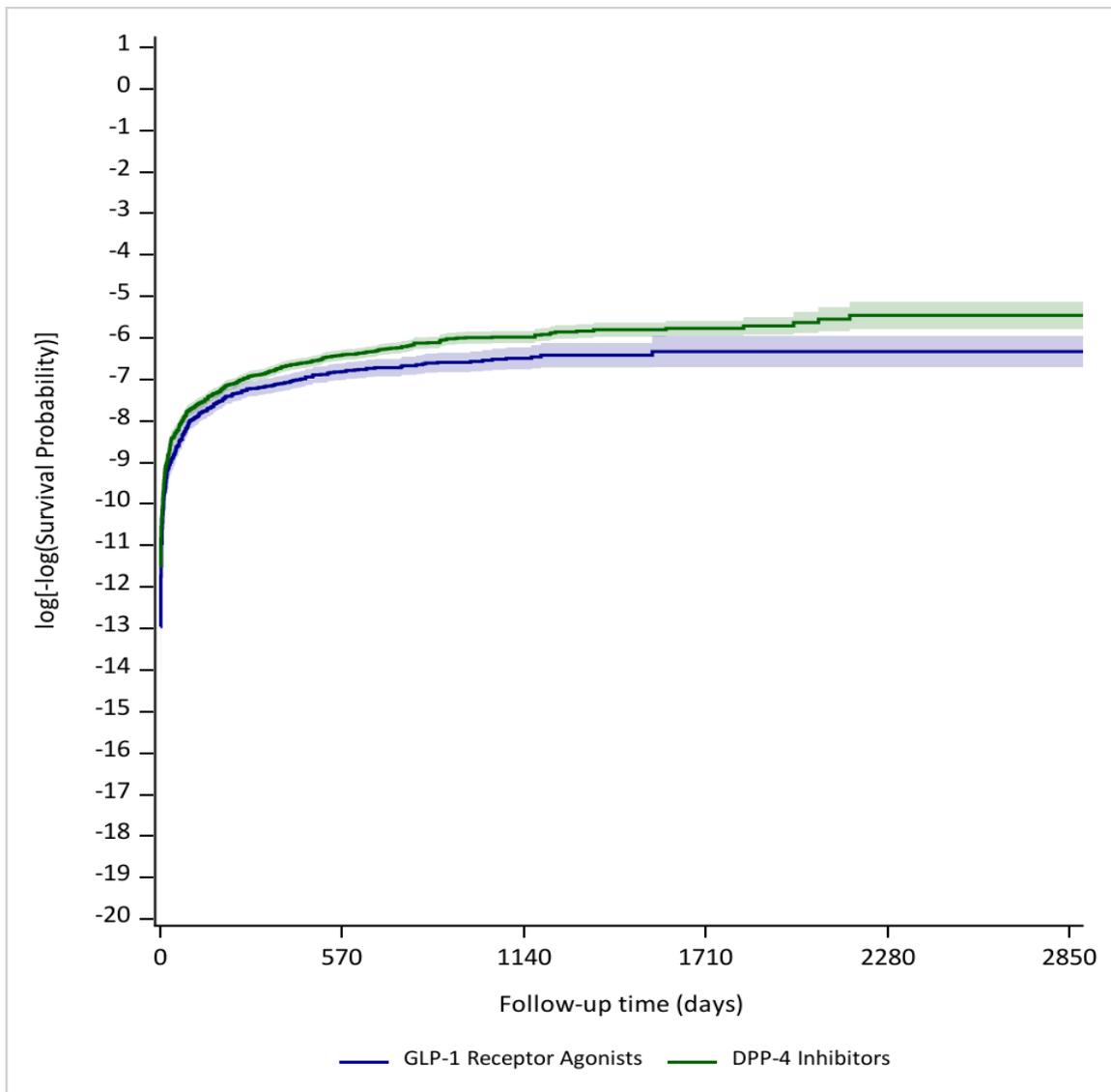


Figure 13s. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

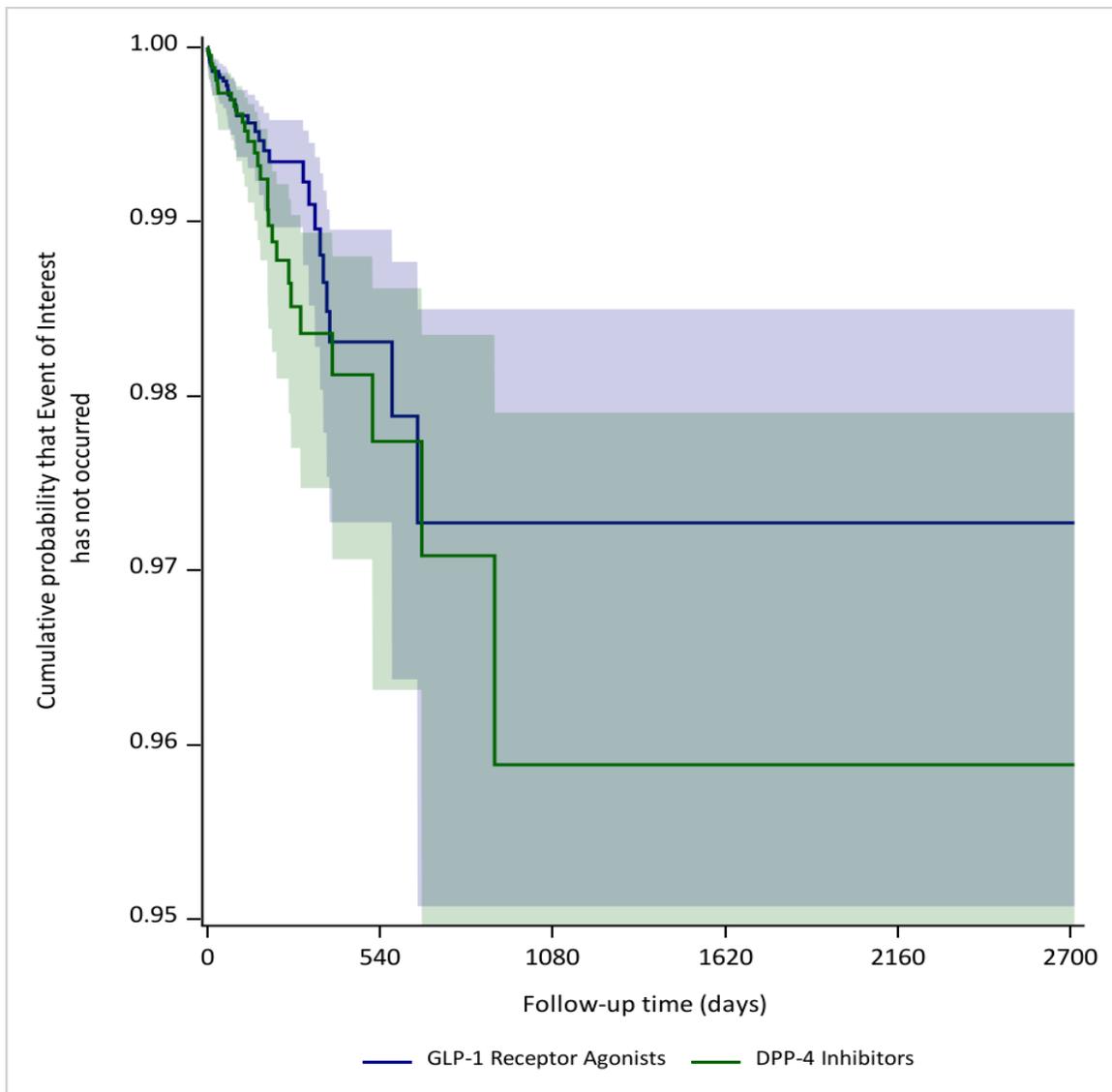


Figure 13t. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

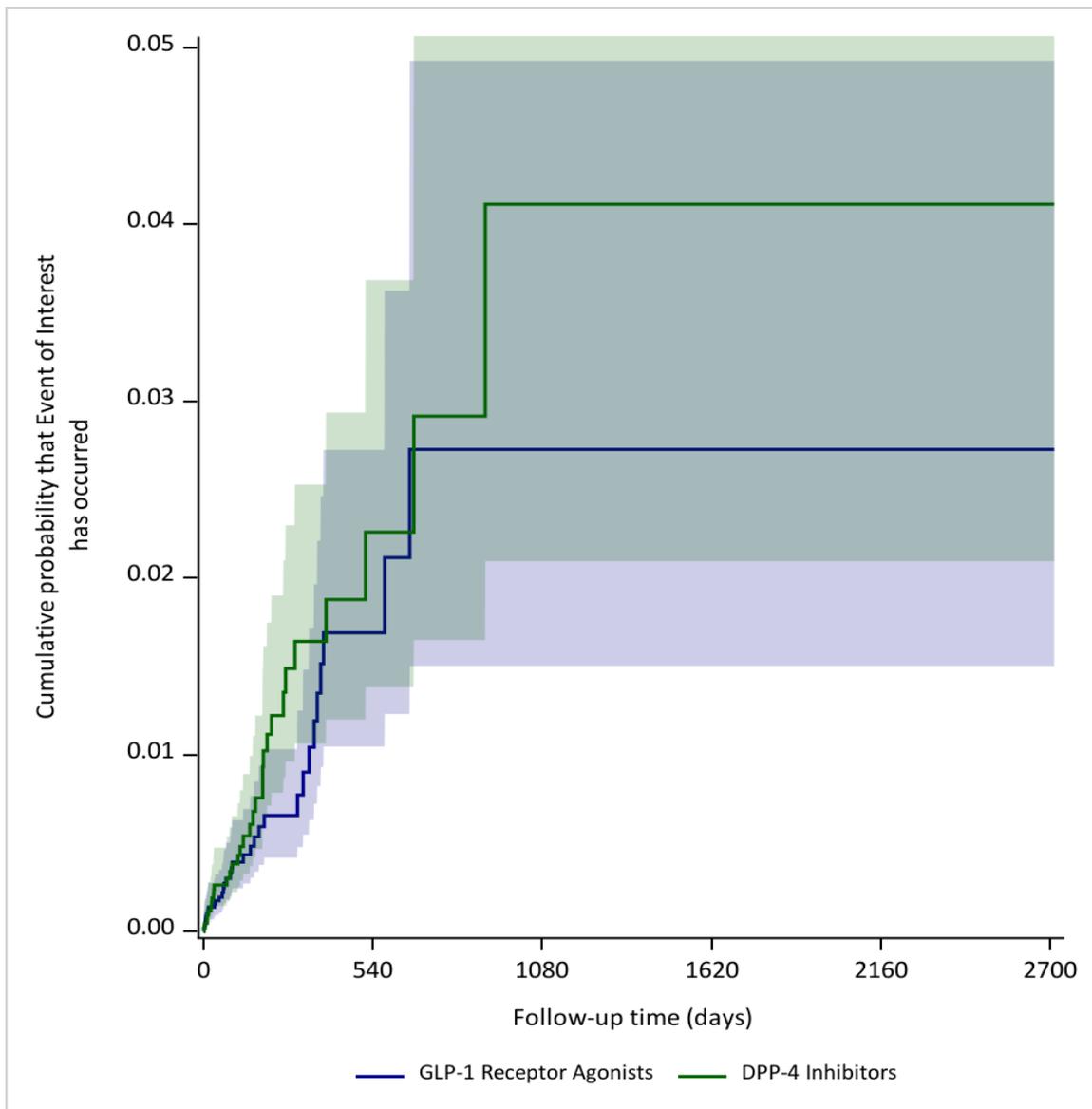


Figure 13u. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

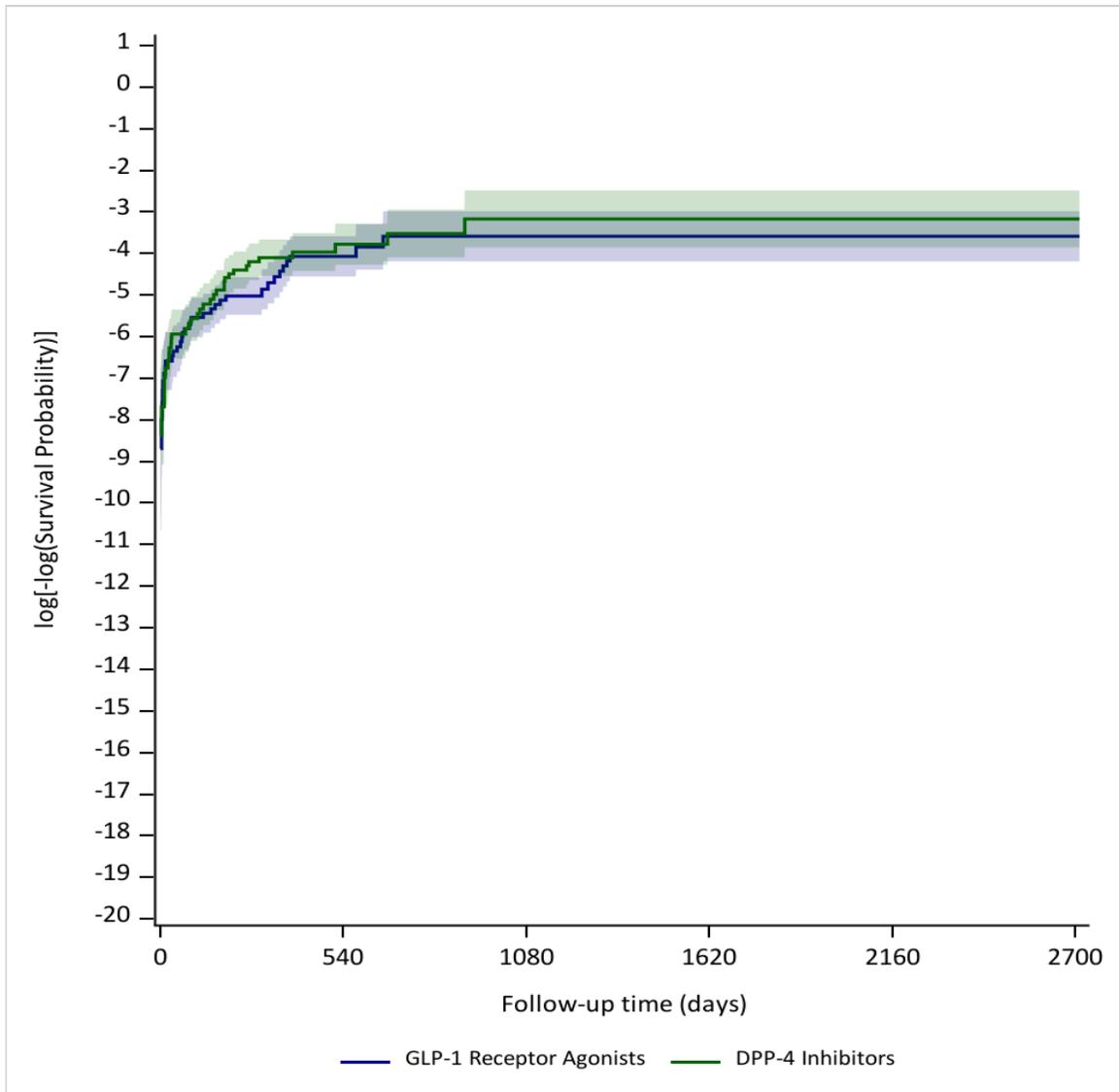


Figure 13v. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

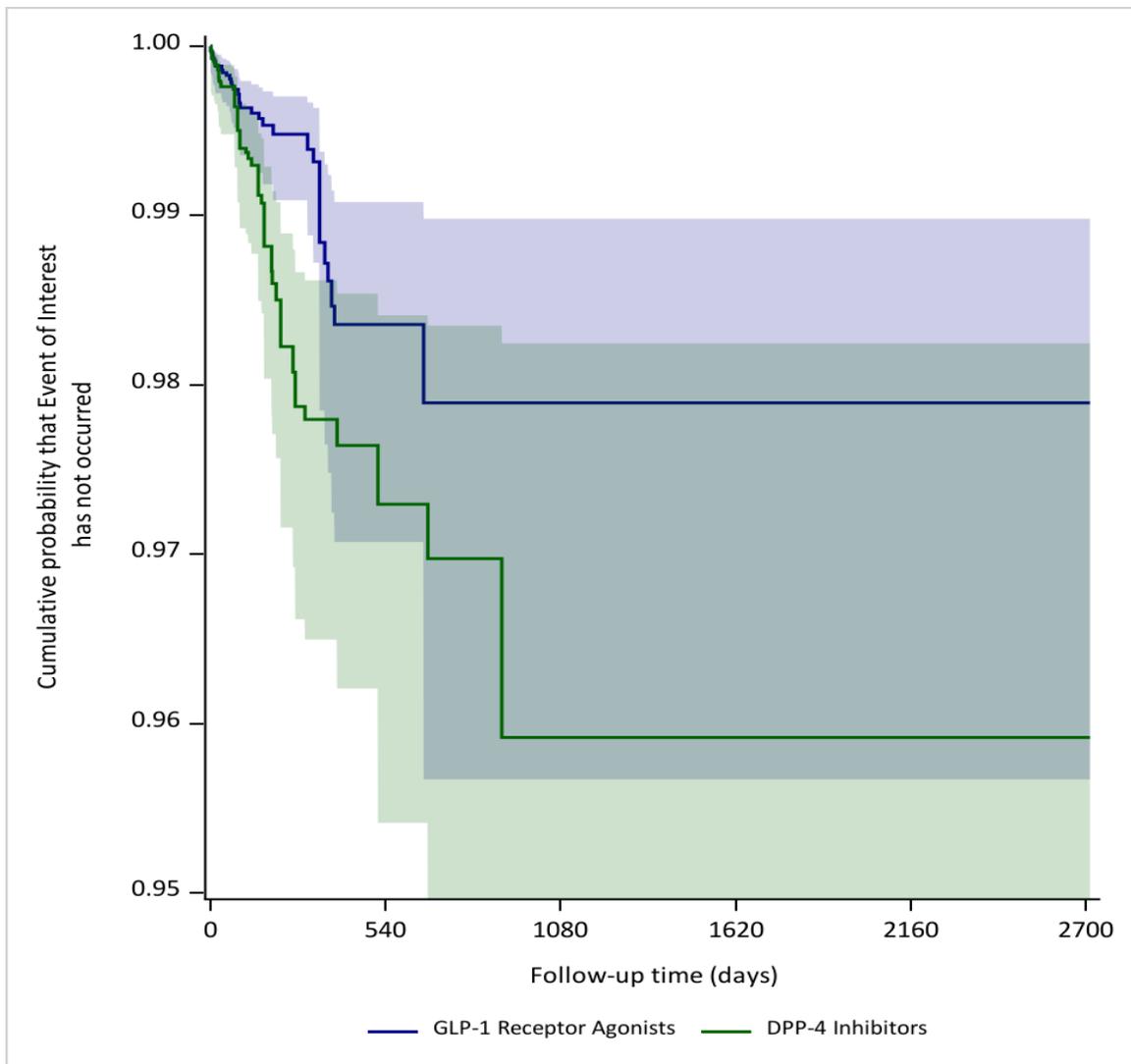


Figure 13w. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

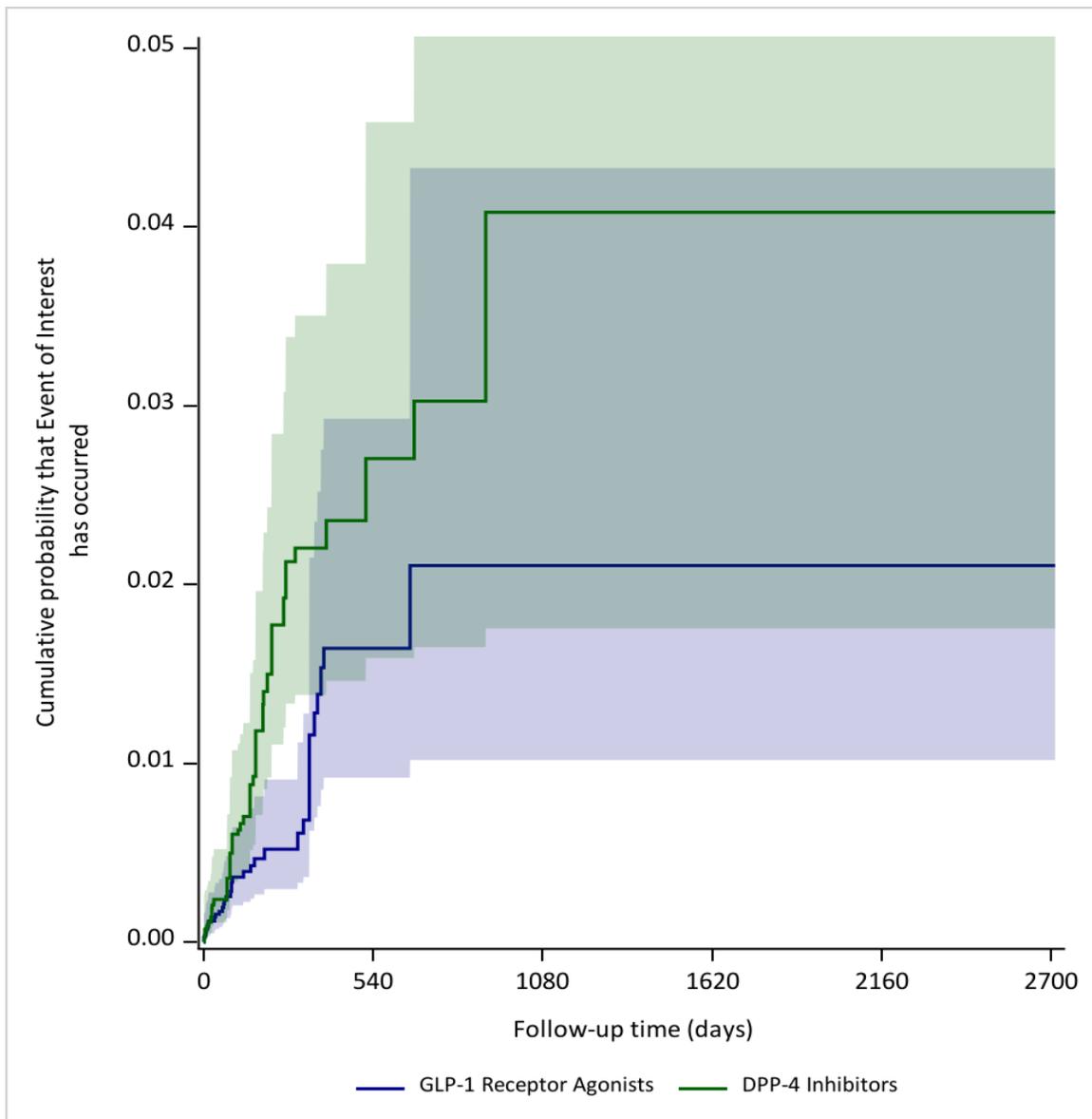


Figure 13x. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 18-24 years

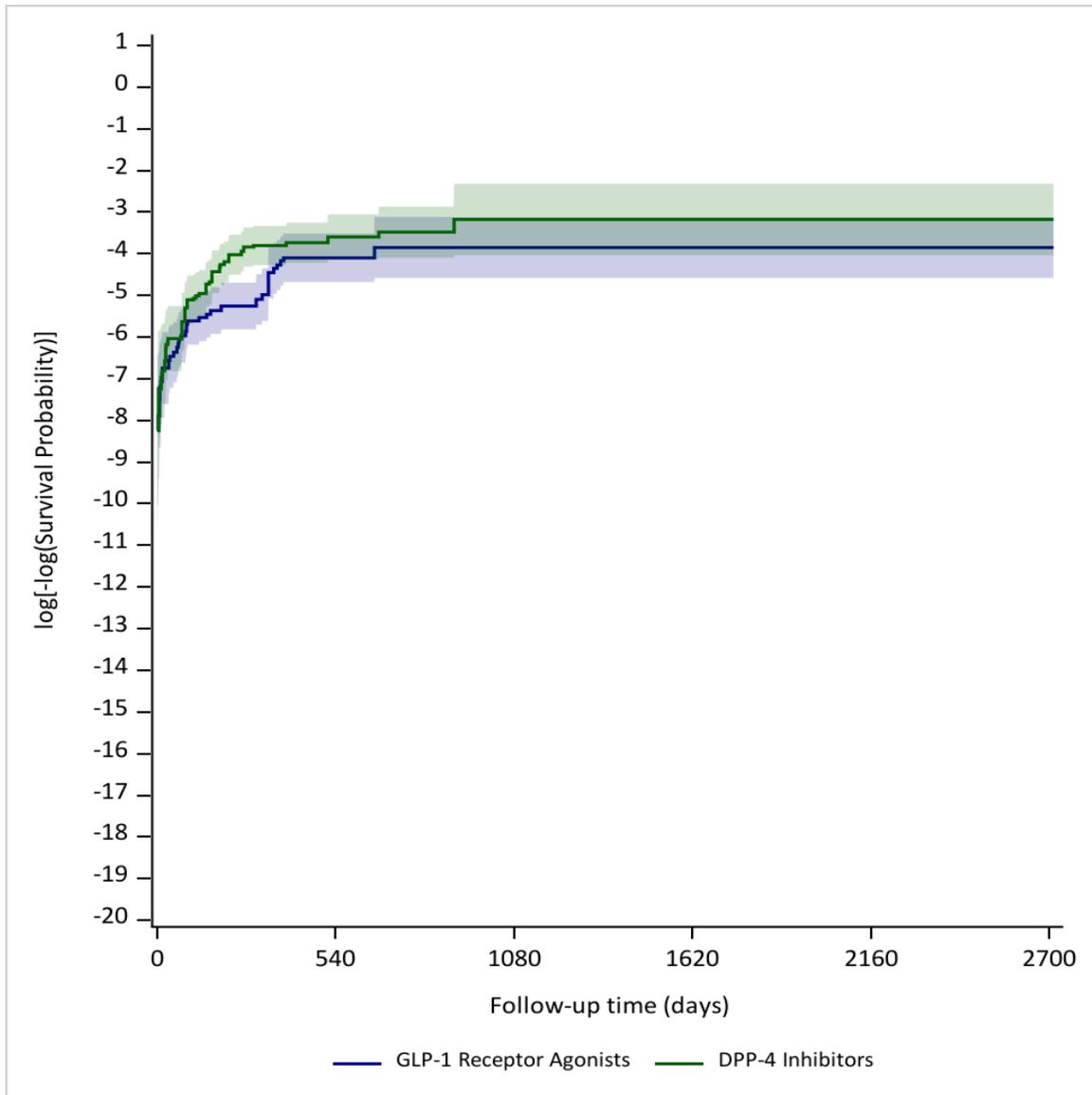


Figure 13y. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

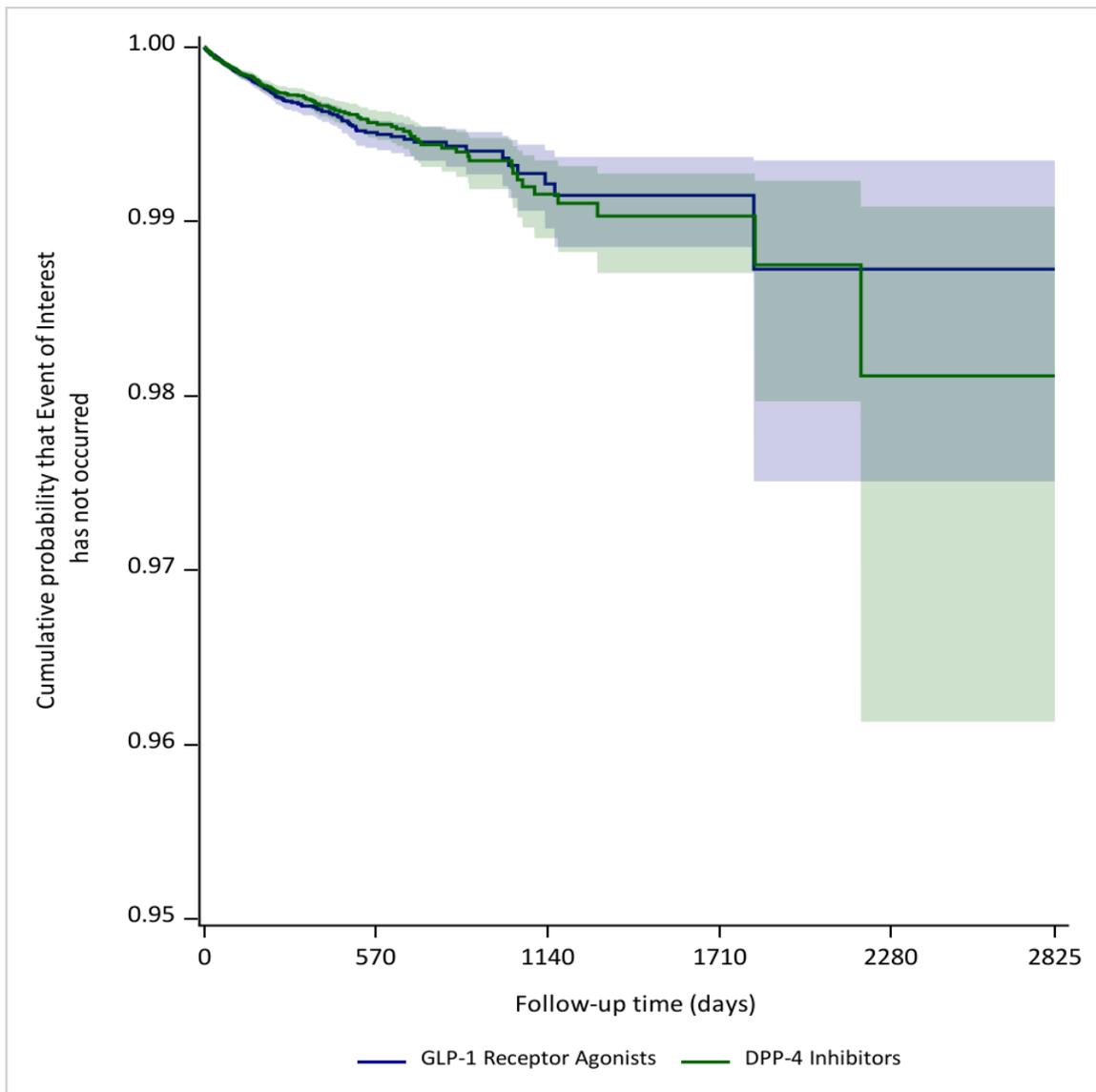


Figure 13z. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

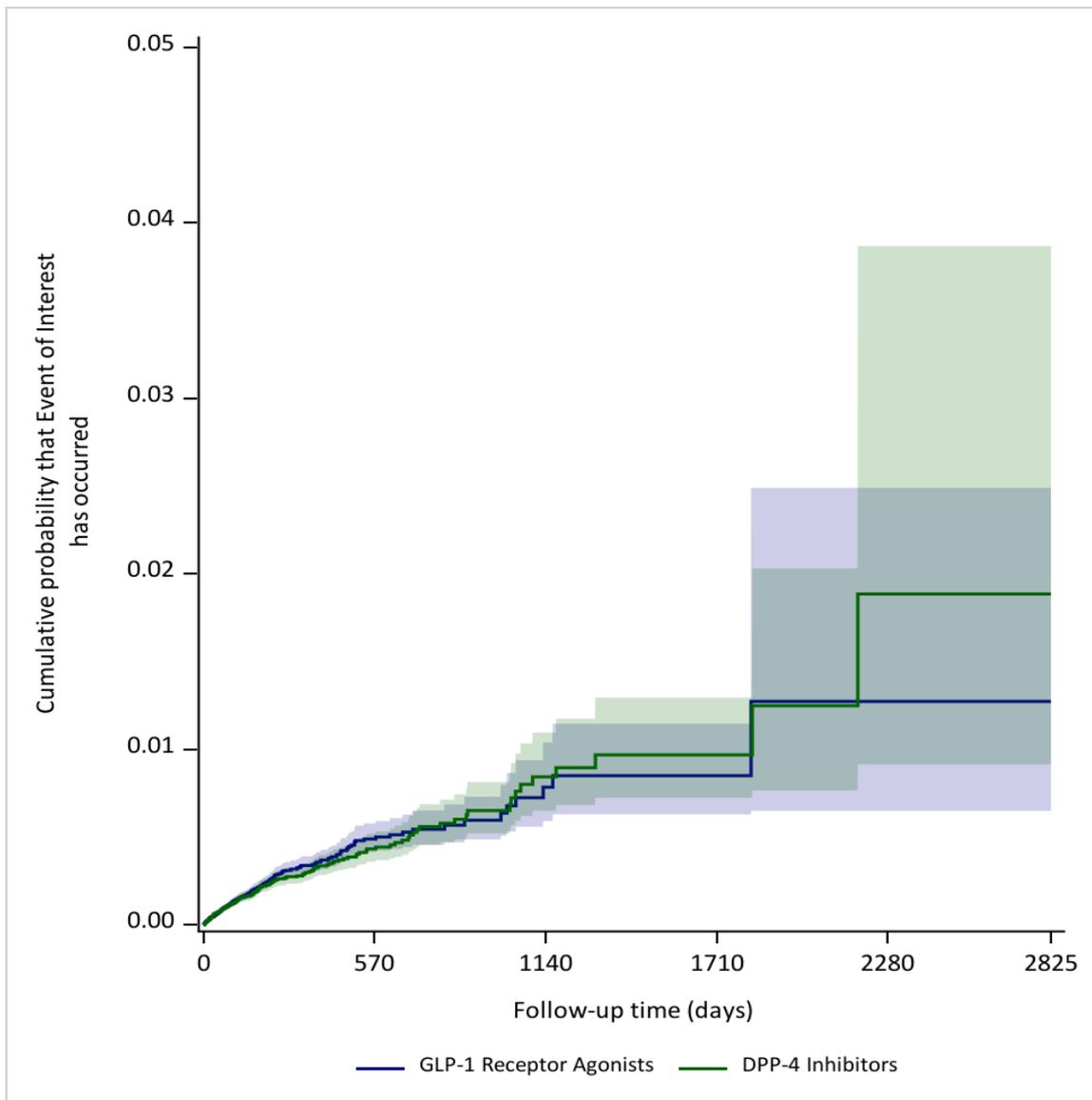


Figure 13aa. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

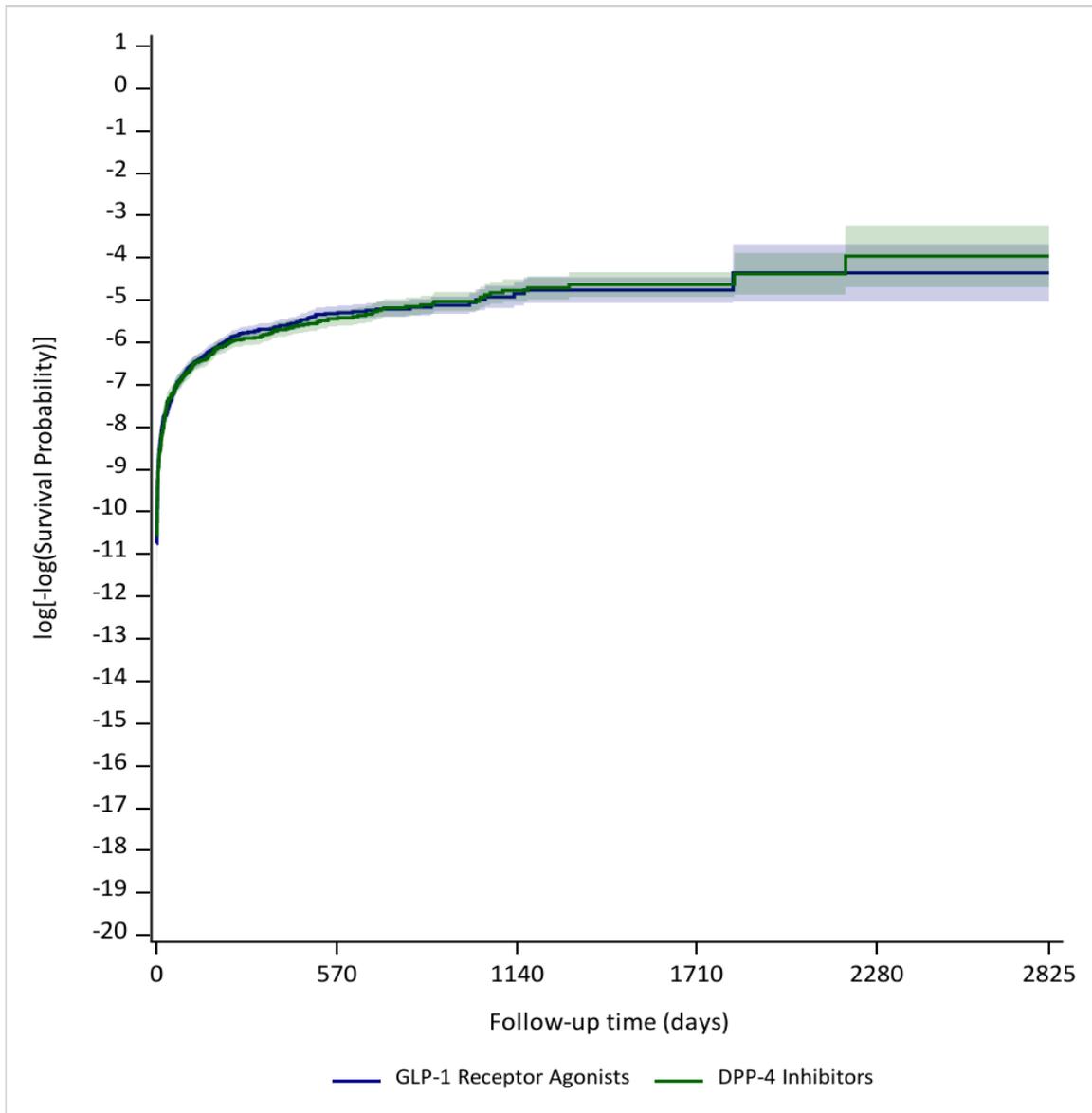


Figure 13ab. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

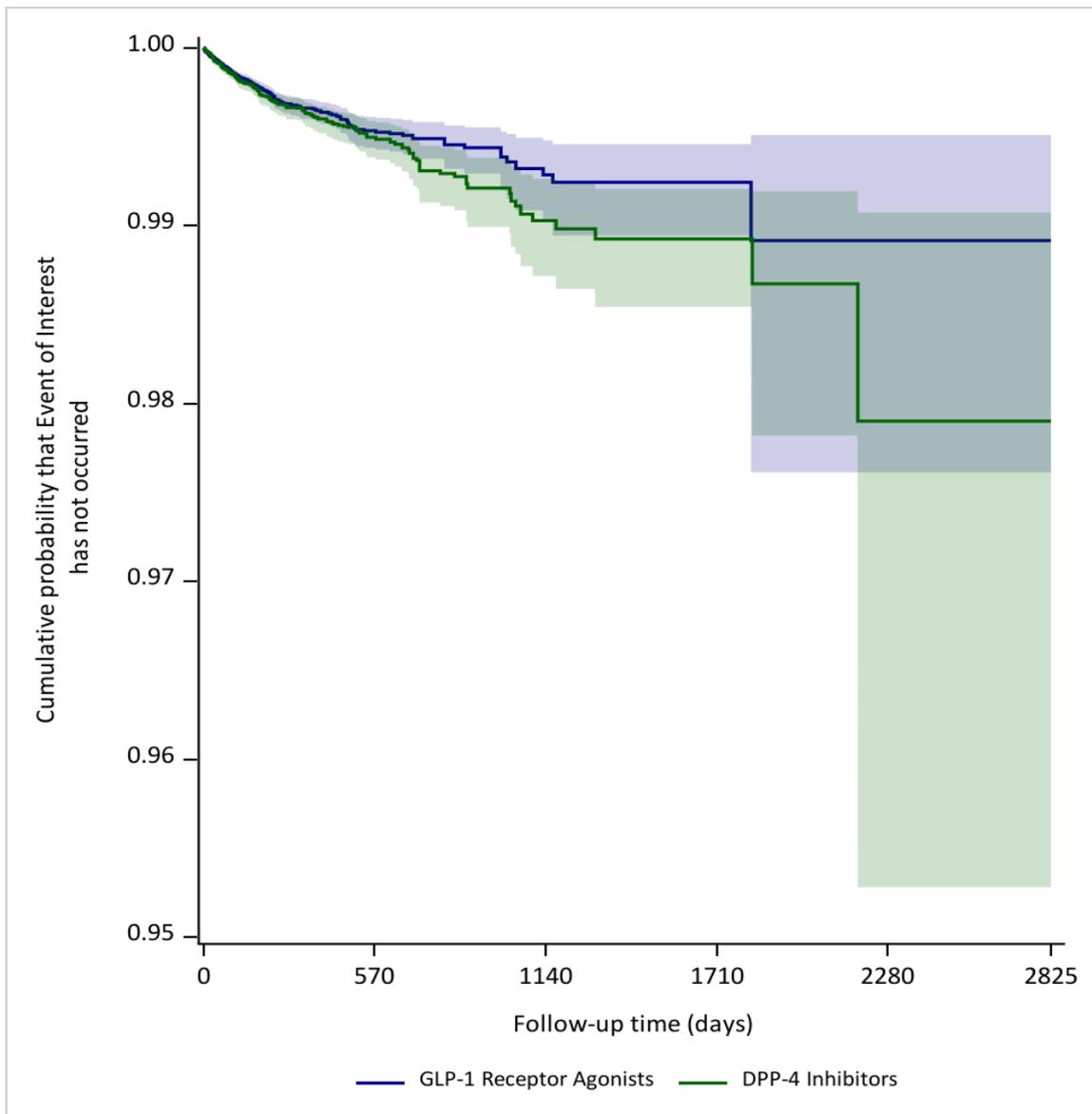


Figure 13ac. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

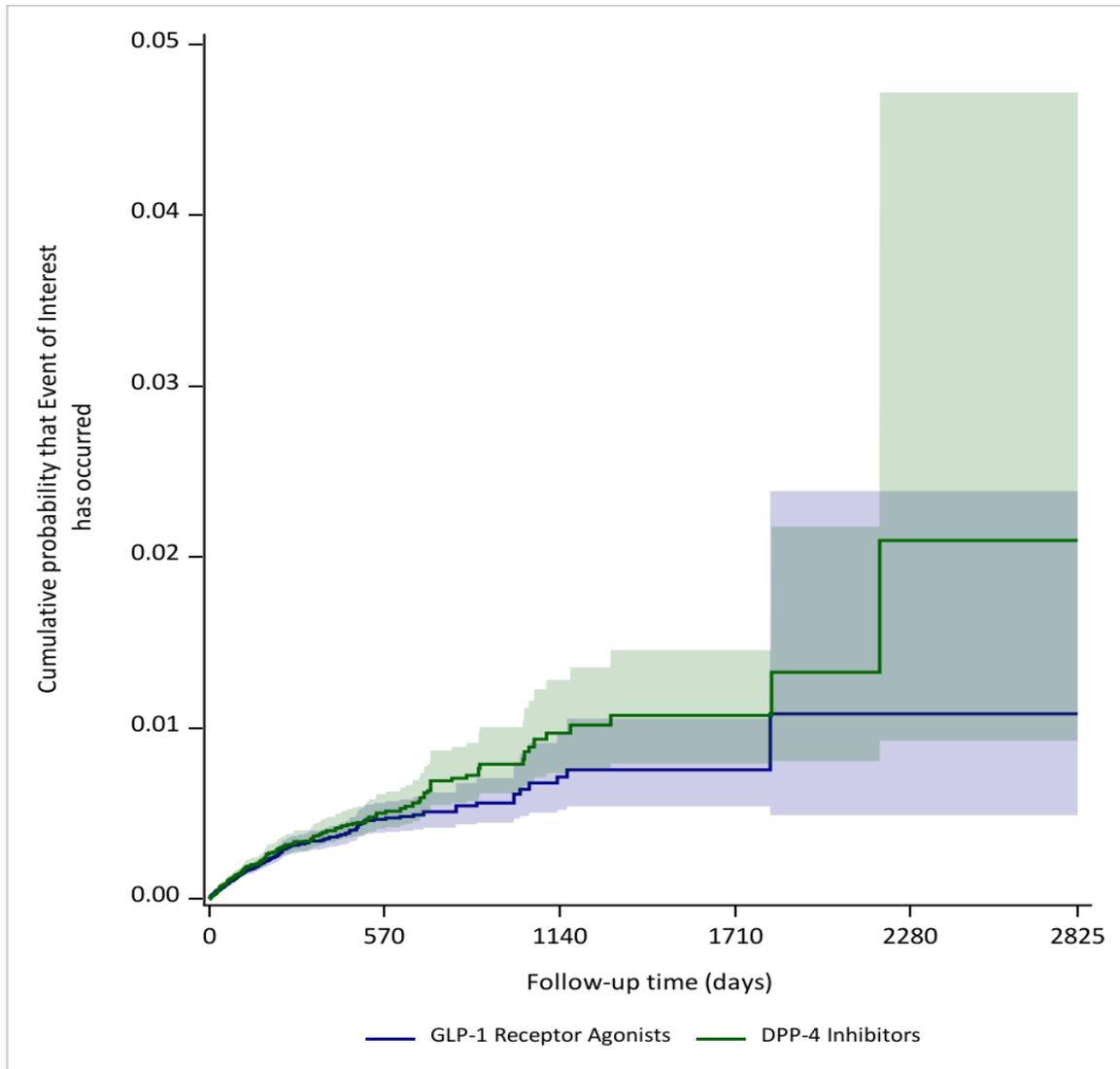


Figure 13ad. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 25-44 years

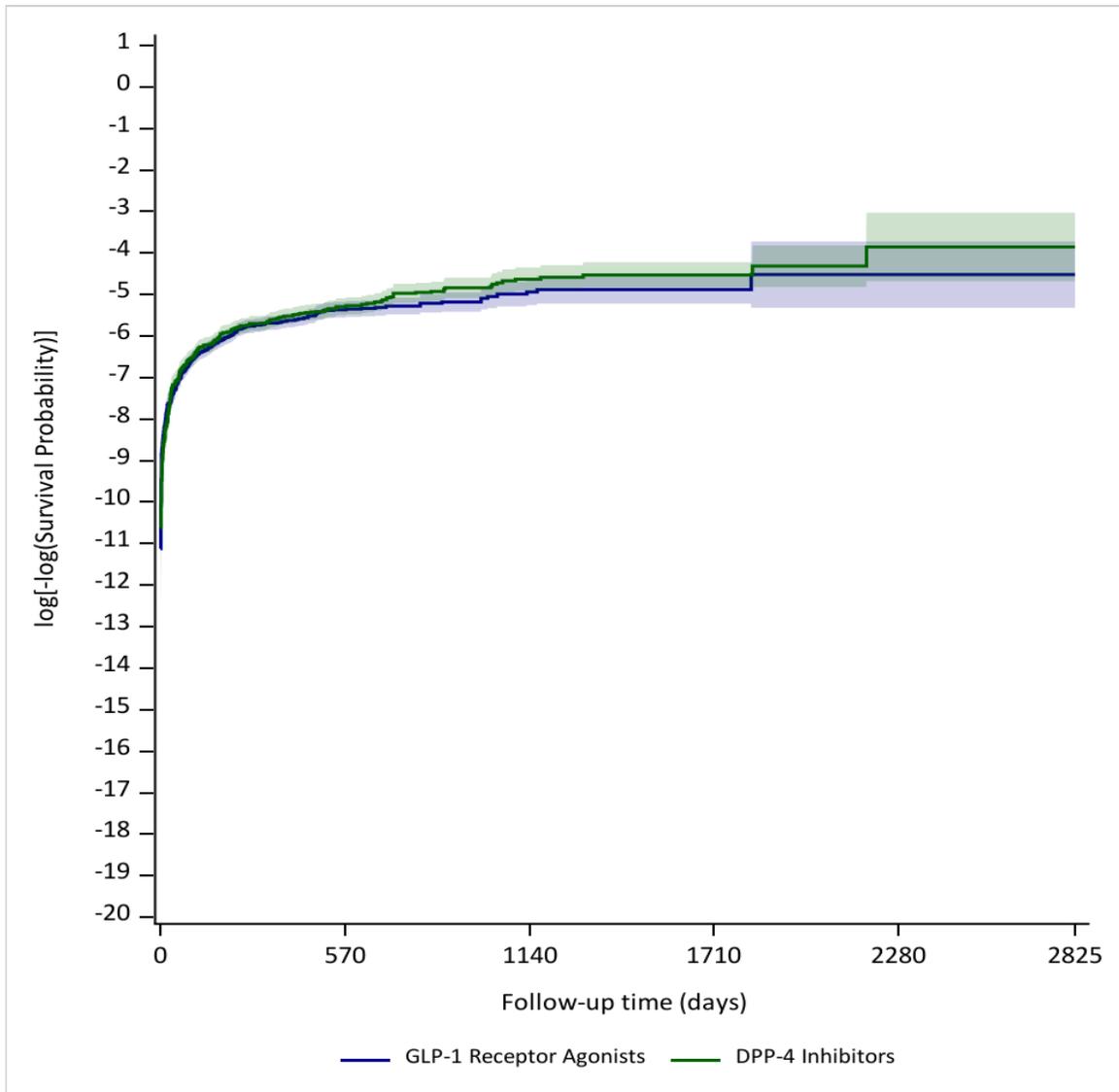


Figure 13ae. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

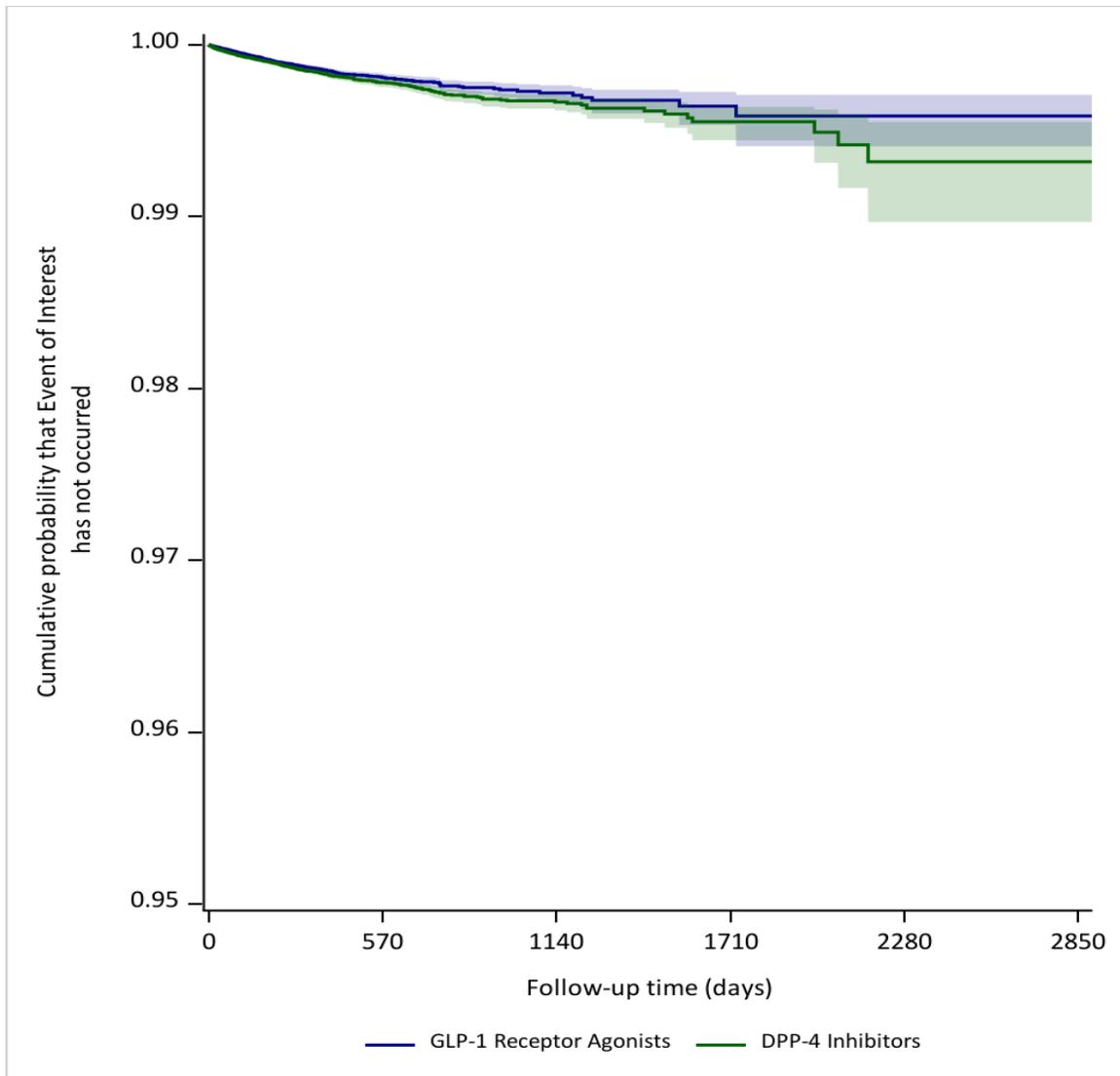


Figure 13af. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

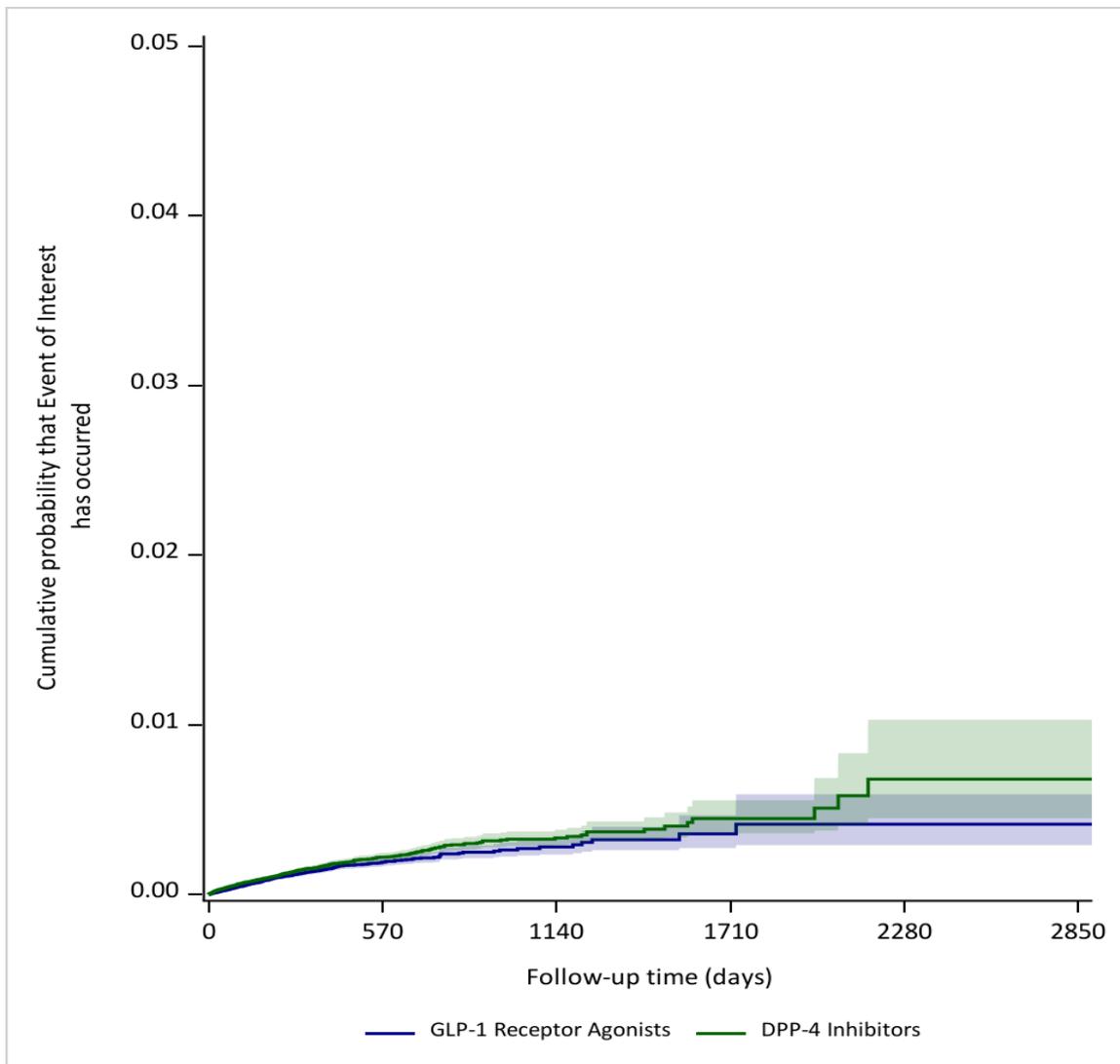


Figure 13ag. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

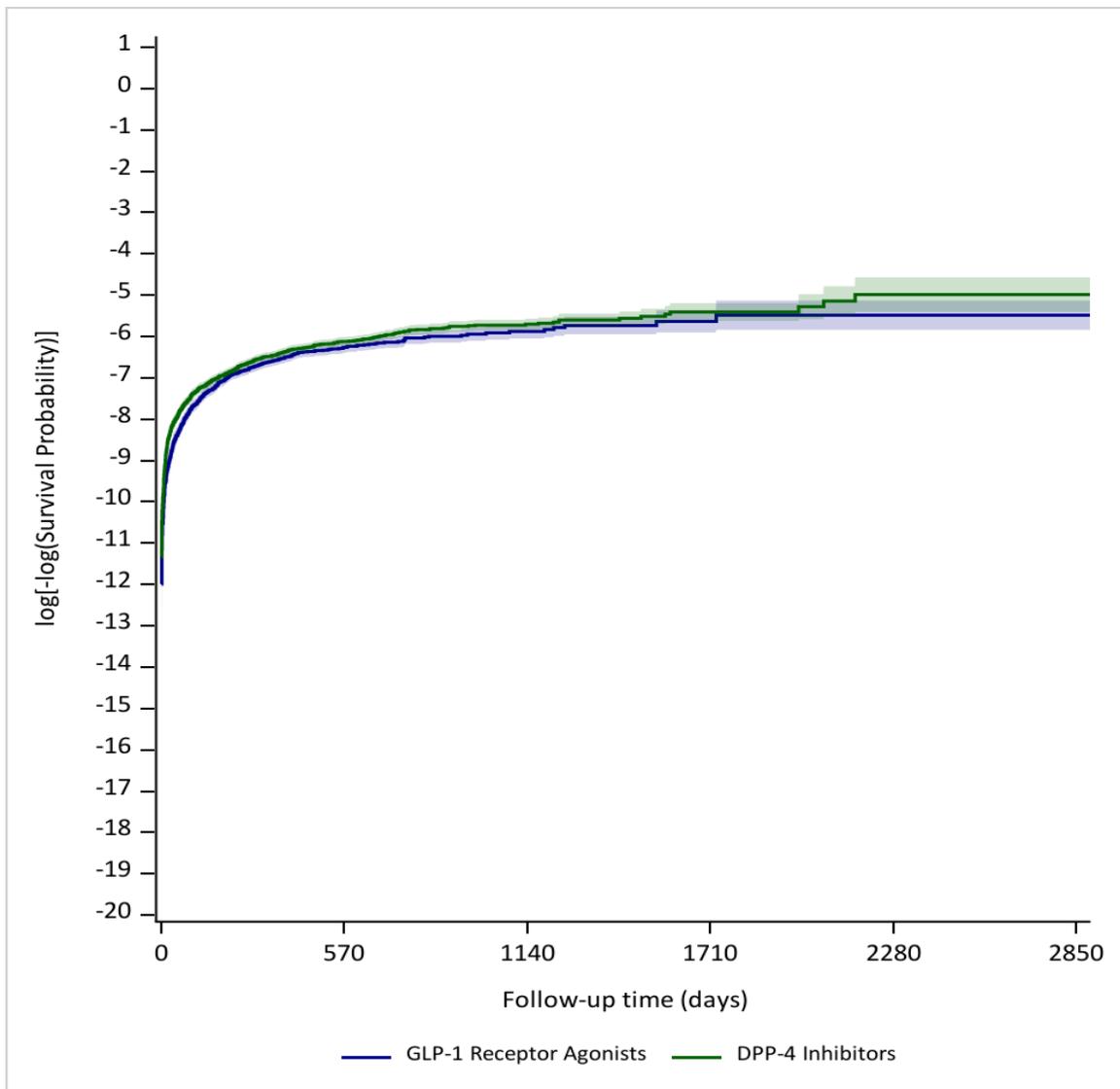


Figure 13ah. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

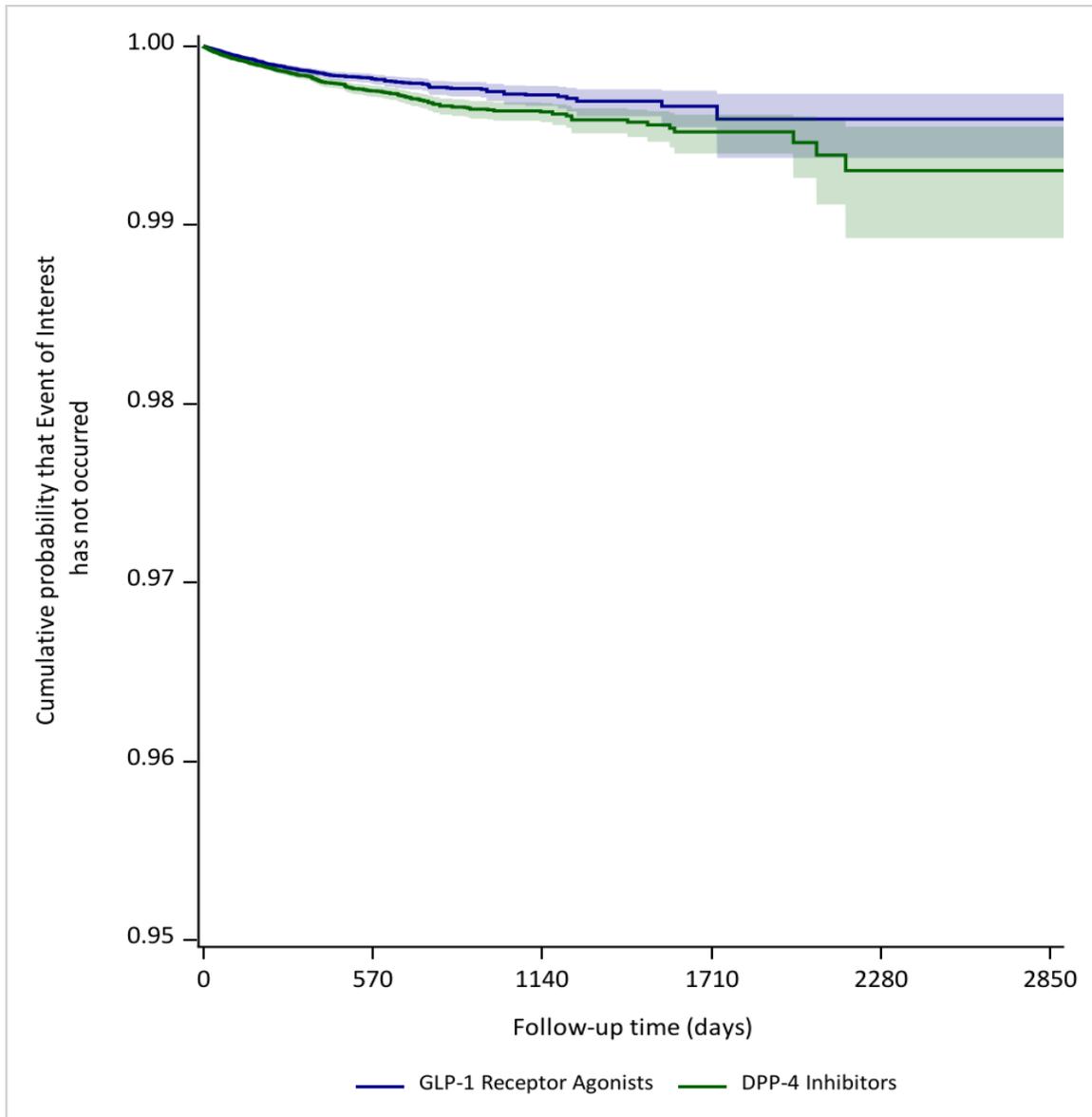


Figure 13ai. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

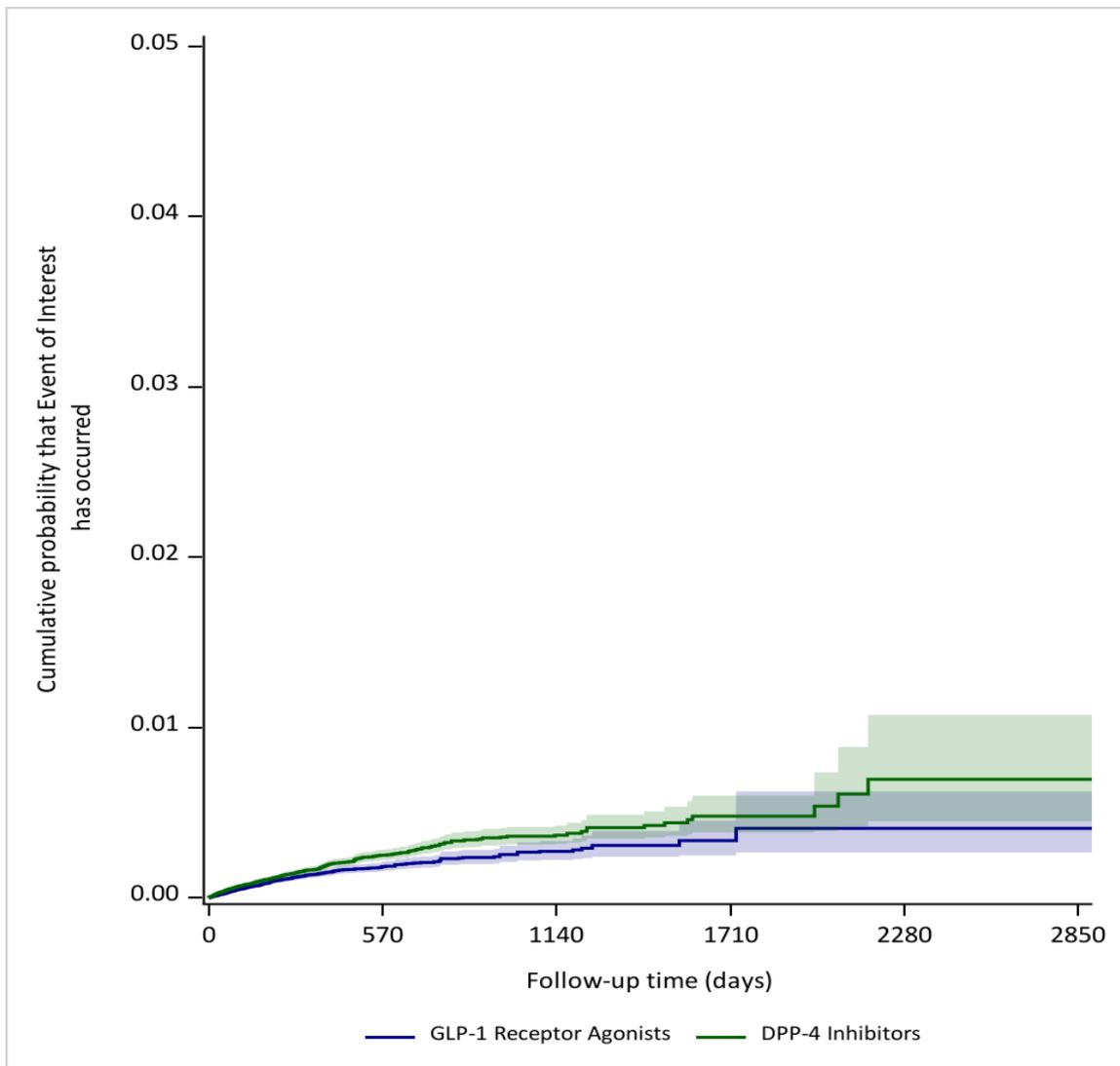


Figure 13aj. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 45-64 years

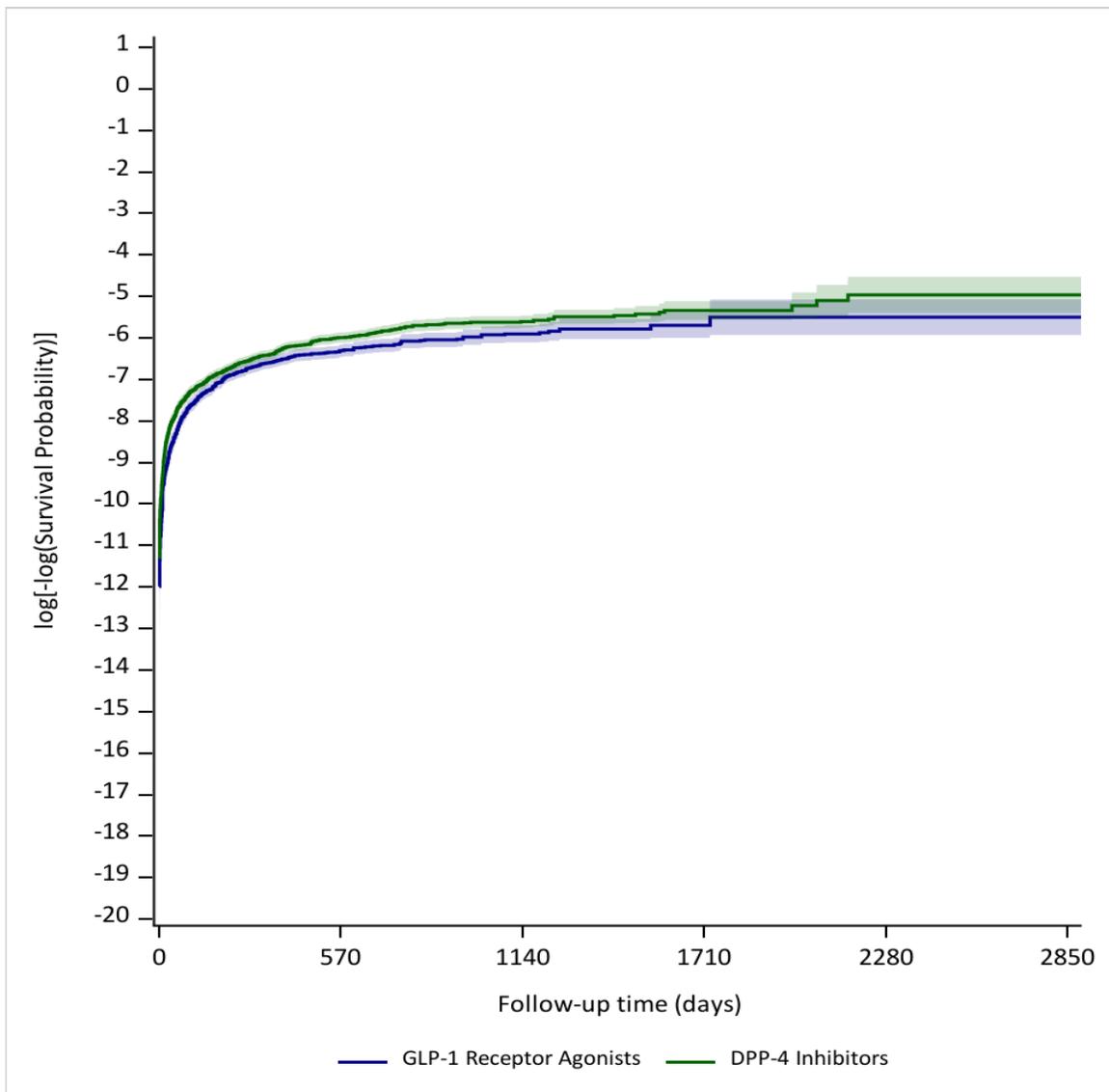


Figure 13ak. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

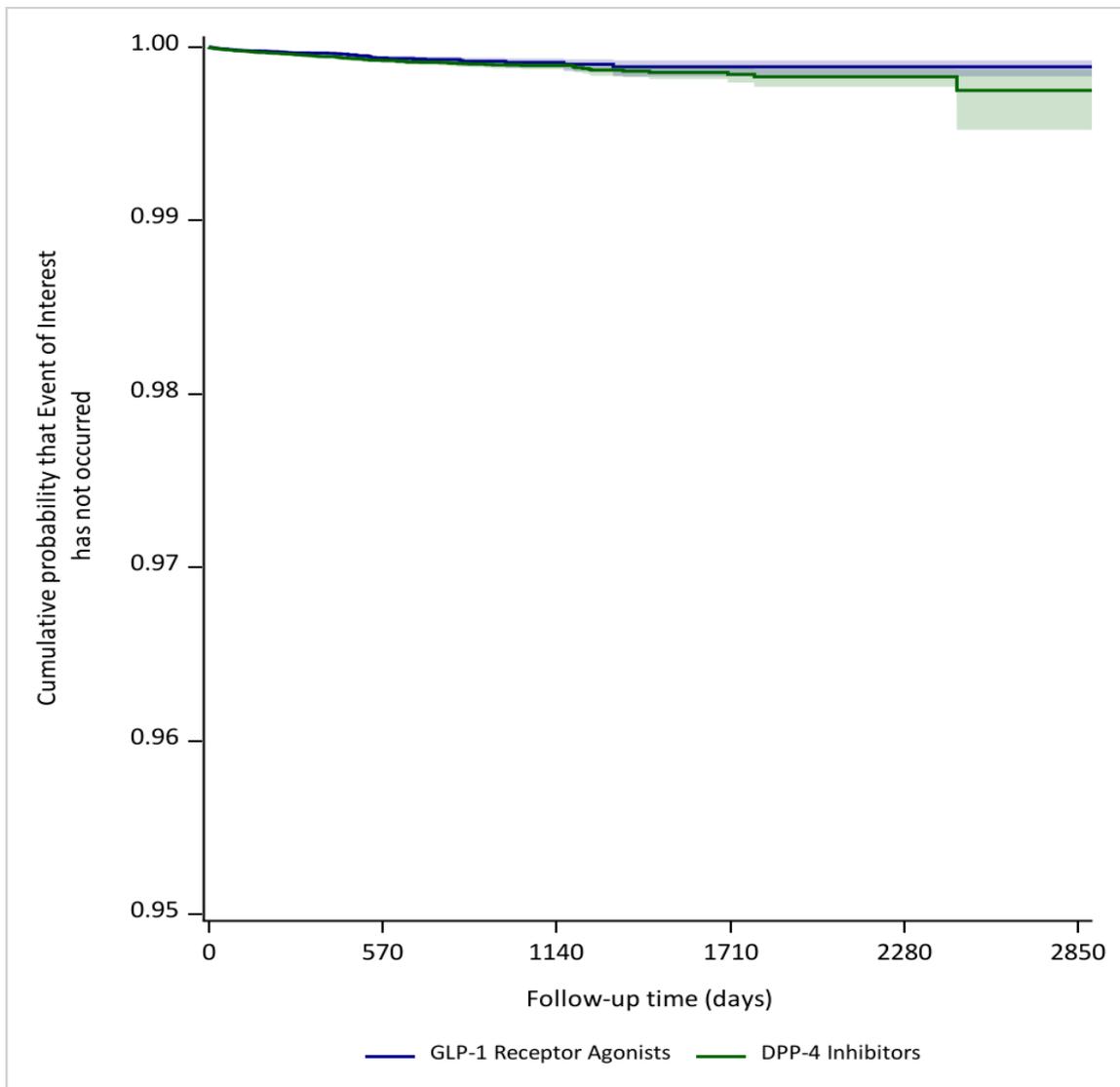


Figure 13a. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

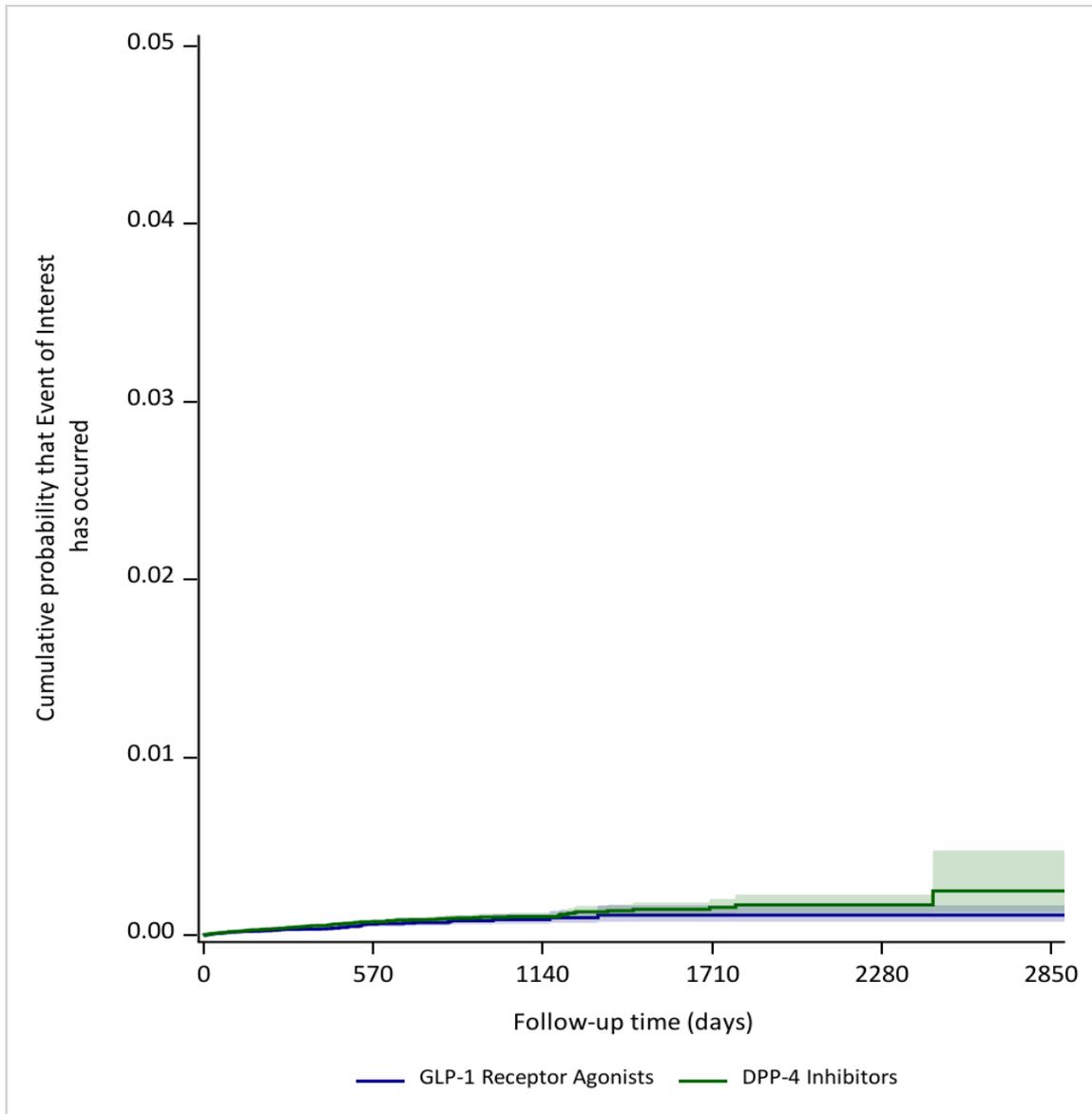


Figure 13am. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

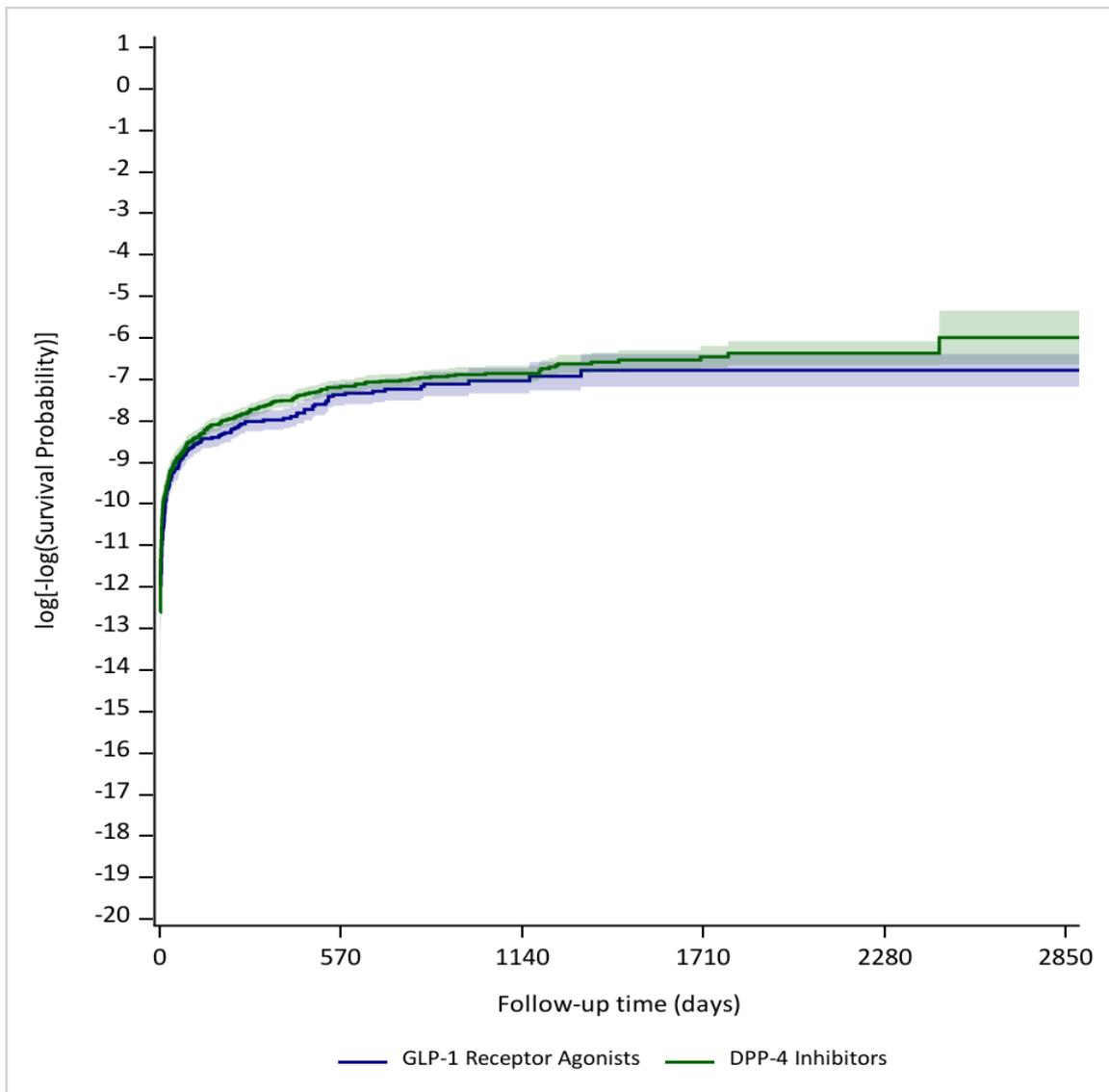


Figure 13an. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

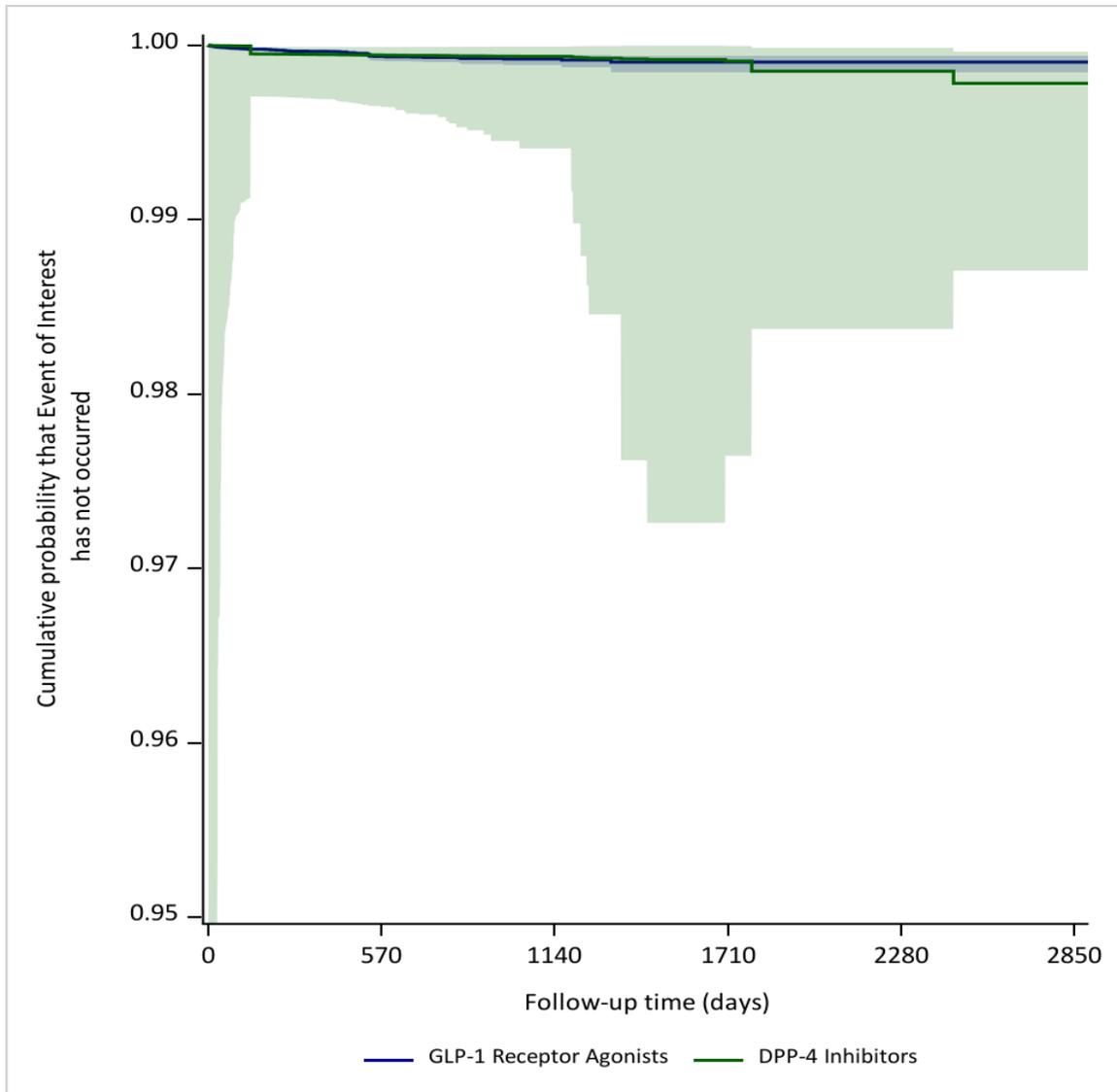


Figure 13ao. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

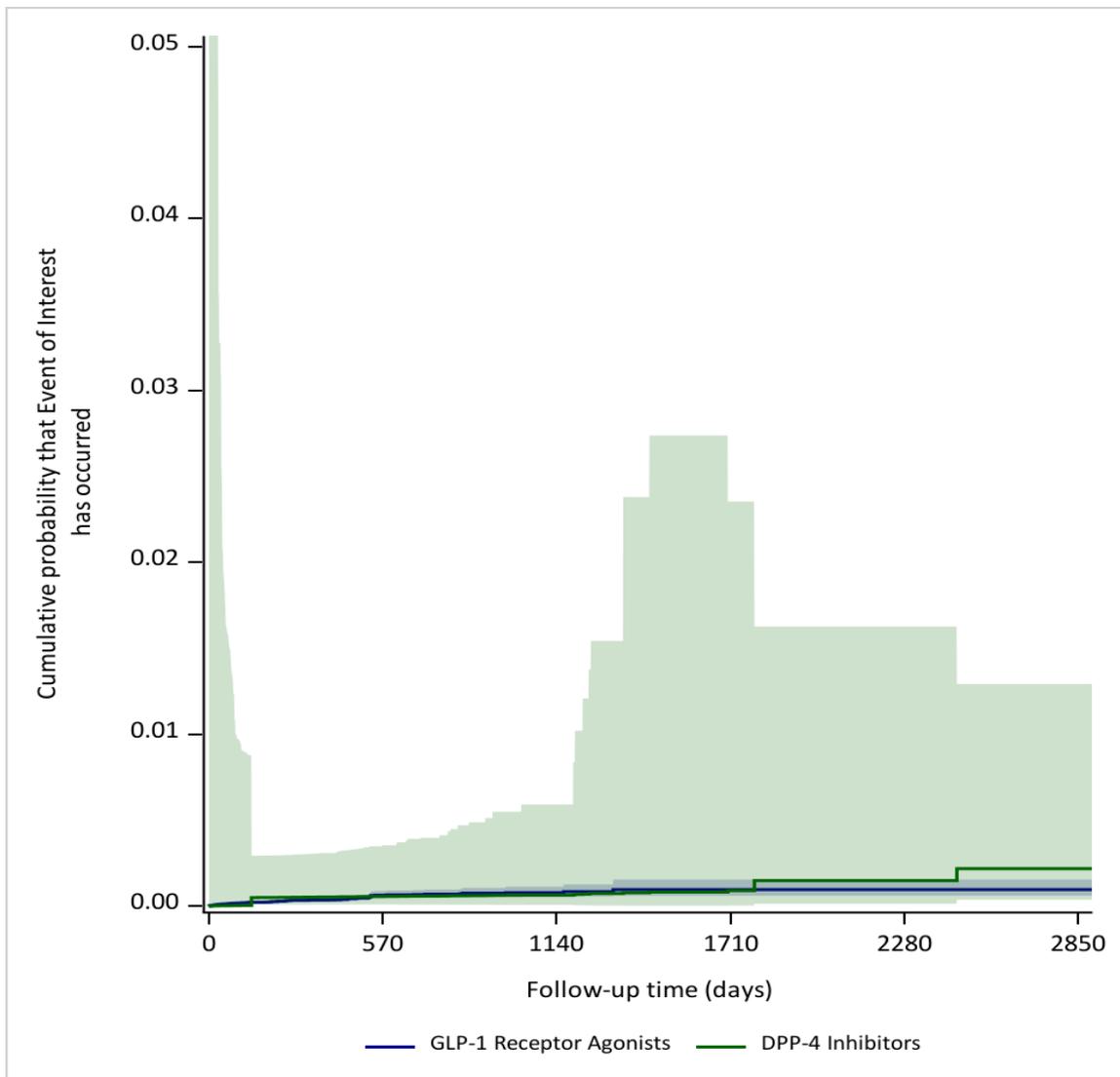


Figure 13ap. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: 65-79 years

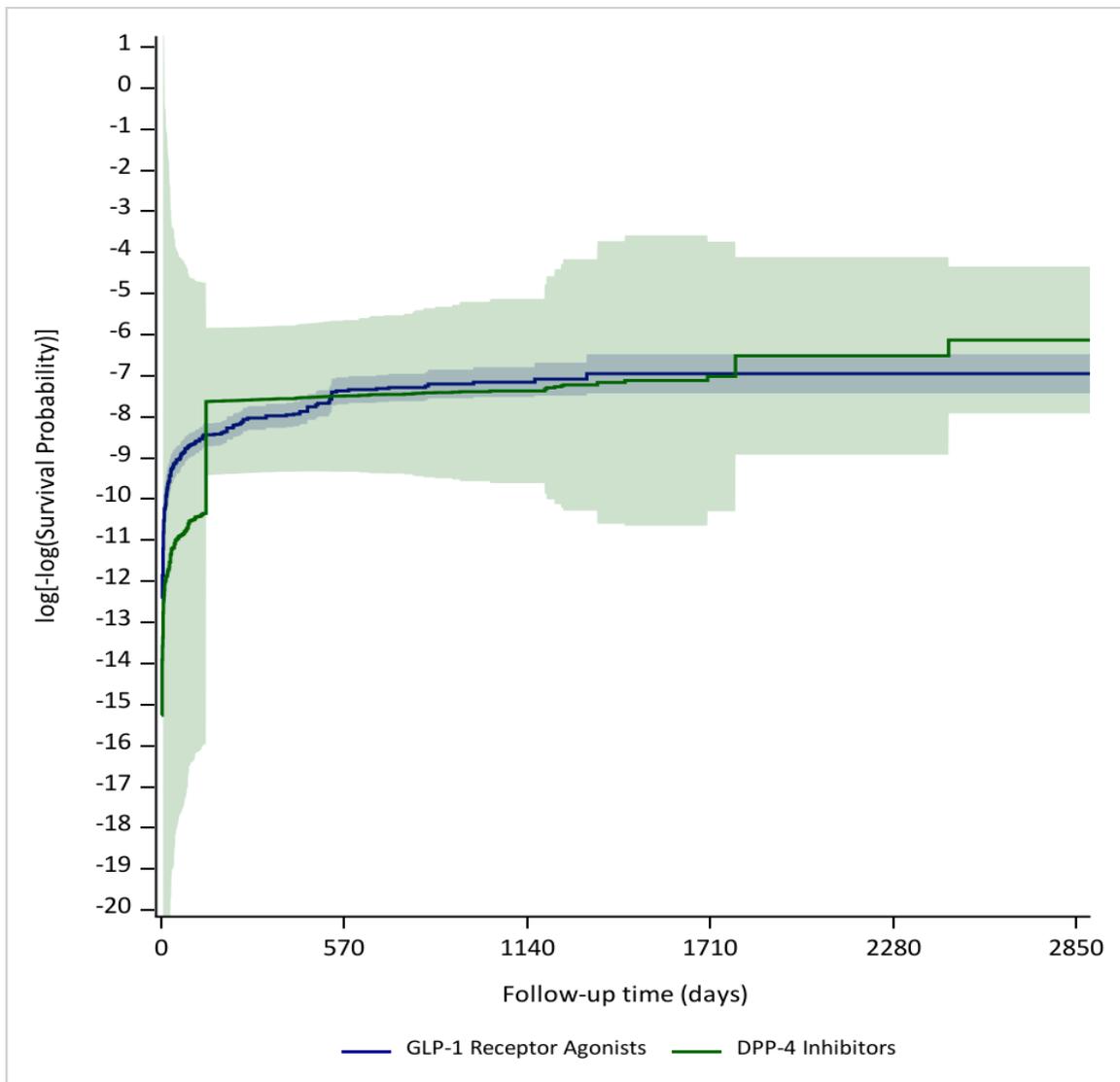


Figure 13aq. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

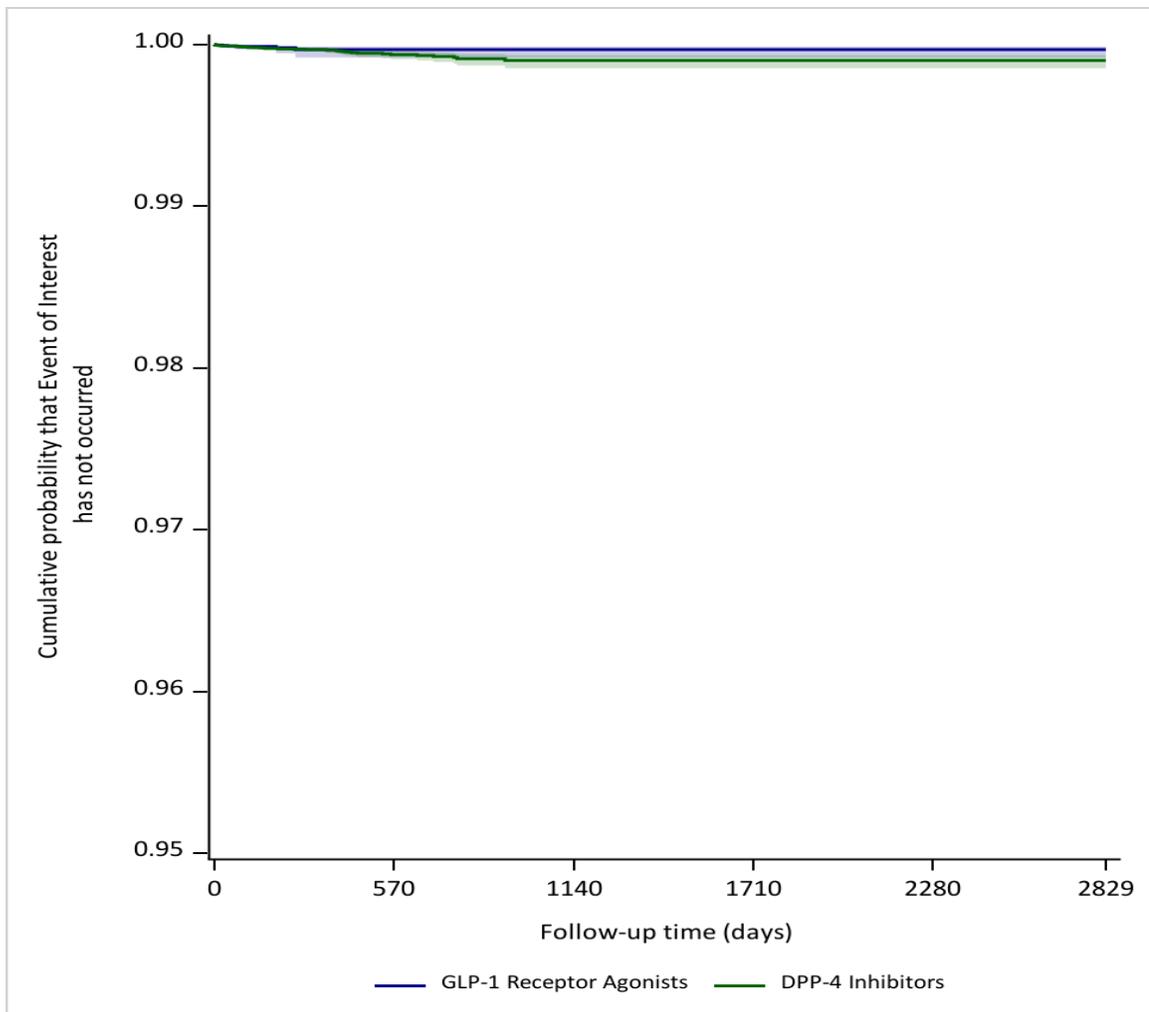


Figure 13ar. Aggregated Unadjusted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

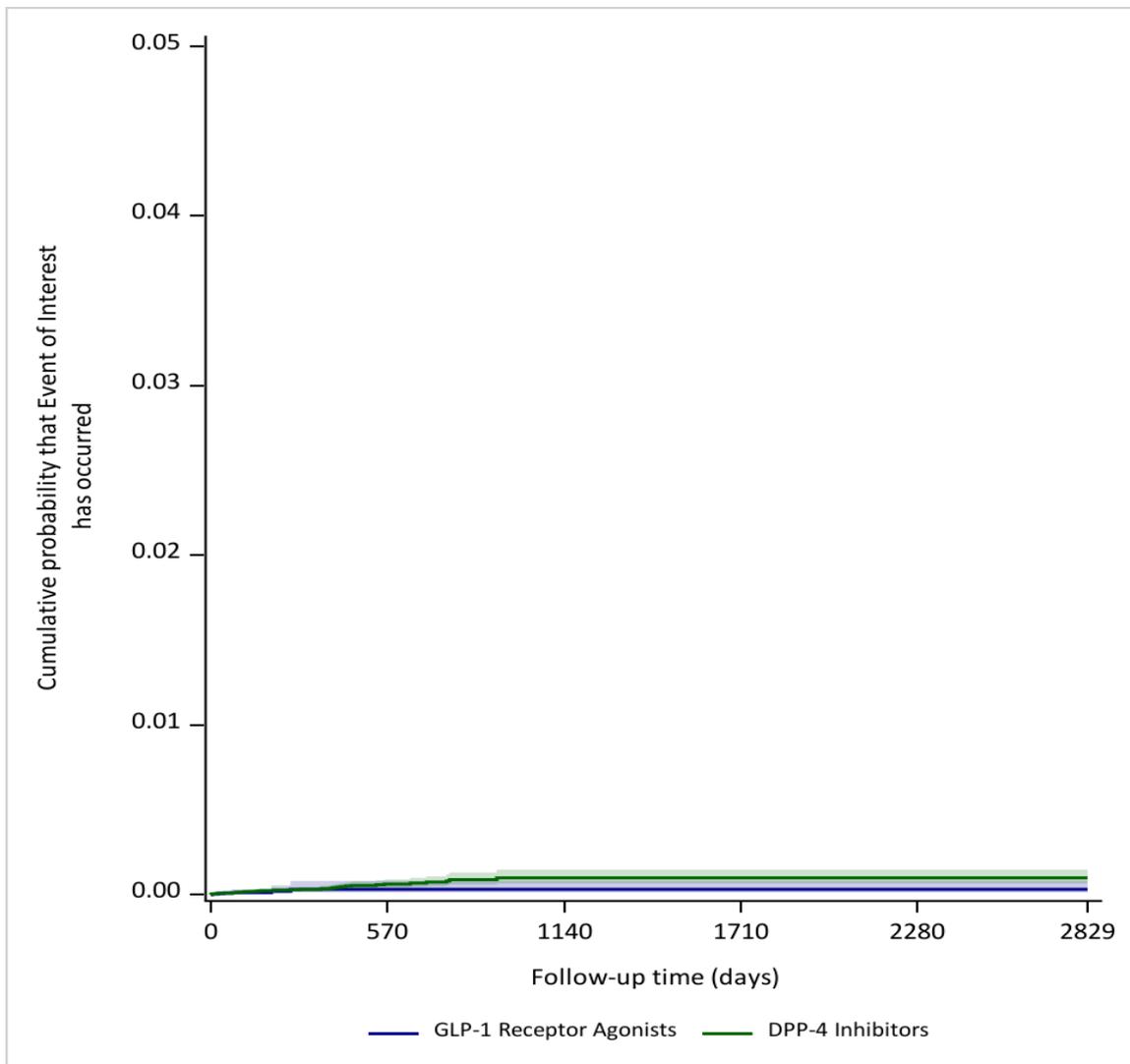


Figure 13as. Aggregated Unadjusted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

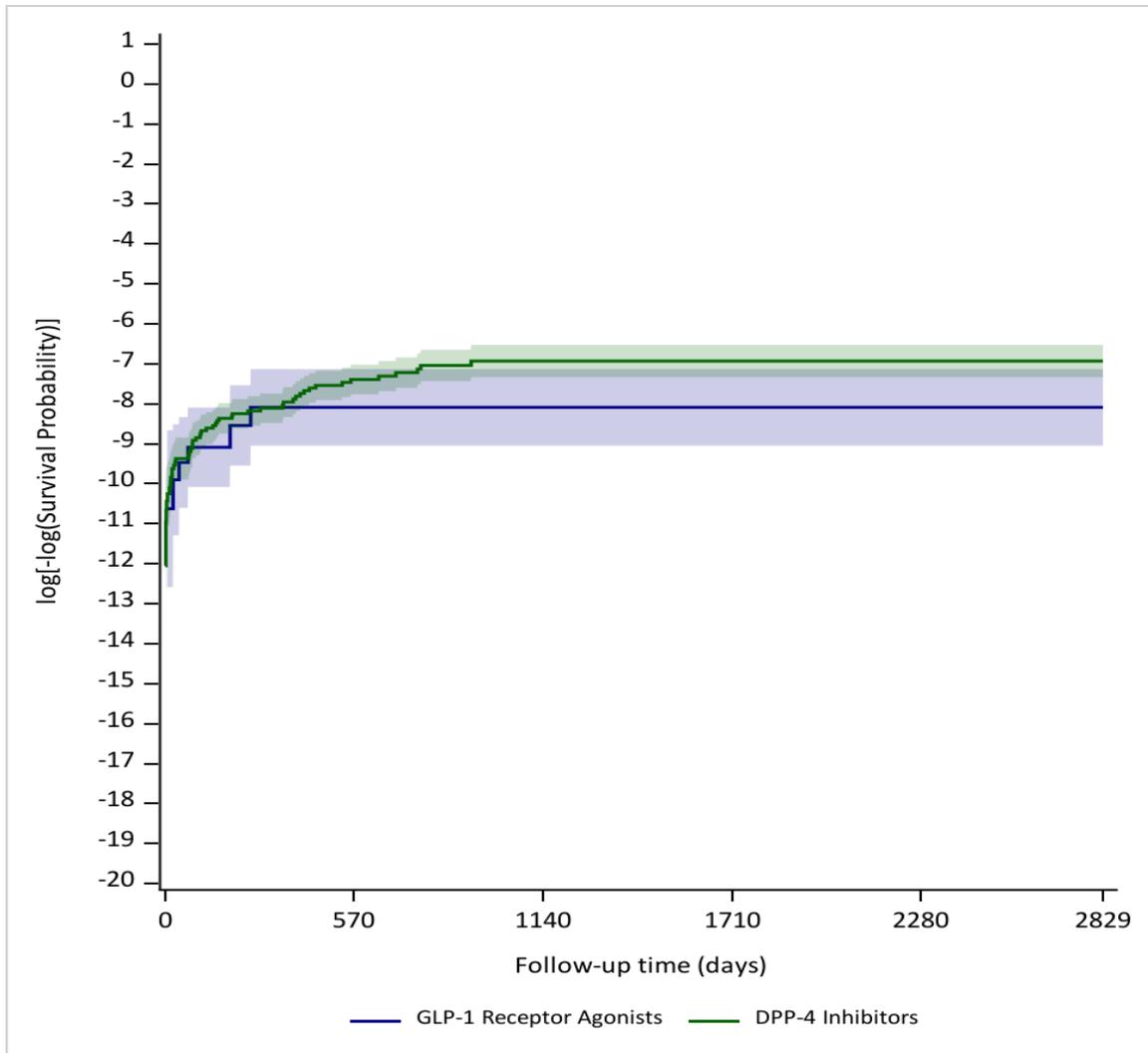


Figure 13at. Aggregated Weighted Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Not Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

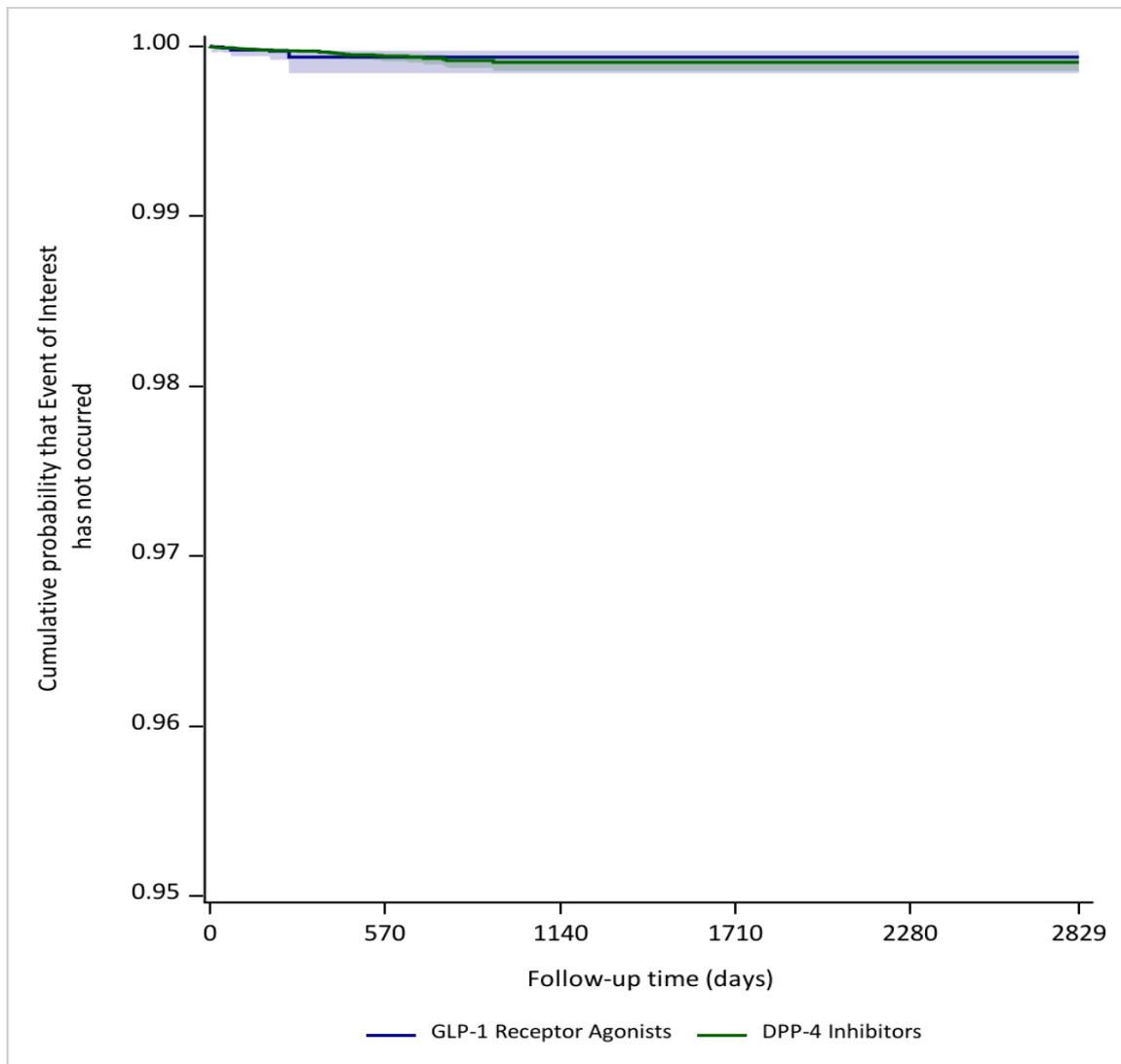


Figure 13au. Aggregated Weighted 1-Kaplan-Meier Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years

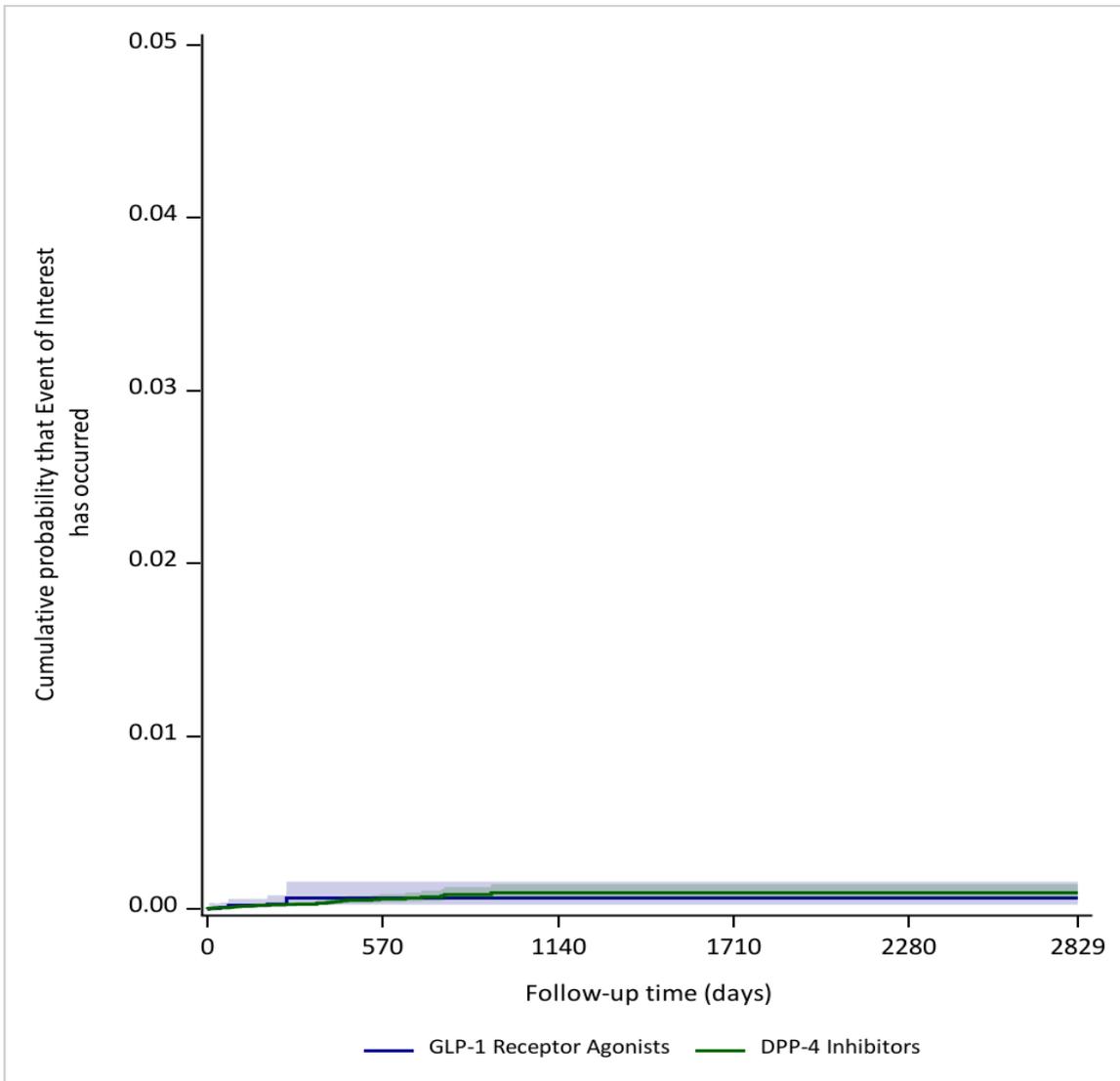
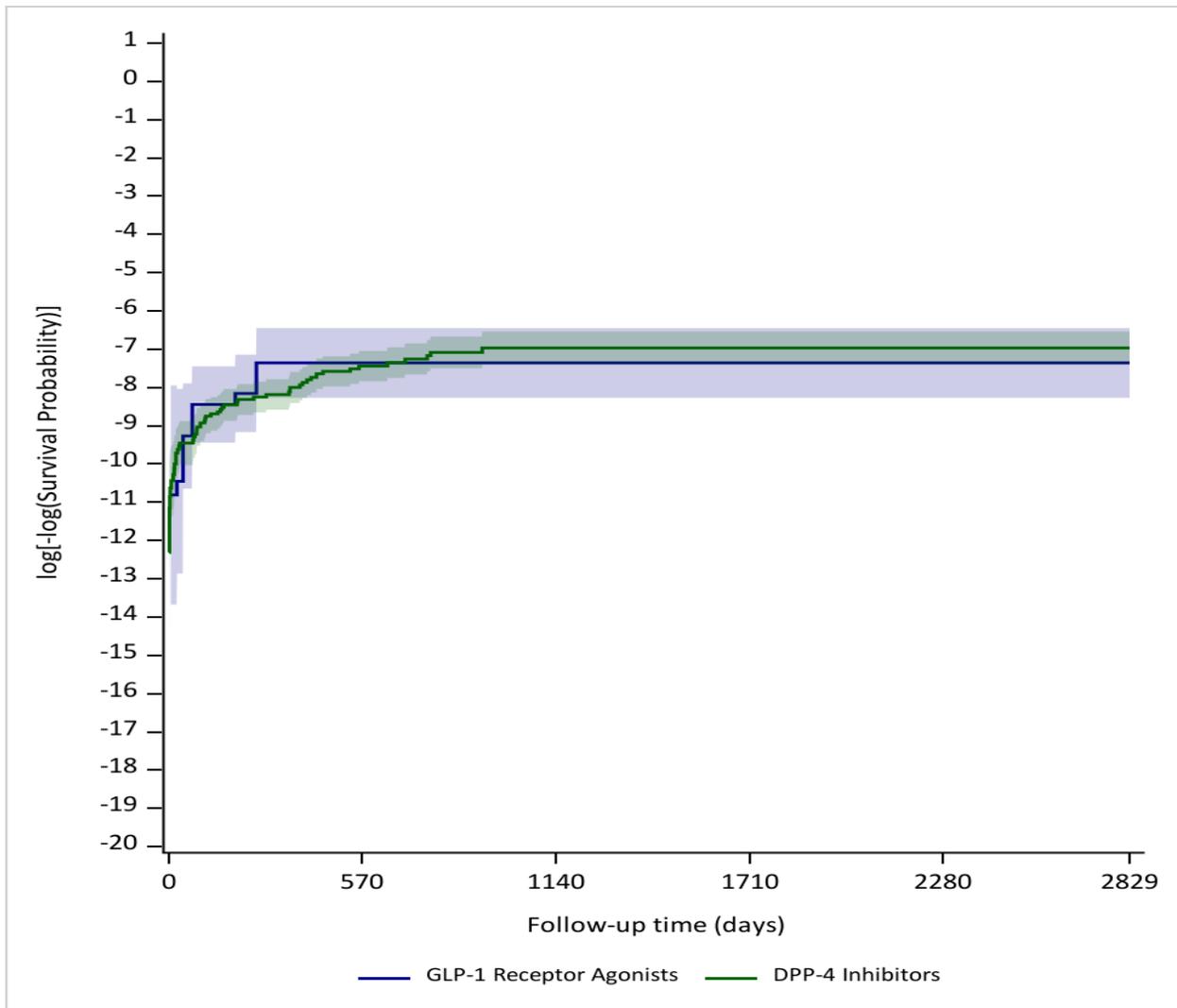


Figure 13av. Aggregated Weighted Log of Negative Log of Estimate and 95% Confidence Interval of Event of Interest Occurring Among GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, Age Group: ≥ 80 years



Appendix A. Dates of Available Data for Each Data Partner (DP) as of Request Distribution Date (September 20, 2024)

Masked DP ID	DP Start Date	DP End Date ¹
DP01	01/01/2007	06/30/2023
DP02	01/01/2000	04/30/2023
DP03	01/01/2000	06/30/2023
DP04	01/01/2000	12/31/2020
DP05	01/01/2000	09/30/2023
DP06	01/01/2006	06/30/2023

¹End 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. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Aggregated	2,217,816	0.440	46473.13	1.294	45.396
DP01	263,952	0.477	1608.190	1.118	5.307
DP02	185,206	0.440	46473.13	1.920	137.295
DP03	954,668	0.500	4468.129	1.164	11.752
DP04	267,075	0.479	544.079	1.038	2.135
DP05	192,100	0.489	6854.116	1.387	22.729
DP06	354,815	0.449	13612.46	1.592	48.645

Appendix C. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Sex, Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Overall					
Aggregated	2,217,816	0.440	46473.13	1.294	45.396
DP01	263,952	0.477	1608.190	1.118	5.307
DP02	185,206	0.440	46473.13	1.920	137.295
DP03	954,668	0.500	4468.129	1.164	11.752
DP04	267,075	0.479	544.079	1.038	2.135
DP05	192,100	0.489	6854.116	1.387	22.729
DP06	354,815	0.449	13612.46	1.592	48.645
Sex: Female					
Aggregated	1,103,239	0.356	2992.346	1.143	7.796
DP01	135,515	0.421	823.788	1.093	3.846
DP02	82,032	0.356	2260.728	1.232	10.027
DP03	471,840	0.448	1632.498	1.112	5.028
DP04	157,582	0.439	88.019	1.025	0.868
DP05	91,066	0.415	551.622	1.189	4.668
DP06	165,204	0.368	2992.346	1.314	16.090
Sex: Male					
Aggregated	1,114,431	0.445	81063.56	1.572	108.428
DP01	128,410	0.468	1200.872	1.158	6.503
DP02	103,156	0.495	81063.56	2.723	274.113
DP03	482,815	0.448	9444.635	1.261	25.595
DP04	109,468	0.467	760.191	1.056	3.820
DP05	101,013	0.445	7355.308	1.678	39.380
DP06	189,569	0.482	46316.05	2.261	160.299

Appendix D. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Age Group, Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Overall					
Aggregated	2,217,816	0.440	46473.13	1.294	45.396
DP01	263,952	0.477	1608.190	1.118	5.307
DP02	185,206	0.440	46473.13	1.920	137.295
DP03	954,668	0.500	4468.129	1.164	11.752
DP04	267,075	0.479	544.079	1.038	2.135
DP05	192,100	0.489	6854.116	1.387	22.729
DP06	354,815	0.449	13612.46	1.592	48.645
Age Group: 18-24 years					
Aggregated	8,785	0.306	96.938	1.079	1.855
DP01	N/A	N/A	N/A	N/A	N/A
DP02	949	0.332	18.060	1.039	1.318
DP03	749	0.335	27.403	1.019	1.178
DP04	4,815	0.358	38.532	1.067	1.277
DP05	558	0.325	64.103	1.131	3.069
DP06	1,714	0.306	96.938	1.146	2.903
Age Group: 25-44 years					
Aggregated	231,069	0.368	27430.83	1.445	68.472
DP01	7,544	0.368	56.084	1.063	1.452
DP02	40,108	0.382	1308.273	1.409	12.868
DP03	30,747	0.378	50.424	1.041	0.990
DP04	73,562	0.417	1499.472	1.105	7.052
DP05	22,474	0.419	835.877	1.420	11.170
DP06	56,634	0.368	27430.83	2.191	137.466
Age Group: 45-64 years					
Aggregated	891,717	0.410	24891.01	1.287	37.650
DP01	73,800	0.410	186.653	1.044	1.425
DP02	133,851	0.451	24891.01	1.659	79.717
DP03	172,156	0.433	104.979	1.027	0.893
DP04	183,628	0.504	85.119	1.021	0.832
DP05	95,400	0.470	1881.246	1.303	12.060
DP06	232,882	0.446	13591.55	1.547	41.400
Age Group: 65-79 years					
Aggregated	958,599	0.351	9920.310	1.289	24.757
DP01	163,438	0.494	1375.276	1.173	7.346

Appendix D. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Age Group, Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
DP02	9,818	0.484	634.918	1.178	6.802
DP03	657,336	0.496	9920.310	1.302	27.498
DP04	4,598	0.351	16.833	0.999	0.738
DP05	66,083	0.479	5504.734	1.457	27.385
DP06	57,326	0.483	5097.520	1.321	23.496
Age Group: ≥ 80 years					
Aggregated	126,994	0.334	6706.257	1.262	25.235
DP01	19,017	0.366	255.360	1.137	3.584
DP02	385	0.382	71.539	1.138	3.797
DP03	93,633	0.353	6706.257	1.303	29.305
DP04	319	0.405	6.785	1.022	0.860
DP05	7,497	0.336	112.523	1.169	3.207
DP06	6,143	0.334	304.219	1.153	4.648

Note: N/A represent PS models that did not reach convergence.

Appendix E. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Aggregated	2,217,816	0.455	8.681	1.014	0.884
DP01	263,952	0.502	5.678	1.006	0.764
DP02	185,206	0.455	8.681	1.025	1.115
DP03	954,668	0.518	5.979	1.011	0.805
DP04	267,075	0.539	3.894	0.999	0.550
DP05	192,100	0.502	8.281	1.025	1.074
DP06	354,815	0.464	8.531	1.026	1.099

Appendix F. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Sex, Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Overall					
Aggregated	2,217,816	0.455	8.681	1.014	0.884
DP01	263,952	0.502	5.678	1.006	0.764
DP02	185,206	0.455	8.681	1.025	1.115
DP03	954,668	0.518	5.979	1.011	0.805
DP04	267,075	0.539	3.894	0.999	0.550
DP05	192,100	0.502	8.281	1.025	1.074
DP06	354,815	0.464	8.531	1.026	1.099
Sex: Female					
Aggregated	1,103,239	0.382	7.734	1.011	0.791
DP01	135,515	0.455	5.263	1.005	0.710
DP02	82,032	0.382	7.288	1.014	0.942
DP03	471,840	0.481	5.606	1.011	0.756
DP04	157,582	0.509	3.738	1.001	0.519
DP05	91,066	0.434	7.734	1.022	0.996
DP06	165,204	0.393	7.335	1.016	0.940
Sex: Male					
Aggregated	1,114,431	0.468	9.264	1.020	0.940
DP01	128,410	0.504	5.919	1.010	0.793
DP02	103,156	0.508	9.240	1.036	1.191
DP03	482,815	0.485	6.167	1.013	0.827
DP04	109,468	0.527	3.936	0.999	0.559
DP05	101,013	0.468	8.529	1.032	1.104
DP06	189,569	0.502	9.264	1.041	1.193

Appendix G. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Age Group, Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Overall					
Aggregated	2,217,816	0.455	8.681	1.014	0.884
DP01	263,952	0.502	5.678	1.006	0.764
DP02	185,206	0.455	8.681	1.025	1.115
DP03	954,668	0.518	5.979	1.011	0.805
DP04	267,075	0.539	3.894	0.999	0.550
DP05	192,100	0.502	8.281	1.025	1.074
DP06	354,815	0.464	8.531	1.026	1.099
Age Group: 18-24 years					
Aggregated	8,785	0.332	10.950	1.015	0.901
DP01	N/A	N/A	N/A	N/A	N/A
DP02	949	0.351	7.918	1.004	1.004
DP03	749	0.347	4.183	0.975	0.591
DP04	4,815	0.410	5.377	1.016	0.721
DP05	558	0.337	7.393	0.974	0.921
DP06	1,714	0.332	10.950	1.048	1.309
Age Group: 25-44 years					
Aggregated	231,069	0.386	9.434	1.016	0.941
DP01	7,544	0.418	5.619	1.008	0.729
DP02	40,108	0.400	9.085	1.022	1.156
DP03	30,747	0.447	4.529	1.006	0.597
DP04	73,562	0.484	4.407	1.007	0.597
DP05	22,474	0.433	9.358	1.018	1.181
DP06	56,634	0.386	9.434	1.028	1.177
Age Group: 45-64 years					
Aggregated	891,717	0.463	8.602	1.013	0.868
DP01	73,800	0.466	4.288	1.000	0.589
DP02	133,851	0.468	8.430	1.024	1.092
DP03	172,156	0.503	3.767	1.001	0.521
DP04	183,628	0.548	3.614	0.997	0.515
DP05	95,400	0.488	8.223	1.026	1.061
DP06	232,882	0.463	8.602	1.027	1.105
Age Group: 65-79 years					
Aggregated	958,599	0.390	7.871	1.018	0.909
DP01	163,438	0.511	6.204	1.010	0.833

Appendix G. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Age Group, Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
DP02	9,818	0.501	7.584	1.022	0.991
DP03	657,336	0.515	6.840	1.020	0.910
DP04	4,598	0.390	4.118	0.981	0.565
DP05	66,083	0.500	7.871	1.023	1.039
DP06	57,326	0.507	7.380	1.018	0.964
Age Group: ≥ 80 years					
Aggregated	126,994	0.362	8.053	1.002	0.824
DP01	19,017	0.399	6.071	0.998	0.797
DP02	385	0.391	5.999	0.928	0.764
DP03	93,633	0.391	6.144	1.003	0.817
DP04	319	0.420	4.414	1.002	0.751
DP05	7,497	0.362	8.053	1.016	0.997
DP06	6,143	0.370	6.051	1.000	0.785

Note: N/A represent PS models that did not reach convergence.

Appendix H. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Aggregated	2,217,816	0.473	4.237	0.969	0.634
DP01	263,952	0.524	3.377	0.970	0.586
DP02	185,206	0.473	4.237	0.956	0.732
DP03	954,668	0.532	3.511	0.973	0.610
DP04	267,075	0.561	2.723	0.981	0.467
DP05	192,100	0.516	4.132	0.960	0.721
DP06	354,815	0.481	4.204	0.959	0.728

Appendix I. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Sex, Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Overall					
Aggregated	2,217,816	0.473	4.237	0.969	0.634
DP01	263,952	0.524	3.377	0.970	0.586
DP02	185,206	0.473	4.237	0.956	0.732
DP03	954,668	0.532	3.511	0.973	0.610
DP04	267,075	0.561	2.723	0.981	0.467
DP05	192,100	0.516	4.132	0.960	0.721
DP06	354,815	0.481	4.204	0.959	0.728
Sex: Female					
Aggregated	1,103,239	0.409	3.909	0.973	0.583
DP01	135,515	0.484	3.219	0.973	0.552
DP02	82,032	0.409	3.776	0.959	0.643
DP03	471,840	0.508	3.381	0.977	0.581
DP04	157,582	0.541	2.619	0.984	0.441
DP05	91,066	0.455	3.909	0.963	0.675
DP06	165,204	0.419	3.790	0.962	0.643
Sex: Male					
Aggregated	1,114,431	0.487	4.505	0.971	0.661
DP01	128,410	0.527	3.455	0.972	0.599
DP02	103,156	0.516	4.505	0.963	0.778
DP03	482,815	0.509	3.561	0.973	0.619
DP04	109,468	0.557	2.747	0.981	0.475
DP05	101,013	0.487	4.266	0.966	0.737
DP06	189,569	0.517	4.472	0.967	0.775

Appendix J. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Age Group, Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Overall					
Aggregated	2,217,816	0.473	4.237	0.969	0.634
DP01	263,952	0.524	3.377	0.970	0.586
DP02	185,206	0.473	4.237	0.956	0.732
DP03	954,668	0.532	3.511	0.973	0.610
DP04	267,075	0.561	2.723	0.981	0.467
DP05	192,100	0.516	4.132	0.960	0.721
DP06	354,815	0.481	4.204	0.959	0.728
Age Group: 18-24 years					
Aggregated	8,785	0.346	4.076	0.964	0.586
DP01	N/A	N/A	N/A	N/A	N/A
DP02	949	0.358	3.882	0.944	0.675
DP03	749	0.374	2.972	0.957	0.504
DP04	4,815	0.442	3.230	0.982	0.552
DP05	558	0.346	3.334	0.911	0.568
DP06	1,714	0.351	4.076	0.941	0.659
Age Group: 25-44 years					
Aggregated	231,069	0.407	4.266	0.963	0.619
DP01	7,544	0.452	3.214	0.971	0.537
DP02	40,108	0.418	4.266	0.947	0.729
DP03	30,747	0.484	2.879	0.981	0.474
DP04	73,562	0.524	2.893	0.984	0.484
DP05	22,474	0.452	4.237	0.940	0.733
DP06	56,634	0.407	4.192	0.947	0.714
Age Group: 45-64 years					
Aggregated	891,717	0.481	4.222	0.970	0.608
DP01	73,800	0.501	2.849	0.978	0.482
DP02	133,851	0.485	4.222	0.958	0.729
DP03	172,156	0.539	2.621	0.983	0.440
DP04	183,628	0.571	2.593	0.981	0.445
DP05	95,400	0.505	4.133	0.963	0.714
DP06	232,882	0.481	4.194	0.959	0.727
Age Group: 65-79 years					
Aggregated	958,599	0.422	4.142	0.971	0.660
DP01	163,438	0.527	3.572	0.969	0.622
DP02	9,818	0.519	3.942	0.965	0.685

Appendix J. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or SGLT-2i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Age Group, Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
DP03	657,336	0.528	3.787	0.972	0.661
DP04	4,598	0.422	2.629	0.958	0.462
DP05	66,083	0.517	4.142	0.964	0.724
DP06	57,326	0.523	3.889	0.965	0.678
Age Group: ≥ 80 years					
Aggregated	126,994	0.390	3.805	0.960	0.600
DP01	19,017	0.424	3.360	0.956	0.579
DP02	385	0.401	3.066	0.888	0.554
DP03	93,633	0.417	3.498	0.961	0.603
DP04	319	0.427	3.805	0.993	0.710
DP05	7,497	0.390	3.768	0.954	0.644
DP06	6,143	0.405	3.238	0.956	0.555

Note: N/A represent PS models that did not reach convergence.

Appendix K. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Aggregated	2,529,358	0.343	25322.46	1.120	19.411
DP01	268,019	0.489	886.221	1.070	3.079
DP02	164,557	0.366	4418.915	1.246	17.576
DP03	1,160,380	0.404	9783.208	1.088	11.167
DP04	405,127	0.343	4210.003	1.029	7.049
DP05	183,943	0.466	25322.46	1.298	59.343
DP06	347,332	0.439	7649.842	1.216	15.830

Appendix L. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Sex, Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Overall					
Aggregated	2,529,358	0.343	25322.46	1.120	19.411
DP01	268,019	0.489	886.221	1.070	3.079
DP02	164,557	0.366	4418.915	1.246	17.576
DP03	1,160,380	0.404	9783.208	1.088	11.167
DP04	405,127	0.343	4210.003	1.029	7.049
DP05	183,943	0.466	25322.46	1.298	59.343
DP06	347,332	0.439	7649.842	1.216	15.830
Sex: Female					
Aggregated	1,351,039	0.312	5176.464	1.078	6.388
DP01	146,041	0.468	222.452	1.057	2.227
DP02	76,868	0.312	1456.147	1.145	6.758
DP03	624,496	0.411	5176.464	1.077	8.443
DP04	239,770	0.371	165.036	1.011	1.070
DP05	92,796	0.426	521.223	1.106	3.731
DP06	171,068	0.392	945.307	1.146	5.310
Sex: Male					
Aggregated	1,177,926	0.307	2784.763	1.120	7.600
DP01	121,894	0.489	422.841	1.077	2.711
DP02	87,577	0.415	1611.383	1.216	8.380
DP03	535,811	0.399	2751.655	1.096	7.551
DP04	165,333	0.307	573.413	1.023	2.465
DP05	91,089	0.494	1416.917	1.216	8.927
DP06	176,222	0.485	2784.763	1.217	11.219

Appendix M. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Age Group, Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Overall					
Aggregated	2,529,358	0.343	25322.46	1.120	19.411
DP01	268,019	0.489	886.221	1.070	3.079
DP02	164,557	0.366	4418.915	1.246	17.576
DP03	1,160,380	0.404	9783.208	1.088	11.167
DP04	405,127	0.343	4210.003	1.029	7.049
DP05	183,943	0.466	25322.46	1.298	59.343
DP06	347,332	0.439	7649.842	1.216	15.830
Age Group: 18-24 years					
Aggregated	10,045	0.284	958.920	1.178	9.980
DP01	N/A	N/A	N/A	N/A	N/A
DP02	894	0.289	46.382	1.062	1.926
DP03	820	0.405	33.095	1.087	1.904
DP04	6,271	0.500	958.920	1.243	12.548
DP05	411	0.388	14.627	1.119	1.476
DP06	1,649	0.284	48.763	1.052	1.849
Age Group: 25-44 years					
Aggregated	254,818	0.310	2451.669	1.152	8.138
DP01	7,339	0.354	82.079	1.080	2.079
DP02	35,995	0.310	501.149	1.204	6.547
DP03	34,832	0.459	50.595	1.040	1.343
DP04	101,472	0.421	1044.159	1.076	5.165
DP05	20,919	0.375	868.690	1.304	9.599
DP06	54,261	0.341	2451.669	1.285	13.980
Age Group: 45-64 years					
Aggregated	984,584	0.323	3161.061	1.101	6.415
DP01	70,844	0.385	106.414	1.037	1.431
DP02	117,509	0.372	3161.061	1.222	12.716
DP03	204,056	0.479	125.538	1.019	1.230
DP04	282,764	0.323	1285.291	1.010	2.582
DP05	89,215	0.432	1144.570	1.200	7.327
DP06	220,196	0.416	1914.735	1.207	8.082
Age Group: 65-79 years					
Aggregated	1,063,086	0.129	32023.02	5.974	109.331
DP01	164,791	0.498	365.766	1.084	3.083

Appendix M. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 0% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Age Group, Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
DP02	9,341	0.497	427.549	1.160	5.395
DP03	752,958	0.427	32023.02	1.179	40.432
DP04	11,949	0.129	31005.73	429.841	979.899
DP05	63,075	0.500	715.949	1.117	4.372
DP06	60,972	0.446	474.201	1.098	3.700
Age Group: ≥ 80 years					
Aggregated	213,044	0.186	791.828	1.060	3.799
DP01	24,800	0.264	702.067	1.085	5.030
DP02	608	0.239	9.943	0.998	0.852
DP03	167,504	0.186	791.828	1.058	3.769
DP04	N/A	N/A	N/A	N/A	N/A
DP05	10,069	0.249	121.319	1.068	2.160
DP06	10,063	0.197	75.498	1.027	1.433

Note: N/A represent PS models that did not reach convergence.

Appendix N. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Aggregated	2,529,358	0.381	8.252	0.976	0.867
DP01	268,019	0.501	6.620	0.979	0.894
DP02	164,557	0.381	8.252	0.977	1.045
DP03	1,160,380	0.421	6.174	0.972	0.837
DP04	405,127	0.394	3.907	0.982	0.557
DP05	183,943	0.476	7.904	0.979	1.029
DP06	347,332	0.449	8.003	0.974	1.038

Appendix O. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Sex, Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Overall					
Aggregated	2,529,358	0.381	8.252	0.976	0.867
DP01	268,019	0.501	6.620	0.979	0.894
DP02	164,557	0.381	8.252	0.977	1.045
DP03	1,160,380	0.421	6.174	0.972	0.837
DP04	405,127	0.394	3.907	0.982	0.557
DP05	183,943	0.476	7.904	0.979	1.029
DP06	347,332	0.449	8.003	0.974	1.038
Sex: Female					
Aggregated	1,351,039	0.332	7.486	0.974	0.826
DP01	146,041	0.481	6.366	0.976	0.866
DP02	76,868	0.332	7.136	0.974	0.903
DP03	624,496	0.426	6.110	0.971	0.830
DP04	239,770	0.422	3.862	0.983	0.555
DP05	92,796	0.437	7.486	0.976	0.979
DP06	171,068	0.402	7.382	0.968	0.961
Sex: Male					
Aggregated	1,177,926	0.359	9.004	0.978	0.909
DP01	121,894	0.500	6.823	0.981	0.922
DP02	87,577	0.425	9.004	0.982	1.144
DP03	535,811	0.415	6.326	0.975	0.854
DP04	165,333	0.359	3.866	0.979	0.546
DP05	91,089	0.502	8.218	0.983	1.069
DP06	176,222	0.493	8.508	0.980	1.095

Appendix P. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Age Group, Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Overall					
Aggregated	2,529,358	0.381	8.252	0.976	0.867
DP01	268,019	0.501	6.620	0.979	0.894
DP02	164,557	0.381	8.252	0.977	1.045
DP03	1,160,380	0.421	6.174	0.972	0.837
DP04	405,127	0.394	3.907	0.982	0.557
DP05	183,943	0.476	7.904	0.979	1.029
DP06	347,332	0.449	8.003	0.974	1.038
Age Group: 18-24 years					
Aggregated	10,045	0.296	11.193	1.000	0.881
DP01	N/A	N/A	N/A	N/A	N/A
DP02	894	0.296	5.771	0.968	0.725
DP03	820	0.408	7.721	1.010	1.043
DP04	6,271	0.515	5.995	1.002	0.802
DP05	411	0.390	11.193	1.104	1.352
DP06	1,649	0.296	8.453	0.978	0.999
Age Group: 25-44 years					
Aggregated	254,818	0.326	9.187	0.984	0.856
DP01	7,339	0.390	7.158	0.997	0.886
DP02	35,995	0.326	8.122	0.976	1.013
DP03	34,832	0.484	5.420	0.987	0.746
DP04	101,472	0.463	4.450	0.991	0.620
DP05	20,919	0.391	9.187	0.977	1.118
DP06	54,261	0.355	8.437	0.975	1.047
Age Group: 45-64 years					
Aggregated	984,584	0.383	8.337	0.981	0.835
DP01	70,844	0.415	5.414	0.984	0.740
DP02	117,509	0.387	8.251	0.979	1.049
DP03	204,056	0.499	4.769	0.979	0.682
DP04	282,764	0.383	3.614	0.982	0.519
DP05	89,215	0.447	8.167	0.982	1.049
DP06	220,196	0.429	8.337	0.983	1.062
Age Group: 65-79 years					
Aggregated	1,063,086	0.129	3826.341	5.428	68.216

Appendix P. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 1% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Age Group, Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
DP01	164,791	0.508	6.778	0.983	0.916
DP02	9,341	0.507	8.081	0.977	1.041
DP03	752,958	0.441	6.724	0.976	0.900
DP04	11,949	0.129	3826.341	396.891	643.405
DP05	63,075	0.507	7.494	0.990	0.992
DP06	60,972	0.458	6.786	0.972	0.911
Age Group: ≥ 80 years					
Aggregated	213,044	0.224	5.419	0.969	0.564
DP01	24,800	0.295	5.139	0.972	0.674
DP02	608	0.247	4.347	0.967	0.602
DP03	167,504	0.224	4.280	0.969	0.538
DP04	N/A	N/A	N/A	N/A	N/A
DP05	10,069	0.276	5.419	0.970	0.687
DP06	10,063	0.228	4.380	0.969	0.543

Note: N/A represent PS models that did not reach convergence.

Appendix Q. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Aggregated	2,529,358	0.393	3.982	0.932	0.628
DP01	268,019	0.511	3.711	0.933	0.661
DP02	164,557	0.393	3.865	0.910	0.666
DP03	1,160,380	0.433	3.532	0.931	0.627
DP04	405,127	0.426	2.738	0.964	0.475
DP05	183,943	0.485	3.958	0.918	0.696
DP06	347,332	0.459	3.982	0.911	0.697

Appendix R. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Sex, Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Overall					
Aggregated	2,529,358	0.393	3.982	0.932	0.628
DP01	268,019	0.511	3.711	0.933	0.661
DP02	164,557	0.393	3.865	0.910	0.666
DP03	1,160,380	0.433	3.532	0.931	0.627
DP04	405,127	0.426	2.738	0.964	0.475
DP05	183,943	0.485	3.958	0.918	0.696
DP06	347,332	0.459	3.982	0.911	0.697
Sex: Female					
Aggregated	1,351,039	0.349	3.831	0.933	0.610
DP01	146,041	0.492	3.627	0.934	0.648
DP02	76,868	0.349	3.504	0.918	0.595
DP03	624,496	0.438	3.514	0.930	0.625
DP04	239,770	0.452	2.734	0.966	0.477
DP05	92,796	0.447	3.831	0.919	0.672
DP06	171,068	0.414	3.773	0.912	0.659
Sex: Male					
Aggregated	1,177,926	0.394	4.190	0.931	0.646
DP01	121,894	0.509	3.795	0.933	0.674
DP02	87,577	0.436	4.190	0.908	0.723
DP03	535,811	0.428	3.588	0.932	0.636
DP04	165,333	0.394	2.704	0.962	0.463
DP05	91,089	0.508	4.081	0.918	0.716
DP06	176,222	0.502	4.107	0.913	0.720

Appendix S. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Age Group, Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Overall					
Aggregated	2,529,358	0.393	3.982	0.932	0.628
DP01	268,019	0.511	3.711	0.933	0.661
DP02	164,557	0.393	3.865	0.910	0.666
DP03	1,160,380	0.433	3.532	0.931	0.627
DP04	405,127	0.426	2.738	0.964	0.475
DP05	183,943	0.485	3.958	0.918	0.696
DP06	347,332	0.459	3.982	0.911	0.697
Age Group: 18-24 years					
Aggregated	10,045	0.305	4.041	0.949	0.599
DP01	N/A	N/A	N/A	N/A	N/A
DP02	894	0.305	2.892	0.926	0.507
DP03	820	0.418	4.041	0.944	0.691
DP04	6,271	0.529	3.405	0.962	0.601
DP05	411	0.401	4.028	0.999	0.724
DP06	1,649	0.305	3.350	0.903	0.554
Age Group: 25-44 years					
Aggregated	254,818	0.339	3.770	0.937	0.579
DP01	7,339	0.408	3.330	0.941	0.579
DP02	35,995	0.339	3.692	0.907	0.619
DP03	34,832	0.503	3.294	0.954	0.583
DP04	101,472	0.492	2.924	0.967	0.509
DP05	20,919	0.400	3.770	0.897	0.651
DP06	54,261	0.368	3.741	0.904	0.638
Age Group: 45-64 years					
Aggregated	984,584	0.400	3.958	0.940	0.592
DP01	70,844	0.434	3.253	0.950	0.573
DP02	117,509	0.400	3.916	0.912	0.675
DP03	204,056	0.513	3.111	0.954	0.562
DP04	282,764	0.418	2.610	0.966	0.449
DP05	89,215	0.459	3.936	0.917	0.689
DP06	220,196	0.443	3.958	0.916	0.688
Age Group: 65-79 years					
Aggregated	1,063,086	0.129	2512.079	5.142	58.023
DP01	164,791	0.514	3.807	0.936	0.674

Appendix S. Distribution of Inverse Probability of Treatment Weights After Trimming for GLP-1RA or DPP-4i Users, 2.5% truncation in the Sentinel Distributed Database from October 1, 2015 to September 30, 2023, by Data Partner (DP), Age Group, Weight: Average Treatment Effect, Stabilized (ATES)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
DP02	9,341	0.511	3.915	0.913	0.689
DP03	752,958	0.452	3.700	0.929	0.656
DP04	11,949	0.129	2512.079	375.618	547.280
DP05	63,075	0.514	3.988	0.936	0.700
DP06	60,972	0.468	3.754	0.926	0.667
Age Group: ≥ 80 years					
Aggregated	213,044	0.256	3.086	0.942	0.422
DP01	24,800	0.320	2.990	0.938	0.503
DP02	608	0.273	3.086	0.948	0.507
DP03	167,504	0.256	2.547	0.942	0.404
DP04	N/A	N/A	N/A	N/A	N/A
DP05	10,069	0.301	3.061	0.936	0.504
DP06	10,063	0.262	2.498	0.941	0.400

Note: N/A represent PS models that did not reach convergence.

Appendix BA. List of Generic and Brand Names of Medical Products Used to Define Exposures and Comparators in this Request

Generic Name	Brand Name
GLP-1 Receptor Agonists	
albiglutide	Tanzeum
dulaglutide	Trulicity
exenatide	Byetta
exenatide microspheres	Bydureon
exenatide microspheres	Bydureon BCise
insulin degludec/liraglutide	Xultophy 100/3.6
insulin glargine,human recombinant analog/lixisenatide	Soliqua 100/33
liraglutide	Saxenda
liraglutide	Victoza 2-Pak
liraglutide	Victoza 3-Pak
lixisenatide	Adlyxin
semaglutide	Ozempic
semaglutide	Rybelsus
semaglutide	Wegovy
tirzepatide	Mounjaro
DPP4 Inhibitors	
alogliptin benzoate	Nesina
alogliptin benzoate	alogliptin
alogliptin benzoate/metformin HCl	Kazano
alogliptin benzoate/metformin HCl	alogliptin-metformin
alogliptin benzoate/pioglitazone HCl	Oseni
alogliptin benzoate/pioglitazone HCl	alogliptin-pioglitazone
linagliptin	Tradjenta
linagliptin/metformin HCl	Jentadueto
linagliptin/metformin HCl	Jentadueto XR
saxagliptin HCl	Onglyza
saxagliptin HCl	saxagliptin
saxagliptin HCl/metformin HCl	Kombiglyze XR
saxagliptin HCl/metformin HCl	saxagliptin-metformin
sitagliptin phosphate	Januvia
sitagliptin phosphate/metformin HCl	Janumet
sitagliptin phosphate/metformin HCl	Janumet XR
SGLT-2 Inhibitors	
bexagliflozin	Brenzavvy
bexagliflozin	bexagliflozin
canagliflozin	Invokana

Appendix BA. List of Generic and Brand Names of Medical Products Used to Define Exposures and Comparators in this Request

Generic Name	Brand Name
canagliflozin/metformin HCl	Invokamet
canagliflozin/metformin HCl	Invokamet XR
dapagliflozin propanediol	Farxiga
dapagliflozin propanediol/metformin HCl	Xigduo XR
empagliflozin	Jardiance
empagliflozin/metformin HCl	Synjardy
empagliflozin/metformin HCl	Synjardy XR
ertugliflozin pidolate	Steglatro
ertugliflozin pidolate/metformin HCl	Segluromet
sotagliflozin	Inpefa

Appendix BB. List of Generic and Brand Names of Medical Products Used to Define Exposure Incidence Criteria in this Request

Generic Name	Brand Name
GLP-1 Receptor Agonists	
albiglutide	Tanzeum
dulaglutide	Trulicity
exenatide	Byetta
exenatide microspheres	Bydureon
exenatide microspheres	Bydureon BCise
insulin degludec/liraglutide	Xultophy 100/3.6
insulin glargine,human recombinant analog/lixisenatide	Soliqua 100/33
liraglutide	Saxenda
liraglutide	Victoza 2-Pak
liraglutide	Victoza 3-Pak
lixisenatide	Adlyxin
semaglutide	Ozempic
semaglutide	Rybelsus
semaglutide	Wegovy
tirzepatide	Mounjaro
DPP4 Inhibitors	
alogliptin benzoate	Nesina
alogliptin benzoate	alogliptin
alogliptin benzoate/metformin HCl	Kazano
alogliptin benzoate/metformin HCl	alogliptin-metformin
alogliptin benzoate/pioglitazone HCl	Oseni
alogliptin benzoate/pioglitazone HCl	alogliptin-pioglitazone
linagliptin	Tradjenta
linagliptin/metformin HCl	Jentadueto
linagliptin/metformin HCl	Jentadueto XR
saxagliptin HCl	Onglyza
saxagliptin HCl	saxagliptin
saxagliptin HCl/metformin HCl	Kombiglyze XR
saxagliptin HCl/metformin HCl	saxagliptin-metformin
sitagliptin phosphate	Januvia
sitagliptin phosphate/metformin HCl	Janumet
sitagliptin phosphate/metformin HCl	Janumet XR
SGLT-2 Inhibitors	
bexagliflozin	Brenzavvy
bexagliflozin	bexagliflozin
canagliflozin	Invokana

Appendix BB. List of Generic and Brand Names of Medical Products Used to Define Exposure Incidence Criteria in this Request

Generic Name	Brand Name
canagliflozin/metformin HCl	Invokamet
canagliflozin/metformin HCl	Invokamet XR
dapagliflozin propanediol	Farxiga
dapagliflozin propanediol/metformin HCl	Xigduo XR
empagliflozin	Jardiance
empagliflozin/metformin HCl	Synjardy
empagliflozin/metformin HCl	Synjardy XR
ertugliflozin pidolate	Steglatro
ertugliflozin pidolate/metformin HCl	Segluromet
sotagliflozin	Inpefa

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
Intentional Self-Harm (Outcome)			
T14.91	Suicide attempt	Diagnosis	ICD-10-CM
T14.91XA	Suicide attempt, initial encounter	Diagnosis	ICD-10-CM
T14.91XD	Suicide attempt, subsequent encounter	Diagnosis	ICD-10-CM
T14.91XS	Suicide attempt, sequela	Diagnosis	ICD-10-CM
T36.0X2	Poisoning by penicillins, intentional self-harm	Diagnosis	ICD-10-CM
T36.0X2A	Poisoning by penicillins, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.0X2D	Poisoning by penicillins, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.0X2S	Poisoning by penicillins, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.1X2	Poisoning by cephalosporins and other beta-lactam antibiotics, intentional self-harm	Diagnosis	ICD-10-CM
T36.1X2A	Poisoning by cephalosporins and other beta-lactam antibiotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.1X2D	Poisoning by cephalosporins and other beta-lactam antibiotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.1X2S	Poisoning by cephalosporins and other beta-lactam antibiotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.2X2	Poisoning by chloramphenicol group, intentional self-harm	Diagnosis	ICD-10-CM
T36.2X2A	Poisoning by chloramphenicol group, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.2X2D	Poisoning by chloramphenicol group, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.2X2S	Poisoning by chloramphenicol group, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.3X2	Poisoning by macrolides, intentional self-harm	Diagnosis	ICD-10-CM
T36.3X2A	Poisoning by macrolides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.3X2D	Poisoning by macrolides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.3X2S	Poisoning by macrolides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.4X2	Poisoning by tetracyclines, intentional self-harm	Diagnosis	ICD-10-CM
T36.4X2A	Poisoning by tetracyclines, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.4X2D	Poisoning by tetracyclines, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.4X2S	Poisoning by tetracyclines, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.5X2	Poisoning by aminoglycosides, intentional self-harm	Diagnosis	ICD-10-CM
T36.5X2A	Poisoning by aminoglycosides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.5X2D	Poisoning by aminoglycosides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.5X2S	Poisoning by aminoglycosides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.6X2	Poisoning by rifampicins, intentional self-harm	Diagnosis	ICD-10-CM
T36.6X2A	Poisoning by rifampicins, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.6X2D	Poisoning by rifampicins, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.6X2S	Poisoning by rifampicins, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.7X2	Poisoning by antifungal antibiotics, systemically used, intentional self-harm	Diagnosis	ICD-10-CM
T36.7X2A	Poisoning by antifungal antibiotics, systemically used, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.7X2D	Poisoning by antifungal antibiotics, systemically used, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T36.7X2S	Poisoning by antifungal antibiotics, systemically used, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.8X2	Poisoning by other systemic antibiotics, intentional self-harm	Diagnosis	ICD-10-CM
T36.8X2A	Poisoning by other systemic antibiotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.8X2D	Poisoning by other systemic antibiotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.8X2S	Poisoning by other systemic antibiotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.92	Poisoning by unspecified systemic antibiotic, intentional self-harm	Diagnosis	ICD-10-CM
T36.92XA	Poisoning by unspecified systemic antibiotic, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.92XD	Poisoning by unspecified systemic antibiotic, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.92XS	Poisoning by unspecified systemic antibiotic, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.0X2	Poisoning by sulfonamides, intentional self-harm	Diagnosis	ICD-10-CM
T37.0X2A	Poisoning by sulfonamides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.0X2D	Poisoning by sulfonamides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.0X2S	Poisoning by sulfonamides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.1X2	Poisoning by antimycobacterial drugs, intentional self-harm	Diagnosis	ICD-10-CM
T37.1X2A	Poisoning by antimycobacterial drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.1X2D	Poisoning by antimycobacterial drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.1X2S	Poisoning by antimycobacterial drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.2X2	Poisoning by antimalarials and drugs acting on other blood protozoa, intentional self-harm	Diagnosis	ICD-10-CM
T37.2X2A	Poisoning by antimalarials and drugs acting on other blood protozoa, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.2X2D	Poisoning by antimalarials and drugs acting on other blood protozoa, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.2X2S	Poisoning by antimalarials and drugs acting on other blood protozoa, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.3X2	Poisoning by other antiprotozoal drugs, intentional self-harm	Diagnosis	ICD-10-CM
T37.3X2A	Poisoning by other antiprotozoal drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.3X2D	Poisoning by other antiprotozoal drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.3X2S	Poisoning by other antiprotozoal drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.4X2	Poisoning by anthelmintics, intentional self-harm	Diagnosis	ICD-10-CM
T37.4X2A	Poisoning by anthelmintics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.4X2D	Poisoning by anthelmintics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.4X2S	Poisoning by anthelmintics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.5X2	Poisoning by antiviral drugs, intentional self-harm	Diagnosis	ICD-10-CM
T37.5X2A	Poisoning by antiviral drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.5X2D	Poisoning by antiviral drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.5X2S	Poisoning by antiviral drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T37.8X2	Poisoning by other specified systemic anti-infectives and antiparasitics, intentional self-harm	Diagnosis	ICD-10-CM
T37.8X2A	Poisoning by other specified systemic anti-infectives and antiparasitics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.8X2D	Poisoning by other specified systemic anti-infectives and antiparasitics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.8X2S	Poisoning by other specified systemic anti-infectives and antiparasitics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.92	Poisoning by unspecified systemic anti-infective and antiparasitics, intentional self-harm	Diagnosis	ICD-10-CM
T37.92XA	Poisoning by unspecified systemic anti-infective and antiparasitics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.92XD	Poisoning by unspecified systemic anti-infective and antiparasitics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.92XS	Poisoning by unspecified systemic anti-infective and antiparasitics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.0X2	Poisoning by glucocorticoids and synthetic analogues, intentional self-harm	Diagnosis	ICD-10-CM
T38.0X2A	Poisoning by glucocorticoids and synthetic analogues, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.0X2D	Poisoning by glucocorticoids and synthetic analogues, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.0X2S	Poisoning by glucocorticoids and synthetic analogues, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.1X2	Poisoning by thyroid hormones and substitutes, intentional self-harm	Diagnosis	ICD-10-CM
T38.1X2A	Poisoning by thyroid hormones and substitutes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.1X2D	Poisoning by thyroid hormones and substitutes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.1X2S	Poisoning by thyroid hormones and substitutes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.2X2	Poisoning by antithyroid drugs, intentional self-harm	Diagnosis	ICD-10-CM
T38.2X2A	Poisoning by antithyroid drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.2X2D	Poisoning by antithyroid drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.2X2S	Poisoning by antithyroid drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.3X2	Poisoning by insulin and oral hypoglycemic [antidiabetic] drugs, intentional self-harm	Diagnosis	ICD-10-CM
T38.3X2A	Poisoning by insulin and oral hypoglycemic [antidiabetic] drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.3X2D	Poisoning by insulin and oral hypoglycemic [antidiabetic] drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.3X2S	Poisoning by insulin and oral hypoglycemic [antidiabetic] drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.4X2	Poisoning by oral contraceptives, intentional self-harm	Diagnosis	ICD-10-CM
T38.4X2A	Poisoning by oral contraceptives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T38.4X2D	Poisoning by oral contraceptives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.4X2S	Poisoning by oral contraceptives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.5X2	Poisoning by other estrogens and progestogens, intentional self-harm	Diagnosis	ICD-10-CM
T38.5X2A	Poisoning by other estrogens and progestogens, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.5X2D	Poisoning by other estrogens and progestogens, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.5X2S	Poisoning by other estrogens and progestogens, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.6X2	Poisoning by antigonadotrophins, antiestrogens, antiandrogens, not elsewhere classified, intentional self-harm	Diagnosis	ICD-10-CM
T38.6X2A	Poisoning by antigonadotrophins, antiestrogens, antiandrogens, not elsewhere classified, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.6X2D	Poisoning by antigonadotrophins, antiestrogens, antiandrogens, not elsewhere classified, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.6X2S	Poisoning by antigonadotrophins, antiestrogens, antiandrogens, not elsewhere classified, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.7X2	Poisoning by androgens and anabolic congeners, intentional self-harm	Diagnosis	ICD-10-CM
T38.7X2A	Poisoning by androgens and anabolic congeners, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.7X2D	Poisoning by androgens and anabolic congeners, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.7X2S	Poisoning by androgens and anabolic congeners, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.802	Poisoning by unspecified hormones and synthetic substitutes, intentional self-harm	Diagnosis	ICD-10-CM
T38.802A	Poisoning by unspecified hormones and synthetic substitutes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.802D	Poisoning by unspecified hormones and synthetic substitutes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.802S	Poisoning by unspecified hormones and synthetic substitutes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.812	Poisoning by anterior pituitary [adenohypophyseal] hormones, intentional self-harm	Diagnosis	ICD-10-CM
T38.812A	Poisoning by anterior pituitary [adenohypophyseal] hormones, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.812D	Poisoning by anterior pituitary [adenohypophyseal] hormones, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.812S	Poisoning by anterior pituitary [adenohypophyseal] hormones, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.892	Poisoning by other hormones and synthetic substitutes, intentional self-harm	Diagnosis	ICD-10-CM
T38.892A	Poisoning by other hormones and synthetic substitutes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.892D	Poisoning by other hormones and synthetic substitutes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T38.892S	Poisoning by other hormones and synthetic substitutes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.902	Poisoning by unspecified hormone antagonists, intentional self-harm	Diagnosis	ICD-10-CM
T38.902A	Poisoning by unspecified hormone antagonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.902D	Poisoning by unspecified hormone antagonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.902S	Poisoning by unspecified hormone antagonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.992	Poisoning by other hormone antagonists, intentional self-harm	Diagnosis	ICD-10-CM
T38.992A	Poisoning by other hormone antagonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.992D	Poisoning by other hormone antagonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.992S	Poisoning by other hormone antagonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.012	Poisoning by aspirin, intentional self-harm	Diagnosis	ICD-10-CM
T39.012A	Poisoning by aspirin, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.012D	Poisoning by aspirin, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.012S	Poisoning by aspirin, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.092	Poisoning by salicylates, intentional self-harm	Diagnosis	ICD-10-CM
T39.092A	Poisoning by salicylates, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.092D	Poisoning by salicylates, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.092S	Poisoning by salicylates, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.1X2	Poisoning by 4-Aminophenol derivatives, intentional self-harm	Diagnosis	ICD-10-CM
T39.1X2A	Poisoning by 4-Aminophenol derivatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.1X2D	Poisoning by 4-Aminophenol derivatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.1X2S	Poisoning by 4-Aminophenol derivatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.2X2	Poisoning by pyrazolone derivatives, intentional self-harm	Diagnosis	ICD-10-CM
T39.2X2A	Poisoning by pyrazolone derivatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.2X2D	Poisoning by pyrazolone derivatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.2X2S	Poisoning by pyrazolone derivatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.312	Poisoning by propionic acid derivatives, intentional self-harm	Diagnosis	ICD-10-CM
T39.312A	Poisoning by propionic acid derivatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.312D	Poisoning by propionic acid derivatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.312S	Poisoning by propionic acid derivatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.392	Poisoning by other nonsteroidal anti-inflammatory drugs [NSAID], intentional self-harm	Diagnosis	ICD-10-CM
T39.392A	Poisoning by other nonsteroidal anti-inflammatory drugs [NSAID], intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.392D	Poisoning by other nonsteroidal anti-inflammatory drugs [NSAID], intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T39.392S	Poisoning by other nonsteroidal anti-inflammatory drugs [NSAID], intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.4X2	Poisoning by antirheumatics, not elsewhere classified, intentional self-harm	Diagnosis	ICD-10-CM
T39.4X2A	Poisoning by antirheumatics, not elsewhere classified, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.4X2D	Poisoning by antirheumatics, not elsewhere classified, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.4X2S	Poisoning by antirheumatics, not elsewhere classified, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.8X2	Poisoning by other nonopioid analgesics and antipyretics, not elsewhere classified, intentional self-harm	Diagnosis	ICD-10-CM
T39.8X2A	Poisoning by other nonopioid analgesics and antipyretics, not elsewhere classified, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.8X2D	Poisoning by other nonopioid analgesics and antipyretics, not elsewhere classified, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.8X2S	Poisoning by other nonopioid analgesics and antipyretics, not elsewhere classified, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.92	Poisoning by unspecified nonopioid analgesic, antipyretic and antirheumatic, intentional self-harm	Diagnosis	ICD-10-CM
T39.92XA	Poisoning by unspecified nonopioid analgesic, antipyretic and antirheumatic, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.92XD	Poisoning by unspecified nonopioid analgesic, antipyretic and antirheumatic, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.92XS	Poisoning by unspecified nonopioid analgesic, antipyretic and antirheumatic, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.0X2	Poisoning by opium, intentional self-harm	Diagnosis	ICD-10-CM
T40.0X2A	Poisoning by opium, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.0X2D	Poisoning by opium, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.0X2S	Poisoning by opium, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.1X2	Poisoning by heroin, intentional self-harm	Diagnosis	ICD-10-CM
T40.1X2A	Poisoning by heroin, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.1X2D	Poisoning by heroin, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.1X2S	Poisoning by heroin, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.2X2	Poisoning by other opioids, intentional self-harm	Diagnosis	ICD-10-CM
T40.2X2A	Poisoning by other opioids, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.2X2D	Poisoning by other opioids, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.2X2S	Poisoning by other opioids, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.3X2	Poisoning by methadone, intentional self-harm	Diagnosis	ICD-10-CM
T40.3X2A	Poisoning by methadone, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.3X2D	Poisoning by methadone, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.3X2S	Poisoning by methadone, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.412	Poisoning by fentanyl or fentanyl analogs, intentional self-harm	Diagnosis	ICD-10-CM
T40.412A	Poisoning by fentanyl or fentanyl analogs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.412D	Poisoning by fentanyl or fentanyl analogs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T40.412S	Poisoning by fentanyl or fentanyl analogs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.422	Poisoning by tramadol, intentional self-harm	Diagnosis	ICD-10-CM
T40.422A	Poisoning by tramadol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.422D	Poisoning by tramadol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.422S	Poisoning by tramadol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.492	Poisoning by other synthetic narcotics, intentional self-harm	Diagnosis	ICD-10-CM
T40.492A	Poisoning by other synthetic narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.492D	Poisoning by other synthetic narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.492S	Poisoning by other synthetic narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.4X2	Poisoning by other synthetic narcotics, intentional self-harm	Diagnosis	ICD-10-CM
T40.4X2A	Poisoning by other synthetic narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.4X2D	Poisoning by other synthetic narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.4X2S	Poisoning by other synthetic narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.5X2	Poisoning by cocaine, intentional self-harm	Diagnosis	ICD-10-CM
T40.5X2A	Poisoning by cocaine, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.5X2D	Poisoning by cocaine, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.5X2S	Poisoning by cocaine, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.602	Poisoning by unspecified narcotics, intentional self-harm	Diagnosis	ICD-10-CM
T40.602A	Poisoning by unspecified narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.602D	Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.602S	Poisoning by unspecified narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.692	Poisoning by other narcotics, intentional self-harm	Diagnosis	ICD-10-CM
T40.692A	Poisoning by other narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.692D	Poisoning by other narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.692S	Poisoning by other narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.712	Poisoning by cannabis, intentional self-harm	Diagnosis	ICD-10-CM
T40.712A	Poisoning by cannabis, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.712D	Poisoning by cannabis, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.712S	Poisoning by cannabis, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.722	Poisoning by synthetic cannabinoids, intentional self-harm	Diagnosis	ICD-10-CM
T40.722A	Poisoning by synthetic cannabinoids, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.722D	Poisoning by synthetic cannabinoids, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.722S	Poisoning by synthetic cannabinoids, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.7X2	Poisoning by cannabis (derivatives), intentional self-harm	Diagnosis	ICD-10-CM
T40.7X2A	Poisoning by cannabis (derivatives), intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.7X2D	Poisoning by cannabis (derivatives), intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.7X2S	Poisoning by cannabis (derivatives), intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.8X2	Poisoning by lysergide [LSD], intentional self-harm	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T40.8X2A	Poisoning by lysergide [LSD], intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.8X2D	Poisoning by lysergide [LSD], intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.8X2S	Poisoning by lysergide [LSD], intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.902	Poisoning by unspecified psychodysleptics [hallucinogens], intentional self-harm	Diagnosis	ICD-10-CM
T40.902A	Poisoning by unspecified psychodysleptics [hallucinogens], intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.902D	Poisoning by unspecified psychodysleptics [hallucinogens], intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.902S	Poisoning by unspecified psychodysleptics [hallucinogens], intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.992	Poisoning by other psychodysleptics [hallucinogens], intentional self-harm	Diagnosis	ICD-10-CM
T40.992A	Poisoning by other psychodysleptics [hallucinogens], intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.992D	Poisoning by other psychodysleptics [hallucinogens], intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.992S	Poisoning by other psychodysleptics [hallucinogens], intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.0X2	Poisoning by inhaled anesthetics, intentional self-harm	Diagnosis	ICD-10-CM
T41.0X2A	Poisoning by inhaled anesthetics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.0X2D	Poisoning by inhaled anesthetics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.0X2S	Poisoning by inhaled anesthetics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.1X2	Poisoning by intravenous anesthetics, intentional self-harm	Diagnosis	ICD-10-CM
T41.1X2A	Poisoning by intravenous anesthetics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.1X2D	Poisoning by intravenous anesthetics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.1X2S	Poisoning by intravenous anesthetics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.202	Poisoning by unspecified general anesthetics, intentional self-harm	Diagnosis	ICD-10-CM
T41.202A	Poisoning by unspecified general anesthetics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.202D	Poisoning by unspecified general anesthetics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.202S	Poisoning by unspecified general anesthetics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.292	Poisoning by other general anesthetics, intentional self-harm	Diagnosis	ICD-10-CM
T41.292A	Poisoning by other general anesthetics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.292D	Poisoning by other general anesthetics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.292S	Poisoning by other general anesthetics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.3X2	Poisoning by local anesthetics, intentional self-harm	Diagnosis	ICD-10-CM
T41.3X2A	Poisoning by local anesthetics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.3X2D	Poisoning by local anesthetics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.3X2S	Poisoning by local anesthetics, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T41.42	Poisoning by unspecified anesthetic, intentional self-harm	Diagnosis	ICD-10-CM
T41.42XA	Poisoning by unspecified anesthetic, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.42XD	Poisoning by unspecified anesthetic, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.42XS	Poisoning by unspecified anesthetic, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.5X2	Poisoning by therapeutic gases, intentional self-harm	Diagnosis	ICD-10-CM
T41.5X2A	Poisoning by therapeutic gases, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.5X2D	Poisoning by therapeutic gases, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.5X2S	Poisoning by therapeutic gases, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.0X2	Poisoning by hydantoin derivatives, intentional self-harm	Diagnosis	ICD-10-CM
T42.0X2A	Poisoning by hydantoin derivatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.0X2D	Poisoning by hydantoin derivatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.0X2S	Poisoning by hydantoin derivatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.1X2	Poisoning by iminostilbenes, intentional self-harm	Diagnosis	ICD-10-CM
T42.1X2A	Poisoning by iminostilbenes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.1X2D	Poisoning by iminostilbenes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.1X2S	Poisoning by iminostilbenes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.2X2	Poisoning by succinimides and oxazolidinediones, intentional self-harm	Diagnosis	ICD-10-CM
T42.2X2A	Poisoning by succinimides and oxazolidinediones, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.2X2D	Poisoning by succinimides and oxazolidinediones, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.2X2S	Poisoning by succinimides and oxazolidinediones, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.3X2	Poisoning by barbiturates, intentional self-harm	Diagnosis	ICD-10-CM
T42.3X2A	Poisoning by barbiturates, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.3X2D	Poisoning by barbiturates, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.3X2S	Poisoning by barbiturates, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.4X2	Poisoning by benzodiazepines, intentional self-harm	Diagnosis	ICD-10-CM
T42.4X2A	Poisoning by benzodiazepines, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.4X2D	Poisoning by benzodiazepines, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.4X2S	Poisoning by benzodiazepines, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.5X2	Poisoning by mixed antiepileptics, intentional self-harm	Diagnosis	ICD-10-CM
T42.5X2A	Poisoning by mixed antiepileptics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.5X2D	Poisoning by mixed antiepileptics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.5X2S	Poisoning by mixed antiepileptics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.6X2	Poisoning by other antiepileptic and sedative-hypnotic drugs, intentional self-harm	Diagnosis	ICD-10-CM
T42.6X2A	Poisoning by other antiepileptic and sedative-hypnotic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.6X2D	Poisoning by other antiepileptic and sedative-hypnotic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T42.6X2S	Poisoning by other antiepileptic and sedative-hypnotic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.72	Poisoning by unspecified antiepileptic and sedative-hypnotic drugs, intentional self-harm	Diagnosis	ICD-10-CM
T42.72XA	Poisoning by unspecified antiepileptic and sedative-hypnotic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.72XD	Poisoning by unspecified antiepileptic and sedative-hypnotic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.72XS	Poisoning by unspecified antiepileptic and sedative-hypnotic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.8X2	Poisoning by antiparkinsonism drugs and other central muscle-tone depressants, intentional self-harm	Diagnosis	ICD-10-CM
T42.8X2A	Poisoning by antiparkinsonism drugs and other central muscle-tone depressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.8X2D	Poisoning by antiparkinsonism drugs and other central muscle-tone depressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.8X2S	Poisoning by antiparkinsonism drugs and other central muscle-tone depressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.012	Poisoning by tricyclic antidepressants, intentional self-harm	Diagnosis	ICD-10-CM
T43.012A	Poisoning by tricyclic antidepressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.012D	Poisoning by tricyclic antidepressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.012S	Poisoning by tricyclic antidepressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.022	Poisoning by tetracyclic antidepressants, intentional self-harm	Diagnosis	ICD-10-CM
T43.022A	Poisoning by tetracyclic antidepressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.022D	Poisoning by tetracyclic antidepressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.022S	Poisoning by tetracyclic antidepressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.1X2	Poisoning by monoamine-oxidase-inhibitor antidepressants, intentional self-harm	Diagnosis	ICD-10-CM
T43.1X2A	Poisoning by monoamine-oxidase-inhibitor antidepressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.1X2D	Poisoning by monoamine-oxidase-inhibitor antidepressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.1X2S	Poisoning by monoamine-oxidase-inhibitor antidepressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.202	Poisoning by unspecified antidepressants, intentional self-harm	Diagnosis	ICD-10-CM
T43.202A	Poisoning by unspecified antidepressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.202D	Poisoning by unspecified antidepressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.202S	Poisoning by unspecified antidepressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.212	Poisoning by selective serotonin and norepinephrine reuptake inhibitors, intentional self-harm	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T43.212A	Poisoning by selective serotonin and norepinephrine reuptake inhibitors, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.212D	Poisoning by selective serotonin and norepinephrine reuptake inhibitors, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.212S	Poisoning by selective serotonin and norepinephrine reuptake inhibitors, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.222	Poisoning by selective serotonin reuptake inhibitors, intentional self-harm	Diagnosis	ICD-10-CM
T43.222A	Poisoning by selective serotonin reuptake inhibitors, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.222D	Poisoning by selective serotonin reuptake inhibitors, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.222S	Poisoning by selective serotonin reuptake inhibitors, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.292	Poisoning by other antidepressants, intentional self-harm	Diagnosis	ICD-10-CM
T43.292A	Poisoning by other antidepressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.292D	Poisoning by other antidepressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.292S	Poisoning by other antidepressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.3X2	Poisoning by phenothiazine antipsychotics and neuroleptics, intentional self-harm	Diagnosis	ICD-10-CM
T43.3X2A	Poisoning by phenothiazine antipsychotics and neuroleptics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.3X2D	Poisoning by phenothiazine antipsychotics and neuroleptics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.3X2S	Poisoning by phenothiazine antipsychotics and neuroleptics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.4X2	Poisoning by butyrophenone and thiothixene neuroleptics, intentional self-harm	Diagnosis	ICD-10-CM
T43.4X2A	Poisoning by butyrophenone and thiothixene neuroleptics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.4X2D	Poisoning by butyrophenone and thiothixene neuroleptics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.4X2S	Poisoning by butyrophenone and thiothixene neuroleptics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.502	Poisoning by unspecified antipsychotics and neuroleptics, intentional self-harm	Diagnosis	ICD-10-CM
T43.502A	Poisoning by unspecified antipsychotics and neuroleptics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.502D	Poisoning by unspecified antipsychotics and neuroleptics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.502S	Poisoning by unspecified antipsychotics and neuroleptics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.592	Poisoning by other antipsychotics and neuroleptics, intentional self-harm	Diagnosis	ICD-10-CM
T43.592A	Poisoning by other antipsychotics and neuroleptics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.592D	Poisoning by other antipsychotics and neuroleptics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T43.592S	Poisoning by other antipsychotics and neuroleptics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.602	Poisoning by unspecified psychostimulants, intentional self-harm	Diagnosis	ICD-10-CM
T43.602A	Poisoning by unspecified psychostimulants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.602D	Poisoning by unspecified psychostimulants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.602S	Poisoning by unspecified psychostimulants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.612	Poisoning by caffeine, intentional self-harm	Diagnosis	ICD-10-CM
T43.612A	Poisoning by caffeine, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.612D	Poisoning by caffeine, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.612S	Poisoning by caffeine, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.622	Poisoning by amphetamines, intentional self-harm	Diagnosis	ICD-10-CM
T43.622A	Poisoning by amphetamines, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.622D	Poisoning by amphetamines, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.622S	Poisoning by amphetamines, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.632	Poisoning by methylphenidate, intentional self-harm	Diagnosis	ICD-10-CM
T43.632A	Poisoning by methylphenidate, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.632D	Poisoning by methylphenidate, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.632S	Poisoning by methylphenidate, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.642	Poisoning by ecstasy, intentional self-harm	Diagnosis	ICD-10-CM
T43.642A	Poisoning by ecstasy, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.642D	Poisoning by ecstasy, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.642S	Poisoning by ecstasy, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.692	Poisoning by other psychostimulants, intentional self-harm	Diagnosis	ICD-10-CM
T43.692A	Poisoning by other psychostimulants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.692D	Poisoning by other psychostimulants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.692S	Poisoning by other psychostimulants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.8X2	Poisoning by other psychotropic drugs, intentional self-harm	Diagnosis	ICD-10-CM
T43.8X2A	Poisoning by other psychotropic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.8X2D	Poisoning by other psychotropic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.8X2S	Poisoning by other psychotropic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.92	Poisoning by unspecified psychotropic drug, intentional self-harm	Diagnosis	ICD-10-CM
T43.92XA	Poisoning by unspecified psychotropic drug, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.92XD	Poisoning by unspecified psychotropic drug, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.92XS	Poisoning by unspecified psychotropic drug, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.0X2	Poisoning by anticholinesterase agents, intentional self-harm	Diagnosis	ICD-10-CM
T44.0X2A	Poisoning by anticholinesterase agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.0X2D	Poisoning by anticholinesterase agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T44.0X2S	Poisoning by anticholinesterase agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.1X2	Poisoning by other parasympathomimetics [cholinergics], intentional self-harm	Diagnosis	ICD-10-CM
T44.1X2A	Poisoning by other parasympathomimetics [cholinergics], intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.1X2D	Poisoning by other parasympathomimetics [cholinergics], intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.1X2S	Poisoning by other parasympathomimetics [cholinergics], intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.2X2	Poisoning by ganglionic blocking drugs, intentional self-harm	Diagnosis	ICD-10-CM
T44.2X2A	Poisoning by ganglionic blocking drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.2X2D	Poisoning by ganglionic blocking drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.2X2S	Poisoning by ganglionic blocking drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.3X2	Poisoning by other parasympatholytics [anticholinergics and antimuscarinics] and spasmolytics, intentional self-harm	Diagnosis	ICD-10-CM
T44.3X2A	Poisoning by other parasympatholytics [anticholinergics and antimuscarinics] and spasmolytics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.3X2D	Poisoning by other parasympatholytics [anticholinergics and antimuscarinics] and spasmolytics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.3X2S	Poisoning by other parasympatholytics [anticholinergics and antimuscarinics] and spasmolytics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.4X2	Poisoning by predominantly alpha-adrenoreceptor agonists, intentional self-harm	Diagnosis	ICD-10-CM
T44.4X2A	Poisoning by predominantly alpha-adrenoreceptor agonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.4X2D	Poisoning by predominantly alpha-adrenoreceptor agonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.4X2S	Poisoning by predominantly alpha-adrenoreceptor agonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.5X2	Poisoning by predominantly beta-adrenoreceptor agonists, intentional self-harm	Diagnosis	ICD-10-CM
T44.5X2A	Poisoning by predominantly beta-adrenoreceptor agonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.5X2D	Poisoning by predominantly beta-adrenoreceptor agonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.5X2S	Poisoning by predominantly beta-adrenoreceptor agonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.6X2	Poisoning by alpha-adrenoreceptor antagonists, intentional self-harm	Diagnosis	ICD-10-CM
T44.6X2A	Poisoning by alpha-adrenoreceptor antagonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.6X2D	Poisoning by alpha-adrenoreceptor antagonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.6X2S	Poisoning by alpha-adrenoreceptor antagonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T44.7X2	Poisoning by beta-adrenoreceptor antagonists, intentional self-harm	Diagnosis	ICD-10-CM
T44.7X2A	Poisoning by beta-adrenoreceptor antagonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.7X2D	Poisoning by beta-adrenoreceptor antagonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.7X2S	Poisoning by beta-adrenoreceptor antagonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.8X2	Poisoning by centrally-acting and adrenergic-neuron-blocking agents, intentional self-harm	Diagnosis	ICD-10-CM
T44.8X2A	Poisoning by centrally-acting and adrenergic-neuron-blocking agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.8X2D	Poisoning by centrally-acting and adrenergic-neuron-blocking agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.8X2S	Poisoning by centrally-acting and adrenergic-neuron-blocking agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.902	Poisoning by unspecified drugs primarily affecting the autonomic nervous system, intentional self-harm	Diagnosis	ICD-10-CM
T44.902A	Poisoning by unspecified drugs primarily affecting the autonomic nervous system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.902D	Poisoning by unspecified drugs primarily affecting the autonomic nervous system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.902S	Poisoning by unspecified drugs primarily affecting the autonomic nervous system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.992	Poisoning by other drug primarily affecting the autonomic nervous system, intentional self-harm	Diagnosis	ICD-10-CM
T44.992A	Poisoning by other drug primarily affecting the autonomic nervous system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.992D	Poisoning by other drug primarily affecting the autonomic nervous system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.992S	Poisoning by other drug primarily affecting the autonomic nervous system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.0X2	Poisoning by antiallergic and antiemetic drugs, intentional self-harm	Diagnosis	ICD-10-CM
T45.0X2A	Poisoning by antiallergic and antiemetic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.0X2D	Poisoning by antiallergic and antiemetic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.0X2S	Poisoning by antiallergic and antiemetic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.1X2	Poisoning by antineoplastic and immunosuppressive drugs, intentional self-harm	Diagnosis	ICD-10-CM
T45.1X2A	Poisoning by antineoplastic and immunosuppressive drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.1X2D	Poisoning by antineoplastic and immunosuppressive drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.1X2S	Poisoning by antineoplastic and immunosuppressive drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.2X2	Poisoning by vitamins, intentional self-harm	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T45.2X2A	Poisoning by vitamins, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.2X2D	Poisoning by vitamins, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.2X2S	Poisoning by vitamins, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.3X2	Poisoning by enzymes, intentional self-harm	Diagnosis	ICD-10-CM
T45.3X2A	Poisoning by enzymes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.3X2D	Poisoning by enzymes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.3X2S	Poisoning by enzymes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.4X2	Poisoning by iron and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T45.4X2A	Poisoning by iron and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.4X2D	Poisoning by iron and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.4X2S	Poisoning by iron and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.512	Poisoning by anticoagulants, intentional self-harm	Diagnosis	ICD-10-CM
T45.512A	Poisoning by anticoagulants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.512D	Poisoning by anticoagulants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.512S	Poisoning by anticoagulants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.522	Poisoning by antithrombotic drugs, intentional self-harm	Diagnosis	ICD-10-CM
T45.522A	Poisoning by antithrombotic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.522D	Poisoning by antithrombotic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.522S	Poisoning by antithrombotic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.602	Poisoning by unspecified fibrinolysis-affecting drugs, intentional self-harm	Diagnosis	ICD-10-CM
T45.602A	Poisoning by unspecified fibrinolysis-affecting drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.602D	Poisoning by unspecified fibrinolysis-affecting drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.602S	Poisoning by unspecified fibrinolysis-affecting drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.612	Poisoning by thrombolytic drug, intentional self-harm	Diagnosis	ICD-10-CM
T45.612A	Poisoning by thrombolytic drug, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.612D	Poisoning by thrombolytic drug, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.612S	Poisoning by thrombolytic drug, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.622	Poisoning by hemostatic drug, intentional self-harm	Diagnosis	ICD-10-CM
T45.622A	Poisoning by hemostatic drug, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.622D	Poisoning by hemostatic drug, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.622S	Poisoning by hemostatic drug, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.692	Poisoning by other fibrinolysis-affecting drugs, intentional self-harm	Diagnosis	ICD-10-CM
T45.692A	Poisoning by other fibrinolysis-affecting drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.692D	Poisoning by other fibrinolysis-affecting drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.692S	Poisoning by other fibrinolysis-affecting drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.7X2	Poisoning by anticoagulant antagonists, vitamin K and other coagulants, intentional self-harm	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T45.7X2A	Poisoning by anticoagulant antagonists, vitamin K and other coagulants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.7X2D	Poisoning by anticoagulant antagonists, vitamin K and other coagulants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.7X2S	Poisoning by anticoagulant antagonists, vitamin K and other coagulants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.8X2	Poisoning by other primarily systemic and hematological agents, intentional self-harm	Diagnosis	ICD-10-CM
T45.8X2A	Poisoning by other primarily systemic and hematological agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.8X2D	Poisoning by other primarily systemic and hematological agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.8X2S	Poisoning by other primarily systemic and hematological agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.92	Poisoning by unspecified primarily systemic and hematological agent, intentional self-harm	Diagnosis	ICD-10-CM
T45.92XA	Poisoning by unspecified primarily systemic and hematological agent, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.92XD	Poisoning by unspecified primarily systemic and hematological agent, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.92XS	Poisoning by unspecified primarily systemic and hematological agent, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.0X2	Poisoning by cardiac-stimulant glycosides and drugs of similar action, intentional self-harm	Diagnosis	ICD-10-CM
T46.0X2A	Poisoning by cardiac-stimulant glycosides and drugs of similar action, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.0X2D	Poisoning by cardiac-stimulant glycosides and drugs of similar action, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.0X2S	Poisoning by cardiac-stimulant glycosides and drugs of similar action, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.1X2	Poisoning by calcium-channel blockers, intentional self-harm	Diagnosis	ICD-10-CM
T46.1X2A	Poisoning by calcium-channel blockers, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.1X2D	Poisoning by calcium-channel blockers, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.1X2S	Poisoning by calcium-channel blockers, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.2X2	Poisoning by other antidysrhythmic drugs, intentional self-harm	Diagnosis	ICD-10-CM
T46.2X2A	Poisoning by other antidysrhythmic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.2X2D	Poisoning by other antidysrhythmic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.2X2S	Poisoning by other antidysrhythmic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.3X2	Poisoning by coronary vasodilators, intentional self-harm	Diagnosis	ICD-10-CM
T46.3X2A	Poisoning by coronary vasodilators, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.3X2D	Poisoning by coronary vasodilators, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T46.3X2S	Poisoning by coronary vasodilators, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.4X2	Poisoning by angiotensin-converting-enzyme inhibitors, intentional self-harm	Diagnosis	ICD-10-CM
T46.4X2A	Poisoning by angiotensin-converting-enzyme inhibitors, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.4X2D	Poisoning by angiotensin-converting-enzyme inhibitors, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.4X2S	Poisoning by angiotensin-converting-enzyme inhibitors, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.5X2	Poisoning by other antihypertensive drugs, intentional self-harm	Diagnosis	ICD-10-CM
T46.5X2A	Poisoning by other antihypertensive drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.5X2D	Poisoning by other antihypertensive drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.5X2S	Poisoning by other antihypertensive drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.6X2	Poisoning by antihyperlipidemic and antiarteriosclerotic drugs, intentional self-harm	Diagnosis	ICD-10-CM
T46.6X2A	Poisoning by antihyperlipidemic and antiarteriosclerotic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.6X2D	Poisoning by antihyperlipidemic and antiarteriosclerotic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.6X2S	Poisoning by antihyperlipidemic and antiarteriosclerotic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.7X2	Poisoning by peripheral vasodilators, intentional self-harm	Diagnosis	ICD-10-CM
T46.7X2A	Poisoning by peripheral vasodilators, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.7X2D	Poisoning by peripheral vasodilators, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.7X2S	Poisoning by peripheral vasodilators, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.8X2	Poisoning by antivaricose drugs, including sclerosing agents, intentional self-harm	Diagnosis	ICD-10-CM
T46.8X2A	Poisoning by antivaricose drugs, including sclerosing agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.8X2D	Poisoning by antivaricose drugs, including sclerosing agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.8X2S	Poisoning by antivaricose drugs, including sclerosing agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.902	Poisoning by unspecified agents primarily affecting the cardiovascular system, intentional self-harm	Diagnosis	ICD-10-CM
T46.902A	Poisoning by unspecified agents primarily affecting the cardiovascular system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.902D	Poisoning by unspecified agents primarily affecting the cardiovascular system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.902S	Poisoning by unspecified agents primarily affecting the cardiovascular system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.992	Poisoning by other agents primarily affecting the cardiovascular system, intentional self-harm	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T46.992A	Poisoning by other agents primarily affecting the cardiovascular system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.992D	Poisoning by other agents primarily affecting the cardiovascular system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.992S	Poisoning by other agents primarily affecting the cardiovascular system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.0X2	Poisoning by histamine H2-receptor blockers, intentional self-harm	Diagnosis	ICD-10-CM
T47.0X2A	Poisoning by histamine H2-receptor blockers, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.0X2D	Poisoning by histamine H2-receptor blockers, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.0X2S	Poisoning by histamine H2-receptor blockers, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.1X2	Poisoning by other antacids and anti-gastric-secretion drugs, intentional self-harm	Diagnosis	ICD-10-CM
T47.1X2A	Poisoning by other antacids and anti-gastric-secretion drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.1X2D	Poisoning by other antacids and anti-gastric-secretion drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.1X2S	Poisoning by other antacids and anti-gastric-secretion drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.2X2	Poisoning by stimulant laxatives, intentional self-harm	Diagnosis	ICD-10-CM
T47.2X2A	Poisoning by stimulant laxatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.2X2D	Poisoning by stimulant laxatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.2X2S	Poisoning by stimulant laxatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.3X2	Poisoning by saline and osmotic laxatives, intentional self-harm	Diagnosis	ICD-10-CM
T47.3X2A	Poisoning by saline and osmotic laxatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.3X2D	Poisoning by saline and osmotic laxatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.3X2S	Poisoning by saline and osmotic laxatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.4X2	Poisoning by other laxatives, intentional self-harm	Diagnosis	ICD-10-CM
T47.4X2A	Poisoning by other laxatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.4X2D	Poisoning by other laxatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.4X2S	Poisoning by other laxatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.5X2	Poisoning by digestants, intentional self-harm	Diagnosis	ICD-10-CM
T47.5X2A	Poisoning by digestants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.5X2D	Poisoning by digestants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.5X2S	Poisoning by digestants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.6X2	Poisoning by antidiarrheal drugs, intentional self-harm	Diagnosis	ICD-10-CM
T47.6X2A	Poisoning by antidiarrheal drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.6X2D	Poisoning by antidiarrheal drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.6X2S	Poisoning by antidiarrheal drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.7X2	Poisoning by emetics, intentional self-harm	Diagnosis	ICD-10-CM
T47.7X2A	Poisoning by emetics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T47.7X2D	Poisoning by emetics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.7X2S	Poisoning by emetics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.8X2	Poisoning by other agents primarily affecting gastrointestinal system, intentional self-harm	Diagnosis	ICD-10-CM
T47.8X2A	Poisoning by other agents primarily affecting gastrointestinal system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.8X2D	Poisoning by other agents primarily affecting gastrointestinal system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.8X2S	Poisoning by other agents primarily affecting gastrointestinal system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.92	Poisoning by unspecified agents primarily affecting the gastrointestinal system, intentional self-harm	Diagnosis	ICD-10-CM
T47.92XA	Poisoning by unspecified agents primarily affecting the gastrointestinal system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.92XD	Poisoning by unspecified agents primarily affecting the gastrointestinal system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.92XS	Poisoning by unspecified agents primarily affecting the gastrointestinal system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.0X2	Poisoning by oxytocic drugs, intentional self-harm	Diagnosis	ICD-10-CM
T48.0X2A	Poisoning by oxytocic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.0X2D	Poisoning by oxytocic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.0X2S	Poisoning by oxytocic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.1X2	Poisoning by skeletal muscle relaxants [neuromuscular blocking agents], intentional self-harm	Diagnosis	ICD-10-CM
T48.1X2A	Poisoning by skeletal muscle relaxants [neuromuscular blocking agents], intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.1X2D	Poisoning by skeletal muscle relaxants [neuromuscular blocking agents], intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.1X2S	Poisoning by skeletal muscle relaxants [neuromuscular blocking agents], intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.202	Poisoning by unspecified drugs acting on muscles, intentional self-harm	Diagnosis	ICD-10-CM
T48.202A	Poisoning by unspecified drugs acting on muscles, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.202D	Poisoning by unspecified drugs acting on muscles, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.202S	Poisoning by unspecified drugs acting on muscles, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.292	Poisoning by other drugs acting on muscles, intentional self-harm	Diagnosis	ICD-10-CM
T48.292A	Poisoning by other drugs acting on muscles, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.292D	Poisoning by other drugs acting on muscles, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.292S	Poisoning by other drugs acting on muscles, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.3X2	Poisoning by antitussives, intentional self-harm	Diagnosis	ICD-10-CM
T48.3X2A	Poisoning by antitussives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.3X2D	Poisoning by antitussives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.3X2S	Poisoning by antitussives, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T48.4X2	Poisoning by expectorants, intentional self-harm	Diagnosis	ICD-10-CM
T48.4X2A	Poisoning by expectorants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.4X2D	Poisoning by expectorants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.4X2S	Poisoning by expectorants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.5X2	Poisoning by other anti-common-cold drugs, intentional self-harm	Diagnosis	ICD-10-CM
T48.5X2A	Poisoning by other anti-common-cold drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.5X2D	Poisoning by other anti-common-cold drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.5X2S	Poisoning by other anti-common-cold drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.6X2	Poisoning by antiasthmatics, intentional self-harm	Diagnosis	ICD-10-CM
T48.6X2A	Poisoning by antiasthmatics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.6X2D	Poisoning by antiasthmatics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.6X2S	Poisoning by antiasthmatics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.902	Poisoning by unspecified agents primarily acting on the respiratory system, intentional self-harm	Diagnosis	ICD-10-CM
T48.902A	Poisoning by unspecified agents primarily acting on the respiratory system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.902D	Poisoning by unspecified agents primarily acting on the respiratory system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.902S	Poisoning by unspecified agents primarily acting on the respiratory system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.992	Poisoning by other agents primarily acting on the respiratory system, intentional self-harm	Diagnosis	ICD-10-CM
T48.992A	Poisoning by other agents primarily acting on the respiratory system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.992D	Poisoning by other agents primarily acting on the respiratory system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.992S	Poisoning by other agents primarily acting on the respiratory system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.0X2	Poisoning by local antifungal, anti-infective and anti-inflammatory drugs, intentional self-harm	Diagnosis	ICD-10-CM
T49.0X2A	Poisoning by local antifungal, anti-infective and anti-inflammatory drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.0X2D	Poisoning by local antifungal, anti-infective and anti-inflammatory drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.0X2S	Poisoning by local antifungal, anti-infective and anti-inflammatory drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.1X2	Poisoning by antipruritics, intentional self-harm	Diagnosis	ICD-10-CM
T49.1X2A	Poisoning by antipruritics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.1X2D	Poisoning by antipruritics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.1X2S	Poisoning by antipruritics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.2X2	Poisoning by local astringents and local detergents, intentional self-harm	Diagnosis	ICD-10-CM
T49.2X2A	Poisoning by local astringents and local detergents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.2X2D	Poisoning by local astringents and local detergents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T49.2X2S	Poisoning by local astringents and local detergents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.3X2	Poisoning by emollients, demulcents and protectants, intentional self-harm	Diagnosis	ICD-10-CM
T49.3X2A	Poisoning by emollients, demulcents and protectants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.3X2D	Poisoning by emollients, demulcents and protectants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.3X2S	Poisoning by emollients, demulcents and protectants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.4X2	Poisoning by keratolytics, keratoplastics, and other hair treatment drugs and preparations, intentional self-harm	Diagnosis	ICD-10-CM
T49.4X2A	Poisoning by keratolytics, keratoplastics, and other hair treatment drugs and preparations, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.4X2D	Poisoning by keratolytics, keratoplastics, and other hair treatment drugs and preparations, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.4X2S	Poisoning by keratolytics, keratoplastics, and other hair treatment drugs and preparations, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.5X2	Poisoning by ophthalmological drugs and preparations, intentional self-harm	Diagnosis	ICD-10-CM
T49.5X2A	Poisoning by ophthalmological drugs and preparations, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.5X2D	Poisoning by ophthalmological drugs and preparations, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.5X2S	Poisoning by ophthalmological drugs and preparations, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.6X2	Poisoning by otorhinolaryngological drugs and preparations, intentional self-harm	Diagnosis	ICD-10-CM
T49.6X2A	Poisoning by otorhinolaryngological drugs and preparations, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.6X2D	Poisoning by otorhinolaryngological drugs and preparations, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.6X2S	Poisoning by otorhinolaryngological drugs and preparations, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.7X2	Poisoning by dental drugs, topically applied, intentional self-harm	Diagnosis	ICD-10-CM
T49.7X2A	Poisoning by dental drugs, topically applied, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.7X2D	Poisoning by dental drugs, topically applied, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.7X2S	Poisoning by dental drugs, topically applied, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.8X2	Poisoning by other topical agents, intentional self-harm	Diagnosis	ICD-10-CM
T49.8X2A	Poisoning by other topical agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.8X2D	Poisoning by other topical agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.8X2S	Poisoning by other topical agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.92	Poisoning by unspecified topical agent, intentional self-harm	Diagnosis	ICD-10-CM
T49.92XA	Poisoning by unspecified topical agent, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T49.92XD	Poisoning by unspecified topical agent, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.92XS	Poisoning by unspecified topical agent, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.0X2	Poisoning by mineralocorticoids and their antagonists, intentional self-harm	Diagnosis	ICD-10-CM
T50.0X2A	Poisoning by mineralocorticoids and their antagonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.0X2D	Poisoning by mineralocorticoids and their antagonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.0X2S	Poisoning by mineralocorticoids and their antagonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.1X2	Poisoning by loop [high-ceiling] diuretics, intentional self-harm	Diagnosis	ICD-10-CM
T50.1X2A	Poisoning by loop [high-ceiling] diuretics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.1X2D	Poisoning by loop [high-ceiling] diuretics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.1X2S	Poisoning by loop [high-ceiling] diuretics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.2X2	Poisoning by carbonic-anhydrase inhibitors, benzothiadiazides and other diuretics, intentional self-harm	Diagnosis	ICD-10-CM
T50.2X2A	Poisoning by carbonic-anhydrase inhibitors, benzothiadiazides and other diuretics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.2X2D	Poisoning by carbonic-anhydrase inhibitors, benzothiadiazides and other diuretics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.2X2S	Poisoning by carbonic-anhydrase inhibitors, benzothiadiazides and other diuretics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.3X2	Poisoning by electrolytic, caloric and water-balance agents, intentional self-harm	Diagnosis	ICD-10-CM
T50.3X2A	Poisoning by electrolytic, caloric and water-balance agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.3X2D	Poisoning by electrolytic, caloric and water-balance agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.3X2S	Poisoning by electrolytic, caloric and water-balance agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.4X2	Poisoning by drugs affecting uric acid metabolism, intentional self-harm	Diagnosis	ICD-10-CM
T50.4X2A	Poisoning by drugs affecting uric acid metabolism, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.4X2D	Poisoning by drugs affecting uric acid metabolism, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.4X2S	Poisoning by drugs affecting uric acid metabolism, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.5X2	Poisoning by appetite depressants, intentional self-harm	Diagnosis	ICD-10-CM
T50.5X2A	Poisoning by appetite depressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.5X2D	Poisoning by appetite depressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.5X2S	Poisoning by appetite depressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.6X2	Poisoning by antidotes and chelating agents, intentional self-harm	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T50.6X2A	Poisoning by antidotes and chelating agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.6X2D	Poisoning by antidotes and chelating agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.6X2S	Poisoning by antidotes and chelating agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.7X2	Poisoning by analeptics and opioid receptor antagonists, intentional self-harm	Diagnosis	ICD-10-CM
T50.7X2A	Poisoning by analeptics and opioid receptor antagonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.7X2D	Poisoning by analeptics and opioid receptor antagonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.7X2S	Poisoning by analeptics and opioid receptor antagonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.8X2	Poisoning by diagnostic agents, intentional self-harm	Diagnosis	ICD-10-CM
T50.8X2A	Poisoning by diagnostic agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.8X2D	Poisoning by diagnostic agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.8X2S	Poisoning by diagnostic agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.902	Poisoning by unspecified drugs, medicaments and biological substances, intentional self-harm	Diagnosis	ICD-10-CM
T50.902A	Poisoning by unspecified drugs, medicaments and biological substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.902D	Poisoning by unspecified drugs, medicaments and biological substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.902S	Poisoning by unspecified drugs, medicaments and biological substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.912	Poisoning by multiple unspecified drugs, medicaments and biological substances, intentional self-harm	Diagnosis	ICD-10-CM
T50.912A	Poisoning by multiple unspecified drugs, medicaments and biological substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.912D	Poisoning by multiple unspecified drugs, medicaments and biological substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.912S	Poisoning by multiple unspecified drugs, medicaments and biological substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.992	Poisoning by other drugs, medicaments and biological substances, intentional self-harm	Diagnosis	ICD-10-CM
T50.992A	Poisoning by other drugs, medicaments and biological substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.992D	Poisoning by other drugs, medicaments and biological substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.992S	Poisoning by other drugs, medicaments and biological substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.A12	Poisoning by pertussis vaccine, including combinations with a pertussis component, intentional self-harm	Diagnosis	ICD-10-CM
T50.A12A	Poisoning by pertussis vaccine, including combinations with a pertussis component, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T50.A12D	Poisoning by pertussis vaccine, including combinations with a pertussis component, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.A12S	Poisoning by pertussis vaccine, including combinations with a pertussis component, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.A22	Poisoning by mixed bacterial vaccines without a pertussis component, intentional self-harm	Diagnosis	ICD-10-CM
T50.A22A	Poisoning by mixed bacterial vaccines without a pertussis component, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.A22D	Poisoning by mixed bacterial vaccines without a pertussis component, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.A22S	Poisoning by mixed bacterial vaccines without a pertussis component, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.A92	Poisoning by other bacterial vaccines, intentional self-harm	Diagnosis	ICD-10-CM
T50.A92A	Poisoning by other bacterial vaccines, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.A92D	Poisoning by other bacterial vaccines, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.A92S	Poisoning by other bacterial vaccines, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.B12	Poisoning by smallpox vaccines, intentional self-harm	Diagnosis	ICD-10-CM
T50.B12A	Poisoning by smallpox vaccines, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.B12D	Poisoning by smallpox vaccines, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.B12S	Poisoning by smallpox vaccines, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.B92	Poisoning by other viral vaccines, intentional self-harm	Diagnosis	ICD-10-CM
T50.B92A	Poisoning by other viral vaccines, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.B92D	Poisoning by other viral vaccines, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.B92S	Poisoning by other viral vaccines, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.Z12	Poisoning by immunoglobulin, intentional self-harm	Diagnosis	ICD-10-CM
T50.Z12A	Poisoning by immunoglobulin, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.Z12D	Poisoning by immunoglobulin, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.Z12S	Poisoning by immunoglobulin, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.Z92	Poisoning by other vaccines and biological substances, intentional self-harm	Diagnosis	ICD-10-CM
T50.Z92A	Poisoning by other vaccines and biological substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.Z92D	Poisoning by other vaccines and biological substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.Z92S	Poisoning by other vaccines and biological substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.0X2	Toxic effect of ethanol, intentional self-harm	Diagnosis	ICD-10-CM
T51.0X2A	Toxic effect of ethanol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.0X2D	Toxic effect of ethanol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.0X2S	Toxic effect of ethanol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.1X2	Toxic effect of methanol, intentional self-harm	Diagnosis	ICD-10-CM
T51.1X2A	Toxic effect of methanol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.1X2D	Toxic effect of methanol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
T51.1X2S	Toxic effect of methanol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.2X2	Toxic effect of 2-Propanol, intentional self-harm	Diagnosis	ICD-10-CM
T51.2X2A	Toxic effect of 2-Propanol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.2X2D	Toxic effect of 2-Propanol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.2X2S	Toxic effect of 2-Propanol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.3X2	Toxic effect of fusel oil, intentional self-harm	Diagnosis	ICD-10-CM
T51.3X2A	Toxic effect of fusel oil, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.3X2D	Toxic effect of fusel oil, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.3X2S	Toxic effect of fusel oil, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.8X2	Toxic effect of other alcohols, intentional self-harm	Diagnosis	ICD-10-CM
T51.8X2A	Toxic effect of other alcohols, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.8X2D	Toxic effect of other alcohols, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.8X2S	Toxic effect of other alcohols, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.92	Toxic effect of unspecified alcohol, intentional self-harm	Diagnosis	ICD-10-CM
T51.92XA	Toxic effect of unspecified alcohol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.92XD	Toxic effect of unspecified alcohol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.92XS	Toxic effect of unspecified alcohol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.0X2	Toxic effect of petroleum products, intentional self-harm	Diagnosis	ICD-10-CM
T52.0X2A	Toxic effect of petroleum products, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.0X2D	Toxic effect of petroleum products, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.0X2S	Toxic effect of petroleum products, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.1X2	Toxic effect of benzene, intentional self-harm	Diagnosis	ICD-10-CM
T52.1X2A	Toxic effect of benzene, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.1X2D	Toxic effect of benzene, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.1X2S	Toxic effect of benzene, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.2X2	Toxic effect of homologues of benzene, intentional self-harm	Diagnosis	ICD-10-CM
T52.2X2A	Toxic effect of homologues of benzene, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.2X2D	Toxic effect of homologues of benzene, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.2X2S	Toxic effect of homologues of benzene, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.3X2	Toxic effect of glycols, intentional self-harm	Diagnosis	ICD-10-CM
T52.3X2A	Toxic effect of glycols, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.3X2D	Toxic effect of glycols, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.3X2S	Toxic effect of glycols, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.4X2	Toxic effect of ketones, intentional self-harm	Diagnosis	ICD-10-CM
T52.4X2A	Toxic effect of ketones, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.4X2D	Toxic effect of ketones, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.4X2S	Toxic effect of ketones, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.8X2	Toxic effect of other organic solvents, intentional self-harm	Diagnosis	ICD-10-CM
T52.8X2A	Toxic effect of other organic solvents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.8X2D	Toxic effect of other organic solvents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.8X2S	Toxic effect of other organic solvents, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T52.92	Toxic effect of unspecified organic solvent, intentional self-harm	Diagnosis	ICD-10-CM
T52.92XA	Toxic effect of unspecified organic solvent, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.92XD	Toxic effect of unspecified organic solvent, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.92XS	Toxic effect of unspecified organic solvent, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.0X2	Toxic effect of carbon tetrachloride, intentional self-harm	Diagnosis	ICD-10-CM
T53.0X2A	Toxic effect of carbon tetrachloride, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.0X2D	Toxic effect of carbon tetrachloride, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.0X2S	Toxic effect of carbon tetrachloride, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.1X2	Toxic effect of chloroform, intentional self-harm	Diagnosis	ICD-10-CM
T53.1X2A	Toxic effect of chloroform, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.1X2D	Toxic effect of chloroform, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.1X2S	Toxic effect of chloroform, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.2X2	Toxic effect of trichloroethylene, intentional self-harm	Diagnosis	ICD-10-CM
T53.2X2A	Toxic effect of trichloroethylene, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.2X2D	Toxic effect of trichloroethylene, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.2X2S	Toxic effect of trichloroethylene, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.3X2	Toxic effect of tetrachloroethylene, intentional self-harm	Diagnosis	ICD-10-CM
T53.3X2A	Toxic effect of tetrachloroethylene, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.3X2D	Toxic effect of tetrachloroethylene, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.3X2S	Toxic effect of tetrachloroethylene, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.4X2	Toxic effect of dichloromethane, intentional self-harm	Diagnosis	ICD-10-CM
T53.4X2A	Toxic effect of dichloromethane, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.4X2D	Toxic effect of dichloromethane, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.4X2S	Toxic effect of dichloromethane, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.5X2	Toxic effect of chlorofluorocarbons, intentional self-harm	Diagnosis	ICD-10-CM
T53.5X2A	Toxic effect of chlorofluorocarbons, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.5X2D	Toxic effect of chlorofluorocarbons, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.5X2S	Toxic effect of chlorofluorocarbons, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.6X2	Toxic effect of other halogen derivatives of aliphatic hydrocarbons, intentional self-harm	Diagnosis	ICD-10-CM
T53.6X2A	Toxic effect of other halogen derivatives of aliphatic hydrocarbons, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.6X2D	Toxic effect of other halogen derivatives of aliphatic hydrocarbons, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.6X2S	Toxic effect of other halogen derivatives of aliphatic hydrocarbons, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.7X2	Toxic effect of other halogen derivatives of aromatic hydrocarbons, intentional self-harm	Diagnosis	ICD-10-CM
T53.7X2A	Toxic effect of other halogen derivatives of aromatic hydrocarbons, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T53.7X2D	Toxic effect of other halogen derivatives of aromatic hydrocarbons, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.7X2S	Toxic effect of other halogen derivatives of aromatic hydrocarbons, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.92	Toxic effect of unspecified halogen derivatives of aliphatic and aromatic hydrocarbons, intentional self-harm	Diagnosis	ICD-10-CM
T53.92XA	Toxic effect of unspecified halogen derivatives of aliphatic and aromatic hydrocarbons, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.92XD	Toxic effect of unspecified halogen derivatives of aliphatic and aromatic hydrocarbons, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.92XS	Toxic effect of unspecified halogen derivatives of aliphatic and aromatic hydrocarbons, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T54.0X2	Toxic effect of phenol and phenol homologues, intentional self-harm	Diagnosis	ICD-10-CM
T54.0X2A	Toxic effect of phenol and phenol homologues, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T54.0X2D	Toxic effect of phenol and phenol homologues, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T54.0X2S	Toxic effect of phenol and phenol homologues, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T54.1X2	Toxic effect of other corrosive organic compounds, intentional self-harm	Diagnosis	ICD-10-CM
T54.1X2A	Toxic effect of other corrosive organic compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T54.1X2D	Toxic effect of other corrosive organic compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T54.1X2S	Toxic effect of other corrosive organic compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T54.2X2	Toxic effect of corrosive acids and acid-like substances, intentional self-harm	Diagnosis	ICD-10-CM
T54.2X2A	Toxic effect of corrosive acids and acid-like substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T54.2X2D	Toxic effect of corrosive acids and acid-like substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T54.2X2S	Toxic effect of corrosive acids and acid-like substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T54.3X2	Toxic effect of corrosive alkalis and alkali-like substances, intentional self-harm	Diagnosis	ICD-10-CM
T54.3X2A	Toxic effect of corrosive alkalis and alkali-like substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T54.3X2D	Toxic effect of corrosive alkalis and alkali-like substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T54.3X2S	Toxic effect of corrosive alkalis and alkali-like substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T54.92	Toxic effect of unspecified corrosive substance, intentional self-harm	Diagnosis	ICD-10-CM
T54.92XA	Toxic effect of unspecified corrosive substance, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T54.92XD	Toxic effect of unspecified corrosive substance, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T54.92XS	Toxic effect of unspecified corrosive substance, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T55.0X2	Toxic effect of soaps, intentional self-harm	Diagnosis	ICD-10-CM
T55.0X2A	Toxic effect of soaps, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T55.0X2D	Toxic effect of soaps, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T55.0X2S	Toxic effect of soaps, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T55.1X2	Toxic effect of detergents, intentional self-harm	Diagnosis	ICD-10-CM
T55.1X2A	Toxic effect of detergents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T55.1X2D	Toxic effect of detergents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T55.1X2S	Toxic effect of detergents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.0X2	Toxic effect of lead and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T56.0X2A	Toxic effect of lead and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.0X2D	Toxic effect of lead and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.0X2S	Toxic effect of lead and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.1X2	Toxic effect of mercury and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T56.1X2A	Toxic effect of mercury and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.1X2D	Toxic effect of mercury and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.1X2S	Toxic effect of mercury and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.2X2	Toxic effect of chromium and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T56.2X2A	Toxic effect of chromium and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.2X2D	Toxic effect of chromium and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.2X2S	Toxic effect of chromium and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.3X2	Toxic effect of cadmium and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T56.3X2A	Toxic effect of cadmium and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.3X2D	Toxic effect of cadmium and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.3X2S	Toxic effect of cadmium and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.4X2	Toxic effect of copper and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T56.4X2A	Toxic effect of copper and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.4X2D	Toxic effect of copper and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.4X2S	Toxic effect of copper and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.5X2	Toxic effect of zinc and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T56.5X2A	Toxic effect of zinc and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.5X2D	Toxic effect of zinc and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.5X2S	Toxic effect of zinc and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.6X2	Toxic effect of tin and its compounds, intentional self-harm	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T56.6X2A	Toxic effect of tin and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.6X2D	Toxic effect of tin and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.6X2S	Toxic effect of tin and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.7X2	Toxic effect of beryllium and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T56.7X2A	Toxic effect of beryllium and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.7X2D	Toxic effect of beryllium and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.7X2S	Toxic effect of beryllium and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.812	Toxic effect of thallium, intentional self-harm	Diagnosis	ICD-10-CM
T56.812A	Toxic effect of thallium, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.812D	Toxic effect of thallium, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.812S	Toxic effect of thallium, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.892	Toxic effect of other metals, intentional self-harm	Diagnosis	ICD-10-CM
T56.892A	Toxic effect of other metals, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.892D	Toxic effect of other metals, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.892S	Toxic effect of other metals, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.92	Toxic effect of unspecified metal, intentional self-harm	Diagnosis	ICD-10-CM
T56.92XA	Toxic effect of unspecified metal, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.92XD	Toxic effect of unspecified metal, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.92XS	Toxic effect of unspecified metal, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T57.0X2	Toxic effect of arsenic and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T57.0X2A	Toxic effect of arsenic and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T57.0X2D	Toxic effect of arsenic and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T57.0X2S	Toxic effect of arsenic and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T57.1X2	Toxic effect of phosphorus and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T57.1X2A	Toxic effect of phosphorus and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T57.1X2D	Toxic effect of phosphorus and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T57.1X2S	Toxic effect of phosphorus and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T57.2X2	Toxic effect of manganese and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T57.2X2A	Toxic effect of manganese and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T57.2X2D	Toxic effect of manganese and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T57.2X2S	Toxic effect of manganese and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T57.3X2	Toxic effect of hydrogen cyanide, intentional self-harm	Diagnosis	ICD-10-CM
T57.3X2A	Toxic effect of hydrogen cyanide, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T57.3X2D	Toxic effect of hydrogen cyanide, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T57.3X2S	Toxic effect of hydrogen cyanide, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T57.8X2	Toxic effect of other specified inorganic substances, intentional self-harm	Diagnosis	ICD-10-CM
T57.8X2A	Toxic effect of other specified inorganic substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T57.8X2D	Toxic effect of other specified inorganic substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T57.8X2S	Toxic effect of other specified inorganic substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T57.92	Toxic effect of unspecified inorganic substance, intentional self-harm	Diagnosis	ICD-10-CM
T57.92XA	Toxic effect of unspecified inorganic substance, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T57.92XD	Toxic effect of unspecified inorganic substance, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T57.92XS	Toxic effect of unspecified inorganic substance, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T58.02	Toxic effect of carbon monoxide from motor vehicle exhaust, intentional self-harm	Diagnosis	ICD-10-CM
T58.02XA	Toxic effect of carbon monoxide from motor vehicle exhaust, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T58.02XD	Toxic effect of carbon monoxide from motor vehicle exhaust, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T58.02XS	Toxic effect of carbon monoxide from motor vehicle exhaust, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T58.12	Toxic effect of carbon monoxide from utility gas, intentional self-harm	Diagnosis	ICD-10-CM
T58.12XA	Toxic effect of carbon monoxide from utility gas, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T58.12XD	Toxic effect of carbon monoxide from utility gas, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T58.12XS	Toxic effect of carbon monoxide from utility gas, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T58.2X2	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, intentional self-harm	Diagnosis	ICD-10-CM
T58.2X2A	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T58.2X2D	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T58.2X2S	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T58.8X2	Toxic effect of carbon monoxide from other source, intentional self-harm	Diagnosis	ICD-10-CM
T58.8X2A	Toxic effect of carbon monoxide from other source, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T58.8X2D	Toxic effect of carbon monoxide from other source, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T58.8X2S	Toxic effect of carbon monoxide from other source, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T58.92	Toxic effect of carbon monoxide from unspecified source, intentional self-harm	Diagnosis	ICD-10-CM
T58.92XA	Toxic effect of carbon monoxide from unspecified source, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T58.92XD	Toxic effect of carbon monoxide from unspecified source, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T58.92XS	Toxic effect of carbon monoxide from unspecified source, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.0X2	Toxic effect of nitrogen oxides, intentional self-harm	Diagnosis	ICD-10-CM
T59.0X2A	Toxic effect of nitrogen oxides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.0X2D	Toxic effect of nitrogen oxides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.0X2S	Toxic effect of nitrogen oxides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.1X2	Toxic effect of sulfur dioxide, intentional self-harm	Diagnosis	ICD-10-CM
T59.1X2A	Toxic effect of sulfur dioxide, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.1X2D	Toxic effect of sulfur dioxide, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.1X2S	Toxic effect of sulfur dioxide, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.2X2	Toxic effect of formaldehyde, intentional self-harm	Diagnosis	ICD-10-CM
T59.2X2A	Toxic effect of formaldehyde, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.2X2D	Toxic effect of formaldehyde, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.2X2S	Toxic effect of formaldehyde, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.3X2	Toxic effect of lacrimogenic gas, intentional self-harm	Diagnosis	ICD-10-CM
T59.3X2A	Toxic effect of lacrimogenic gas, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.3X2D	Toxic effect of lacrimogenic gas, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.3X2S	Toxic effect of lacrimogenic gas, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.4X2	Toxic effect of chlorine gas, intentional self-harm	Diagnosis	ICD-10-CM
T59.4X2A	Toxic effect of chlorine gas, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.4X2D	Toxic effect of chlorine gas, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.4X2S	Toxic effect of chlorine gas, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.5X2	Toxic effect of fluorine gas and hydrogen fluoride, intentional self-harm	Diagnosis	ICD-10-CM
T59.5X2A	Toxic effect of fluorine gas and hydrogen fluoride, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.5X2D	Toxic effect of fluorine gas and hydrogen fluoride, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.5X2S	Toxic effect of fluorine gas and hydrogen fluoride, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.6X2	Toxic effect of hydrogen sulfide, intentional self-harm	Diagnosis	ICD-10-CM
T59.6X2A	Toxic effect of hydrogen sulfide, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.6X2D	Toxic effect of hydrogen sulfide, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.6X2S	Toxic effect of hydrogen sulfide, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.7X2	Toxic effect of carbon dioxide, intentional self-harm	Diagnosis	ICD-10-CM
T59.7X2A	Toxic effect of carbon dioxide, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.7X2D	Toxic effect of carbon dioxide, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.7X2S	Toxic effect of carbon dioxide, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.812	Toxic effect of smoke, intentional self-harm	Diagnosis	ICD-10-CM
T59.812A	Toxic effect of smoke, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T59.812D	Toxic effect of smoke, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.812S	Toxic effect of smoke, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.892	Toxic effect of other specified gases, fumes and vapors, intentional self-harm	Diagnosis	ICD-10-CM
T59.892A	Toxic effect of other specified gases, fumes and vapors, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.892D	Toxic effect of other specified gases, fumes and vapors, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.892S	Toxic effect of other specified gases, fumes and vapors, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.92	Toxic effect of unspecified gases, fumes and vapors, intentional self-harm	Diagnosis	ICD-10-CM
T59.92XA	Toxic effect of unspecified gases, fumes and vapors, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.92XD	Toxic effect of unspecified gases, fumes and vapors, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.92XS	Toxic effect of unspecified gases, fumes and vapors, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.0X2	Toxic effect of organophosphate and carbamate insecticides, intentional self-harm	Diagnosis	ICD-10-CM
T60.0X2A	Toxic effect of organophosphate and carbamate insecticides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.0X2D	Toxic effect of organophosphate and carbamate insecticides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.0X2S	Toxic effect of organophosphate and carbamate insecticides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.1X2	Toxic effect of halogenated insecticides, intentional self-harm	Diagnosis	ICD-10-CM
T60.1X2A	Toxic effect of halogenated insecticides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.1X2D	Toxic effect of halogenated insecticides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.1X2S	Toxic effect of halogenated insecticides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.2X2	Toxic effect of other insecticides, intentional self-harm	Diagnosis	ICD-10-CM
T60.2X2A	Toxic effect of other insecticides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.2X2D	Toxic effect of other insecticides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.2X2S	Toxic effect of other insecticides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.3X2	Toxic effect of herbicides and fungicides, intentional self-harm	Diagnosis	ICD-10-CM
T60.3X2A	Toxic effect of herbicides and fungicides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.3X2D	Toxic effect of herbicides and fungicides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.3X2S	Toxic effect of herbicides and fungicides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.4X2	Toxic effect of rodenticides, intentional self-harm	Diagnosis	ICD-10-CM
T60.4X2A	Toxic effect of rodenticides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.4X2D	Toxic effect of rodenticides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.4X2S	Toxic effect of rodenticides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.8X2	Toxic effect of other pesticides, intentional self-harm	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T60.8X2A	Toxic effect of other pesticides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.8X2D	Toxic effect of other pesticides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.8X2S	Toxic effect of other pesticides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.92	Toxic effect of unspecified pesticide, intentional self-harm	Diagnosis	ICD-10-CM
T60.92XA	Toxic effect of unspecified pesticide, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.92XD	Toxic effect of unspecified pesticide, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.92XS	Toxic effect of unspecified pesticide, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T61.02	Ciguatera fish poisoning, intentional self-harm	Diagnosis	ICD-10-CM
T61.02XA	Ciguatera fish poisoning, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T61.02XD	Ciguatera fish poisoning, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T61.02XS	Ciguatera fish poisoning, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T61.12	Scombroid fish poisoning, intentional self-harm	Diagnosis	ICD-10-CM
T61.12XA	Scombroid fish poisoning, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T61.12XD	Scombroid fish poisoning, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T61.12XS	Scombroid fish poisoning, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T61.772	Other fish poisoning, intentional self-harm	Diagnosis	ICD-10-CM
T61.772A	Other fish poisoning, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T61.772D	Other fish poisoning, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T61.772S	Other fish poisoning, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T61.782	Other shellfish poisoning, intentional self-harm	Diagnosis	ICD-10-CM
T61.782A	Other shellfish poisoning, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T61.782D	Other shellfish poisoning, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T61.782S	Other shellfish poisoning, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T61.8X2	Toxic effect of other seafood, intentional self-harm	Diagnosis	ICD-10-CM
T61.8X2A	Toxic effect of other seafood, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T61.8X2D	Toxic effect of other seafood, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T61.8X2S	Toxic effect of other seafood, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T61.92	Toxic effect of unspecified seafood, intentional self-harm	Diagnosis	ICD-10-CM
T61.92XA	Toxic effect of unspecified seafood, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T61.92XD	Toxic effect of unspecified seafood, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T61.92XS	Toxic effect of unspecified seafood, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T62.0X2	Toxic effect of ingested mushrooms, intentional self-harm	Diagnosis	ICD-10-CM
T62.0X2A	Toxic effect of ingested mushrooms, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T62.0X2D	Toxic effect of ingested mushrooms, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T62.0X2S	Toxic effect of ingested mushrooms, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T62.1X2	Toxic effect of ingested berries, intentional self-harm	Diagnosis	ICD-10-CM
T62.1X2A	Toxic effect of ingested berries, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T62.1X2D	Toxic effect of ingested berries, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T62.1X2S	Toxic effect of ingested berries, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T62.2X2	Toxic effect of other ingested (parts of) plant(s), intentional self-harm	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T62.2X2A	Toxic effect of other ingested (parts of) plant(s), intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T62.2X2D	Toxic effect of other ingested (parts of) plant(s), intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T62.2X2S	Toxic effect of other ingested (parts of) plant(s), intentional self-harm, sequela	Diagnosis	ICD-10-CM
T62.8X2	Toxic effect of other specified noxious substances eaten as food, intentional self-harm	Diagnosis	ICD-10-CM
T62.8X2A	Toxic effect of other specified noxious substances eaten as food, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T62.8X2D	Toxic effect of other specified noxious substances eaten as food, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T62.8X2S	Toxic effect of other specified noxious substances eaten as food, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T62.92	Toxic effect of unspecified noxious substance eaten as food, intentional self-harm	Diagnosis	ICD-10-CM
T62.92XA	Toxic effect of unspecified noxious substance eaten as food, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T62.92XD	Toxic effect of unspecified noxious substance eaten as food, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T62.92XS	Toxic effect of unspecified noxious substance eaten as food, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.002	Toxic effect of unspecified snake venom, intentional self-harm	Diagnosis	ICD-10-CM
T63.002A	Toxic effect of unspecified snake venom, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.002D	Toxic effect of unspecified snake venom, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.002S	Toxic effect of unspecified snake venom, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.012	Toxic effect of rattlesnake venom, intentional self-harm	Diagnosis	ICD-10-CM
T63.012A	Toxic effect of rattlesnake venom, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.012D	Toxic effect of rattlesnake venom, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.012S	Toxic effect of rattlesnake venom, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.022	Toxic effect of coral snake venom, intentional self-harm	Diagnosis	ICD-10-CM
T63.022A	Toxic effect of coral snake venom, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.022D	Toxic effect of coral snake venom, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.022S	Toxic effect of coral snake venom, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.032	Toxic effect of taipan venom, intentional self-harm	Diagnosis	ICD-10-CM
T63.032A	Toxic effect of taipan venom, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.032D	Toxic effect of taipan venom, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.032S	Toxic effect of taipan venom, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.042	Toxic effect of cobra venom, intentional self-harm	Diagnosis	ICD-10-CM
T63.042A	Toxic effect of cobra venom, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.042D	Toxic effect of cobra venom, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.042S	Toxic effect of cobra venom, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T63.062	Toxic effect of venom of other North and South American snake, intentional self-harm	Diagnosis	ICD-10-CM
T63.062A	Toxic effect of venom of other North and South American snake, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.062D	Toxic effect of venom of other North and South American snake, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.062S	Toxic effect of venom of other North and South American snake, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.072	Toxic effect of venom of other Australian snake, intentional self-harm	Diagnosis	ICD-10-CM
T63.072A	Toxic effect of venom of other Australian snake, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.072D	Toxic effect of venom of other Australian snake, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.072S	Toxic effect of venom of other Australian snake, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.082	Toxic effect of venom of other African and Asian snake, intentional self-harm	Diagnosis	ICD-10-CM
T63.082A	Toxic effect of venom of other African and Asian snake, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.082D	Toxic effect of venom of other African and Asian snake, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.082S	Toxic effect of venom of other African and Asian snake, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.092	Toxic effect of venom of other snake, intentional self-harm	Diagnosis	ICD-10-CM
T63.092A	Toxic effect of venom of other snake, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.092D	Toxic effect of venom of other snake, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.092S	Toxic effect of venom of other snake, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.112	Toxic effect of venom of gila monster, intentional self-harm	Diagnosis	ICD-10-CM
T63.112A	Toxic effect of venom of gila monster, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.112D	Toxic effect of venom of gila monster, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.112S	Toxic effect of venom of gila monster, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.122	Toxic effect of venom of other venomous lizard, intentional self-harm	Diagnosis	ICD-10-CM
T63.122A	Toxic effect of venom of other venomous lizard, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.122D	Toxic effect of venom of other venomous lizard, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.122S	Toxic effect of venom of other venomous lizard, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.192	Toxic effect of venom of other reptiles, intentional self-harm	Diagnosis	ICD-10-CM
T63.192A	Toxic effect of venom of other reptiles, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.192D	Toxic effect of venom of other reptiles, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T63.192S	Toxic effect of venom of other reptiles, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.2X2	Toxic effect of venom of scorpion, intentional self-harm	Diagnosis	ICD-10-CM
T63.2X2A	Toxic effect of venom of scorpion, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.2X2D	Toxic effect of venom of scorpion, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.2X2S	Toxic effect of venom of scorpion, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.302	Toxic effect of unspecified spider venom, intentional self-harm	Diagnosis	ICD-10-CM
T63.302A	Toxic effect of unspecified spider venom, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.302D	Toxic effect of unspecified spider venom, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.302S	Toxic effect of unspecified spider venom, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.312	Toxic effect of venom of black widow spider, intentional self-harm	Diagnosis	ICD-10-CM
T63.312A	Toxic effect of venom of black widow spider, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.312D	Toxic effect of venom of black widow spider, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.312S	Toxic effect of venom of black widow spider, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.322	Toxic effect of venom of tarantula, intentional self-harm	Diagnosis	ICD-10-CM
T63.322A	Toxic effect of venom of tarantula, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.322D	Toxic effect of venom of tarantula, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.322S	Toxic effect of venom of tarantula, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.332	Toxic effect of venom of brown recluse spider, intentional self-harm	Diagnosis	ICD-10-CM
T63.332A	Toxic effect of venom of brown recluse spider, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.332D	Toxic effect of venom of brown recluse spider, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.332S	Toxic effect of venom of brown recluse spider, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.392	Toxic effect of venom of other spider, intentional self-harm	Diagnosis	ICD-10-CM
T63.392A	Toxic effect of venom of other spider, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.392D	Toxic effect of venom of other spider, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.392S	Toxic effect of venom of other spider, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.412	Toxic effect of venom of centipedes and venomous millipedes, intentional self-harm	Diagnosis	ICD-10-CM
T63.412A	Toxic effect of venom of centipedes and venomous millipedes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.412D	Toxic effect of venom of centipedes and venomous millipedes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.412S	Toxic effect of venom of centipedes and venomous millipedes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.422	Toxic effect of venom of ants, intentional self-harm	Diagnosis	ICD-10-CM
T63.422A	Toxic effect of venom of ants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.422D	Toxic effect of venom of ants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T63.422S	Toxic effect of venom of ants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.432	Toxic effect of venom of caterpillars, intentional self-harm	Diagnosis	ICD-10-CM
T63.432A	Toxic effect of venom of caterpillars, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.432D	Toxic effect of venom of caterpillars, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.432S	Toxic effect of venom of caterpillars, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.442	Toxic effect of venom of bees, intentional self-harm	Diagnosis	ICD-10-CM
T63.442A	Toxic effect of venom of bees, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.442D	Toxic effect of venom of bees, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.442S	Toxic effect of venom of bees, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.452	Toxic effect of venom of hornets, intentional self-harm	Diagnosis	ICD-10-CM
T63.452A	Toxic effect of venom of hornets, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.452D	Toxic effect of venom of hornets, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.452S	Toxic effect of venom of hornets, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.462	Toxic effect of venom of wasps, intentional self-harm	Diagnosis	ICD-10-CM
T63.462A	Toxic effect of venom of wasps, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.462D	Toxic effect of venom of wasps, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.462S	Toxic effect of venom of wasps, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.482	Toxic effect of venom of other arthropod, intentional self-harm	Diagnosis	ICD-10-CM
T63.482A	Toxic effect of venom of other arthropod, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.482D	Toxic effect of venom of other arthropod, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.482S	Toxic effect of venom of other arthropod, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.512	Toxic effect of contact with stingray, intentional self-harm	Diagnosis	ICD-10-CM
T63.512A	Toxic effect of contact with stingray, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.512D	Toxic effect of contact with stingray, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.512S	Toxic effect of contact with stingray, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.592	Toxic effect of contact with other venomous fish, intentional self-harm	Diagnosis	ICD-10-CM
T63.592A	Toxic effect of contact with other venomous fish, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.592D	Toxic effect of contact with other venomous fish, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.592S	Toxic effect of contact with other venomous fish, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.612	Toxic effect of contact with Portuguese Man-o-war, intentional self-harm	Diagnosis	ICD-10-CM
T63.612A	Toxic effect of contact with Portuguese Man-o-war, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.612D	Toxic effect of contact with Portuguese Man-o-war, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.612S	Toxic effect of contact with Portuguese Man-o-war, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.622	Toxic effect of contact with other jellyfish, intentional self-harm	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T63.622A	Toxic effect of contact with other jellyfish, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.622D	Toxic effect of contact with other jellyfish, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.622S	Toxic effect of contact with other jellyfish, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.632	Toxic effect of contact with sea anemone, intentional self-harm	Diagnosis	ICD-10-CM
T63.632A	Toxic effect of contact with sea anemone, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.632D	Toxic effect of contact with sea anemone, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.632S	Toxic effect of contact with sea anemone, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.692	Toxic effect of contact with other venomous marine animals, intentional self-harm	Diagnosis	ICD-10-CM
T63.692A	Toxic effect of contact with other venomous marine animals, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.692D	Toxic effect of contact with other venomous marine animals, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.692S	Toxic effect of contact with other venomous marine animals, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.712	Toxic effect of contact with venomous marine plant, intentional self-harm	Diagnosis	ICD-10-CM
T63.712A	Toxic effect of contact with venomous marine plant, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.712D	Toxic effect of contact with venomous marine plant, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.712S	Toxic effect of contact with venomous marine plant, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.792	Toxic effect of contact with other venomous plant, intentional self-harm	Diagnosis	ICD-10-CM
T63.792A	Toxic effect of contact with other venomous plant, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.792D	Toxic effect of contact with other venomous plant, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.792S	Toxic effect of contact with other venomous plant, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.812	Toxic effect of contact with venomous frog, intentional self-harm	Diagnosis	ICD-10-CM
T63.812A	Toxic effect of contact with venomous frog, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.812D	Toxic effect of contact with venomous frog, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.812S	Toxic effect of contact with venomous frog, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.822	Toxic effect of contact with venomous toad, intentional self-harm	Diagnosis	ICD-10-CM
T63.822A	Toxic effect of contact with venomous toad, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.822D	Toxic effect of contact with venomous toad, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.822S	Toxic effect of contact with venomous toad, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.832	Toxic effect of contact with other venomous amphibian, intentional self-harm	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T63.832A	Toxic effect of contact with other venomous amphibian, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.832D	Toxic effect of contact with other venomous amphibian, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.832S	Toxic effect of contact with other venomous amphibian, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.892	Toxic effect of contact with other venomous animals, intentional self-harm	Diagnosis	ICD-10-CM
T63.892A	Toxic effect of contact with other venomous animals, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.892D	Toxic effect of contact with other venomous animals, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.892S	Toxic effect of contact with other venomous animals, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.92	Toxic effect of contact with unspecified venomous animal, intentional self-harm	Diagnosis	ICD-10-CM
T63.92XA	Toxic effect of contact with unspecified venomous animal, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.92XD	Toxic effect of contact with unspecified venomous animal, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.92XS	Toxic effect of contact with unspecified venomous animal, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T64.02	Toxic effect of aflatoxin, intentional self-harm	Diagnosis	ICD-10-CM
T64.02XA	Toxic effect of aflatoxin, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T64.02XD	Toxic effect of aflatoxin, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T64.02XS	Toxic effect of aflatoxin, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T64.82	Toxic effect of other mycotoxin food contaminants, intentional self-harm	Diagnosis	ICD-10-CM
T64.82XA	Toxic effect of other mycotoxin food contaminants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T64.82XD	Toxic effect of other mycotoxin food contaminants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T64.82XS	Toxic effect of other mycotoxin food contaminants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.0X2	Toxic effect of cyanides, intentional self-harm	Diagnosis	ICD-10-CM
T65.0X2A	Toxic effect of cyanides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.0X2D	Toxic effect of cyanides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.0X2S	Toxic effect of cyanides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.1X2	Toxic effect of strychnine and its salts, intentional self-harm	Diagnosis	ICD-10-CM
T65.1X2A	Toxic effect of strychnine and its salts, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.1X2D	Toxic effect of strychnine and its salts, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.1X2S	Toxic effect of strychnine and its salts, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.212	Toxic effect of chewing tobacco, intentional self-harm	Diagnosis	ICD-10-CM
T65.212A	Toxic effect of chewing tobacco, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.212D	Toxic effect of chewing tobacco, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.212S	Toxic effect of chewing tobacco, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T65.222	Toxic effect of tobacco cigarettes, intentional self-harm	Diagnosis	ICD-10-CM
T65.222A	Toxic effect of tobacco cigarettes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.222D	Toxic effect of tobacco cigarettes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.222S	Toxic effect of tobacco cigarettes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.292	Toxic effect of other tobacco and nicotine, intentional self-harm	Diagnosis	ICD-10-CM
T65.292A	Toxic effect of other tobacco and nicotine, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.292D	Toxic effect of other tobacco and nicotine, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.292S	Toxic effect of other tobacco and nicotine, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.3X2	Toxic effect of nitroderivatives and aminoderivatives of benzene and its homologues, intentional self-harm	Diagnosis	ICD-10-CM
T65.3X2A	Toxic effect of nitroderivatives and aminoderivatives of benzene and its homologues, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.3X2D	Toxic effect of nitroderivatives and aminoderivatives of benzene and its homologues, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.3X2S	Toxic effect of nitroderivatives and aminoderivatives of benzene and its homologues, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.4X2	Toxic effect of carbon disulfide, intentional self-harm	Diagnosis	ICD-10-CM
T65.4X2A	Toxic effect of carbon disulfide, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.4X2D	Toxic effect of carbon disulfide, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.4X2S	Toxic effect of carbon disulfide, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.5X2	Toxic effect of nitroglycerin and other nitric acids and esters, intentional self-harm	Diagnosis	ICD-10-CM
T65.5X2A	Toxic effect of nitroglycerin and other nitric acids and esters, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.5X2D	Toxic effect of nitroglycerin and other nitric acids and esters, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.5X2S	Toxic effect of nitroglycerin and other nitric acids and esters, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.6X2	Toxic effect of paints and dyes, not elsewhere classified, intentional self-harm	Diagnosis	ICD-10-CM
T65.6X2A	Toxic effect of paints and dyes, not elsewhere classified, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.6X2D	Toxic effect of paints and dyes, not elsewhere classified, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.6X2S	Toxic effect of paints and dyes, not elsewhere classified, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.812	Toxic effect of latex, intentional self-harm	Diagnosis	ICD-10-CM
T65.812A	Toxic effect of latex, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.812D	Toxic effect of latex, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.812S	Toxic effect of latex, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.822	Toxic effect of harmful algae and algae toxins, intentional self-harm	Diagnosis	ICD-10-CM
T65.822A	Toxic effect of harmful algae and algae toxins, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T65.822D	Toxic effect of harmful algae and algae toxins, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.822S	Toxic effect of harmful algae and algae toxins, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.832	Toxic effect of fiberglass, intentional self-harm	Diagnosis	ICD-10-CM
T65.832A	Toxic effect of fiberglass, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.832D	Toxic effect of fiberglass, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.832S	Toxic effect of fiberglass, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.892	Toxic effect of other specified substances, intentional self-harm	Diagnosis	ICD-10-CM
T65.892A	Toxic effect of other specified substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.892D	Toxic effect of other specified substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.892S	Toxic effect of other specified substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.92	Toxic effect of unspecified substance, intentional self-harm	Diagnosis	ICD-10-CM
T65.92XA	Toxic effect of unspecified substance, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.92XD	Toxic effect of unspecified substance, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.92XS	Toxic effect of unspecified substance, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.112	Asphyxiation due to smothering under pillow, intentional self-harm	Diagnosis	ICD-10-CM
T71.112A	Asphyxiation due to smothering under pillow, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.112D	Asphyxiation due to smothering under pillow, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.112S	Asphyxiation due to smothering under pillow, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.122	Asphyxiation due to plastic bag, intentional self-harm	Diagnosis	ICD-10-CM
T71.122A	Asphyxiation due to plastic bag, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.122D	Asphyxiation due to plastic bag, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.122S	Asphyxiation due to plastic bag, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.132	Asphyxiation due to being trapped in bed linens, intentional self-harm	Diagnosis	ICD-10-CM
T71.132A	Asphyxiation due to being trapped in bed linens, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.132D	Asphyxiation due to being trapped in bed linens, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.132S	Asphyxiation due to being trapped in bed linens, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.152	Asphyxiation due to smothering in furniture, intentional self-harm	Diagnosis	ICD-10-CM
T71.152A	Asphyxiation due to smothering in furniture, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.152D	Asphyxiation due to smothering in furniture, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.152S	Asphyxiation due to smothering in furniture, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.162	Asphyxiation due to hanging, intentional self-harm	Diagnosis	ICD-10-CM
T71.162A	Asphyxiation due to hanging, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
T71.162D	Asphyxiation due to hanging, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.162S	Asphyxiation due to hanging, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.192	Asphyxiation due to mechanical threat to breathing due to other causes, intentional self-harm	Diagnosis	ICD-10-CM
T71.192A	Asphyxiation due to mechanical threat to breathing due to other causes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.192D	Asphyxiation due to mechanical threat to breathing due to other causes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.192S	Asphyxiation due to mechanical threat to breathing due to other causes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.222	Asphyxiation due to being trapped in a car trunk, intentional self-harm	Diagnosis	ICD-10-CM
T71.222A	Asphyxiation due to being trapped in a car trunk, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.222D	Asphyxiation due to being trapped in a car trunk, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.222S	Asphyxiation due to being trapped in a car trunk, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.232	Asphyxiation due to being trapped in a (discarded) refrigerator, intentional self-harm	Diagnosis	ICD-10-CM
T71.232A	Asphyxiation due to being trapped in a (discarded) refrigerator, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.232D	Asphyxiation due to being trapped in a (discarded) refrigerator, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.232S	Asphyxiation due to being trapped in a (discarded) refrigerator, intentional self-harm, sequela	Diagnosis	ICD-10-CM
X71	Intentional self-harm by drowning and submersion	Diagnosis	ICD-10-CM
X71.0	Intentional self-harm by drowning and submersion while in bathtub	Diagnosis	ICD-10-CM
X71.0XXA	Intentional self-harm by drowning and submersion while in bathtub, initial encounter	Diagnosis	ICD-10-CM
X71.0XXD	Intentional self-harm by drowning and submersion while in bathtub, subsequent encounter	Diagnosis	ICD-10-CM
X71.0XXS	Intentional self-harm by drowning and submersion while in bathtub, sequela	Diagnosis	ICD-10-CM
X71.1	Intentional self-harm by drowning and submersion while in swimming pool	Diagnosis	ICD-10-CM
X71.1XXA	Intentional self-harm by drowning and submersion while in swimming pool, initial encounter	Diagnosis	ICD-10-CM
X71.1XXD	Intentional self-harm by drowning and submersion while in swimming pool, subsequent encounter	Diagnosis	ICD-10-CM
X71.1XXS	Intentional self-harm by drowning and submersion while in swimming pool, sequela	Diagnosis	ICD-10-CM
X71.2	Intentional self-harm by drowning and submersion after jump into swimming pool	Diagnosis	ICD-10-CM
X71.2XXA	Intentional self-harm by drowning and submersion after jump into swimming pool, initial encounter	Diagnosis	ICD-10-CM
X71.2XXD	Intentional self-harm by drowning and submersion after jump into swimming pool, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
X71.2XXS	Intentional self-harm by drowning and submersion after jump into swimming pool, sequela	Diagnosis	ICD-10-CM
X71.3	Intentional self-harm by drowning and submersion in natural water	Diagnosis	ICD-10-CM
X71.3XXA	Intentional self-harm by drowning and submersion in natural water, initial encounter	Diagnosis	ICD-10-CM
X71.3XXD	Intentional self-harm by drowning and submersion in natural water, subsequent encounter	Diagnosis	ICD-10-CM
X71.3XXS	Intentional self-harm by drowning and submersion in natural water, sequela	Diagnosis	ICD-10-CM
X71.8	Other intentional self-harm by drowning and submersion	Diagnosis	ICD-10-CM
X71.8XXA	Other intentional self-harm by drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
X71.8XXD	Other intentional self-harm by drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
X71.8XXS	Other intentional self-harm by drowning and submersion, sequela	Diagnosis	ICD-10-CM
X71.9	Intentional self-harm by drowning and submersion, unspecified	Diagnosis	ICD-10-CM
X71.9XXA	Intentional self-harm by drowning and submersion, unspecified, initial encounter	Diagnosis	ICD-10-CM
X71.9XXD	Intentional self-harm by drowning and submersion, unspecified, subsequent encounter	Diagnosis	ICD-10-CM
X71.9XXS	Intentional self-harm by drowning and submersion, unspecified, sequela	Diagnosis	ICD-10-CM
X72	Intentional self-harm by handgun discharge	Diagnosis	ICD-10-CM
X72.XXXA	Intentional self-harm by handgun discharge, initial encounter	Diagnosis	ICD-10-CM
X72.XXXD	Intentional self-harm by handgun discharge, subsequent encounter	Diagnosis	ICD-10-CM
X72.XXXS	Intentional self-harm by handgun discharge, sequela	Diagnosis	ICD-10-CM
X73	Intentional self-harm by rifle, shotgun and larger firearm discharge	Diagnosis	ICD-10-CM
X73.0	Intentional self-harm by shotgun discharge	Diagnosis	ICD-10-CM
X73.0XXA	Intentional self-harm by shotgun discharge, initial encounter	Diagnosis	ICD-10-CM
X73.0XXD	Intentional self-harm by shotgun discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.0XXS	Intentional self-harm by shotgun discharge, sequela	Diagnosis	ICD-10-CM
X73.1	Intentional self-harm by hunting rifle discharge	Diagnosis	ICD-10-CM
X73.1XXA	Intentional self-harm by hunting rifle discharge, initial encounter	Diagnosis	ICD-10-CM
X73.1XXD	Intentional self-harm by hunting rifle discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.1XXS	Intentional self-harm by hunting rifle discharge, sequela	Diagnosis	ICD-10-CM
X73.2	Intentional self-harm by machine gun discharge	Diagnosis	ICD-10-CM
X73.2XXA	Intentional self-harm by machine gun discharge, initial encounter	Diagnosis	ICD-10-CM
X73.2XXD	Intentional self-harm by machine gun discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.2XXS	Intentional self-harm by machine gun discharge, sequela	Diagnosis	ICD-10-CM
X73.8	Intentional self-harm by other larger firearm discharge	Diagnosis	ICD-10-CM
X73.8XXA	Intentional self-harm by other larger firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X73.8XXD	Intentional self-harm by other larger firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.8XXS	Intentional self-harm by other larger firearm discharge, sequela	Diagnosis	ICD-10-CM
X73.9	Intentional self-harm by unspecified larger firearm discharge	Diagnosis	ICD-10-CM
X73.9XXA	Intentional self-harm by unspecified larger firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X73.9XXD	Intentional self-harm by unspecified larger firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
X73.9XXS	Intentional self-harm by unspecified larger firearm discharge, sequela	Diagnosis	ICD-10-CM
X74	Intentional self-harm by other and unspecified firearm and gun discharge	Diagnosis	ICD-10-CM
X74.0	Intentional self-harm by gas, air or spring-operated guns	Diagnosis	ICD-10-CM
X74.01	Intentional self-harm by airgun	Diagnosis	ICD-10-CM
X74.01XA	Intentional self-harm by airgun, initial encounter	Diagnosis	ICD-10-CM
X74.01XD	Intentional self-harm by airgun, subsequent encounter	Diagnosis	ICD-10-CM
X74.01XS	Intentional self-harm by airgun, sequela	Diagnosis	ICD-10-CM
X74.02	Intentional self-harm by paintball gun	Diagnosis	ICD-10-CM
X74.02XA	Intentional self-harm by paintball gun, initial encounter	Diagnosis	ICD-10-CM
X74.02XD	Intentional self-harm by paintball gun, subsequent encounter	Diagnosis	ICD-10-CM
X74.02XS	Intentional self-harm by paintball gun, sequela	Diagnosis	ICD-10-CM
X74.09	Intentional self-harm by other gas, air or spring-operated gun	Diagnosis	ICD-10-CM
X74.09XA	Intentional self-harm by other gas, air or spring-operated gun, initial encounter	Diagnosis	ICD-10-CM
X74.09XD	Intentional self-harm by other gas, air or spring-operated gun, subsequent encounter	Diagnosis	ICD-10-CM
X74.09XS	Intentional self-harm by other gas, air or spring-operated gun, sequela	Diagnosis	ICD-10-CM
X74.8	Intentional self-harm by other firearm discharge	Diagnosis	ICD-10-CM
X74.8XXA	Intentional self-harm by other firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X74.8XXD	Intentional self-harm by other firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X74.8XXS	Intentional self-harm by other firearm discharge, sequela	Diagnosis	ICD-10-CM
X74.9	Intentional self-harm by unspecified firearm discharge	Diagnosis	ICD-10-CM
X74.9XXA	Intentional self-harm by unspecified firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X74.9XXD	Intentional self-harm by unspecified firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X74.9XXS	Intentional self-harm by unspecified firearm discharge, sequela	Diagnosis	ICD-10-CM
X75	Intentional self-harm by explosive material	Diagnosis	ICD-10-CM
X75.XXXA	Intentional self-harm by explosive material, initial encounter	Diagnosis	ICD-10-CM
X75.XXXD	Intentional self-harm by explosive material, subsequent encounter	Diagnosis	ICD-10-CM
X75.XXXS	Intentional self-harm by explosive material, sequela	Diagnosis	ICD-10-CM
X76	Intentional self-harm by smoke, fire and flames	Diagnosis	ICD-10-CM
X76.XXXA	Intentional self-harm by smoke, fire and flames, initial encounter	Diagnosis	ICD-10-CM
X76.XXXD	Intentional self-harm by smoke, fire and flames, subsequent encounter	Diagnosis	ICD-10-CM
X76.XXXS	Intentional self-harm by smoke, fire and flames, sequela	Diagnosis	ICD-10-CM
X77	Intentional self-harm by steam, hot vapors and hot objects	Diagnosis	ICD-10-CM
X77.0	Intentional self-harm by steam or hot vapors	Diagnosis	ICD-10-CM
X77.0XXA	Intentional self-harm by steam or hot vapors, initial encounter	Diagnosis	ICD-10-CM
X77.0XXD	Intentional self-harm by steam or hot vapors, subsequent encounter	Diagnosis	ICD-10-CM
X77.0XXS	Intentional self-harm by steam or hot vapors, sequela	Diagnosis	ICD-10-CM
X77.1	Intentional self-harm by hot tap water	Diagnosis	ICD-10-CM
X77.1XXA	Intentional self-harm by hot tap water, initial encounter	Diagnosis	ICD-10-CM
X77.1XXD	Intentional self-harm by hot tap water, subsequent encounter	Diagnosis	ICD-10-CM
X77.1XXS	Intentional self-harm by hot tap water, sequela	Diagnosis	ICD-10-CM
X77.2	Intentional self-harm by other hot fluids	Diagnosis	ICD-10-CM
X77.2XXA	Intentional self-harm by other hot fluids, initial encounter	Diagnosis	ICD-10-CM
X77.2XXD	Intentional self-harm by other hot fluids, subsequent encounter	Diagnosis	ICD-10-CM
X77.2XXS	Intentional self-harm by other hot fluids, sequela	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
X77.3	Intentional self-harm by hot household appliances	Diagnosis	ICD-10-CM
X77.3XXA	Intentional self-harm by hot household appliances, initial encounter	Diagnosis	ICD-10-CM
X77.3XXD	Intentional self-harm by hot household appliances, subsequent encounter	Diagnosis	ICD-10-CM
X77.3XXS	Intentional self-harm by hot household appliances, sequela	Diagnosis	ICD-10-CM
X77.8	Intentional self-harm by other hot objects	Diagnosis	ICD-10-CM
X77.8XXA	Intentional self-harm by other hot objects, initial encounter	Diagnosis	ICD-10-CM
X77.8XXD	Intentional self-harm by other hot objects, subsequent encounter	Diagnosis	ICD-10-CM
X77.8XXS	Intentional self-harm by other hot objects, sequela	Diagnosis	ICD-10-CM
X77.9	Intentional self-harm by unspecified hot objects	Diagnosis	ICD-10-CM
X77.9XXA	Intentional self-harm by unspecified hot objects, initial encounter	Diagnosis	ICD-10-CM
X77.9XXD	Intentional self-harm by unspecified hot objects, subsequent encounter	Diagnosis	ICD-10-CM
X77.9XXS	Intentional self-harm by unspecified hot objects, sequela	Diagnosis	ICD-10-CM
X78	Intentional self-harm by sharp object	Diagnosis	ICD-10-CM
X78.0	Intentional self-harm by sharp glass	Diagnosis	ICD-10-CM
X78.0XXA	Intentional self-harm by sharp glass, initial encounter	Diagnosis	ICD-10-CM
X78.0XXD	Intentional self-harm by sharp glass, subsequent encounter	Diagnosis	ICD-10-CM
X78.0XXS	Intentional self-harm by sharp glass, sequela	Diagnosis	ICD-10-CM
X78.1	Intentional self-harm by knife	Diagnosis	ICD-10-CM
X78.1XXA	Intentional self-harm by knife, initial encounter	Diagnosis	ICD-10-CM
X78.1XXD	Intentional self-harm by knife, subsequent encounter	Diagnosis	ICD-10-CM
X78.1XXS	Intentional self-harm by knife, sequela	Diagnosis	ICD-10-CM
X78.2	Intentional self-harm by sword or dagger	Diagnosis	ICD-10-CM
X78.2XXA	Intentional self-harm by sword or dagger, initial encounter	Diagnosis	ICD-10-CM
X78.2XXD	Intentional self-harm by sword or dagger, subsequent encounter	Diagnosis	ICD-10-CM
X78.2XXS	Intentional self-harm by sword or dagger, sequela	Diagnosis	ICD-10-CM
X78.8	Intentional self-harm by other sharp object	Diagnosis	ICD-10-CM
X78.8XXA	Intentional self-harm by other sharp object, initial encounter	Diagnosis	ICD-10-CM
X78.8XXD	Intentional self-harm by other sharp object, subsequent encounter	Diagnosis	ICD-10-CM
X78.8XXS	Intentional self-harm by other sharp object, sequela	Diagnosis	ICD-10-CM
X78.9	Intentional self-harm by unspecified sharp object	Diagnosis	ICD-10-CM
X78.9XXA	Intentional self-harm by unspecified sharp object, initial encounter	Diagnosis	ICD-10-CM
X78.9XXD	Intentional self-harm by unspecified sharp object, subsequent encounter	Diagnosis	ICD-10-CM
X78.9XXS	Intentional self-harm by unspecified sharp object, sequela	Diagnosis	ICD-10-CM
X79	Intentional self-harm by blunt object	Diagnosis	ICD-10-CM
X79.XXXA	Intentional self-harm by blunt object, initial encounter	Diagnosis	ICD-10-CM
X79.XXXD	Intentional self-harm by blunt object, subsequent encounter	Diagnosis	ICD-10-CM
X79.XXXS	Intentional self-harm by blunt object, sequela	Diagnosis	ICD-10-CM
X80	Intentional self-harm by jumping from a high place	Diagnosis	ICD-10-CM
X80.XXXA	Intentional self-harm by jumping from a high place, initial encounter	Diagnosis	ICD-10-CM
X80.XXXD	Intentional self-harm by jumping from a high place, subsequent encounter	Diagnosis	ICD-10-CM
X80.XXXS	Intentional self-harm by jumping from a high place, sequela	Diagnosis	ICD-10-CM
X81	Intentional self-harm by jumping or lying in front of moving object	Diagnosis	ICD-10-CM
X81.0	Intentional self-harm by jumping or lying in front of motor vehicle	Diagnosis	ICD-10-CM
X81.0XXA	Intentional self-harm by jumping or lying in front of motor vehicle, initial encounter	Diagnosis	ICD-10-CM
X81.0XXD	Intentional self-harm by jumping or lying in front of motor vehicle, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
X81.0XXS	Intentional self-harm by jumping or lying in front of motor vehicle, sequela	Diagnosis	ICD-10-CM
X81.1	Intentional self-harm by jumping or lying in front of (subway) train	Diagnosis	ICD-10-CM
X81.1XXA	Intentional self-harm by jumping or lying in front of (subway) train, initial encounter	Diagnosis	ICD-10-CM
X81.1XXD	Intentional self-harm by jumping or lying in front of (subway) train, subsequent encounter	Diagnosis	ICD-10-CM
X81.1XXS	Intentional self-harm by jumping or lying in front of (subway) train, sequela	Diagnosis	ICD-10-CM
X81.8	Intentional self-harm by jumping or lying in front of other moving object	Diagnosis	ICD-10-CM
X81.8XXA	Intentional self-harm by jumping or lying in front of other moving object, initial encounter	Diagnosis	ICD-10-CM
X81.8XXD	Intentional self-harm by jumping or lying in front of other moving object, subsequent encounter	Diagnosis	ICD-10-CM
X81.8XXS	Intentional self-harm by jumping or lying in front of other moving object, sequela	Diagnosis	ICD-10-CM
X82	Intentional self-harm by crashing of motor vehicle	Diagnosis	ICD-10-CM
X82.0	Intentional collision of motor vehicle with other motor vehicle	Diagnosis	ICD-10-CM
X82.0XXA	Intentional collision of motor vehicle with other motor vehicle, initial encounter	Diagnosis	ICD-10-CM
X82.0XXD	Intentional collision of motor vehicle with other motor vehicle, subsequent encounter	Diagnosis	ICD-10-CM
X82.0XXS	Intentional collision of motor vehicle with other motor vehicle, sequela	Diagnosis	ICD-10-CM
X82.1	Intentional collision of motor vehicle with train	Diagnosis	ICD-10-CM
X82.1XXA	Intentional collision of motor vehicle with train, initial encounter	Diagnosis	ICD-10-CM
X82.1XXD	Intentional collision of motor vehicle with train, subsequent encounter	Diagnosis	ICD-10-CM
X82.1XXS	Intentional collision of motor vehicle with train, sequela	Diagnosis	ICD-10-CM
X82.2	Intentional collision of motor vehicle with tree	Diagnosis	ICD-10-CM
X82.2XXA	Intentional collision of motor vehicle with tree, initial encounter	Diagnosis	ICD-10-CM
X82.2XXD	Intentional collision of motor vehicle with tree, subsequent encounter	Diagnosis	ICD-10-CM
X82.2XXS	Intentional collision of motor vehicle with tree, sequela	Diagnosis	ICD-10-CM
X82.8	Other intentional self-harm by crashing of motor vehicle	Diagnosis	ICD-10-CM
X82.8XXA	Other intentional self-harm by crashing of motor vehicle, initial encounter	Diagnosis	ICD-10-CM
X82.8XXD	Other intentional self-harm by crashing of motor vehicle, subsequent encounter	Diagnosis	ICD-10-CM
X82.8XXS	Other intentional self-harm by crashing of motor vehicle, sequela	Diagnosis	ICD-10-CM
X83	Intentional self-harm by other specified means	Diagnosis	ICD-10-CM
X83.0	Intentional self-harm by crashing of aircraft	Diagnosis	ICD-10-CM
X83.0XXA	Intentional self-harm by crashing of aircraft, initial encounter	Diagnosis	ICD-10-CM
X83.0XXD	Intentional self-harm by crashing of aircraft, subsequent encounter	Diagnosis	ICD-10-CM
X83.0XXS	Intentional self-harm by crashing of aircraft, sequela	Diagnosis	ICD-10-CM
X83.1	Intentional self-harm by electrocution	Diagnosis	ICD-10-CM
X83.1XXA	Intentional self-harm by electrocution, initial encounter	Diagnosis	ICD-10-CM
X83.1XXD	Intentional self-harm by electrocution, subsequent encounter	Diagnosis	ICD-10-CM
X83.1XXS	Intentional self-harm by electrocution, sequela	Diagnosis	ICD-10-CM
X83.2	Intentional self-harm by exposure to extremes of cold	Diagnosis	ICD-10-CM
X83.2XXA	Intentional self-harm by exposure to extremes of cold, initial encounter	Diagnosis	ICD-10-CM
X83.2XXD	Intentional self-harm by exposure to extremes of cold, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BC. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
X83.2XXS	Intentional self-harm by exposure to extremes of cold, sequela	Diagnosis	ICD-10-CM
X83.8	Intentional self-harm by other specified means	Diagnosis	ICD-10-CM
X83.8XXA	Intentional self-harm by other specified means, initial encounter	Diagnosis	ICD-10-CM
X83.8XXD	Intentional self-harm by other specified means, subsequent encounter	Diagnosis	ICD-10-CM
X83.8XXS	Intentional self-harm by other specified means, sequela	Diagnosis	ICD-10-CM

Appendix BD. List of Generic and Brand Names of Medical Products Used to Define Inclusion Criteria in this Request

Generic Name	Brand Name
Oral Anti-diabetic Medications	
acarbose	Precose
acarbose	acarbose
alogliptin benzoate/metformin HCl	Kazano
alogliptin benzoate/metformin HCl	alogliptin-metformin
canagliflozin/metformin HCl	Invokamet
canagliflozin/metformin HCl	Invokamet XR
chlorpropamide	chlorpropamide
colesevelam HCl	WelChol
colesevelam HCl	colesevelam
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
glimepiride	Amaryl
glimepiride	glimepiride
glipizide	Glucotrol
glipizide	Glucotrol XL
glipizide	glipizide
glipizide/metformin HCl	glipizide-metformin
glyburide	Diabeta
glyburide	glyburide
glyburide,micronized	Glynase
glyburide,micronized	glyburide micronized
glyburide/metformin HCl	Glucoavance
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	Riomet
metformin HCl	Riomet ER
metformin HCl	metformin
miglitol	Glyset

Appendix BD. List of Generic and Brand Names of Medical Products Used to Define Inclusion Criteria in this Request

Generic Name	Brand Name
miglitol	miglitol
nateglinide	Starlix
nateglinide	nateglinide
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
repaglinide	Prandin
repaglinide	repaglinide
repaglinide/metformin HCl	Prandimet
repaglinide/metformin HCl	repaglinide-metformin
rosiglitazone maleate	Avandia
rosiglitazone maleate/glimepiride	Avandaryl
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
tolazamide	tolazamide
tolbutamide	tolbutamide
Insulin	
insulin NPH human isophane	Humulin N NPH Insulin KwikPen
insulin NPH human isophane	Humulin N NPH U-100 Insulin
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 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 aspart	Novolog FlexPen U-100 Insulin

Appendix BD. List of Generic and Brand Names of Medical Products Used to Define Inclusion Criteria in this Request

Generic Name	Brand Name
insulin aspart	Novolog PenFill U-100 Insulin
insulin aspart	Novolog U-100 Insulin aspart
insulin aspart	insulin aspart U-100
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	Novolog Mix 70-30 U-100 Insuln
insulin aspart protamine human/insulin aspart	Novolog Mix 70-30FlexPen U-100
insulin aspart protamine human/insulin aspart	insulin asp prt-insulin aspart
insulin degludec	Tresiba FlexTouch U-100
insulin degludec	Tresiba FlexTouch U-200
insulin degludec	Tresiba U-100 Insulin
insulin degludec	insulin degludec
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,human recombinant analog	Basaglar KwikPen U-100 Insulin
insulin glargine,human recombinant analog	Basaglar Tempo Pen(U-100)Insln
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 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	insulin glargine
insulin glargine,human recombinant analog/lixisenatide	Soliqua 100/33
insulin glargine-aglr	Rezvoglar KwikPen
insulin glargine-yfgn	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

Appendix BD. List of Generic and Brand Names of Medical Products Used to Define Inclusion Criteria in this Request

Generic Name	Brand Name
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 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
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
Anti-diabetic Medications	
acarbose	Precose
acarbose	acarbose
alogliptin benzoate/metformin HCl	Kazano
alogliptin benzoate/metformin HCl	alogliptin-metformin
canagliflozin/metformin HCl	Invokamet
canagliflozin/metformin HCl	Invokamet XR
chlorpropamide	chlorpropamide
colesevelam HCl	WelChol
colesevelam HCl	colesevelam
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

Appendix BD. List of Generic and Brand Names of Medical Products Used to Define Inclusion Criteria in this Request

Generic Name	Brand Name
glimepiride	Amaryl
glimepiride	glimepiride
glipizide	Glucotrol
glipizide	Glucotrol XL
glipizide	glipizide
glipizide/metformin HCl	glipizide-metformin
glyburide	Diabeta
glyburide	glyburide
glyburide,micronized	Glynase
glyburide,micronized	glyburide micronized
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	Riomet
metformin HCl	Riomet ER
metformin HCl	metformin
metformin HCl/blood sugar diagnostic	DM2
miglitol	Glyset
miglitol	miglitol
nateglinide	Starlix
nateglinide	nateglinide
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
pramlintide acetate	SymlinPen 120
pramlintide acetate	SymlinPen 60
repaglinide	Prandin
repaglinide	repaglinide

Appendix BD. List of Generic and Brand Names of Medical Products Used to Define Inclusion Criteria in this Request

Generic Name	Brand Name
repaglinide/metformin HCl	Prandimet
repaglinide/metformin HCl	repaglinide-metformin
rosiglitazone maleate	Avandia
rosiglitazone maleate/glimepiride	Avandaryl
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
tolazamide	tolazamide
tolbutamide	tolbutamide

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
Type 2 Diabetes Mellitus			
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
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

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
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
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

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
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
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

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
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
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

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
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
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

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
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
Type 1 Diabetes Mellitus			
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
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

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
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
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

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
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
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

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
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
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

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Code	Description	Code Category	Code Type
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
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
Gestational Diabetes			
648.81	Abnormal maternal glucose tolerance, with delivery	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
648.82	Abnormal maternal glucose tolerance, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
648.83	Abnormal maternal glucose tolerance, antepartum	Diagnosis	ICD-9-CM
648.84	Abnormal maternal glucose tolerance complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
O24.4	Gestational diabetes mellitus	Diagnosis	ICD-10-CM
O24.41	Gestational diabetes mellitus in pregnancy	Diagnosis	ICD-10-CM
O24.410	Gestational diabetes mellitus in pregnancy, diet controlled	Diagnosis	ICD-10-CM
O24.414	Gestational diabetes mellitus in pregnancy, insulin controlled	Diagnosis	ICD-10-CM
O24.415	Gestational diabetes mellitus in pregnancy, controlled by oral hypoglycemic drugs	Diagnosis	ICD-10-CM
O24.419	Gestational diabetes mellitus in pregnancy, unspecified control	Diagnosis	ICD-10-CM
O24.42	Gestational diabetes mellitus in childbirth	Diagnosis	ICD-10-CM
O24.420	Gestational diabetes mellitus in childbirth, diet controlled	Diagnosis	ICD-10-CM
O24.424	Gestational diabetes mellitus in childbirth, insulin controlled	Diagnosis	ICD-10-CM
O24.425	Gestational diabetes mellitus in childbirth, controlled by oral hypoglycemic drugs	Diagnosis	ICD-10-CM
O24.429	Gestational diabetes mellitus in childbirth, unspecified control	Diagnosis	ICD-10-CM
O24.43	Gestational diabetes mellitus in the puerperium	Diagnosis	ICD-10-CM
O24.430	Gestational diabetes mellitus in the puerperium, diet controlled	Diagnosis	ICD-10-CM
O24.434	Gestational diabetes mellitus in the puerperium, insulin controlled	Diagnosis	ICD-10-CM
O24.435	Gestational diabetes mellitus in the puerperium, controlled by oral hypoglycemic drugs	Diagnosis	ICD-10-CM
O24.439	Gestational diabetes mellitus in the puerperium, unspecified control	Diagnosis	ICD-10-CM
Secondary Diabetes			
249.00	Secondary diabetes mellitus without mention of complication, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.01	Secondary diabetes mellitus without mention of complication, uncontrolled	Diagnosis	ICD-9-CM
249.10	Secondary diabetes mellitus with ketoacidosis, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.11	Secondary diabetes mellitus with ketoacidosis, uncontrolled	Diagnosis	ICD-9-CM
249.20	Secondary diabetes mellitus with hyperosmolarity, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.21	Secondary diabetes mellitus with hyperosmolarity, uncontrolled	Diagnosis	ICD-9-CM
249.30	Secondary diabetes mellitus with other coma, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.31	Secondary diabetes mellitus with other coma, uncontrolled	Diagnosis	ICD-9-CM
249.40	Secondary diabetes mellitus with renal manifestations, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.41	Secondary diabetes mellitus with renal manifestations, uncontrolled	Diagnosis	ICD-9-CM
249.50	Secondary diabetes mellitus with ophthalmic manifestations, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.51	Secondary diabetes mellitus with ophthalmic manifestations, uncontrolled	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
249.60	Secondary diabetes mellitus with neurological manifestations, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.61	Secondary diabetes mellitus with neurological manifestations, uncontrolled	Diagnosis	ICD-9-CM
249.70	Secondary diabetes mellitus with peripheral circulatory disorders, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.71	Secondary diabetes mellitus with peripheral circulatory disorders, uncontrolled	Diagnosis	ICD-9-CM
249.80	Secondary diabetes mellitus with other specified manifestations, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.81	Secondary diabetes mellitus with other specified manifestations, uncontrolled	Diagnosis	ICD-9-CM
249.90	Secondary diabetes mellitus with unspecified complication, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.91	Secondary diabetes mellitus with unspecified complication, uncontrolled	Diagnosis	ICD-9-CM
E08	Diabetes mellitus due to underlying condition	Diagnosis	ICD-10-CM
E08.0	Diabetes mellitus due to underlying condition with hyperosmolarity	Diagnosis	ICD-10-CM
E08.00	Diabetes mellitus due to underlying condition with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)	Diagnosis	ICD-10-CM
E08.01	Diabetes mellitus due to underlying condition with hyperosmolarity with coma	Diagnosis	ICD-10-CM
E08.1	Diabetes mellitus due to underlying condition with ketoacidosis	Diagnosis	ICD-10-CM
E08.10	Diabetes mellitus due to underlying condition with ketoacidosis without coma	Diagnosis	ICD-10-CM
E08.11	Diabetes mellitus due to underlying condition with ketoacidosis with coma	Diagnosis	ICD-10-CM
E08.2	Diabetes mellitus due to underlying condition with kidney complications	Diagnosis	ICD-10-CM
E08.21	Diabetes mellitus due to underlying condition with diabetic nephropathy	Diagnosis	ICD-10-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
E08.3	Diabetes mellitus due to underlying condition with ophthalmic complications	Diagnosis	ICD-10-CM
E08.31	Diabetes mellitus due to underlying condition with unspecified diabetic retinopathy	Diagnosis	ICD-10-CM
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
E08.32	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E08.321	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with 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

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Code	Description	Code Category	Code Type
E08.3219	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E08.329	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema	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
E08.33	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E08.331	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy with macular edema	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
E08.339	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy without macular edema	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
E08.34	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E08.341	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy with macular edema	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

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Code	Description	Code Category	Code Type
E08.3413	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E08.3419	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E08.349	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular edema	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
E08.35	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E08.351	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema	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
E08.352	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment involving the macula	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
E08.353	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment not involving the macula	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

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Code	Description	Code Category	Code Type
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
E08.354	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment	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
E08.355	Diabetes mellitus due to underlying condition with stable proliferative diabetic retinopathy	Diagnosis	ICD-10-CM
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
E08.359	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema	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
E08.36	Diabetes mellitus due to underlying condition with diabetic cataract	Diagnosis	ICD-10-CM
E08.37	Diabetes mellitus due to underlying condition with diabetic macular edema, resolved following treatment	Diagnosis	ICD-10-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
E08.37X1	Diabetes mellitus due to underlying condition with diabetic macular edema, resolved following treatment, right eye	Diagnosis	ICD-10-CM
E08.37X2	Diabetes mellitus due to underlying condition with diabetic macular edema, resolved following treatment, left eye	Diagnosis	ICD-10-CM
E08.37X3	Diabetes mellitus due to underlying condition with diabetic macular edema, resolved following treatment, bilateral	Diagnosis	ICD-10-CM
E08.37X9	Diabetes mellitus due to underlying condition with diabetic macular edema, resolved following treatment, unspecified eye	Diagnosis	ICD-10-CM
E08.39	Diabetes mellitus due to underlying condition with other diabetic ophthalmic complication	Diagnosis	ICD-10-CM
E08.4	Diabetes mellitus due to underlying condition with neurological complications	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
E08.44	Diabetes mellitus due to underlying condition with diabetic amyotrophy	Diagnosis	ICD-10-CM
E08.49	Diabetes mellitus due to underlying condition with other diabetic neurological complication	Diagnosis	ICD-10-CM
E08.5	Diabetes mellitus due to underlying condition with circulatory complications	Diagnosis	ICD-10-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
E08.59	Diabetes mellitus due to underlying condition with other circulatory complications	Diagnosis	ICD-10-CM
E08.6	Diabetes mellitus due to underlying condition with other specified complications	Diagnosis	ICD-10-CM
E08.61	Diabetes mellitus due to underlying condition with diabetic arthropathy	Diagnosis	ICD-10-CM
E08.610	Diabetes mellitus due to underlying condition with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
E08.618	Diabetes mellitus due to underlying condition with other diabetic arthropathy	Diagnosis	ICD-10-CM
E08.62	Diabetes mellitus due to underlying condition with skin complications	Diagnosis	ICD-10-CM
E08.620	Diabetes mellitus due to underlying condition with diabetic dermatitis	Diagnosis	ICD-10-CM
E08.621	Diabetes mellitus due to underlying condition with foot ulcer	Diagnosis	ICD-10-CM
E08.622	Diabetes mellitus due to underlying condition with other skin ulcer	Diagnosis	ICD-10-CM
E08.628	Diabetes mellitus due to underlying condition with other skin complications	Diagnosis	ICD-10-CM
E08.63	Diabetes mellitus due to underlying condition with oral complications	Diagnosis	ICD-10-CM
E08.630	Diabetes mellitus due to underlying condition with periodontal disease	Diagnosis	ICD-10-CM
E08.638	Diabetes mellitus due to underlying condition with other oral complications	Diagnosis	ICD-10-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

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
E08.65	Diabetes mellitus due to underlying condition with hyperglycemia	Diagnosis	ICD-10-CM
E08.69	Diabetes mellitus due to underlying condition with other specified complication	Diagnosis	ICD-10-CM
E08.8	Diabetes mellitus due to underlying condition with unspecified complications	Diagnosis	ICD-10-CM
E08.9	Diabetes mellitus due to underlying condition without complications	Diagnosis	ICD-10-CM
E09	Drug or chemical induced diabetes mellitus	Diagnosis	ICD-10-CM
E09.0	Drug or chemical induced diabetes mellitus with hyperosmolarity	Diagnosis	ICD-10-CM
E09.00	Drug or chemical induced diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)	Diagnosis	ICD-10-CM
E09.01	Drug or chemical induced diabetes mellitus with hyperosmolarity with coma	Diagnosis	ICD-10-CM
E09.1	Drug or chemical induced diabetes mellitus with ketoacidosis	Diagnosis	ICD-10-CM
E09.10	Drug or chemical induced diabetes mellitus with ketoacidosis without coma	Diagnosis	ICD-10-CM
E09.11	Drug or chemical induced diabetes mellitus with ketoacidosis with coma	Diagnosis	ICD-10-CM
E09.2	Drug or chemical induced diabetes mellitus with kidney complications	Diagnosis	ICD-10-CM
E09.21	Drug or chemical induced diabetes mellitus with diabetic nephropathy	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
E09.3	Drug or chemical induced diabetes mellitus with ophthalmic complications	Diagnosis	ICD-10-CM
E09.31	Drug or chemical induced diabetes mellitus with unspecified diabetic retinopathy	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
E09.32	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E09.321	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy with 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
E09.329	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	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

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
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
E09.33	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E09.331	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	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
E09.3319	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E09.339	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	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
E09.34	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E09.341	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	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
E09.349	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	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

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Code	Description	Code Category	Code Type
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
E09.35	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E09.351	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema	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
E09.352	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula	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
E09.353	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula	Diagnosis	ICD-10-CM
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
E09.354	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
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
E09.355	Drug or chemical induced diabetes mellitus with stable proliferative diabetic retinopathy	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
E09.359	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema	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
E09.36	Drug or chemical induced diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E09.37	Drug or chemical induced diabetes mellitus with diabetic macular edema, resolved following treatment	Diagnosis	ICD-10-CM
E09.37X1	Drug or chemical induced diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	Diagnosis	ICD-10-CM
E09.37X2	Drug or chemical induced diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	Diagnosis	ICD-10-CM
E09.37X3	Drug or chemical induced diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral	Diagnosis	ICD-10-CM
E09.37X9	Drug or chemical induced diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E09.39	Drug or chemical induced diabetes mellitus with other diabetic ophthalmic complication	Diagnosis	ICD-10-CM
E09.4	Drug or chemical induced diabetes mellitus with neurological complications	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
E09.44	Drug or chemical induced diabetes mellitus with neurological complications with diabetic amyotrophy	Diagnosis	ICD-10-CM
E09.49	Drug or chemical induced diabetes mellitus with neurological complications with other diabetic neurological complication	Diagnosis	ICD-10-CM
E09.5	Drug or chemical induced diabetes mellitus with circulatory complications	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
E09.59	Drug or chemical induced diabetes mellitus with other circulatory complications	Diagnosis	ICD-10-CM
E09.6	Drug or chemical induced diabetes mellitus with other specified complications	Diagnosis	ICD-10-CM
E09.61	Drug or chemical induced diabetes mellitus with diabetic arthropathy	Diagnosis	ICD-10-CM
E09.610	Drug or chemical induced diabetes mellitus with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
E09.618	Drug or chemical induced diabetes mellitus with other diabetic arthropathy	Diagnosis	ICD-10-CM
E09.62	Drug or chemical induced diabetes mellitus with skin complications	Diagnosis	ICD-10-CM
E09.620	Drug or chemical induced diabetes mellitus with diabetic dermatitis	Diagnosis	ICD-10-CM
E09.621	Drug or chemical induced diabetes mellitus with foot ulcer	Diagnosis	ICD-10-CM
E09.622	Drug or chemical induced diabetes mellitus with other skin ulcer	Diagnosis	ICD-10-CM
E09.628	Drug or chemical induced diabetes mellitus with other skin complications	Diagnosis	ICD-10-CM
E09.63	Drug or chemical induced diabetes mellitus with oral complications	Diagnosis	ICD-10-CM
E09.630	Drug or chemical induced diabetes mellitus with periodontal disease	Diagnosis	ICD-10-CM
E09.638	Drug or chemical induced diabetes mellitus with other oral complications	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
E09.65	Drug or chemical induced diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E09.69	Drug or chemical induced diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM
E09.8	Drug or chemical induced diabetes mellitus with unspecified complications	Diagnosis	ICD-10-CM
E09.9	Drug or chemical induced diabetes mellitus without complications	Diagnosis	ICD-10-CM
E13	Other specified diabetes mellitus	Diagnosis	ICD-10-CM
E13.0	Other specified diabetes mellitus with hyperosmolarity	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
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
E13.1	Other specified diabetes mellitus with ketoacidosis	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
E13.2	Other specified diabetes mellitus with kidney complications	Diagnosis	ICD-10-CM
E13.21	Other specified diabetes mellitus with diabetic nephropathy	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
E13.3	Other specified diabetes mellitus with ophthalmic complications	Diagnosis	ICD-10-CM
E13.31	Other specified diabetes mellitus with unspecified diabetic retinopathy	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
E13.32	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E13.321	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with 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
E13.329	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E13.3291	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
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
E13.33	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E13.331	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E13.3311	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
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
E13.339	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	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
E13.34	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E13.341	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	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
E13.349	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	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
E13.35	Other specified diabetes mellitus with proliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E13.351	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E13.3511	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E13.3512	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
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
E13.352	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula	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
E13.353	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula	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
E13.354	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment	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
E13.355	Other specified diabetes mellitus with stable proliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E13.3551	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
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
E13.359	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema	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
E13.37	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment	Diagnosis	ICD-10-CM
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
E13.4	Other specified diabetes mellitus with neurological complications	Diagnosis	ICD-10-CM
E13.40	Other specified diabetes mellitus with diabetic neuropathy, unspecified	Diagnosis	ICD-10-CM
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
E13.5	Other specified diabetes mellitus with circulatory complications	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
E13.59	Other specified diabetes mellitus with other circulatory complications	Diagnosis	ICD-10-CM
E13.6	Other specified diabetes mellitus with other specified complications	Diagnosis	ICD-10-CM
E13.61	Other specified diabetes mellitus with diabetic arthropathy	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E13.610	Other specified diabetes mellitus with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
E13.618	Other specified diabetes mellitus with other diabetic arthropathy	Diagnosis	ICD-10-CM
E13.62	Other specified diabetes mellitus with skin complications	Diagnosis	ICD-10-CM
E13.620	Other specified diabetes mellitus with diabetic dermatitis	Diagnosis	ICD-10-CM
E13.621	Other specified diabetes mellitus with foot ulcer	Diagnosis	ICD-10-CM
E13.622	Other specified diabetes mellitus with other skin ulcer	Diagnosis	ICD-10-CM
E13.628	Other specified diabetes mellitus with other skin complications	Diagnosis	ICD-10-CM
E13.63	Other specified diabetes mellitus with oral complications	Diagnosis	ICD-10-CM
E13.630	Other specified diabetes mellitus with periodontal disease	Diagnosis	ICD-10-CM
E13.638	Other specified diabetes mellitus with other oral complications	Diagnosis	ICD-10-CM
E13.64	Other specified diabetes mellitus with hypoglycemia	Diagnosis	ICD-10-CM
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
E13.65	Other specified diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E13.69	Other specified diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM
E13.8	Other specified diabetes mellitus with unspecified complications	Diagnosis	ICD-10-CM
E13.9	Other specified diabetes mellitus without complications	Diagnosis	ICD-10-CM
Obesity			
E13.9	Other specified diabetes mellitus without complications	Diagnosis	ICD-9-CM
278.0	Overweight and obesity	Diagnosis	ICD-9-CM
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
E66.01	Morbid (severe) obesity due to excess calories	Diagnosis	ICD-10-CM
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

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Code	Description	Code	
		Category	Code Type
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
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] 50.0-59.9, 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
Pregnancy			
01964	ANESTHESIA FOR ABORTION PROCEDURES	Procedure	CPT-4
01965	Anesthesia for incomplete or missed abortion procedures	Procedure	CPT-4
01966	Anesthesia for induced abortion procedures	Procedure	CPT-4
0W8NXZZ	Division of Female Perineum, External Approach	Procedure	ICD-10-PCS

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Code	Description	Code Category	Code Type
10900ZC	Drainage of Amniotic Fluid, Therapeutic from Products of Conception, Open Approach	Procedure	ICD-10-PCS
10903ZC	Drainage of Amniotic Fluid, Therapeutic from Products of Conception, Percutaneous Approach	Procedure	ICD-10-PCS
10904ZC	Drainage of Amniotic Fluid, Therapeutic from Products of Conception, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
10907ZC	Drainage of Amniotic Fluid, Therapeutic from Products of Conception, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
10908ZC	Drainage of Amniotic Fluid, Therapeutic from Products of Conception, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
10A00ZZ	Abortion of Products of Conception, Open Approach	Procedure	ICD-10-PCS
10A03ZZ	Abortion of Products of Conception, Percutaneous Approach	Procedure	ICD-10-PCS
10A04ZZ	Abortion of Products of Conception, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
10A07Z6	Abortion of Products of Conception, Vacuum, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
10A07ZW	Abortion of Products of Conception, Laminaria, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
10A07ZX	Abortion of Products of Conception, Abortifacient, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
10A07ZZ	Abortion of Products of Conception, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
10A08ZZ	Abortion of Products of Conception, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
10D00Z0	Extraction of Products of Conception, Classical, Open Approach	Procedure	ICD-10-PCS
10D00Z1	Extraction of Products of Conception, Low Cervical, Open Approach	Procedure	ICD-10-PCS
10D00Z2	Extraction of Products of Conception, Extraperitoneal, Open Approach	Procedure	ICD-10-PCS
10D07Z3	Extraction of Products of Conception, Low Forceps, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
10D07Z4	Extraction of Products of Conception, Mid Forceps, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
10D07Z5	Extraction of Products of Conception, High Forceps, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
10D07Z6	Extraction of Products of Conception, Vacuum, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
10D07Z7	Extraction of Products of Conception, Internal Version, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
10D07Z8	Extraction of Products of Conception, Other, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
10D27ZZ	Extraction of products of conception, ectopic, via natural or artificial opening	Procedure	ICD-10-PCS
10D28ZZ	Extraction of products of conception, ectopic, via natural or artificial opening endoscopic	Procedure	ICD-10-PCS
10E0XZZ	Delivery of Products of Conception, External Approach	Procedure	ICD-10-PCS
10S07ZZ	Reposition Products of Conception, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
10T20ZZ	Resection of products of conception, ectopic, open approach	Procedure	ICD-10-PCS
10T23ZZ	Resection of products of conception, ectopic, percutaneous approach	Procedure	ICD-10-PCS
10T24ZZ	Resection of products of conception, ectopic, percutaneous endoscopic approach	Procedure	ICD-10-PCS
10T27ZZ	Resection of products of conception, ectopic, via natural or artificial opening	Procedure	ICD-10-PCS

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Code	Description	Code Category	Code Type
10T28ZZ	Resection of products of conception, ectopic, via natural or artificial opening endoscopic	Procedure	ICD-10-PCS
58321	ARTIFICIAL INSEMINATION; INTRA-CERVICAL	Procedure	CPT-4
58322	ARTIFICIAL INSEMINATION	Procedure	CPT-4
58974	TRANSFER OF EMBRYO	Procedure	CPT-4
58976	Gamete, zygote, or embryo intrafallopian transfer	Procedure	CPT-4
59015	Chorionic villus sampling, any method	Procedure	CPT-4
59100	Surgical treatment of ectopic pregnancy; tubal or ovarian, requiring salpingectomy and/or oophorectomy, abdominal or vaginal approach	Procedure	CPT-4
59120	Surgical treatment of ectopic pregnancy; tubal or ovarian, requiring salpingectomy and/or oophorectomy, abdominal or vaginal approach	Procedure	CPT-4
59121	Surgical treatment of ectopic pregnancy; tubal or ovarian, without salpingectomy and/or oophorectomy	Procedure	CPT-4
59125	Surgical Treatment Of Ectopic Pregnancy	Procedure	CPT-4
59126	Surgical Treatment Of Ectopic Pregnancy	Procedure	CPT-4
59130	Surgical treatment of ectopic pregnancy; abdominal pregnancy	Procedure	CPT-4
59135	Surgical treatment of ectopic pregnancy; interstitial, uterine pregnancy requiring total hysterectomy	Procedure	CPT-4
59136	Surgical treatment of ectopic pregnancy; interstitial, uterine pregnancy with partial resection of uterus	Procedure	CPT-4
59140	Surgical treatment of ectopic pregnancy; cervical, with evacuation	Procedure	CPT-4
59150	Laparoscopic treatment of ectopic pregnancy; without salpingectomy and/or oophorectomy	Procedure	CPT-4
59151	Laparoscopic treatment of ectopic pregnancy; with salpingectomy and/or oophorectomy	Procedure	CPT-4
59400	Routine obstetric care including antepartum care, vaginal delivery (with or without episiotomy, and/or forceps) and postpartum care	Procedure	CPT-4
59409	Vaginal delivery only (with or without episiotomy and/or forceps);	Procedure	CPT-4
59410	Vaginal delivery only (with or without episiotomy and/or forceps); including postpartum care	Procedure	CPT-4
59510	Routine obstetric care including antepartum care, cesarean delivery, and postpartum care	Procedure	CPT-4
59514	Cesarean delivery only;	Procedure	CPT-4
59515	Cesarean delivery only; including postpartum care	Procedure	CPT-4
59610	Routine obstetric care including antepartum care, vaginal delivery (with or without episiotomy, and/or forceps) and postpartum care, after previous cesarean delivery	Procedure	CPT-4
59612	Vaginal delivery only, after previous cesarean delivery (with or without episiotomy and/or forceps);	Procedure	CPT-4
59614	Vaginal delivery only, after previous cesarean delivery (with or without episiotomy and/or forceps); including postpartum care	Procedure	CPT-4

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Code	Description	Code Category	Code Type
59618	Routine obstetric care including antepartum care, cesarean delivery, and postpartum care, following attempted vaginal delivery after previous cesarean delivery	Procedure	CPT-4
59620	Cesarean delivery only, following attempted vaginal delivery after previous cesarean delivery;	Procedure	CPT-4
59622	Cesarean delivery only, following attempted vaginal delivery after previous cesarean delivery; including postpartum care	Procedure	CPT-4
59812	Treatment of incomplete abortion, any trimester, completed surgically	Procedure	CPT-4
59820	Treatment of incomplete abortion completed surgically, first trimester	Procedure	CPT-4
59821	Treatment of incomplete abortion completed surgically, second trimester	Procedure	CPT-4
59830	Treatment of septic abortion, completed surgically	Procedure	CPT-4
59840	INDUCED ABORTION, BY DILATION AND CURETTAGE	Procedure	CPT-4
59841	INDUCED ABORTION, BY DILATION AND EVACUATION	Procedure	CPT-4
59850	INDUCED ABORTION, BY ONE OR MORE INTRAAMNIOTIC INJECTIONS	Procedure	CPT-4
59851	INDUCED ABORTION, BY ONE OR MORE INTRAAMNIOTIC INJECTIONS, WITH DILATION AND CURETTAGE AND/OR EVACUATION	Procedure	CPT-4
59852	INDUCED ABORTION, BY ONE OR MORE INTRAAMNIOTIC INJECTIONS, WITH HYSTEROTOMY	Procedure	CPT-4
59855	INDUCED ABORTION, BY ONE OR MORE VAGINAL SUPPOSITORIES	Procedure	CPT-4
59856	INDUCED ABORTION, BY ONE OR MORE VAGINAL SUPPOSITORIES, WITH DILATION AND CURETTAGE AND/OR EVACUATION	Procedure	CPT-4
59857	INDUCED ABORTION, BY ONE OR MORE VAGINAL SUPPOSITORIES, WITH HYSTEROTOMY	Procedure	CPT-4
59870	Evacuation and curettage of uterus for hydatidiform mole	Procedure	CPT-4
630	Hydatidiform mole	Diagnosis	ICD-9-CM
6318	Other abnormal products of conception	Diagnosis	ICD-9-CM
632	Missed abortion	Diagnosis	ICD-9-CM
633	Ectopic pregnancy	Diagnosis	ICD-9-CM
6330	633.0(ABDOMINAL PREGNANCY)	Diagnosis	ICD-9-CM
63300	633.00(ABD PREG W/O INTRAU PREG)	Diagnosis	ICD-9-CM
63301	633.01(ABD PREG W INTRAUT PREG)	Diagnosis	ICD-9-CM
6331	Tubal pregnancy	Diagnosis	ICD-9-CM
63310	Tubal pregnancy without intrauterine pregnancy	Diagnosis	ICD-9-CM
63311	Tubal pregnancy with intrauterine pregnancy	Diagnosis	ICD-9-CM
6332	Ovarian pregnancy	Diagnosis	ICD-9-CM
63320	Ovarian pregnancy without intrauterine pregnancy	Diagnosis	ICD-9-CM
63321	Ovarian pregnancy with intrauterine pregnancy	Diagnosis	ICD-9-CM
6338	Other ectopic pregnancy	Diagnosis	ICD-9-CM
63380	Other ectopic pregnancy without intrauterine pregnancy	Diagnosis	ICD-9-CM
63381	Other ectopic pregnancy with intrauterine pregnancy	Diagnosis	ICD-9-CM
6339	Unspecified ectopic pregnancy	Diagnosis	ICD-9-CM
63390	Unspecified ectopic pregnancy without intrauterine pregnancy	Diagnosis	ICD-9-CM
63391	Unspecified ectopic pregnancy with intrauterine pregnancy	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
634	Spontaneous abortion	Diagnosis	ICD-9-CM
6340	Spontaneous abortion complicated by genital tract and pelvic infection	Diagnosis	ICD-9-CM
63400	Unspecified spontaneous abortion complicated by genital tract and pelvic infection	Diagnosis	ICD-9-CM
63401	Incomplete spontaneous abortion complicated by genital tract and pelvic infection	Diagnosis	ICD-9-CM
63402	Complete spontaneous abortion complicated by genital tract and pelvic infection	Diagnosis	ICD-9-CM
6341	Spontaneous abortion complicated by delayed or excessive hemorrhage	Diagnosis	ICD-9-CM
63410	Unspecified spontaneous abortion complicated by delayed or excessive hemorrhage	Diagnosis	ICD-9-CM
63411	Incomplete spontaneous abortion complicated by delayed or excessive hemorrhage	Diagnosis	ICD-9-CM
63412	Complete spontaneous abortion complicated by delayed or excessive hemorrhage	Diagnosis	ICD-9-CM
6342	Spontaneous abortion complicated by damage to pelvic organs or tissues	Diagnosis	ICD-9-CM
63420	Unspecified spontaneous abortion complicated by damage to pelvic organs or tissues	Diagnosis	ICD-9-CM
63421	Incomplete spontaneous abortion complicated by damage to pelvic organs or tissues	Diagnosis	ICD-9-CM
63422	Complete spontaneous abortion complicated by damage to pelvic organs or tissues	Diagnosis	ICD-9-CM
6343	Spontaneous abortion complicated by renal failure	Diagnosis	ICD-9-CM
63430	Unspecified spontaneous abortion complicated by renal failure	Diagnosis	ICD-9-CM
63431	Incomplete spontaneous abortion complicated by renal failure	Diagnosis	ICD-9-CM
63432	Complete spontaneous abortion complicated by renal failure	Diagnosis	ICD-9-CM
6344	Spontaneous abortion complicated by metabolic disorder	Diagnosis	ICD-9-CM
63440	Unspecified spontaneous abortion complicated by metabolic disorder	Diagnosis	ICD-9-CM
63441	Incomplete spontaneous abortion complicated by metabolic disorder	Diagnosis	ICD-9-CM
63442	Complete spontaneous abortion complicated by metabolic disorder	Diagnosis	ICD-9-CM
6345	Spontaneous abortion complicated by shock	Diagnosis	ICD-9-CM
63450	Unspecified spontaneous abortion complicated by shock	Diagnosis	ICD-9-CM
63451	Incomplete spontaneous abortion complicated by shock	Diagnosis	ICD-9-CM
63452	Complete spontaneous abortion complicated by shock	Diagnosis	ICD-9-CM
6346	Spontaneous abortion complicated by embolism	Diagnosis	ICD-9-CM
63460	Unspecified spontaneous abortion complicated by embolism	Diagnosis	ICD-9-CM
63461	Incomplete spontaneous abortion complicated by embolism	Diagnosis	ICD-9-CM
63462	Complete spontaneous abortion complicated by embolism	Diagnosis	ICD-9-CM
6347	Spontaneous abortion with other specified complications	Diagnosis	ICD-9-CM
63470	Unspecified spontaneous abortion with other specified complications	Diagnosis	ICD-9-CM
63471	Incomplete spontaneous abortion with other specified complications	Diagnosis	ICD-9-CM
63472	Complete spontaneous abortion with other specified complications	Diagnosis	ICD-9-CM
6348	Spontaneous abortion with unspecified complication	Diagnosis	ICD-9-CM
63480	Unspecified spontaneous abortion with unspecified complication	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
63481	Incomplete spontaneous abortion with unspecified complication	Diagnosis	ICD-9-CM
63482	Complete spontaneous abortion with unspecified complication	Diagnosis	ICD-9-CM
6349	Spontaneous abortion without mention of complication	Diagnosis	ICD-9-CM
63490	Unspecified spontaneous abortion without mention of complication	Diagnosis	ICD-9-CM
63491	Incomplete spontaneous abortion without mention of complication	Diagnosis	ICD-9-CM
63492	Complete spontaneous abortion without mention of complication	Diagnosis	ICD-9-CM
635	Legally induced abortion	Diagnosis	ICD-9-CM
6350	Legally induced abortion complicated by genital tract and pelvic infection	Diagnosis	ICD-9-CM
63500	Unspecified legally induced abortion complicated by genital tract and pelvic infection	Diagnosis	ICD-9-CM
63501	Incomplete legally induced abortion complicated by genital tract and pelvic infection	Diagnosis	ICD-9-CM
63502	Complete legally induced abortion complicated by genital tract and pelvic infection	Diagnosis	ICD-9-CM
6351	Legally induced abortion complicated by delayed or excessive hemorrhage	Diagnosis	ICD-9-CM
63510	Unspecified legally induced abortion complicated by delayed or excessive hemorrhage	Diagnosis	ICD-9-CM
63511	Incomplete legally induced abortion complicated by delayed or excessive hemorrhage	Diagnosis	ICD-9-CM
63512	Complete legally induced abortion complicated by delayed or excessive hemorrhage	Diagnosis	ICD-9-CM
6352	Legally induced abortion complicated by damage to pelvic organs or tissues	Diagnosis	ICD-9-CM
63520	Unspecified legally induced abortion complicated by damage to pelvic organs or tissues	Diagnosis	ICD-9-CM
63521	Legally induced abortion complicated by damage to pelvic organs or tissues, incomplete	Diagnosis	ICD-9-CM
63522	Complete legally induced abortion complicated by damage to pelvic organs or tissues	Diagnosis	ICD-9-CM
6353	Legally induced abortion complicated by renal failure	Diagnosis	ICD-9-CM
63530	Unspecified legally induced abortion complicated by renal failure	Diagnosis	ICD-9-CM
63531	Incomplete legally induced abortion complicated by renal failure	Diagnosis	ICD-9-CM
63532	Complete legally induced abortion complicated by renal failure	Diagnosis	ICD-9-CM
6354	Legally induced abortion complicated by metabolic disorder	Diagnosis	ICD-9-CM
63540	Unspecified legally induced abortion complicated by metabolic disorder	Diagnosis	ICD-9-CM
63541	Incomplete legally induced abortion complicated by metabolic disorder	Diagnosis	ICD-9-CM
63542	Complete legally induced abortion complicated by metabolic disorder	Diagnosis	ICD-9-CM
6355	Legally induced abortion complicated by shock	Diagnosis	ICD-9-CM
63550	Unspecified legally induced abortion complicated by shock	Diagnosis	ICD-9-CM
63551	Legally induced abortion, complicated by shock, incomplete	Diagnosis	ICD-9-CM
63552	Complete legally induced abortion complicated by shock	Diagnosis	ICD-9-CM
6356	Legally induced abortion complicated by embolism	Diagnosis	ICD-9-CM
63560	Unspecified legally induced abortion complicated by embolism	Diagnosis	ICD-9-CM
63561	Incomplete legally induced abortion complicated by embolism	Diagnosis	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
63562	Complete legally induced abortion complicated by embolism	Diagnosis	ICD-9-CM
6357	Legally induced abortion with other specified complications	Diagnosis	ICD-9-CM
63570	Unspecified legally induced abortion with other specified complications	Diagnosis	ICD-9-CM
63571	Incomplete legally induced abortion with other specified complications	Diagnosis	ICD-9-CM
63572	Complete legally induced abortion with other specified complications	Diagnosis	ICD-9-CM
6358	Legally induced abortion with unspecified complication	Diagnosis	ICD-9-CM
63580	Unspecified legally induced abortion with unspecified complication	Diagnosis	ICD-9-CM
63581	Incomplete legally induced abortion with unspecified complication	Diagnosis	ICD-9-CM
63582	Complete legally induced abortion with unspecified complication	Diagnosis	ICD-9-CM
6359	Legally induced abortion without mention of complication	Diagnosis	ICD-9-CM
63590	Unspecified legally induced abortion without mention of complication	Diagnosis	ICD-9-CM
63591	Incomplete legally induced abortion without mention of complication	Diagnosis	ICD-9-CM
63592	Complete legally induced abortion without mention of complication	Diagnosis	ICD-9-CM
636	Illegal abortion	Diagnosis	ICD-9-CM
6360	Illegal abortion complicated by genital tract and pelvic infection	Diagnosis	ICD-9-CM
63600	Unspecified illegally induced abortion complicated by genital tract and pelvic infection	Diagnosis	ICD-9-CM
63601	Incomplete illegally induced abortion complicated by genital tract and pelvic infection	Diagnosis	ICD-9-CM
63602	Complete illegally induced abortion complicated by genital tract and pelvic infection	Diagnosis	ICD-9-CM
6361	Illegal abortion complicated by delayed or excessive hemorrhage	Diagnosis	ICD-9-CM
63610	Unspecified illegally induced abortion complicated by delayed or excessive hemorrhage	Diagnosis	ICD-9-CM
63611	Incomplete illegally induced abortion complicated by delayed or excessive hemorrhage	Diagnosis	ICD-9-CM
63612	Complete illegally induced abortion complicated by delayed or excessive hemorrhage	Diagnosis	ICD-9-CM
6362	Illegal abortion complicated by damage to pelvic organs or tissues	Diagnosis	ICD-9-CM
63620	Unspecified illegally induced abortion complicated by damage to pelvic organs or tissues	Diagnosis	ICD-9-CM
63621	Incomplete illegally induced abortion complicated by damage to pelvic organs or tissues	Diagnosis	ICD-9-CM
63622	Complete illegally induced abortion complicated by damage to pelvic organs or tissues	Diagnosis	ICD-9-CM
6363	Illegal abortion complicated by renal failure	Diagnosis	ICD-9-CM
63630	Unspecified illegally induced abortion complicated by renal failure	Diagnosis	ICD-9-CM
63631	Incomplete illegally induced abortion complicated by renal failure	Diagnosis	ICD-9-CM
63632	Complete illegally induced abortion complicated by renal failure	Diagnosis	ICD-9-CM
6364	Illegal abortion complicated by metabolic disorder	Diagnosis	ICD-9-CM
63640	Unspecified illegally induced abortion complicated by metabolic disorder	Diagnosis	ICD-9-CM
63641	Incomplete illegally induced abortion complicated by metabolic disorder	Diagnosis	ICD-9-CM
63642	Complete illegally induced abortion complicated by metabolic disorder	Diagnosis	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
6365	636.5(ILLEGAL ABORTION W SHOCK)	Diagnosis	ICD-9-CM
63650	Unspecified illegally induced abortion complicated by shock	Diagnosis	ICD-9-CM
63651	Incomplete illegally induced abortion complicated by shock	Diagnosis	ICD-9-CM
63652	Complete illegally induced abortion complicated by shock	Diagnosis	ICD-9-CM
6366	Illegal abortion complicated by embolism	Diagnosis	ICD-9-CM
63660	Unspecified illegally induced abortion complicated by embolism	Diagnosis	ICD-9-CM
63661	Incomplete illegally induced abortion complicated by embolism	Diagnosis	ICD-9-CM
63662	Complete illegally induced abortion complicated by embolism	Diagnosis	ICD-9-CM
6367	Illegal abortion with other specified complications	Diagnosis	ICD-9-CM
63670	Unspecified illegally induced abortion with other specified complications	Diagnosis	ICD-9-CM
63671	Incomplete illegally induced abortion with other specified complications	Diagnosis	ICD-9-CM
63672	Complete illegally induced abortion with other specified complications	Diagnosis	ICD-9-CM
6368	Illegal abortion with unspecified complication	Diagnosis	ICD-9-CM
63680	Unspecified illegally induced abortion with unspecified complication	Diagnosis	ICD-9-CM
63681	Incomplete illegally induced abortion with unspecified complication	Diagnosis	ICD-9-CM
63682	Complete illegally induced abortion with unspecified complication	Diagnosis	ICD-9-CM
6369	Illegal abortion without mention of complication	Diagnosis	ICD-9-CM
63690	Unspecified illegally induced abortion without mention of complication	Diagnosis	ICD-9-CM
63691	Incomplete illegally induced abortion without mention of complication	Diagnosis	ICD-9-CM
63692	Complete illegally induced abortion without mention of complication	Diagnosis	ICD-9-CM
637	637(UNSPECIFIED ABORTION)	Diagnosis	ICD-9-CM
6370	Unspecified abortion complicated by genital tract and pelvic infection	Diagnosis	ICD-9-CM
63700	Abortion, unspecified as to completion or legality, complicated by genital tract and pelvic infection	Diagnosis	ICD-9-CM
63701	Abortion, unspecified as to legality, incomplete, complicated by genital tract and pelvic infection	Diagnosis	ICD-9-CM
63702	Abortion, unspecified as to legality, complete, complicated by genital tract and pelvic infection	Diagnosis	ICD-9-CM
6371	Unspecified abortion complicated by delayed or excessive hemorrhage	Diagnosis	ICD-9-CM
63710	Abortion, unspecified as to completion or legality, complicated by delayed or excessive hemorrhage	Diagnosis	ICD-9-CM
63711	Abortion, unspecified as to legality, incomplete, complicated by delayed or excessive hemorrhage	Diagnosis	ICD-9-CM
63712	Abortion, unspecified as to legality, complete, complicated by delayed or excessive hemorrhage	Diagnosis	ICD-9-CM
6372	637.2(ABORT NOS W PELVIC DAMAG)	Diagnosis	ICD-9-CM
63720	Abortion, unspecified as to completion or legality, complicated by damage to pelvic organs or tissues	Diagnosis	ICD-9-CM
63721	Abortion, unspecified as to legality, incomplete, complicated by damage to pelvic organs or tissues	Diagnosis	ICD-9-CM
63722	Abortion, unspecified as to legality, complete, complicated by damage to pelvic organs or tissues	Diagnosis	ICD-9-CM
6373	637.3(ABORT NOS W RENAL FAIL)	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
63730	Abortion, unspecified as to completion or legality, complicated by renal failure	Diagnosis	ICD-9-CM
63731	Abortion, unspecified as to legality, incomplete, complicated by renal failure	Diagnosis	ICD-9-CM
63732	Abortion, unspecified as to legality, complete, complicated by renal failure	Diagnosis	ICD-9-CM
6374	637.4(ABORT NOS W METABOL DIS)	Diagnosis	ICD-9-CM
63740	Abortion, unspecified as to completion or legality, complicated by metabolic disorder	Diagnosis	ICD-9-CM
63741	Abortion, unspecified as to legality, incomplete, complicated by metabolic disorder	Diagnosis	ICD-9-CM
63742	Abortion, unspecified as to legality, complete, complicated by metabolic disorder	Diagnosis	ICD-9-CM
6375	637.5(ABORTION NOS W SHOCK)	Diagnosis	ICD-9-CM
63750	Abortion, unspecified as to completion or legality, complicated by shock	Diagnosis	ICD-9-CM
63751	Abortion, unspecified as to legality, incomplete, complicated by shock	Diagnosis	ICD-9-CM
63752	Abortion, unspecified as to legality, complete, complicated by shock	Diagnosis	ICD-9-CM
6376	637.6(ABORTION NOS W EMBOLISM)	Diagnosis	ICD-9-CM
63760	Abortion, unspecified as to completion or legality, complicated by embolism	Diagnosis	ICD-9-CM
63761	Abortion, unspecified as to legality, incomplete, complicated by embolism	Diagnosis	ICD-9-CM
63762	Abortion, unspecified as to legality, complete, complicated by embolism	Diagnosis	ICD-9-CM
6377	637.7(ABORTION NOS W COMPL NEC)	Diagnosis	ICD-9-CM
63770	Abortion, unspecified as to completion or legality, with other specified complications	Diagnosis	ICD-9-CM
63771	Abortion, unspecified as to legality, incomplete, with other specified complications	Diagnosis	ICD-9-CM
63772	Abortion, unspecified as to legality, complete, with other specified complications	Diagnosis	ICD-9-CM
6378	637.8(ABORTION NOS W COMPL NOS)	Diagnosis	ICD-9-CM
63780	Abortion, unspecified as to completion or legality, with unspecified complication	Diagnosis	ICD-9-CM
63781	Abortion, unspecified as to legality, incomplete, with unspecified complication	Diagnosis	ICD-9-CM
63782	Abortion, unspecified as to legality, complete, with unspecified complication	Diagnosis	ICD-9-CM
6379	637.9(ABORTION NOS UNCOMPLICAT)	Diagnosis	ICD-9-CM
63790	Unspecified type of abortion, unspecified as to completion or legality, without mention of complication	Diagnosis	ICD-9-CM
63791	Abortion, unspecified as to legality, incomplete, without mention of complication	Diagnosis	ICD-9-CM
63792	Abortion, unspecified as to legality, complete, without mention of complication	Diagnosis	ICD-9-CM
6398	Other specified complications following abortion or ectopic and molar pregnancy	Diagnosis	ICD-9-CM
64101	Placenta previa without hemorrhage, with delivery	Diagnosis	ICD-9-CM
64111	Hemorrhage from placenta previa, with delivery	Diagnosis	ICD-9-CM
64121	Premature separation of placenta, with delivery	Diagnosis	ICD-9-CM
64131	Antepartum hemorrhage associated with coagulation defects, with delivery	Diagnosis	ICD-9-CM
64181	Other antepartum hemorrhage, with delivery	Diagnosis	ICD-9-CM
64191	Unspecified antepartum hemorrhage, with delivery	Diagnosis	ICD-9-CM
64201	Benign essential hypertension with delivery	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
64202	Benign essential hypertension, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64211	Hypertension secondary to renal disease, with delivery	Diagnosis	ICD-9-CM
64212	Hypertension secondary to renal disease, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64221	Other pre-existing hypertension, with delivery	Diagnosis	ICD-9-CM
64222	Other pre-existing hypertension, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64231	Transient hypertension of pregnancy, with delivery	Diagnosis	ICD-9-CM
64232	Transient hypertension of pregnancy, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64241	Mild or unspecified pre-eclampsia, with delivery	Diagnosis	ICD-9-CM
64242	Mild or unspecified pre-eclampsia, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64251	Severe pre-eclampsia, with delivery	Diagnosis	ICD-9-CM
64252	Severe pre-eclampsia, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64261	Eclampsia, with delivery	Diagnosis	ICD-9-CM
64262	Eclampsia, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64271	Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, with delivery	Diagnosis	ICD-9-CM
64272	Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64291	Unspecified hypertension, with delivery	Diagnosis	ICD-9-CM
64292	Unspecified hypertension, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64301	Mild hyperemesis gravidarum, delivered	Diagnosis	ICD-9-CM
64311	Hyperemesis gravidarum with metabolic disturbance, delivered	Diagnosis	ICD-9-CM
64321	Late vomiting of pregnancy, delivered	Diagnosis	ICD-9-CM
64381	Other vomiting complicating pregnancy, delivered	Diagnosis	ICD-9-CM
64391	Unspecified vomiting of pregnancy, delivered	Diagnosis	ICD-9-CM
64421	Early onset of delivery, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64501	Prolonged pregnancy, with delivery	Diagnosis	ICD-9-CM
64510	Post term pregnancy	Diagnosis	ICD-9-CM
64511	Post term pregnancy, delivered, with or without mention of antepartum	Diagnosis	ICD-9-CM
64511	Post term pregnancy	Diagnosis	ICD-9-CM
64513	Post term pregnancy	Diagnosis	ICD-9-CM
64520	Prolonged pregnancy	Diagnosis	ICD-9-CM
64521	Prolonged pregnancy, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64521	Prolonged pregnancy	Diagnosis	ICD-9-CM
64523	Prolonged pregnancy, antepartum condition or complication	Diagnosis	ICD-9-CM
64523	Prolonged pregnancy	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
64601	PAPYRACEOUS FETUS, DELIVERED, WITH OR WITHOUT MENTION ANTEPARTUM COND	Diagnosis	ICD-9-CM
64611	Edema or excessive weight gain in pregnancy, with delivery, with or without mention of antepartum complication	Diagnosis	ICD-9-CM
64612	Edema or excessive weight gain in pregnancy, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64621	Unspecified renal disease in pregnancy, with delivery	Diagnosis	ICD-9-CM
64622	Unspecified renal disease in pregnancy, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64641	Peripheral neuritis in pregnancy, with delivery	Diagnosis	ICD-9-CM
64642	Peripheral neuritis in pregnancy, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64651	Asymptomatic bacteriuria in pregnancy, with delivery	Diagnosis	ICD-9-CM
64652	Asymptomatic bacteriuria in pregnancy, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64661	Infections of genitourinary tract in pregnancy, with delivery	Diagnosis	ICD-9-CM
64662	Infections of genitourinary tract in pregnancy, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64671	Liver and biliary tract disorders in pregnancy, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64681	Other specified complication of pregnancy, with delivery	Diagnosis	ICD-9-CM
64682	Other specified complications of pregnancy, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64691	Unspecified complication of pregnancy, with delivery	Diagnosis	ICD-9-CM
64701	Maternal syphilis, complicating pregnancy, with delivery	Diagnosis	ICD-9-CM
64702	Maternal syphilis, complicating pregnancy, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64711	Maternal gonorrhea with delivery	Diagnosis	ICD-9-CM
64712	Maternal gonorrhea, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64721	Other maternal venereal diseases with delivery	Diagnosis	ICD-9-CM
64722	Other maternal venereal diseases with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64731	Maternal tuberculosis with delivery	Diagnosis	ICD-9-CM
64732	Maternal tuberculosis with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64741	Maternal malaria with delivery	Diagnosis	ICD-9-CM
64742	Maternal malaria with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64751	Maternal rubella with delivery	Diagnosis	ICD-9-CM
64752	Maternal rubella with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64761	Other maternal viral disease with delivery	Diagnosis	ICD-9-CM
64762	Other maternal viral disease with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64781	Other specified maternal infectious and parasitic disease with delivery	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
64782	Other specified maternal infectious and parasitic disease with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64791	Unspecified maternal infection or infestation with delivery	Diagnosis	ICD-9-CM
64792	Unspecified maternal infection or infestation with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64801	Maternal diabetes mellitus with delivery	Diagnosis	ICD-9-CM
64802	Maternal diabetes mellitus with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64811	Maternal thyroid dysfunction with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64812	Maternal thyroid dysfunction with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64821	Maternal anemia, with delivery	Diagnosis	ICD-9-CM
64822	Maternal anemia with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64831	Maternal drug dependence, with delivery	Diagnosis	ICD-9-CM
64832	Maternal drug dependence, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64841	Maternal mental disorders, with delivery	Diagnosis	ICD-9-CM
64842	Maternal mental disorders, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64851	Maternal congenital cardiovascular disorders, with delivery	Diagnosis	ICD-9-CM
64852	Maternal congenital cardiovascular disorders, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64861	Other maternal cardiovascular diseases, with delivery	Diagnosis	ICD-9-CM
64862	Other maternal cardiovascular diseases, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64871	Bone and joint disorders of maternal back, pelvis, and lower limbs, with delivery	Diagnosis	ICD-9-CM
64872	Bone and joint disorders of maternal back, pelvis, and lower limbs, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64881	Abnormal maternal glucose tolerance, with delivery	Diagnosis	ICD-9-CM
64882	Abnormal maternal glucose tolerance, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64891	Other current maternal conditions classifiable elsewhere, with delivery	Diagnosis	ICD-9-CM
64892	Other current maternal conditions classifiable elsewhere, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64901	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64902	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
64911	Obesity complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64912	Obesity complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
64921	Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
64922	Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
64931	Coagulation defects complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64932	Coagulation defects complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
64941	Epilepsy complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64942	Epilepsy complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
64951	Spotting complicating pregnancy, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64961	Uterine size date discrepancy, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64962	Uterine size date discrepancy, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
64971	Cervical shortening, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64981	Onset (spontaneous) of labor after 37 completed weeks of gestation but before 39 completed weeks gestation, with delivery by (planned) cesarean section, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64982	Onset (spontaneous) of labor after 37 completed weeks of gestation but before 39 completed weeks gestation, with delivery by (planned) cesarean section, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
650	Normal delivery	Diagnosis	ICD-9-CM
65101	Twin pregnancy, delivered	Diagnosis	ICD-9-CM
65111	Triplet pregnancy, delivered	Diagnosis	ICD-9-CM
65121	Quadruplet pregnancy, delivered	Diagnosis	ICD-9-CM
65130	Twin pregnancy with fetal loss and retention of one fetus, unspecified as to episode of care or not applicable	Diagnosis	ICD-9-CM
65131	Twin pregnancy with fetal loss and retention of one fetus, delivered	Diagnosis	ICD-9-CM
65133	Twin pregnancy with fetal loss and retention of one fetus, antepartum	Diagnosis	ICD-9-CM
65140	Triplet pregnancy with fetal loss and retention of one or more, unspecified as to episode of care or not applicable	Diagnosis	ICD-9-CM
65141	Triplet pregnancy with fetal loss and retention of one or more, delivered	Diagnosis	ICD-9-CM
65143	Triplet pregnancy with fetal loss and retention of one or more, antepartum	Diagnosis	ICD-9-CM
65150	Quadruplet pregnancy with fetal loss and retention of one or more, unspecified as to episode of care or not applicable	Diagnosis	ICD-9-CM
65151	Quadruplet pregnancy with fetal loss and retention of one or more, delivered	Diagnosis	ICD-9-CM
65153	Quadruplet pregnancy with fetal loss and retention of one or more, antepartum	Diagnosis	ICD-9-CM
65160	Other multiple pregnancy with fetal loss and retention of one or more fetus(es), unspecified as to episode of care or not applicable	Diagnosis	ICD-9-CM
65161	Other multiple pregnancy with fetal loss and retention of one or more fetus(es), delivered	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
65163	Other multiple pregnancy with fetal loss and retention of one or more fetus(es), antepartum	Diagnosis	ICD-9-CM
65171	Multiple gestation following (elective) fetal reduction, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
65181	Other specified multiple gestation, delivered	Diagnosis	ICD-9-CM
65191	Unspecified multiple gestation, delivered	Diagnosis	ICD-9-CM
65201	Unstable lie of fetus, delivered	Diagnosis	ICD-9-CM
65211	Breech or other malpresentation successfully converted to cephalic presentation, delivered	Diagnosis	ICD-9-CM
65221	Breech presentation without mention of version, delivered	Diagnosis	ICD-9-CM
65231	Transverse or oblique fetal presentation, delivered	Diagnosis	ICD-9-CM
65241	Fetal face or brow presentation, delivered	Diagnosis	ICD-9-CM
65251	High fetal head at term, delivered	Diagnosis	ICD-9-CM
65261	Multiple gestation with malpresentation of one fetus or more, delivered	Diagnosis	ICD-9-CM
65271	Prolapsed arm of fetus, delivered	Diagnosis	ICD-9-CM
65281	Other specified malposition or malpresentation of fetus, delivered	Diagnosis	ICD-9-CM
65291	Unspecified malposition or malpresentation of fetus, delivered	Diagnosis	ICD-9-CM
65301	Major abnormality of bony pelvis, not further specified, delivered	Diagnosis	ICD-9-CM
65311	Generally contracted pelvis in pregnancy, delivered	Diagnosis	ICD-9-CM
65321	Inlet contraction of pelvis in pregnancy, delivered	Diagnosis	ICD-9-CM
65331	Outlet contraction of pelvis in pregnancy, delivered	Diagnosis	ICD-9-CM
65341	Fetopelvic disproportion, delivered	Diagnosis	ICD-9-CM
65351	Unusually large fetus causing disproportion, delivered	Diagnosis	ICD-9-CM
65361	Hydrocephalic fetus causing disproportion, delivered	Diagnosis	ICD-9-CM
65371	Other fetal abnormality causing disproportion, delivered	Diagnosis	ICD-9-CM
65381	Fetal disproportion of other origin, delivered	Diagnosis	ICD-9-CM
65391	Unspecified fetal disproportion, delivered	Diagnosis	ICD-9-CM
65401	Congenital abnormalities of pregnant uterus, delivered	Diagnosis	ICD-9-CM
65402	Congenital abnormalities of pregnant uterus, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
65411	Tumors of body of uterus, delivered	Diagnosis	ICD-9-CM
65412	Tumors of body of uterus, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
65421	Previous cesarean delivery, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
65431	Retroverted and incarcerated gravid uterus, delivered	Diagnosis	ICD-9-CM
65432	Retroverted and incarcerated gravid uterus, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
65441	Other abnormalities in shape or position of gravid uterus and of neighboring structures, delivered	Diagnosis	ICD-9-CM
65442	Other abnormalities in shape or position of gravid uterus and of neighboring structures, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
65451	Cervical incompetence, delivered	Diagnosis	ICD-9-CM
65452	Cervical incompetence, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
65461	Other congenital or acquired abnormality of cervix, with delivery	Diagnosis	ICD-9-CM
65462	Other congenital or acquired abnormality of cervix, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
65471	Congenital or acquired abnormality of vagina, with delivery	Diagnosis	ICD-9-CM
65472	Congenital or acquired abnormality of vagina, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
65481	Congenital or acquired abnormality of vulva, with delivery	Diagnosis	ICD-9-CM
65482	Congenital or acquired abnormality of vulva, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
65491	Other and unspecified abnormality of organs and soft tissues of pelvis, with delivery	Diagnosis	ICD-9-CM
65492	Other and unspecified abnormality of organs and soft tissues of pelvis, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
65501	Central nervous system malformation in fetus, with delivery	Diagnosis	ICD-9-CM
65511	Chromosomal abnormality in fetus, affecting management of mother, with delivery	Diagnosis	ICD-9-CM
65521	Hereditary disease in family possibly affecting fetus, affecting management of mother, with delivery	Diagnosis	ICD-9-CM
65531	Suspected damage to fetus from viral disease in mother, affecting management of mother, with delivery	Diagnosis	ICD-9-CM
65541	Suspected damage to fetus from other disease in mother, affecting management of mother, with delivery	Diagnosis	ICD-9-CM
65551	Suspected damage to fetus from drugs, affecting management of mother, delivered	Diagnosis	ICD-9-CM
65561	Suspected damage to fetus from radiation, affecting management of mother, delivered	Diagnosis	ICD-9-CM
65571	Decreased fetal movements, affecting management of mother, delivered	Diagnosis	ICD-9-CM
65581	Other known or suspected fetal abnormality, not elsewhere classified, affecting management of mother, delivery	Diagnosis	ICD-9-CM
65591	Unspecified fetal abnormality affecting management of mother, delivery	Diagnosis	ICD-9-CM
65601	Fetal-maternal hemorrhage, with delivery	Diagnosis	ICD-9-CM
65611	Rhesus isoimmunization affecting management of mother, delivered	Diagnosis	ICD-9-CM
65621	Isoimmunization from other and unspecified blood-group incompatibility, affecting management of mother, delivered	Diagnosis	ICD-9-CM
65631	Fetal distress affecting management of mother, delivered	Diagnosis	ICD-9-CM
65640	Intrauterine death affecting management of mother unspecified as to episode of care	Diagnosis	ICD-9-CM
65641	Intrauterine death, affecting management of mother, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
65643	Intrauterine death affecting management of mother antepartum	Diagnosis	ICD-9-CM
65651	Poor fetal growth, affecting management of mother, delivered	Diagnosis	ICD-9-CM
65661	Excessive fetal growth affecting management of mother, delivered	Diagnosis	ICD-9-CM
65671	Other placental conditions affecting management of mother, delivered	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
65681	Other specified fetal and placental problems affecting management of mother, delivered	Diagnosis	ICD-9-CM
65691	Unspecified fetal and placental problem affecting management of mother, delivered	Diagnosis	ICD-9-CM
65701	Polyhydramnios, with delivery	Diagnosis	ICD-9-CM
65801	Oligohydramnios, delivered	Diagnosis	ICD-9-CM
65811	Premature rupture of membranes in pregnancy, delivered	Diagnosis	ICD-9-CM
65821	Delayed delivery after spontaneous or unspecified rupture of membranes, delivered	Diagnosis	ICD-9-CM
65831	Delayed delivery after artificial rupture of membranes, delivered	Diagnosis	ICD-9-CM
65841	Infection of amniotic cavity, delivered	Diagnosis	ICD-9-CM
65881	Other problem associated with amniotic cavity and membranes, delivered	Diagnosis	ICD-9-CM
65891	Unspecified problem associated with amniotic cavity and membranes, delivered	Diagnosis	ICD-9-CM
65901	Failed mechanical induction of labor, delivered	Diagnosis	ICD-9-CM
65911	Failed medical or unspecified induction of labor, delivered	Diagnosis	ICD-9-CM
65921	Unspecified maternal pyrexia during labor, delivered	Diagnosis	ICD-9-CM
65931	Generalized infection during labor, delivered	Diagnosis	ICD-9-CM
65941	Grand multiparity, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
65951	Elderly primigravida, delivered	Diagnosis	ICD-9-CM
65961	Elderly multigravida, delivered, with mention of antepartum condition	Diagnosis	ICD-9-CM
65971	Abnormality in fetal heart rate or rhythm, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
65981	Other specified indication for care or intervention related to labor and delivery, delivered	Diagnosis	ICD-9-CM
65991	Unspecified indication for care or intervention related to labor and delivery, delivered	Diagnosis	ICD-9-CM
66001	Obstruction caused by malposition of fetus at onset of labor, delivered	Diagnosis	ICD-9-CM
66011	Obstruction by bony pelvis during labor and delivery, delivered	Diagnosis	ICD-9-CM
66021	Obstruction by abnormal pelvic soft tissues during labor and delivery, delivered	Diagnosis	ICD-9-CM
66031	Deep transverse arrest and persistent occipitoposterior position during labor and deliver, delivered	Diagnosis	ICD-9-CM
66041	Shoulder (girdle) dystocia during labor and deliver, delivered	Diagnosis	ICD-9-CM
66051	Locked twins, delivered	Diagnosis	ICD-9-CM
66061	Unspecified failed trial of labor, delivered	Diagnosis	ICD-9-CM
66071	Unspecified failed forceps or vacuum extractor, delivered	Diagnosis	ICD-9-CM
66081	Other causes of obstructed labor, delivered	Diagnosis	ICD-9-CM
66091	Unspecified obstructed labor, with delivery	Diagnosis	ICD-9-CM
66101	Primary uterine inertia, with delivery	Diagnosis	ICD-9-CM
66111	Secondary uterine inertia, with delivery	Diagnosis	ICD-9-CM
66121	Other and unspecified uterine inertia, with delivery	Diagnosis	ICD-9-CM
66131	Precipitate labor, with delivery	Diagnosis	ICD-9-CM
66141	Hypertonic, incoordinate, or prolonged uterine contractions, with delivery	Diagnosis	ICD-9-CM
66191	Unspecified abnormality of labor, with delivery	Diagnosis	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
66201	Prolonged first stage of labor, delivered	Diagnosis	ICD-9-CM
66211	Unspecified prolonged labor, delivered	Diagnosis	ICD-9-CM
66221	Prolonged second stage of labor, delivered	Diagnosis	ICD-9-CM
66231	Delayed delivery of second twin, triplet, etc., delivered	Diagnosis	ICD-9-CM
66301	Prolapse of cord, complicating labor and delivery, delivered	Diagnosis	ICD-9-CM
66311	Cord around neck, with compression, complicating labor and delivery, delivered	Diagnosis	ICD-9-CM
66321	Other and unspecified cord entanglement, with compression, complicating labor and delivery, delivered	Diagnosis	ICD-9-CM
66331	Other and unspecified cord entanglement, without mention of compression, complicating labor and delivery, delivered	Diagnosis	ICD-9-CM
66341	Short cord complicating labor and delivery, delivered	Diagnosis	ICD-9-CM
66351	Vasa previa complicating labor and delivery, delivered	Diagnosis	ICD-9-CM
66361	Vascular lesions of cord complicating labor and delivery, delivered	Diagnosis	ICD-9-CM
66381	Other umbilical cord complications during labor and delivery, delivered	Diagnosis	ICD-9-CM
66391	Unspecified umbilical cord complication during labor and delivery, delivered	Diagnosis	ICD-9-CM
66401	First-degree perineal laceration, with delivery	Diagnosis	ICD-9-CM
66411	Second-degree perineal laceration, with delivery	Diagnosis	ICD-9-CM
66421	Third-degree perineal laceration, with delivery	Diagnosis	ICD-9-CM
66431	Fourth-degree perineal laceration, with delivery	Diagnosis	ICD-9-CM
66441	Unspecified perineal laceration, with delivery	Diagnosis	ICD-9-CM
66451	Vulvar and perineal hematoma, with delivery	Diagnosis	ICD-9-CM
66461	Anal sphincter tear complicating delivery, not associated with third-degree perineal laceration, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
66481	Other specified trauma to perineum and vulva, with delivery	Diagnosis	ICD-9-CM
66491	Unspecified trauma to perineum and vulva, with delivery	Diagnosis	ICD-9-CM
66501	Rupture of uterus before onset of labor, with delivery	Diagnosis	ICD-9-CM
66511	Rupture of uterus during labor, with delivery	Diagnosis	ICD-9-CM
66522	Inversion of uterus, delivered with postpartum complication	Diagnosis	ICD-9-CM
66531	Laceration of cervix, with delivery	Diagnosis	ICD-9-CM
66541	High vaginal laceration, with delivery	Diagnosis	ICD-9-CM
66551	Other injury to pelvic organs, with delivery	Diagnosis	ICD-9-CM
66561	Damage to pelvic joints and ligaments, with delivery	Diagnosis	ICD-9-CM
66571	Pelvic hematoma, with delivery	Diagnosis	ICD-9-CM
66572	Pelvic hematoma, delivered with postpartum complication	Diagnosis	ICD-9-CM
66581	Other specified obstetrical trauma, with delivery	Diagnosis	ICD-9-CM
66582	Other specified obstetrical trauma, delivered, with postpartum	Diagnosis	ICD-9-CM
66591	Unspecified obstetrical trauma, with delivery	Diagnosis	ICD-9-CM
66592	Unspecified obstetrical trauma, delivered, with postpartum complication	Diagnosis	ICD-9-CM
66602	Third-stage postpartum hemorrhage, with delivery	Diagnosis	ICD-9-CM
66612	Other immediate postpartum hemorrhage, with delivery	Diagnosis	ICD-9-CM
6662	REMOV TUBE ECTOP PREG	Procedure	ICD-9-CM
66622	Delayed and secondary postpartum hemorrhage, with delivery	Diagnosis	ICD-9-CM
66632	Postpartum coagulation defects, with delivery	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
66702	Retained placenta without hemorrhage, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
66712	Retained portions of placenta or membranes, without hemorrhage, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
66801	Pulmonary complications of the administration of anesthesia or other sedation in labor and delivery, delivered	Diagnosis	ICD-9-CM
66802	Pulmonary complications of the administration of anesthesia or other sedation in labor and delivery, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
66811	Cardiac complications of the administration of anesthesia or other sedation in labor and delivery, delivered	Diagnosis	ICD-9-CM
66812	Cardiac complications of the administration of anesthesia or other sedation in labor and delivery, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
66821	Central nervous system complications of the administration of anesthesia or other sedation in labor and delivery, delivered	Diagnosis	ICD-9-CM
66822	Central nervous system complications of the administration of anesthesia or other sedation in labor and delivery, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
66881	Other complications of the administration of anesthesia or other sedation in labor and delivery, delivered	Diagnosis	ICD-9-CM
66882	Other complications of the administration of anesthesia or other sedation in labor and delivery, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
66891	Unspecified complication of the administration of anesthesia or other sedation in labor and delivery, delivered	Diagnosis	ICD-9-CM
66892	Unspecified complication of the administration of anesthesia or other sedation in labor and delivery, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
66901	Maternal distress, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
66902	Maternal distress, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
66911	Shock during or following labor and delivery, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
66912	Shock during or following labor and delivery, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
66921	Maternal hypotension syndrome, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
66922	Maternal hypotension syndrome, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
66932	Acute kidney failure following labor and delivery, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
66941	Other complications of obstetrical surgery and PRs, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
66942	Other complications of obstetrical surgery and PRs, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
66951	Forceps or vacuum extractor delivery without mention of indication, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
66961	Breech extraction, without mention of indication, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
66971	Cesarean delivery, without mention of indication, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
66981	Other complication of labor and delivery, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
66982	Other complication of labor and delivery, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
66991	Unspecified complication of labor and delivery, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
66992	Unspecified complication of labor and delivery, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67002	Major puerperal infection, unspecified, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67012	Puerperal endometritis, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67022	Puerperal sepsis, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67032	Puerperal septic thrombophlebitis, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67082	Other major puerperal infection, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67101	Varicose veins of legs, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67102	Varicose veins of legs, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67111	Varicose veins of vulva and perineum, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67112	Varicose veins of vulva and perineum, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67121	Superficial thrombophlebitis with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67122	Superficial thrombophlebitis with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67131	Deep phlebothrombosis, antepartum, with delivery	Diagnosis	ICD-9-CM
67142	Deep phlebothrombosis, postpartum, with delivery	Diagnosis	ICD-9-CM
67151	Other phlebitis and thrombosis with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67152	Other phlebitis and thrombosis with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67181	Other venous complication, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67182	Other venous complication, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
67191	Unspecified venous complication, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67192	Unspecified venous complication, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67202	Puerperal pyrexia of unknown origin, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67301	Obstetrical air embolism, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67302	Obstetrical air embolism, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67311	Amniotic fluid embolism, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67312	Amniotic fluid embolism, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67321	Obstetrical blood-clot embolism, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67322	Obstetrical blood-clot embolism, with mention of postpartum complication	Diagnosis	ICD-9-CM
67331	Obstetrical pyemic and septic embolism, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67332	Obstetrical pyemic and septic embolism, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67381	Other obstetrical pulmonary embolism, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67382	Other obstetrical pulmonary embolism, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67401	Cerebrovascular disorder, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67402	Cerebrovascular disorder, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67412	Disruption of cesarean wound, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67422	Disruption of perineal wound, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67432	Other complication of obstetrical surgical wounds, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67442	Placental polyp, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67451	Peripartum cardiomyopathy, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67452	Peripartum cardiomyopathy, delivered, with mention of postpartum condition	Diagnosis	ICD-9-CM
67482	Other complication of puerperium, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67492	Unspecified complications of puerperium, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
67501	Infection of nipple associated with childbirth, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67502	Infection of nipple associated with childbirth, delivered with mention of postpartum complication	Diagnosis	ICD-9-CM
67511	Abscess of breast associated with childbirth, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67512	Abscess of breast associated with childbirth, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67521	Nonpurulent mastitis, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67522	Nonpurulent mastitis, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67581	Other specified infection of the breast and nipple associated with childbirth, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67582	Other specified infection of the breast and nipple associated with childbirth, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67591	Unspecified infection of the breast and nipple, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67592	Unspecified infection of the breast and nipple, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67601	Retracted nipple, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67602	Retracted nipple, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67611	Cracked nipple, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67612	Cracked nipple, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67621	Engorgement of breasts, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67622	Engorgement of breasts, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67631	Other and unspecified disorder of breast associated with childbirth, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67632	Other and unspecified disorder of breast associated with childbirth, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67641	Failure of lactation, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67642	Failure of lactation, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67651	Suppressed lactation, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67652	Suppressed lactation, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67661	Galactorrhea, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67662	Galactorrhea, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67681	Other disorder of lactation, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67682	Other disorder of lactation, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
67691	Unspecified disorder of lactation, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67692	Unspecified disorder of lactation, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67801	Fetal hematologic conditions, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67811	Fetal conjoined twins, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67901	Maternal complications from in utero PR, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67902	Maternal complications from in utero PR, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67911	Fetal complications from in utero PR, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67912	Fetal complications from in utero PR, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
6901	Dilation and curettage for termination of pregnancy	Procedure	ICD-9-CM
6951	Aspiration curettage of uterus for termination of pregnancy	Procedure	ICD-9-CM
72	Forceps, vacuum, and breech delivery	Procedure	ICD-9-CM
720	Low forceps operation	Procedure	ICD-9-CM
721	Low forceps operation with episiotomy	Procedure	ICD-9-CM
722	Mid forceps operation	Procedure	ICD-9-CM
7221	Mid forceps operation with episiotomy	Procedure	ICD-9-CM
7229	Other mid forceps operation	Procedure	ICD-9-CM
723	High forceps operation	Procedure	ICD-9-CM
7231	High forceps operation with episiotomy	Procedure	ICD-9-CM
7239	Other high forceps operation	Procedure	ICD-9-CM
724	Forceps rotation of fetal head	Procedure	ICD-9-CM
725	Breech extraction	Procedure	ICD-9-CM
7251	Partial breech extraction with forceps to aftercoming head	Procedure	ICD-9-CM
7252	Other partial breech extraction	Procedure	ICD-9-CM
7253	Total breech extraction with forceps to aftercoming head	Procedure	ICD-9-CM
7254	Other total breech extraction	Procedure	ICD-9-CM
726	Forceps application to aftercoming head	Procedure	ICD-9-CM
727	Vacuum extraction	Procedure	ICD-9-CM
7271	Vacuum extraction with episiotomy	Procedure	ICD-9-CM
7279	Other vacuum extraction	Procedure	ICD-9-CM
728	Other specified instrumental delivery	Procedure	ICD-9-CM
729	Unspecified instrumental delivery	Procedure	ICD-9-CM
73	Other PRs inducing or assisting delivery	Procedure	ICD-9-CM
730	Artificial rupture of membranes	Procedure	ICD-9-CM
7301	Induction of labor by artificial rupture of membranes	Procedure	ICD-9-CM
7309	Other artificial rupture of membranes	Procedure	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
731	Other surgical induction of labor	Procedure	ICD-9-CM
732	Internal and combined version and extraction	Procedure	ICD-9-CM
7321	Internal and combined version without extraction	Procedure	ICD-9-CM
7322	Internal and combined version with extraction	Procedure	ICD-9-CM
733	Failed forceps	Procedure	ICD-9-CM
734	Medical induction of labor	Procedure	ICD-9-CM
735	Manually assisted delivery	Procedure	ICD-9-CM
7351	Manual rotation of fetal head	Procedure	ICD-9-CM
7359	Other manually assisted delivery	Procedure	ICD-9-CM
736	Episiotomy	Procedure	ICD-9-CM
738	Operations on fetus to facilitate delivery	Procedure	ICD-9-CM
739	Other operations assisting delivery	Procedure	ICD-9-CM
7391	External version to assist delivery	Procedure	ICD-9-CM
7392	Replacement of prolapsed umbilical cord	Procedure	ICD-9-CM
7393	Incision of cervix to assist delivery	Procedure	ICD-9-CM
7394	Pubiotomy to assist delivery	Procedure	ICD-9-CM
7399	Other operations to assist delivery	Procedure	ICD-9-CM
740	Classical cesarean section	Procedure	ICD-9-CM
741	Low cervical cesarean section	Procedure	ICD-9-CM
742	Extraperitoneal cesarean section	Procedure	ICD-9-CM
743	REMOV INTRAPERIT FETUS	Procedure	ICD-9-CM
744	Cesarean section of other specified type	Procedure	ICD-9-CM
749	Cesarean section of unspecified type	Procedure	ICD-9-CM
7491	Hysterotomy to terminate pregnancy	Procedure	ICD-9-CM
7499	Other cesarean section of unspecified type	Procedure	ICD-9-CM
750	Intra-amniotic injection for abortion	Procedure	ICD-9-CM
7630	Fetus or newborn affected by breech delivery and extraction	Diagnosis	ICD-9-CM
7632	Fetus or newborn affected by forceps delivery	Diagnosis	ICD-9-CM
7633	Fetus or newborn affected by delivery by vacuum extractor	Diagnosis	ICD-9-CM
7634	Fetus or newborn affected by cesarean delivery	Diagnosis	ICD-9-CM
7636	Fetus or newborn affected by precipitate delivery	Diagnosis	ICD-9-CM
76500	Extreme immaturity, unspecified [weight]	Diagnosis	ICD-9-CM
76501	Extreme immaturity, less than 500 grams	Diagnosis	ICD-9-CM
76502	Extreme immaturity, 500-749 grams	Diagnosis	ICD-9-CM
76503	Extreme immaturity, 750-999 grams	Diagnosis	ICD-9-CM
76504	Extreme immaturity, 1,000-1,249 grams	Diagnosis	ICD-9-CM
76505	Extreme immaturity, 1,250-1,499 grams	Diagnosis	ICD-9-CM
76506	Extreme immaturity, 1,500-1,749 grams	Diagnosis	ICD-9-CM
76507	Extreme immaturity, 1,750-1,999 grams	Diagnosis	ICD-9-CM
76508	Extreme immaturity, 2,000-2,499 grams	Diagnosis	ICD-9-CM
76509	Extreme immaturity, 2,500 grams and over	Diagnosis	ICD-9-CM
76510	Other preterm infants, unspecified [weight]	Diagnosis	ICD-9-CM
76511	Other preterm infants, less than 500 grams	Diagnosis	ICD-9-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
76512	Other preterm infants, 500-749 grams	Diagnosis	ICD-9-CM
76513	Other preterm infants, 750-999 grams	Diagnosis	ICD-9-CM
76514	Other preterm infants, 1,000-1,249 grams	Diagnosis	ICD-9-CM
76515	Other preterm infants, 1,250-1,499 grams	Diagnosis	ICD-9-CM
76516	Other preterm infants, 1,500-1,749 grams	Diagnosis	ICD-9-CM
76517	Other preterm infants, 1,750-1,999 grams	Diagnosis	ICD-9-CM
76518	Other preterm infants, 2,000-2,499 grams	Diagnosis	ICD-9-CM
76519	Other preterm infants, 2,500 grams and over	Diagnosis	ICD-9-CM
76520	Unspecified weeks of gestation	Diagnosis	ICD-9-CM
76521	Less than 24 completed weeks of gestation	Diagnosis	ICD-9-CM
76522	24 completed weeks of gestation	Diagnosis	ICD-9-CM
76523	25-26 completed weeks of gestation	Diagnosis	ICD-9-CM
76524	27-28 completed weeks of gestation	Diagnosis	ICD-9-CM
76525	29-30 completed weeks of gestation	Diagnosis	ICD-9-CM
76526	31-32 completed weeks of gestation	Diagnosis	ICD-9-CM
76527	33-34 completed weeks of gestation	Diagnosis	ICD-9-CM
76528	35-36 completed weeks of gestation	Diagnosis	ICD-9-CM
76529	37+ completed weeks of gestation	Diagnosis	ICD-9-CM
76621	Post-term infant	Diagnosis	ICD-9-CM
76622	Prolonged gestation of infant	Diagnosis	ICD-9-CM
7680	Fetal death from asphyxia or anoxia before onset of labor or at unspecified time	Diagnosis	ICD-9-CM
	Ultrasound, pregnant uterus, real time with image documentation, fetal and maternal evaluation, first trimester (< 14 weeks 0 days), transabdominal		
76801	approach; single or first gestation	Procedure	CPT-4
	Ultrasound, pregnant uterus, real time with image documentation, fetal and maternal evaluation, first trimester (< 14 weeks 0 days), transabdominal		
76802	approach; each additional gestation	Procedure	CPT-4
	Complete Ultrasounds (Maternal and Fetal Evaluation); Second and Third		
76805	Trimesters (Single or First Gestation)	Procedure	CPT-4
7681	Fetal death from asphyxia or anoxia during labor	Diagnosis	ICD-9-CM
	Complete Ultrasounds (Maternal and Fetal Evaluation); Second and Third		
76810	Trimesters (Each Additional Gestation)	Procedure	CPT-4
76811	Detailed fetal anatomic examination (single or first gestation)	Procedure	CPT-4
76812	Detailed fetal anatomic examination (Each additional Gestation)	Procedure	CPT-4
76813	Nuchal Translucency Measurement (Single or First Gestation)	Procedure	CPT-4
76814	Nuchal Translucency Measurement (Each Additional Gestation)	Procedure	CPT-4
7796	Termination of pregnancy (fetus)	Diagnosis	ICD-9-CM
81420	Fetal aneuploidy genomic sequence analysis, cell-free fetal DNA	Procedure	CPT-4
	Fetal aneuploidy (trisomy 21, 18, and 13) DNA sequence analysis of selected		
81507	regions using maternal plasma algorithm reported as a risk score for each trisomy	Procedure	CPT-4
82106	Alpha-fetoprotein, amniotic	Procedure	CPT-4
82677	Assay of estriol	Procedure	CPT-4

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Code	Description	Code	
		Category	Code Type
82950	Glucose; post glucose dose (includes glucose)	Procedure	CPT-4
82951	Glucose; tolerance test (GTT), 3 specimens (includes glucose)	Procedure	CPT-4
82952	Glucose tolerance test, additional beyond 3 specimens	Procedure	CPT-4
84163	PAPP-A serum test	Procedure	CPT-4
86336	Inhibin A	Procedure	CPT-4
87081	Group B streptococcus screening (genital)	Procedure	CPT-4
88016	Necropsy (autopsy), gross examination only; macerated stillborn	Procedure	CPT-4
O00	Ectopic pregnancy	Diagnosis	ICD-10-CM
O000	Abdominal pregnancy	Diagnosis	ICD-10-CM
O0000	Abdominal pregnancy without intrauterine pregnancy	Diagnosis	ICD-10-CM
O0001	Abdominal pregnancy with intrauterine pregnancy	Diagnosis	ICD-10-CM
O001	Tubal pregnancy	Diagnosis	ICD-10-CM
O0010	Tubal pregnancy without intrauterine pregnancy	Diagnosis	ICD-10-CM
O00101	Right tubal pregnancy without intrauterine pregnancy	Diagnosis	ICD-10-CM
O00102	Left tubal pregnancy without intrauterine pregnancy	Diagnosis	ICD-10-CM
O00109	Unspecified tubal pregnancy without intrauterine pregnancy	Diagnosis	ICD-10-CM
O0011	Tubal pregnancy with intrauterine pregnancy	Diagnosis	ICD-10-CM
O00111	Right tubal pregnancy with intrauterine pregnancy	Diagnosis	ICD-10-CM
O00112	Left tubal pregnancy with intrauterine pregnancy	Diagnosis	ICD-10-CM
O00119	Unspecified tubal pregnancy with intrauterine pregnancy	Diagnosis	ICD-10-CM
O002	Ovarian pregnancy	Diagnosis	ICD-10-CM
O0020	Ovarian pregnancy WITHOUT INTRAUTERINE PREGNANCY	Diagnosis	ICD-10-CM
O00201	Right ovarian pregnancy without intrauterine pregnancy	Diagnosis	ICD-10-CM
O00202	Left ovarian pregnancy without intrauterine pregnancy	Diagnosis	ICD-10-CM
O00209	Unspecified ovarian pregnancy without intrauterine pregnancy	Diagnosis	ICD-10-CM
O0021	Ovarian pregnancy with intrauterine pregnancy	Diagnosis	ICD-10-CM
O00211	Right ovarian pregnancy with intrauterine pregnancy	Diagnosis	ICD-10-CM
O00212	Left ovarian pregnancy with intrauterine pregnancy	Diagnosis	ICD-10-CM
O00219	Unspecified ovarian pregnancy with intrauterine pregnancy	Diagnosis	ICD-10-CM
O008	Other ectopic pregnancy	Diagnosis	ICD-10-CM
O0080	Other ectopic pregnancy without intrauterine pregnancy	Diagnosis	ICD-10-CM
O0081	Other ectopic pregnancy with intrauterine pregnancy	Diagnosis	ICD-10-CM
O009	Ectopic pregnancy, unspecified	Diagnosis	ICD-10-CM
O0090	Unspecified ectopic pregnancy without intrauterine pregnancy	Diagnosis	ICD-10-CM
O0091	Unspecified ectopic pregnancy with intrauterine pregnancy	Diagnosis	ICD-10-CM
O01	Hydatidiform mole	Diagnosis	ICD-10-CM
O010	Classical hydatidiform mole	Diagnosis	ICD-10-CM
O011	Incomplete and partial hydatidiform mole	Diagnosis	ICD-10-CM
O019	Hydatidiform mole, unspecified	Diagnosis	ICD-10-CM
O020	Blighted ovum and nonhydatidiform mole	Diagnosis	ICD-10-CM
O021	Missed abortion	Diagnosis	ICD-10-CM
O0289	Other abnormal products of conception	Diagnosis	ICD-10-CM
O029	Abnormal products of conception, unspecified	Diagnosis	ICD-10-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
O03	Spontaneous abortion	Diagnosis	ICD-10-CM
O030	Genital tract and pelvic infection following incomplete spontaneous abortion	Diagnosis	ICD-10-CM
O031	Delayed or excessive hemorrhage following incomplete spontaneous abortion	Diagnosis	ICD-10-CM
O032	Embolism following incomplete spontaneous abortion	Diagnosis	ICD-10-CM
O0330	Unspecified complication following incomplete spontaneous abortion	Diagnosis	ICD-10-CM
O0331	Shock following incomplete spontaneous abortion	Diagnosis	ICD-10-CM
O0332	Renal failure following incomplete spontaneous abortion	Diagnosis	ICD-10-CM
O0333	Metabolic disorder following incomplete spontaneous abortion	Diagnosis	ICD-10-CM
O0334	Damage to pelvic organs following incomplete spontaneous abortion	Diagnosis	ICD-10-CM
O0335	Other venous complications following incomplete spontaneous abortion	Diagnosis	ICD-10-CM
O0336	Cardiac arrest following incomplete spontaneous abortion	Diagnosis	ICD-10-CM
O0337	Sepsis following incomplete spontaneous abortion	Diagnosis	ICD-10-CM
O0338	Urinary tract infection following incomplete spontaneous abortion	Diagnosis	ICD-10-CM
O0339	Incomplete spontaneous abortion with other complications	Diagnosis	ICD-10-CM
O034	Incomplete spontaneous abortion without complication	Diagnosis	ICD-10-CM
O035	Genital tract and pelvic infection following complete or unspecified spontaneous abortion	Diagnosis	ICD-10-CM
O036	Delayed or excessive hemorrhage following complete or unspecified spontaneous abortion	Diagnosis	ICD-10-CM
O037	Embolism following complete or unspecified spontaneous abortion	Diagnosis	ICD-10-CM
O0380	Unspecified complication following complete or unspecified spontaneous abortion	Diagnosis	ICD-10-CM
O0381	Shock following complete or unspecified spontaneous abortion	Diagnosis	ICD-10-CM
O0382	Renal failure following complete or unspecified spontaneous abortion	Diagnosis	ICD-10-CM
O0383	Metabolic disorder following complete or unspecified spontaneous abortion	Diagnosis	ICD-10-CM
O0384	Damage to pelvic organs following complete or unspecified spontaneous abortion	Diagnosis	ICD-10-CM
O0385	Other venous complications following complete or unspecified spontaneous abortion	Diagnosis	ICD-10-CM
O0386	Cardiac arrest following complete or unspecified spontaneous abortion	Diagnosis	ICD-10-CM
O0387	Sepsis following complete or unspecified spontaneous abortion	Diagnosis	ICD-10-CM
O0388	Urinary tract infection following complete or unspecified spontaneous abortion	Diagnosis	ICD-10-CM
O0389	Complete or unspecified spontaneous abortion with other complications	Diagnosis	ICD-10-CM
O039	Complete or unspecified spontaneous abortion without complication	Diagnosis	ICD-10-CM
O04	Complications following (induced) termination of pregnancy	Diagnosis	ICD-10-CM
O045	Genital tract and pelvic infection following (induced) termination of pregnancy	Diagnosis	ICD-10-CM
O046	Delayed or excessive hemorrhage following (induced) termination of pregnancy	Diagnosis	ICD-10-CM
O047	Embolism following (induced) termination of pregnancy	Diagnosis	ICD-10-CM
O048	(Induced) termination of pregnancy with other and unspecified complications	Diagnosis	ICD-10-CM
O0480	(Induced) termination of pregnancy with unspecified complications	Diagnosis	ICD-10-CM
O0481	Shock following (induced) termination of pregnancy	Diagnosis	ICD-10-CM
O0482	Renal failure following (induced) termination of pregnancy	Diagnosis	ICD-10-CM
O0483	Metabolic disorder following (induced) termination of pregnancy	Diagnosis	ICD-10-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
O0484	Damage to pelvic organs following (induced) termination of pregnancy	Diagnosis	ICD-10-CM
O0485	Other venous complications following (induced) termination of pregnancy	Diagnosis	ICD-10-CM
O0486	Cardiac arrest following (induced) termination of pregnancy	Diagnosis	ICD-10-CM
O0487	Sepsis following (induced) termination of pregnancy	Diagnosis	ICD-10-CM
O0488	Urinary tract infection following (induced) termination of pregnancy	Diagnosis	ICD-10-CM
O0489	(Induced) termination of pregnancy with other complications	Diagnosis	ICD-10-CM
O080	Genitl trct and pelvic infct fol ectopic and molar pregnancy	Diagnosis	ICD-10-CM
O081	Delayed or excess hemor fol ectopic and molar pregnancy	Diagnosis	ICD-10-CM
O082	Embolism following ectopic and molar pregnancy	Diagnosis	ICD-10-CM
O083	Shock following ectopic and molar pregnancy	Diagnosis	ICD-10-CM
O084	Renal failure following ectopic and molar pregnancy	Diagnosis	ICD-10-CM
O085	Metabolic disorders following an ectopic and molar pregnancy	Diagnosis	ICD-10-CM
O086	Damage to pelvic organs and tiss fol an ect and molar preg	Diagnosis	ICD-10-CM
O087	Oth venous comp following an ectopic and molar pregnancy	Diagnosis	ICD-10-CM
O0881	Cardiac arrest following an ectopic and molar pregnancy	Diagnosis	ICD-10-CM
O0882	Sepsis following ectopic and molar pregnancy	Diagnosis	ICD-10-CM
O0883	Urinary tract infection fol an ectopic and molar pregnancy	Diagnosis	ICD-10-CM
O0889	Other complications following an ectopic and molar pregnancy	Diagnosis	ICD-10-CM
O089	Unsp complication following an ectopic and molar pregnancy	Diagnosis	ICD-10-CM
O0901	Supervision of pregnancy with history of infertility, first trimester	Diagnosis	ICD-10-CM
O0902	Supervision of pregnancy with history of infertility, second trimester	Diagnosis	ICD-10-CM
O0903	Supervision of pregnancy with history of infertility, third trimester	Diagnosis	ICD-10-CM
O0911	Supervision of pregnancy with history of ectopic pregnancy, first trimester	Diagnosis	ICD-10-CM
O0912	Supervision of pregnancy with history of ectopic pregnancy, second trimester	Diagnosis	ICD-10-CM
O0913	Supervision of pregnancy with history of ectopic pregnancy, third trimester	Diagnosis	ICD-10-CM
O09211	Supervision of pregnancy with history of pre-term labor, first trimester	Diagnosis	ICD-10-CM
O09212	Supervision of pregnancy with history of pre-term labor, second trimester	Diagnosis	ICD-10-CM
O09213	Supervision of pregnancy with history of pre-term labor, third trimester	Diagnosis	ICD-10-CM
O09291	Supervision of pregnancy with other poor reproductive or obstetric history, first trimester	Diagnosis	ICD-10-CM
O09292	Supervision of pregnancy with other poor reproductive or obstetric history, second trimester	Diagnosis	ICD-10-CM
O09293	Supervision of pregnancy with other poor reproductive or obstetric history, third trimester	Diagnosis	ICD-10-CM
O0931	Supervision of pregnancy with insufficient antenatal care, first trimester	Diagnosis	ICD-10-CM
O0932	Supervision of pregnancy with insufficient antenatal care, second trimester	Diagnosis	ICD-10-CM
O0933	Supervision of pregnancy with insufficient antenatal care, third trimester	Diagnosis	ICD-10-CM
O0941	Supervision of pregnancy with grand multiparity, first trimester	Diagnosis	ICD-10-CM
O0942	Supervision of pregnancy with grand multiparity, second trimester	Diagnosis	ICD-10-CM
O0943	Supervision of pregnancy with grand multiparity, third trimester	Diagnosis	ICD-10-CM
O09511	Supervision of elderly primigravida, first trimester	Diagnosis	ICD-10-CM
O09512	Supervision of elderly primigravida, second trimester	Diagnosis	ICD-10-CM
O09513	Supervision of elderly primigravida, third trimester	Diagnosis	ICD-10-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
O09521	Supervision of elderly multigravida, first trimester	Diagnosis	ICD-10-CM
O09522	Supervision of elderly multigravida, second trimester	Diagnosis	ICD-10-CM
O09523	Supervision of elderly multigravida, third trimester	Diagnosis	ICD-10-CM
O09611	Supervision of young primigravida, first trimester	Diagnosis	ICD-10-CM
O09612	Supervision of young primigravida, second trimester	Diagnosis	ICD-10-CM
O09613	Supervision of young primigravida, third trimester	Diagnosis	ICD-10-CM
O09621	Supervision of young multigravida, first trimester	Diagnosis	ICD-10-CM
O09622	Supervision of young multigravida, second trimester	Diagnosis	ICD-10-CM
O09623	Supervision of young multigravida, third trimester	Diagnosis	ICD-10-CM
O0971	Supervision of high risk pregnancy due to social problems, first trimester	Diagnosis	ICD-10-CM
O0972	Supervision of high risk pregnancy due to social problems, second trimester	Diagnosis	ICD-10-CM
O0973	Supervision of high risk pregnancy due to social problems, third trimester	Diagnosis	ICD-10-CM
O09811	Supervision of pregnancy resulting from assisted reproductive technology, first trimester	Diagnosis	ICD-10-CM
O09812	Supervision of pregnancy resulting from assisted reproductive technology, second trimester	Diagnosis	ICD-10-CM
O09813	Supervision of pregnancy resulting from assisted reproductive technology, third trimester	Diagnosis	ICD-10-CM
O09821	Supervision of pregnancy with history of in utero procedure during previous pregnancy, first trimester	Diagnosis	ICD-10-CM
O09822	Supervision of pregnancy with history of in utero procedure during previous pregnancy, second trimester	Diagnosis	ICD-10-CM
O09823	Supervision of pregnancy with history of in utero procedure during previous pregnancy, third trimester	Diagnosis	ICD-10-CM
O09891	Supervision of other high risk pregnancies, first trimester	Diagnosis	ICD-10-CM
O09892	Supervision of other high risk pregnancies, second trimester	Diagnosis	ICD-10-CM
O09893	Supervision of other high risk pregnancies, third trimester	Diagnosis	ICD-10-CM
O0991	Supervision of high risk pregnancy, unspecified, first trimester	Diagnosis	ICD-10-CM
O0992	Supervision of high risk pregnancy, unspecified, second trimester	Diagnosis	ICD-10-CM
O0993	Supervision of high risk pregnancy, unspecified, third trimester	Diagnosis	ICD-10-CM
O09A1	Supervision of pregnancy with history of molar pregnancy, first trimester	Diagnosis	ICD-10-CM
O09A2	Supervision of pregnancy with history of molar pregnancy, second trimester	Diagnosis	ICD-10-CM
O09A3	Supervision of pregnancy with history of molar pregnancy, third trimester	Diagnosis	ICD-10-CM
O10011	Pre-existing essential hypertension complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O10012	Pre-existing essential hypertension complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O10013	Pre-existing essential hypertension complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O1002	Pre-existing essential hypertension complicating childbirth	Diagnosis	ICD-10-CM
O10111	Pre-existing hypertensive heart disease complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O10112	Pre-existing hypertensive heart disease complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O10113	Pre-existing hypertensive heart disease complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O1012	Pre-existing hypertensive heart disease complicating childbirth	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O10211	Pre-existing hypertensive chronic kidney disease complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O10212	Pre-existing hypertensive chronic kidney disease complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O10213	Pre-existing hypertensive chronic kidney disease complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O1022	Pre-existing hypertensive chronic kidney disease complicating childbirth	Diagnosis	ICD-10-CM
O10311	Pre-existing hypertensive heart and chronic kidney disease complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O10312	Pre-existing hypertensive heart and chronic kidney disease complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O10313	Pre-existing hypertensive heart and chronic kidney disease complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O1032	Pre-existing hypertensive heart and chronic kidney disease complicating childbirth	Diagnosis	ICD-10-CM
O10411	Pre-existing secondary hypertension complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O10412	Pre-existing secondary hypertension complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O10413	Pre-existing secondary hypertension complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O1042	Pre-existing secondary hypertension complicating childbirth	Diagnosis	ICD-10-CM
O10911	Unspecified pre-existing hypertension complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O10912	Unspecified pre-existing hypertension complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O10913	Unspecified pre-existing hypertension complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O1092	Unspecified pre-existing hypertension complicating childbirth	Diagnosis	ICD-10-CM
O111	Pre-existing hypertension with pre-eclampsia, first trimester	Diagnosis	ICD-10-CM
O112	Pre-existing hypertension with pre-eclampsia, second trimester	Diagnosis	ICD-10-CM
O113	Pre-existing hypertension with pre-eclampsia, third trimester	Diagnosis	ICD-10-CM
O114	Pre-existing hypertension with pre-eclampsia, complicating childbirth	Diagnosis	ICD-10-CM
O1201	Gestational edema, first trimester	Diagnosis	ICD-10-CM
O1202	Gestational edema, second trimester	Diagnosis	ICD-10-CM
O1203	Gestational edema, third trimester	Diagnosis	ICD-10-CM
O1204	Gestational edema, complicating childbirth	Diagnosis	ICD-10-CM
O1211	Gestational proteinuria, first trimester	Diagnosis	ICD-10-CM
O1212	Gestational proteinuria, second trimester	Diagnosis	ICD-10-CM
O1213	Gestational proteinuria, third trimester	Diagnosis	ICD-10-CM
O1214	Gestational proteinuria, complicating childbirth	Diagnosis	ICD-10-CM
O1221	Gestational edema with proteinuria, first trimester	Diagnosis	ICD-10-CM
O1222	Gestational edema with proteinuria, second trimester	Diagnosis	ICD-10-CM
O1223	Gestational edema with proteinuria, third trimester	Diagnosis	ICD-10-CM
O1224	Gestational edema with proteinuria, complicating childbirth	Diagnosis	ICD-10-CM
O131	Gestational [pregnancy-induced] hypertension without significant proteinuria, first trimester	Diagnosis	ICD-10-CM
O132	Gestational [pregnancy-induced] hypertension without significant proteinuria, second trimester	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O133	Gestational [pregnancy-induced] hypertension without significant proteinuria, third trimester	Diagnosis	ICD-10-CM
O134	Gestational [pregnancy-induced] hypertension without significant proteinuria, complicating childbirth	Diagnosis	ICD-10-CM
O1402	Mild to moderate pre-eclampsia, second trimester	Diagnosis	ICD-10-CM
O1403	Mild to moderate pre-eclampsia, third trimester	Diagnosis	ICD-10-CM
O1404	Mild to moderate pre-eclampsia, complicating childbirth	Diagnosis	ICD-10-CM
O1412	Severe pre-eclampsia, second trimester	Diagnosis	ICD-10-CM
O1413	Severe pre-eclampsia, third trimester	Diagnosis	ICD-10-CM
O1414	Severe pre-eclampsia complicating childbirth	Diagnosis	ICD-10-CM
O1422	HELLP syndrome (HELLP), second trimester	Diagnosis	ICD-10-CM
O1423	HELLP syndrome (HELLP), third trimester	Diagnosis	ICD-10-CM
O1424	HELLP syndrome, complicating childbirth	Diagnosis	ICD-10-CM
O1492	Unspecified pre-eclampsia, second trimester	Diagnosis	ICD-10-CM
O1493	Unspecified pre-eclampsia, third trimester	Diagnosis	ICD-10-CM
O1494	Unspecified pre-eclampsia, complicating childbirth	Diagnosis	ICD-10-CM
O1502	Eclampsia complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O1503	Eclampsia complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O161	Unspecified maternal hypertension, first trimester	Diagnosis	ICD-10-CM
O162	Unspecified maternal hypertension, second trimester	Diagnosis	ICD-10-CM
O163	Unspecified maternal hypertension, third trimester	Diagnosis	ICD-10-CM
O164	Unspecified maternal hypertension, complicating childbirth	Diagnosis	ICD-10-CM
O2201	Varicose veins of lower extremity in pregnancy, first trimester	Diagnosis	ICD-10-CM
O2202	Varicose veins of lower extremity in pregnancy, second trimester	Diagnosis	ICD-10-CM
O2203	Varicose veins of lower extremity in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2211	Genital varices in pregnancy, first trimester	Diagnosis	ICD-10-CM
O2212	Genital varices in pregnancy, second trimester	Diagnosis	ICD-10-CM
O2213	Genital varices in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2221	Superficial thrombophlebitis in pregnancy, first trimester	Diagnosis	ICD-10-CM
O2222	Superficial thrombophlebitis in pregnancy, second trimester	Diagnosis	ICD-10-CM
O2223	Superficial thrombophlebitis in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2231	Deep phlebothrombosis in pregnancy, first trimester	Diagnosis	ICD-10-CM
O2232	Deep phlebothrombosis in pregnancy, second trimester	Diagnosis	ICD-10-CM
O2233	Deep phlebothrombosis in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2241	Hemorrhoids in pregnancy, first trimester	Diagnosis	ICD-10-CM
O2242	Hemorrhoids in pregnancy, second trimester	Diagnosis	ICD-10-CM
O2243	Hemorrhoids in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2251	Cerebral venous thrombosis in pregnancy, first trimester	Diagnosis	ICD-10-CM
O2252	Cerebral venous thrombosis in pregnancy, second trimester	Diagnosis	ICD-10-CM
O2253	Cerebral venous thrombosis in pregnancy, third trimester	Diagnosis	ICD-10-CM
O228X1	Other venous complications in pregnancy, first trimester	Diagnosis	ICD-10-CM
O228X2	Other venous complications in pregnancy, second trimester	Diagnosis	ICD-10-CM
O228X3	Other venous complications in pregnancy, third trimester	Diagnosis	ICD-10-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
O2291	Venous complication in pregnancy, unspecified, first trimester	Diagnosis	ICD-10-CM
O2292	Venous complication in pregnancy, unspecified, second trimester	Diagnosis	ICD-10-CM
O2293	Venous complication in pregnancy, unspecified, third trimester	Diagnosis	ICD-10-CM
O2301	Infections of kidney in pregnancy, first trimester	Diagnosis	ICD-10-CM
O2302	Infections of kidney in pregnancy, second trimester	Diagnosis	ICD-10-CM
O2303	Infections of kidney in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2311	Infections of bladder in pregnancy, first trimester	Diagnosis	ICD-10-CM
O2312	Infections of bladder in pregnancy, second trimester	Diagnosis	ICD-10-CM
O2313	Infections of bladder in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2321	Infections of urethra in pregnancy, first trimester	Diagnosis	ICD-10-CM
O2322	Infections of urethra in pregnancy, second trimester	Diagnosis	ICD-10-CM
O2323	Infections of urethra in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2331	Infections of other parts of urinary tract in pregnancy, first trimester	Diagnosis	ICD-10-CM
O2332	Infections of other parts of urinary tract in pregnancy, second trimester	Diagnosis	ICD-10-CM
O2333	Infections of other parts of urinary tract in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2341	Unspecified infection of urinary tract in pregnancy, first trimester	Diagnosis	ICD-10-CM
O2342	Unspecified infection of urinary tract in pregnancy, second trimester	Diagnosis	ICD-10-CM
O2343	Unspecified infection of urinary tract in pregnancy, third trimester	Diagnosis	ICD-10-CM
O23511	Infections of cervix in pregnancy, first trimester	Diagnosis	ICD-10-CM
O23512	Infections of cervix in pregnancy, second trimester	Diagnosis	ICD-10-CM
O23513	Infections of cervix in pregnancy, third trimester	Diagnosis	ICD-10-CM
O23521	Salpingo-oophoritis in pregnancy, first trimester	Diagnosis	ICD-10-CM
O23522	Salpingo-oophoritis in pregnancy, second trimester	Diagnosis	ICD-10-CM
O23523	Salpingo-oophoritis in pregnancy, third trimester	Diagnosis	ICD-10-CM
O23591	Infection of other part of genital tract in pregnancy, first trimester	Diagnosis	ICD-10-CM
O23592	Infection of other part of genital tract in pregnancy, second trimester	Diagnosis	ICD-10-CM
O23593	Infection of other part of genital tract in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2391	Unspecified genitourinary tract infection in pregnancy, first trimester	Diagnosis	ICD-10-CM
O2392	Unspecified genitourinary tract infection in pregnancy, second trimester	Diagnosis	ICD-10-CM
O2393	Unspecified genitourinary tract infection in pregnancy, third trimester	Diagnosis	ICD-10-CM
O24011	Pre-existing type 1 diabetes mellitus, in pregnancy, first trimester	Diagnosis	ICD-10-CM
O24012	Pre-existing type 1 diabetes mellitus, in pregnancy, second trimester	Diagnosis	ICD-10-CM
O24013	Pre-existing type 1 diabetes mellitus, in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2402	Pre-existing type 1 diabetes mellitus, in childbirth	Diagnosis	ICD-10-CM
O24111	Pre-existing type 2 diabetes mellitus, in pregnancy, first trimester	Diagnosis	ICD-10-CM
O24112	Pre-existing type 2 diabetes mellitus, in pregnancy, second trimester	Diagnosis	ICD-10-CM
O24113	Pre-existing type 2 diabetes mellitus, in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2412	Pre-existing type 2 diabetes mellitus, in childbirth	Diagnosis	ICD-10-CM
O24311	Unspecified pre-existing diabetes mellitus in pregnancy, first trimester	Diagnosis	ICD-10-CM
O24312	Unspecified pre-existing diabetes mellitus in pregnancy, second trimester	Diagnosis	ICD-10-CM
O24313	Unspecified pre-existing diabetes mellitus in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2432	Unspecified pre-existing diabetes mellitus in childbirth	Diagnosis	ICD-10-CM
O24420	Gestational diabetes mellitus in childbirth, diet controlled	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O24424	Gestational diabetes mellitus in childbirth, insulin controlled	Diagnosis	ICD-10-CM
O24425	Gestational diabetes mellitus in childbirth, controlled by oral hypoglycemic drugs	Diagnosis	ICD-10-CM
O24429	Gestational diabetes mellitus in childbirth, unspecified control	Diagnosis	ICD-10-CM
O24811	Other pre-existing diabetes mellitus in pregnancy, first trimester	Diagnosis	ICD-10-CM
O24812	Other pre-existing diabetes mellitus in pregnancy, second trimester	Diagnosis	ICD-10-CM
O24813	Other pre-existing diabetes mellitus in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2482	Other pre-existing diabetes mellitus in childbirth	Diagnosis	ICD-10-CM
O24911	Unspecified diabetes mellitus in pregnancy, first trimester	Diagnosis	ICD-10-CM
O24912	Unspecified diabetes mellitus in pregnancy, second trimester	Diagnosis	ICD-10-CM
O24913	Unspecified diabetes mellitus in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2492	Unspecified diabetes mellitus in childbirth	Diagnosis	ICD-10-CM
O2511	Malnutrition in pregnancy, first trimester	Diagnosis	ICD-10-CM
O2512	Malnutrition in pregnancy, second trimester	Diagnosis	ICD-10-CM
O2513	Malnutrition in pregnancy, third trimester	Diagnosis	ICD-10-CM
O252	Malnutrition in childbirth	Diagnosis	ICD-10-CM
O2601	Excessive weight gain in pregnancy, first trimester	Diagnosis	ICD-10-CM
O2602	Excessive weight gain in pregnancy, second trimester	Diagnosis	ICD-10-CM
O2603	Excessive weight gain in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2611	Low weight gain in pregnancy, first trimester	Diagnosis	ICD-10-CM
O2612	Low weight gain in pregnancy, second trimester	Diagnosis	ICD-10-CM
O2613	Low weight gain in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2621	Pregnancy care for patient with recurrent pregnancy loss, first trimester	Diagnosis	ICD-10-CM
O2622	Pregnancy care for patient with recurrent pregnancy loss, second trimester	Diagnosis	ICD-10-CM
O2623	Pregnancy care for patient with recurrent pregnancy loss, third trimester	Diagnosis	ICD-10-CM
O2631	Retained intrauterine contraceptive device in pregnancy, first trimester	Diagnosis	ICD-10-CM
O2632	Retained intrauterine contraceptive device in pregnancy, second trimester	Diagnosis	ICD-10-CM
O2633	Retained intrauterine contraceptive device in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2641	Herpes gestationis, first trimester	Diagnosis	ICD-10-CM
O2642	Herpes gestationis, second trimester	Diagnosis	ICD-10-CM
O2643	Herpes gestationis, third trimester	Diagnosis	ICD-10-CM
O2651	Maternal hypotension syndrome, first trimester	Diagnosis	ICD-10-CM
O2652	Maternal hypotension syndrome, second trimester	Diagnosis	ICD-10-CM
O2653	Maternal hypotension syndrome, third trimester	Diagnosis	ICD-10-CM
O26611	Liver and biliary tract disorders in pregnancy, first trimester	Diagnosis	ICD-10-CM
O26612	Liver and biliary tract disorders in pregnancy, second trimester	Diagnosis	ICD-10-CM
O26613	Liver and biliary tract disorders in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2662	Liver and biliary tract disorders in childbirth	Diagnosis	ICD-10-CM
O26711	Subluxation of symphysis (pubis) in pregnancy, first trimester	Diagnosis	ICD-10-CM
O26712	Subluxation of symphysis (pubis) in pregnancy, second trimester	Diagnosis	ICD-10-CM
O26713	Subluxation of symphysis (pubis) in pregnancy, third trimester	Diagnosis	ICD-10-CM
O2672	Subluxation of symphysis (pubis) in childbirth	Diagnosis	ICD-10-CM
O26811	Pregnancy related exhaustion and fatigue, first trimester	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O26812	Pregnancy related exhaustion and fatigue, second trimester	Diagnosis	ICD-10-CM
O26813	Pregnancy related exhaustion and fatigue, third trimester	Diagnosis	ICD-10-CM
O26821	Pregnancy related peripheral neuritis, first trimester	Diagnosis	ICD-10-CM
O26822	Pregnancy related peripheral neuritis, second trimester	Diagnosis	ICD-10-CM
O26823	Pregnancy related peripheral neuritis, third trimester	Diagnosis	ICD-10-CM
O26831	Pregnancy related renal disease, first trimester	Diagnosis	ICD-10-CM
O26832	Pregnancy related renal disease, second trimester	Diagnosis	ICD-10-CM
O26833	Pregnancy related renal disease, third trimester	Diagnosis	ICD-10-CM
O26841	Uterine size-date discrepancy, first trimester	Diagnosis	ICD-10-CM
O26842	Uterine size-date discrepancy, second trimester	Diagnosis	ICD-10-CM
O26843	Uterine size-date discrepancy, third trimester	Diagnosis	ICD-10-CM
O26851	Spotting complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O26852	Spotting complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O26853	Spotting complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O26872	Cervical shortening, second trimester	Diagnosis	ICD-10-CM
O26873	Cervical shortening, third trimester	Diagnosis	ICD-10-CM
O26891	Other specified pregnancy related conditions, first trimester	Diagnosis	ICD-10-CM
O26892	Other specified pregnancy related conditions, second trimester	Diagnosis	ICD-10-CM
O26893	Other specified pregnancy related conditions, third trimester	Diagnosis	ICD-10-CM
O2691	Pregnancy related conditions, unspecified, first trimester	Diagnosis	ICD-10-CM
O2692	Pregnancy related conditions, unspecified, second trimester	Diagnosis	ICD-10-CM
O2693	Pregnancy related conditions, unspecified, third trimester	Diagnosis	ICD-10-CM
O29011	Aspiration pneumonitis due to anesthesia during pregnancy, first trimester	Diagnosis	ICD-10-CM
O29012	Aspiration pneumonitis due to anesthesia during pregnancy, second trimester	Diagnosis	ICD-10-CM
O29013	Aspiration pneumonitis due to anesthesia during pregnancy, third trimester	Diagnosis	ICD-10-CM
O29021	Pressure collapse of lung due to anesthesia during pregnancy, first trimester	Diagnosis	ICD-10-CM
O29022	Pressure collapse of lung due to anesthesia during pregnancy, second trimester	Diagnosis	ICD-10-CM
O29023	Pressure collapse of lung due to anesthesia during pregnancy, third trimester	Diagnosis	ICD-10-CM
O29091	Other pulmonary complications of anesthesia during pregnancy, first trimester	Diagnosis	ICD-10-CM
O29092	Other pulmonary complications of anesthesia during pregnancy, second trimester	Diagnosis	ICD-10-CM
O29093	Other pulmonary complications of anesthesia during pregnancy, third trimester	Diagnosis	ICD-10-CM
O29111	Cardiac arrest due to anesthesia during pregnancy, first trimester	Diagnosis	ICD-10-CM
O29112	Cardiac arrest due to anesthesia during pregnancy, second trimester	Diagnosis	ICD-10-CM
O29113	Cardiac arrest due to anesthesia during pregnancy, third trimester	Diagnosis	ICD-10-CM
O29121	Cardiac failure due to anesthesia during pregnancy, first trimester	Diagnosis	ICD-10-CM
O29122	Cardiac failure due to anesthesia during pregnancy, second trimester	Diagnosis	ICD-10-CM
O29123	Cardiac failure due to anesthesia during pregnancy, third trimester	Diagnosis	ICD-10-CM
O29191	Other cardiac complications of anesthesia during pregnancy, first trimester	Diagnosis	ICD-10-CM
O29192	Other cardiac complications of anesthesia during pregnancy, second trimester	Diagnosis	ICD-10-CM
O29193	Other cardiac complications of anesthesia during pregnancy, third trimester	Diagnosis	ICD-10-CM
O29211	Cerebral anoxia due to anesthesia during pregnancy, first trimester	Diagnosis	ICD-10-CM
O29212	Cerebral anoxia due to anesthesia during pregnancy, second trimester	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
O29213	Cerebral anoxia due to anesthesia during pregnancy, third trimester	Diagnosis	ICD-10-CM
O29291	Other central nervous system complications of anesthesia during pregnancy, first trimester	Diagnosis	ICD-10-CM
O29292	Other central nervous system complications of anesthesia during pregnancy, second trimester	Diagnosis	ICD-10-CM
O29293	Other central nervous system complications of anesthesia during pregnancy, third trimester	Diagnosis	ICD-10-CM
O293X1	Toxic reaction to local anesthesia during pregnancy, first trimester	Diagnosis	ICD-10-CM
O293X2	Toxic reaction to local anesthesia during pregnancy, second trimester	Diagnosis	ICD-10-CM
O293X3	Toxic reaction to local anesthesia during pregnancy, third trimester	Diagnosis	ICD-10-CM
O2941	Spinal and epidural anesthesia induced headache during pregnancy, first trimester	Diagnosis	ICD-10-CM
O2942	Spinal and epidural anesthesia induced headache during pregnancy, second trimester	Diagnosis	ICD-10-CM
O2943	Spinal and epidural anesthesia induced headache during pregnancy, third trimester	Diagnosis	ICD-10-CM
O295X1	Other complications of spinal and epidural anesthesia during pregnancy, first trimester	Diagnosis	ICD-10-CM
O295X2	Other complications of spinal and epidural anesthesia during pregnancy, second trimester	Diagnosis	ICD-10-CM
O295X3	Other complications of spinal and epidural anesthesia during pregnancy, third trimester	Diagnosis	ICD-10-CM
O2961	Failed or difficult intubation for anesthesia during pregnancy, first trimester	Diagnosis	ICD-10-CM
O2962	Failed or difficult intubation for anesthesia during pregnancy, second trimester	Diagnosis	ICD-10-CM
O2963	Failed or difficult intubation for anesthesia during pregnancy, third trimester	Diagnosis	ICD-10-CM
O298X1	Other complications of anesthesia during pregnancy, first trimester	Diagnosis	ICD-10-CM
O298X2	Other complications of anesthesia during pregnancy, second trimester	Diagnosis	ICD-10-CM
O298X3	Other complications of anesthesia during pregnancy, third trimester	Diagnosis	ICD-10-CM
O2991	Unspecified complication of anesthesia during pregnancy, first trimester	Diagnosis	ICD-10-CM
O2992	Unspecified complication of anesthesia during pregnancy, second trimester	Diagnosis	ICD-10-CM
O2993	Unspecified complication of anesthesia during pregnancy, third trimester	Diagnosis	ICD-10-CM
O30001	Twin pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, first trimester	Diagnosis	ICD-10-CM
O30002	Twin pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, second trimester	Diagnosis	ICD-10-CM
O30003	Twin pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, third trimester	Diagnosis	ICD-10-CM
O30011	Twin pregnancy, monochorionic/monoamniotic, first trimester	Diagnosis	ICD-10-CM
O30012	Twin pregnancy, monochorionic/monoamniotic, second trimester	Diagnosis	ICD-10-CM
O30013	Twin pregnancy, monochorionic/monoamniotic, third trimester	Diagnosis	ICD-10-CM
O30021	Conjoined twin pregnancy, first trimester	Diagnosis	ICD-10-CM
O30022	Conjoined twin pregnancy, second trimester	Diagnosis	ICD-10-CM
O30023	Conjoined twin pregnancy, third trimester	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O30031	Twin pregnancy, monochorionic/diamniotic, first trimester	Diagnosis	ICD-10-CM
O30032	Twin pregnancy, monochorionic/diamniotic, second trimester	Diagnosis	ICD-10-CM
O30033	Twin pregnancy, monochorionic/diamniotic, third trimester	Diagnosis	ICD-10-CM
O30041	Twin pregnancy, dichorionic/diamniotic, first trimester	Diagnosis	ICD-10-CM
O30042	Twin pregnancy, dichorionic/diamniotic, second trimester	Diagnosis	ICD-10-CM
O30043	Twin pregnancy, dichorionic/diamniotic, third trimester	Diagnosis	ICD-10-CM
O30091	Twin pregnancy, unable to determine number of placenta and number of amniotic sacs, first trimester	Diagnosis	ICD-10-CM
O30092	Twin pregnancy, unable to determine number of placenta and number of amniotic sacs, second trimester	Diagnosis	ICD-10-CM
O30093	Twin pregnancy, unable to determine number of placenta and number of amniotic sacs, third trimester	Diagnosis	ICD-10-CM
O30101	Triplet pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, first trimester	Diagnosis	ICD-10-CM
O30102	Triplet pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, second trimester	Diagnosis	ICD-10-CM
O30103	Triplet pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, third trimester	Diagnosis	ICD-10-CM
O30111	Triplet pregnancy with two or more monochorionic fetuses, first trimester	Diagnosis	ICD-10-CM
O30112	Triplet pregnancy with two or more monochorionic fetuses, second trimester	Diagnosis	ICD-10-CM
O30113	Triplet pregnancy with two or more monochorionic fetuses, third trimester	Diagnosis	ICD-10-CM
O30121	Triplet pregnancy with two or more monoamniotic fetuses, first trimester	Diagnosis	ICD-10-CM
O30122	Triplet pregnancy with two or more monoamniotic fetuses, second trimester	Diagnosis	ICD-10-CM
O30123	Triplet pregnancy with two or more monoamniotic fetuses, third trimester	Diagnosis	ICD-10-CM
O30131	Triplet pregnancy, trichorionic/triamniotic, first trimester	Diagnosis	ICD-10-CM
O30132	Triplet pregnancy, trichorionic/triamniotic, second trimester	Diagnosis	ICD-10-CM
O30133	Triplet pregnancy, trichorionic/triamniotic, third trimester	Diagnosis	ICD-10-CM
O30191	Triplet pregnancy, unable to determine number of placenta and number of amniotic sacs, first trimester	Diagnosis	ICD-10-CM
O30192	Triplet pregnancy, unable to determine number of placenta and number of amniotic sacs, second trimester	Diagnosis	ICD-10-CM
O30193	Triplet pregnancy, unable to determine number of placenta and number of amniotic sacs, third trimester	Diagnosis	ICD-10-CM
O30201	Quadruplet pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, first trimester	Diagnosis	ICD-10-CM
O30202	Quadruplet pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, second trimester	Diagnosis	ICD-10-CM
O30203	Quadruplet pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, third trimester	Diagnosis	ICD-10-CM
O30211	Quadruplet pregnancy with two or more monochorionic fetuses, first trimester	Diagnosis	ICD-10-CM
O30212	Quadruplet pregnancy with two or more monochorionic fetuses, second trimester	Diagnosis	ICD-10-CM
O30213	Quadruplet pregnancy with two or more monochorionic fetuses, third trimester	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O30221	Quadruplet pregnancy with two or more monoamniotic fetuses, first trimester	Diagnosis	ICD-10-CM
O30222	Quadruplet pregnancy with two or more monoamniotic fetuses, second trimester	Diagnosis	ICD-10-CM
O30223	Quadruplet pregnancy with two or more monoamniotic fetuses, third trimester	Diagnosis	ICD-10-CM
O30231	Quadruplet pregnancy, quadrachorionic/quadra-amniotic, first trimester	Diagnosis	ICD-10-CM
O30232	Quadruplet pregnancy, quadrachorionic/quadra-amniotic, second trimester	Diagnosis	ICD-10-CM
O30233	Quadruplet pregnancy, quadrachorionic/quadra-amniotic, third trimester	Diagnosis	ICD-10-CM
O30291	Quadruplet pregnancy, unable to determine number of placenta and number of amniotic sacs, first trimester	Diagnosis	ICD-10-CM
O30292	Quadruplet pregnancy, unable to determine number of placenta and number of amniotic sacs, second trimester	Diagnosis	ICD-10-CM
O30293	Quadruplet pregnancy, unable to determine number of placenta and number of amniotic sacs, third trimester	Diagnosis	ICD-10-CM
O30801	Other specified multiple gestation, unspecified number of placenta and unspecified number of amniotic sacs, first trimester	Diagnosis	ICD-10-CM
O30802	Other specified multiple gestation, unspecified number of placenta and unspecified number of amniotic sacs, second trimester	Diagnosis	ICD-10-CM
O30803	Other specified multiple gestation, unspecified number of placenta and unspecified number of amniotic sacs, third trimester	Diagnosis	ICD-10-CM
O30811	Other specified multiple gestation with two or more monochorionic fetuses, first trimester	Diagnosis	ICD-10-CM
O30812	Other specified multiple gestation with two or more monochorionic fetuses, second trimester	Diagnosis	ICD-10-CM
O30813	Other specified multiple gestation with two or more monochorionic fetuses, third trimester	Diagnosis	ICD-10-CM
O30821	Other specified multiple gestation with two or more monoamniotic fetuses, first trimester	Diagnosis	ICD-10-CM
O30822	Other specified multiple gestation with two or more monoamniotic fetuses, second trimester	Diagnosis	ICD-10-CM
O30823	Other specified multiple gestation with two or more monoamniotic fetuses, third trimester	Diagnosis	ICD-10-CM
O30831	Other specified multiple gestation, number of chorions and amnions are both equal to the number of fetuses, first trimester	Diagnosis	ICD-10-CM
O30832	Other specified multiple gestation, number of chorions and amnions are both equal to the number of fetuses, second trimester	Diagnosis	ICD-10-CM
O30833	Other specified multiple gestation, number of chorions and amnions are both equal to the number of fetuses, third trimester	Diagnosis	ICD-10-CM
O30891	Other specified multiple gestation, unable to determine number of placenta and number of amniotic sacs, first trimester	Diagnosis	ICD-10-CM
O30892	Other specified multiple gestation, unable to determine number of placenta and number of amniotic sacs, second trimester	Diagnosis	ICD-10-CM
O30893	Other specified multiple gestation, unable to determine number of placenta and number of amniotic sacs, third trimester	Diagnosis	ICD-10-CM
O3091	Multiple gestation, unspecified, first trimester	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
O3092	Multiple gestation, unspecified, second trimester	Diagnosis	ICD-10-CM
O3093	Multiple gestation, unspecified, third trimester	Diagnosis	ICD-10-CM
O3100X0	Papyraceous fetus, unspecified trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3100X1	Papyraceous fetus, unspecified trimester, fetus 1	Diagnosis	ICD-10-CM
O3100X2	Papyraceous fetus, unspecified trimester, fetus 2	Diagnosis	ICD-10-CM
O3100X3	Papyraceous fetus, unspecified trimester, fetus 3	Diagnosis	ICD-10-CM
O3100X4	Papyraceous fetus, unspecified trimester, fetus 4	Diagnosis	ICD-10-CM
O3100X5	Papyraceous fetus, unspecified trimester, fetus 5	Diagnosis	ICD-10-CM
O3100X9	Papyraceous fetus, unspecified trimester, other fetus	Diagnosis	ICD-10-CM
O3101X0	Papyraceous fetus, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3101X1	Papyraceous fetus, first trimester, fetus 1	Diagnosis	ICD-10-CM
O3101X2	Papyraceous fetus, first trimester, fetus 2	Diagnosis	ICD-10-CM
O3101X3	Papyraceous fetus, first trimester, fetus 3	Diagnosis	ICD-10-CM
O3101X4	Papyraceous fetus, first trimester, fetus 4	Diagnosis	ICD-10-CM
O3101X5	Papyraceous fetus, first trimester, fetus 5	Diagnosis	ICD-10-CM
O3101X9	Papyraceous fetus, first trimester, other fetus	Diagnosis	ICD-10-CM
O3102X0	Papyraceous fetus, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3102X1	Papyraceous fetus, second trimester, fetus 1	Diagnosis	ICD-10-CM
O3102X2	Papyraceous fetus, second trimester, fetus 2	Diagnosis	ICD-10-CM
O3102X3	Papyraceous fetus, second trimester, fetus 3	Diagnosis	ICD-10-CM
O3102X4	Papyraceous fetus, second trimester, fetus 4	Diagnosis	ICD-10-CM
O3102X5	Papyraceous fetus, second trimester, fetus 5	Diagnosis	ICD-10-CM
O3102X9	Papyraceous fetus, second trimester, other fetus	Diagnosis	ICD-10-CM
O3103X0	Papyraceous fetus, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3103X1	Papyraceous fetus, third trimester, fetus 1	Diagnosis	ICD-10-CM
O3103X2	Papyraceous fetus, third trimester, fetus 2	Diagnosis	ICD-10-CM
O3103X3	Papyraceous fetus, third trimester, fetus 3	Diagnosis	ICD-10-CM
O3103X4	Papyraceous fetus, third trimester, fetus 4	Diagnosis	ICD-10-CM
O3103X5	Papyraceous fetus, third trimester, fetus 5	Diagnosis	ICD-10-CM
O3103X9	Papyraceous fetus, third trimester, other fetus	Diagnosis	ICD-10-CM
O3110X0	Continuing pregnancy after spontaneous abortion of one fetus or more, unspecified trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3110X1	Continuing pregnancy after spontaneous abortion of one fetus or more, unspecified trimester, fetus 1	Diagnosis	ICD-10-CM
O3110X2	Continuing pregnancy after spontaneous abortion of one fetus or more, unspecified trimester, fetus 2	Diagnosis	ICD-10-CM
O3110X3	Continuing pregnancy after spontaneous abortion of one fetus or more, unspecified trimester, fetus 3	Diagnosis	ICD-10-CM
O3110X4	Continuing pregnancy after spontaneous abortion of one fetus or more, unspecified trimester, fetus 4	Diagnosis	ICD-10-CM
O3110X5	Continuing pregnancy after spontaneous abortion of one fetus or more, unspecified trimester, fetus 5	Diagnosis	ICD-10-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
O3110X9	Continuing pregnancy after spontaneous abortion of one fetus or more, unspecified trimester, other fetus	Diagnosis	ICD-10-CM
O3111X0	Continuing pregnancy after spontaneous abortion of one fetus or more, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3111X1	Continuing pregnancy after spontaneous abortion of one fetus or more, first trimester, fetus 1	Diagnosis	ICD-10-CM
O3111X2	Continuing pregnancy after spontaneous abortion of one fetus or more, first trimester, fetus 2	Diagnosis	ICD-10-CM
O3111X3	Continuing pregnancy after spontaneous abortion of one fetus or more, first trimester, fetus 3	Diagnosis	ICD-10-CM
O3111X4	Continuing pregnancy after spontaneous abortion of one fetus or more, first trimester, fetus 4	Diagnosis	ICD-10-CM
O3111X5	Continuing pregnancy after spontaneous abortion of one fetus or more, first trimester, fetus 5	Diagnosis	ICD-10-CM
O3111X9	Continuing pregnancy after spontaneous abortion of one fetus or more, first trimester, other fetus	Diagnosis	ICD-10-CM
O3112X0	Continuing pregnancy after spontaneous abortion of one fetus or more, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3112X1	Continuing pregnancy after spontaneous abortion of one fetus or more, second trimester, fetus 1	Diagnosis	ICD-10-CM
O3112X2	Continuing pregnancy after spontaneous abortion of one fetus or more, second trimester, fetus 2	Diagnosis	ICD-10-CM
O3112X3	Continuing pregnancy after spontaneous abortion of one fetus or more, second trimester, fetus 3	Diagnosis	ICD-10-CM
O3112X4	Continuing pregnancy after spontaneous abortion of one fetus or more, second trimester, fetus 4	Diagnosis	ICD-10-CM
O3112X5	Continuing pregnancy after spontaneous abortion of one fetus or more, second trimester, fetus 5	Diagnosis	ICD-10-CM
O3112X9	Continuing pregnancy after spontaneous abortion of one fetus or more, second trimester, other fetus	Diagnosis	ICD-10-CM
O3113X0	Continuing pregnancy after spontaneous abortion of one fetus or more, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3113X1	Continuing pregnancy after spontaneous abortion of one fetus or more, third trimester, fetus 1	Diagnosis	ICD-10-CM
O3113X2	Continuing pregnancy after spontaneous abortion of one fetus or more, third trimester, fetus 2	Diagnosis	ICD-10-CM
O3113X3	Continuing pregnancy after spontaneous abortion of one fetus or more, third trimester, fetus 3	Diagnosis	ICD-10-CM
O3113X4	Continuing pregnancy after spontaneous abortion of one fetus or more, third trimester, fetus 4	Diagnosis	ICD-10-CM
O3113X5	Continuing pregnancy after spontaneous abortion of one fetus or more, third trimester, fetus 5	Diagnosis	ICD-10-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
O3113X9	Continuing pregnancy after spontaneous abortion of one fetus or more, third trimester, other fetus	Diagnosis	ICD-10-CM
O312	Continuing pregnancy after intrauterine death of one fetus or more	Diagnosis	ICD-10-CM
O3120X0	Continuing pregnancy after intrauterine death of one fetus or more, unspecified trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3120X1	Continuing pregnancy after intrauterine death of one fetus or more, unspecified trimester, fetus 1	Diagnosis	ICD-10-CM
O3120X2	Continuing pregnancy after intrauterine death of one fetus or more, unspecified trimester, fetus 2	Diagnosis	ICD-10-CM
O3120X3	Continuing pregnancy after intrauterine death of one fetus or more, unspecified trimester, fetus 3	Diagnosis	ICD-10-CM
O3120X4	Continuing pregnancy after intrauterine death of one fetus or more, unspecified trimester, fetus 4	Diagnosis	ICD-10-CM
O3120X5	Continuing pregnancy after intrauterine death of one fetus or more, unspecified trimester, fetus 5	Diagnosis	ICD-10-CM
O3120X9	Continuing pregnancy after intrauterine death of one fetus or more, unspecified trimester, other fetus	Diagnosis	ICD-10-CM
O3121X0	Continuing pregnancy after intrauterine death of one fetus or more, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3121X1	Continuing pregnancy after intrauterine death of one fetus or more, first trimester, fetus 1	Diagnosis	ICD-10-CM
O3121X2	Continuing pregnancy after intrauterine death of one fetus or more, first trimester, fetus 2	Diagnosis	ICD-10-CM
O3121X3	Continuing pregnancy after intrauterine death of one fetus or more, first trimester, fetus 3	Diagnosis	ICD-10-CM
O3121X4	Continuing pregnancy after intrauterine death of one fetus or more, first trimester, fetus 4	Diagnosis	ICD-10-CM
O3121X5	Continuing pregnancy after intrauterine death of one fetus or more, first trimester, fetus 5	Diagnosis	ICD-10-CM
O3121X9	Continuing pregnancy after intrauterine death of one fetus or more, first trimester, other fetus	Diagnosis	ICD-10-CM
O3122X0	Continuing pregnancy after intrauterine death of one fetus or more, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3122X1	Continuing pregnancy after intrauterine death of one fetus or more, second trimester, fetus 1	Diagnosis	ICD-10-CM
O3122X2	Continuing pregnancy after intrauterine death of one fetus or more, second trimester, fetus 2	Diagnosis	ICD-10-CM
O3122X3	Continuing pregnancy after intrauterine death of one fetus or more, second trimester, fetus 3	Diagnosis	ICD-10-CM
O3122X4	Continuing pregnancy after intrauterine death of one fetus or more, second trimester, fetus 4	Diagnosis	ICD-10-CM
O3122X5	Continuing pregnancy after intrauterine death of one fetus or more, second trimester, fetus 5	Diagnosis	ICD-10-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
O3122X9	Continuing pregnancy after intrauterine death of one fetus or more, second trimester, other fetus	Diagnosis	ICD-10-CM
O3123X0	Continuing pregnancy after intrauterine death of one fetus or more, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3123X1	Continuing pregnancy after intrauterine death of one fetus or more, third trimester, fetus 1	Diagnosis	ICD-10-CM
O3123X2	Continuing pregnancy after intrauterine death of one fetus or more, third trimester, fetus 2	Diagnosis	ICD-10-CM
O3123X3	Continuing pregnancy after intrauterine death of one fetus or more, third trimester, fetus 3	Diagnosis	ICD-10-CM
O3123X4	Continuing pregnancy after intrauterine death of one fetus or more, third trimester, fetus 4	Diagnosis	ICD-10-CM
O3123X5	Continuing pregnancy after intrauterine death of one fetus or more, third trimester, fetus 5	Diagnosis	ICD-10-CM
O3123X9	Continuing pregnancy after intrauterine death of one fetus or more, third trimester, other fetus	Diagnosis	ICD-10-CM
O3131X0	Continuing pregnancy after elective fetal reduction of one fetus or more, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3131X1	Continuing pregnancy after elective fetal reduction of one fetus or more, first trimester, fetus 1	Diagnosis	ICD-10-CM
O3131X2	Continuing pregnancy after elective fetal reduction of one fetus or more, first trimester, fetus 2	Diagnosis	ICD-10-CM
O3131X3	Continuing pregnancy after elective fetal reduction of one fetus or more, first trimester, fetus 3	Diagnosis	ICD-10-CM
O3131X4	Continuing pregnancy after elective fetal reduction of one fetus or more, first trimester, fetus 4	Diagnosis	ICD-10-CM
O3131X5	Continuing pregnancy after elective fetal reduction of one fetus or more, first trimester, fetus 5	Diagnosis	ICD-10-CM
O3131X9	Continuing pregnancy after elective fetal reduction of one fetus or more, first trimester, other fetus	Diagnosis	ICD-10-CM
O3132X0	Continuing pregnancy after elective fetal reduction of one fetus or more, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3132X1	Continuing pregnancy after elective fetal reduction of one fetus or more, second trimester, fetus 1	Diagnosis	ICD-10-CM
O3132X2	Continuing pregnancy after elective fetal reduction of one fetus or more, second trimester, fetus 2	Diagnosis	ICD-10-CM
O3132X3	Continuing pregnancy after elective fetal reduction of one fetus or more, second trimester, fetus 3	Diagnosis	ICD-10-CM
O3132X4	Continuing pregnancy after elective fetal reduction of one fetus or more, second trimester, fetus 4	Diagnosis	ICD-10-CM
O3132X5	Continuing pregnancy after elective fetal reduction of one fetus or more, second trimester, fetus 5	Diagnosis	ICD-10-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
O3132X9	Continuing pregnancy after elective fetal reduction of one fetus or more, second trimester, other fetus	Diagnosis	ICD-10-CM
O3133X0	Continuing pregnancy after elective fetal reduction of one fetus or more, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3133X1	Continuing pregnancy after elective fetal reduction of one fetus or more, third trimester, fetus 1	Diagnosis	ICD-10-CM
O3133X2	Continuing pregnancy after elective fetal reduction of one fetus or more, third trimester, fetus 2	Diagnosis	ICD-10-CM
O3133X3	Continuing pregnancy after elective fetal reduction of one fetus or more, third trimester, fetus 3	Diagnosis	ICD-10-CM
O3133X4	Continuing pregnancy after elective fetal reduction of one fetus or more, third trimester, fetus 4	Diagnosis	ICD-10-CM
O3133X5	Continuing pregnancy after elective fetal reduction of one fetus or more, third trimester, fetus 5	Diagnosis	ICD-10-CM
O3133X9	Continuing pregnancy after elective fetal reduction of one fetus or more, third trimester, other fetus	Diagnosis	ICD-10-CM
O318X10	Other complications specific to multiple gestation, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O318X11	Other complications specific to multiple gestation, first trimester, fetus 1	Diagnosis	ICD-10-CM
O318X12	Other complications specific to multiple gestation, first trimester, fetus 2	Diagnosis	ICD-10-CM
O318X13	Other complications specific to multiple gestation, first trimester, fetus 3	Diagnosis	ICD-10-CM
O318X14	Other complications specific to multiple gestation, first trimester, fetus 4	Diagnosis	ICD-10-CM
O318X15	Other complications specific to multiple gestation, first trimester, fetus 5	Diagnosis	ICD-10-CM
O318X19	Other complications specific to multiple gestation, first trimester, other fetus	Diagnosis	ICD-10-CM
O318X20	Other complications specific to multiple gestation, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O318X21	Other complications specific to multiple gestation, second trimester, fetus 1	Diagnosis	ICD-10-CM
O318X22	Other complications specific to multiple gestation, second trimester, fetus 2	Diagnosis	ICD-10-CM
O318X23	Other complications specific to multiple gestation, second trimester, fetus 3	Diagnosis	ICD-10-CM
O318X24	Other complications specific to multiple gestation, second trimester, fetus 4	Diagnosis	ICD-10-CM
O318X25	Other complications specific to multiple gestation, second trimester, fetus 5	Diagnosis	ICD-10-CM
O318X29	Other complications specific to multiple gestation, second trimester, other fetus	Diagnosis	ICD-10-CM
O318X30	Other complications specific to multiple gestation, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O318X31	Other complications specific to multiple gestation, third trimester, fetus 1	Diagnosis	ICD-10-CM
O318X32	Other complications specific to multiple gestation, third trimester, fetus 2	Diagnosis	ICD-10-CM
O318X33	Other complications specific to multiple gestation, third trimester, fetus 3	Diagnosis	ICD-10-CM
O318X34	Other complications specific to multiple gestation, third trimester, fetus 4	Diagnosis	ICD-10-CM
O318X35	Other complications specific to multiple gestation, third trimester, fetus 5	Diagnosis	ICD-10-CM
O318X39	Other complications specific to multiple gestation, third trimester, other fetus	Diagnosis	ICD-10-CM
O3401	Maternal care for unspecified congenital malformation of uterus, first trimester	Diagnosis	ICD-10-CM
O3402	Maternal care for unspecified congenital malformation of uterus, second trimester	Diagnosis	ICD-10-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
O3403	Maternal care for unspecified congenital malformation of uterus, third trimester	Diagnosis	ICD-10-CM
O3411	Maternal care for benign tumor of corpus uteri, first trimester	Diagnosis	ICD-10-CM
O3412	Maternal care for benign tumor of corpus uteri, second trimester	Diagnosis	ICD-10-CM
O3413	Maternal care for benign tumor of corpus uteri, third trimester	Diagnosis	ICD-10-CM
O3431	Maternal care for cervical incompetence, first trimester	Diagnosis	ICD-10-CM
O3432	Maternal care for cervical incompetence, second trimester	Diagnosis	ICD-10-CM
O3433	Maternal care for cervical incompetence, third trimester	Diagnosis	ICD-10-CM
O3441	Maternal care for other abnormalities of cervix, first trimester	Diagnosis	ICD-10-CM
O3442	Maternal care for other abnormalities of cervix, second trimester	Diagnosis	ICD-10-CM
O3443	Maternal care for other abnormalities of cervix, third trimester	Diagnosis	ICD-10-CM
O34511	Maternal care for incarceration of gravid uterus, first trimester	Diagnosis	ICD-10-CM
O34512	Maternal care for incarceration of gravid uterus, second trimester	Diagnosis	ICD-10-CM
O34513	Maternal care for incarceration of gravid uterus, third trimester	Diagnosis	ICD-10-CM
O34521	Maternal care for prolapse of gravid uterus, first trimester	Diagnosis	ICD-10-CM
O34522	Maternal care for prolapse of gravid uterus, second trimester	Diagnosis	ICD-10-CM
O34523	Maternal care for prolapse of gravid uterus, third trimester	Diagnosis	ICD-10-CM
O34531	Maternal care for retroversion of gravid uterus, first trimester	Diagnosis	ICD-10-CM
O34532	Maternal care for retroversion of gravid uterus, second trimester	Diagnosis	ICD-10-CM
O34533	Maternal care for retroversion of gravid uterus, third trimester	Diagnosis	ICD-10-CM
O34591	Maternal care for other abnormalities of gravid uterus, first trimester	Diagnosis	ICD-10-CM
O34592	Maternal care for other abnormalities of gravid uterus, second trimester	Diagnosis	ICD-10-CM
O34593	Maternal care for other abnormalities of gravid uterus, third trimester	Diagnosis	ICD-10-CM
O3461	Maternal care for abnormality of vagina, first trimester	Diagnosis	ICD-10-CM
O3462	Maternal care for abnormality of vagina, second trimester	Diagnosis	ICD-10-CM
O3463	Maternal care for abnormality of vagina, third trimester	Diagnosis	ICD-10-CM
O3471	Maternal care for abnormality of vulva and perineum, first trimester	Diagnosis	ICD-10-CM
O3472	Maternal care for abnormality of vulva and perineum, second trimester	Diagnosis	ICD-10-CM
O3473	Maternal care for abnormality of vulva and perineum, third trimester	Diagnosis	ICD-10-CM
O3481	Maternal care for other abnormalities of pelvic organs, first trimester	Diagnosis	ICD-10-CM
O3482	Maternal care for other abnormalities of pelvic organs, second trimester	Diagnosis	ICD-10-CM
O3483	Maternal care for other abnormalities of pelvic organs, third trimester	Diagnosis	ICD-10-CM
O3491	Maternal care for abnormality of pelvic organ, unspecified, first trimester	Diagnosis	ICD-10-CM
O3492	Maternal care for abnormality of pelvic organ, unspecified, second trimester	Diagnosis	ICD-10-CM
O3493	Maternal care for abnormality of pelvic organ, unspecified, third trimester	Diagnosis	ICD-10-CM
O360110	Maternal care for anti-D [Rh] antibodies, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O360111	Maternal care for anti-D [Rh] antibodies, first trimester, fetus 1	Diagnosis	ICD-10-CM
O360112	Maternal care for anti-D [Rh] antibodies, first trimester, fetus 2	Diagnosis	ICD-10-CM
O360113	Maternal care for anti-D [Rh] antibodies, first trimester, fetus 3	Diagnosis	ICD-10-CM
O360114	Maternal care for anti-D [Rh] antibodies, first trimester, fetus 4	Diagnosis	ICD-10-CM
O360115	Maternal care for anti-D [Rh] antibodies, first trimester, fetus 5	Diagnosis	ICD-10-CM
O360119	Maternal care for anti-D [Rh] antibodies, first trimester, other fetus	Diagnosis	ICD-10-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
	Maternal care for anti-D [Rh] antibodies, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O360120	unspecified	Diagnosis	ICD-10-CM
O360121	Maternal care for anti-D [Rh] antibodies, second trimester, fetus 1	Diagnosis	ICD-10-CM
O360122	Maternal care for anti-D [Rh] antibodies, second trimester, fetus 2	Diagnosis	ICD-10-CM
O360123	Maternal care for anti-D [Rh] antibodies, second trimester, fetus 3	Diagnosis	ICD-10-CM
O360124	Maternal care for anti-D [Rh] antibodies, second trimester, fetus 4	Diagnosis	ICD-10-CM
O360125	Maternal care for anti-D [Rh] antibodies, second trimester, fetus 5	Diagnosis	ICD-10-CM
O360129	Maternal care for anti-D [Rh] antibodies, second trimester, other fetus	Diagnosis	ICD-10-CM
	Maternal care for anti-D [Rh] antibodies, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O360130	unspecified	Diagnosis	ICD-10-CM
O360131	Maternal care for anti-D [Rh] antibodies, third trimester, fetus 1	Diagnosis	ICD-10-CM
O360132	Maternal care for anti-D [Rh] antibodies, third trimester, fetus 2	Diagnosis	ICD-10-CM
O360133	Maternal care for anti-D [Rh] antibodies, third trimester, fetus 3	Diagnosis	ICD-10-CM
O360134	Maternal care for anti-D [Rh] antibodies, third trimester, fetus 4	Diagnosis	ICD-10-CM
O360135	Maternal care for anti-D [Rh] antibodies, third trimester, fetus 5	Diagnosis	ICD-10-CM
O360139	Maternal care for anti-D [Rh] antibodies, third trimester, other fetus	Diagnosis	ICD-10-CM
	Maternal care for other rhesus isoimmunization, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O360910	unspecified	Diagnosis	ICD-10-CM
O360911	Maternal care for other rhesus isoimmunization, first trimester, fetus 1	Diagnosis	ICD-10-CM
O360912	Maternal care for other rhesus isoimmunization, first trimester, fetus 2	Diagnosis	ICD-10-CM
O360913	Maternal care for other rhesus isoimmunization, first trimester, fetus 3	Diagnosis	ICD-10-CM
O360914	Maternal care for other rhesus isoimmunization, first trimester, fetus 4	Diagnosis	ICD-10-CM
O360915	Maternal care for other rhesus isoimmunization, first trimester, fetus 5	Diagnosis	ICD-10-CM
O360919	Maternal care for other rhesus isoimmunization, first trimester, other fetus	Diagnosis	ICD-10-CM
	Maternal care for other rhesus isoimmunization, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O360920	or unspecified	Diagnosis	ICD-10-CM
O360921	Maternal care for other rhesus isoimmunization, second trimester, fetus 1	Diagnosis	ICD-10-CM
O360922	Maternal care for other rhesus isoimmunization, second trimester, fetus 2	Diagnosis	ICD-10-CM
O360923	Maternal care for other rhesus isoimmunization, second trimester, fetus 3	Diagnosis	ICD-10-CM
O360924	Maternal care for other rhesus isoimmunization, second trimester, fetus 4	Diagnosis	ICD-10-CM
O360925	Maternal care for other rhesus isoimmunization, second trimester, fetus 5	Diagnosis	ICD-10-CM
O360929	Maternal care for other rhesus isoimmunization, second trimester, other fetus	Diagnosis	ICD-10-CM
	Maternal care for other rhesus isoimmunization, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O360930	or unspecified	Diagnosis	ICD-10-CM
O360931	Maternal care for other rhesus isoimmunization, third trimester, fetus 1	Diagnosis	ICD-10-CM
O360932	Maternal care for other rhesus isoimmunization, third trimester, fetus 2	Diagnosis	ICD-10-CM
O360933	Maternal care for other rhesus isoimmunization, third trimester, fetus 3	Diagnosis	ICD-10-CM
O360934	Maternal care for other rhesus isoimmunization, third trimester, fetus 4	Diagnosis	ICD-10-CM
O360935	Maternal care for other rhesus isoimmunization, third trimester, fetus 5	Diagnosis	ICD-10-CM
O360939	Maternal care for other rhesus isoimmunization, third trimester, other fetus	Diagnosis	ICD-10-CM
	Maternal care for Anti-A sensitization, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O361110	unspecified	Diagnosis	ICD-10-CM
O361111	Maternal care for Anti-A sensitization, first trimester, fetus 1	Diagnosis	ICD-10-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
O361112	Maternal care for Anti-A sensitization, first trimester, fetus 2	Diagnosis	ICD-10-CM
O361113	Maternal care for Anti-A sensitization, first trimester, fetus 3	Diagnosis	ICD-10-CM
O361114	Maternal care for Anti-A sensitization, first trimester, fetus 4	Diagnosis	ICD-10-CM
O361115	Maternal care for Anti-A sensitization, first trimester, fetus 5	Diagnosis	ICD-10-CM
O361119	Maternal care for Anti-A sensitization, first trimester, other fetus	Diagnosis	ICD-10-CM
O361120	Maternal care for Anti-A sensitization, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O361121	Maternal care for Anti-A sensitization, second trimester, fetus 1	Diagnosis	ICD-10-CM
O361122	Maternal care for Anti-A sensitization, second trimester, fetus 2	Diagnosis	ICD-10-CM
O361123	Maternal care for Anti-A sensitization, second trimester, fetus 3	Diagnosis	ICD-10-CM
O361124	Maternal care for Anti-A sensitization, second trimester, fetus 4	Diagnosis	ICD-10-CM
O361125	Maternal care for Anti-A sensitization, second trimester, fetus 5	Diagnosis	ICD-10-CM
O361129	Maternal care for Anti-A sensitization, second trimester, other fetus	Diagnosis	ICD-10-CM
O361130	Maternal care for Anti-A sensitization, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O361131	Maternal care for Anti-A sensitization, third trimester, fetus 1	Diagnosis	ICD-10-CM
O361132	Maternal care for Anti-A sensitization, third trimester, fetus 2	Diagnosis	ICD-10-CM
O361133	Maternal care for Anti-A sensitization, third trimester, fetus 3	Diagnosis	ICD-10-CM
O361134	Maternal care for Anti-A sensitization, third trimester, fetus 4	Diagnosis	ICD-10-CM
O361135	Maternal care for Anti-A sensitization, third trimester, fetus 5	Diagnosis	ICD-10-CM
O361139	Maternal care for Anti-A sensitization, third trimester, other fetus	Diagnosis	ICD-10-CM
O361910	Maternal care for other isoimmunization, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O361911	Maternal care for other isoimmunization, first trimester, fetus 1	Diagnosis	ICD-10-CM
O361912	Maternal care for other isoimmunization, first trimester, fetus 2	Diagnosis	ICD-10-CM
O361913	Maternal care for other isoimmunization, first trimester, fetus 3	Diagnosis	ICD-10-CM
O361914	Maternal care for other isoimmunization, first trimester, fetus 4	Diagnosis	ICD-10-CM
O361915	Maternal care for other isoimmunization, first trimester, fetus 5	Diagnosis	ICD-10-CM
O361919	Maternal care for other isoimmunization, first trimester, other fetus	Diagnosis	ICD-10-CM
O361920	Maternal care for other isoimmunization, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O361921	Maternal care for other isoimmunization, second trimester, fetus 1	Diagnosis	ICD-10-CM
O361922	Maternal care for other isoimmunization, second trimester, fetus 2	Diagnosis	ICD-10-CM
O361923	Maternal care for other isoimmunization, second trimester, fetus 3	Diagnosis	ICD-10-CM
O361924	Maternal care for other isoimmunization, second trimester, fetus 4	Diagnosis	ICD-10-CM
O361925	Maternal care for other isoimmunization, second trimester, fetus 5	Diagnosis	ICD-10-CM
O361929	Maternal care for other isoimmunization, second trimester, other fetus	Diagnosis	ICD-10-CM
O361930	Maternal care for other isoimmunization, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O361931	Maternal care for other isoimmunization, third trimester, fetus 1	Diagnosis	ICD-10-CM
O361932	Maternal care for other isoimmunization, third trimester, fetus 2	Diagnosis	ICD-10-CM
O361933	Maternal care for other isoimmunization, third trimester, fetus 3	Diagnosis	ICD-10-CM
O361934	Maternal care for other isoimmunization, third trimester, fetus 4	Diagnosis	ICD-10-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
O361935	Maternal care for other isoimmunization, third trimester, fetus 5	Diagnosis	ICD-10-CM
O361939	Maternal care for other isoimmunization, third trimester, other fetus	Diagnosis	ICD-10-CM
O3621X0	Maternal care for hydrops fetalis, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3621X1	Maternal care for hydrops fetalis, first trimester, fetus 1	Diagnosis	ICD-10-CM
O3621X2	Maternal care for hydrops fetalis, first trimester, fetus 2	Diagnosis	ICD-10-CM
O3621X3	Maternal care for hydrops fetalis, first trimester, fetus 3	Diagnosis	ICD-10-CM
O3621X4	Maternal care for hydrops fetalis, first trimester, fetus 4	Diagnosis	ICD-10-CM
O3621X5	Maternal care for hydrops fetalis, first trimester, fetus 5	Diagnosis	ICD-10-CM
O3621X9	Maternal care for hydrops fetalis, first trimester, other fetus	Diagnosis	ICD-10-CM
O3622X0	Maternal care for hydrops fetalis, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3622X1	Maternal care for hydrops fetalis, second trimester, fetus 1	Diagnosis	ICD-10-CM
O3622X2	Maternal care for hydrops fetalis, second trimester, fetus 2	Diagnosis	ICD-10-CM
O3622X3	Maternal care for hydrops fetalis, second trimester, fetus 3	Diagnosis	ICD-10-CM
O3622X4	Maternal care for hydrops fetalis, second trimester, fetus 4	Diagnosis	ICD-10-CM
O3622X5	Maternal care for hydrops fetalis, second trimester, fetus 5	Diagnosis	ICD-10-CM
O3622X9	Maternal care for hydrops fetalis, second trimester, other fetus	Diagnosis	ICD-10-CM
O3623X0	Maternal care for hydrops fetalis, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3623X1	Maternal care for hydrops fetalis, third trimester, fetus 1	Diagnosis	ICD-10-CM
O3623X2	Maternal care for hydrops fetalis, third trimester, fetus 2	Diagnosis	ICD-10-CM
O3623X3	Maternal care for hydrops fetalis, third trimester, fetus 3	Diagnosis	ICD-10-CM
O3623X4	Maternal care for hydrops fetalis, third trimester, fetus 4	Diagnosis	ICD-10-CM
O3623X5	Maternal care for hydrops fetalis, third trimester, fetus 5	Diagnosis	ICD-10-CM
O3623X9	Maternal care for hydrops fetalis, third trimester, other fetus	Diagnosis	ICD-10-CM
O364	Maternal care for intrauterine death	Diagnosis	ICD-10-CM
O364XX0	Maternal care for intrauterine death, not applicable or unspecified	Diagnosis	ICD-10-CM
O364XX1	Maternal care for intrauterine death, fetus 1	Diagnosis	ICD-10-CM
O364XX2	Maternal care for intrauterine death, fetus 2	Diagnosis	ICD-10-CM
O364XX3	Maternal care for intrauterine death, fetus 3	Diagnosis	ICD-10-CM
O364XX4	Maternal care for intrauterine death, fetus 4	Diagnosis	ICD-10-CM
O364XX5	Maternal care for intrauterine death, fetus 5	Diagnosis	ICD-10-CM
O364XX9	Maternal care for intrauterine death, other fetus	Diagnosis	ICD-10-CM
O365110	Maternal care for known or suspected placental insufficiency, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O365111	Maternal care for known or suspected placental insufficiency, first trimester, fetus 1	Diagnosis	ICD-10-CM
O365112	Maternal care for known or suspected placental insufficiency, first trimester, fetus 2	Diagnosis	ICD-10-CM
O365113	Maternal care for known or suspected placental insufficiency, first trimester, fetus 3	Diagnosis	ICD-10-CM
O365114	Maternal care for known or suspected placental insufficiency, first trimester, fetus 4	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O365115	Maternal care for known or suspected placental insufficiency, first trimester, fetus 5	Diagnosis	ICD-10-CM
O365119	Maternal care for known or suspected placental insufficiency, first trimester, other fetus	Diagnosis	ICD-10-CM
O365120	Maternal care for known or suspected placental insufficiency, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O365121	Maternal care for known or suspected placental insufficiency, second trimester, fetus 1	Diagnosis	ICD-10-CM
O365122	Maternal care for known or suspected placental insufficiency, second trimester, fetus 2	Diagnosis	ICD-10-CM
O365123	Maternal care for known or suspected placental insufficiency, second trimester, fetus 3	Diagnosis	ICD-10-CM
O365124	Maternal care for known or suspected placental insufficiency, second trimester, fetus 4	Diagnosis	ICD-10-CM
O365125	Maternal care for known or suspected placental insufficiency, second trimester, fetus 5	Diagnosis	ICD-10-CM
O365129	Maternal care for known or suspected placental insufficiency, second trimester, other fetus	Diagnosis	ICD-10-CM
O365130	Maternal care for known or suspected placental insufficiency, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O365131	Maternal care for known or suspected placental insufficiency, third trimester, fetus 1	Diagnosis	ICD-10-CM
O365132	Maternal care for known or suspected placental insufficiency, third trimester, fetus 2	Diagnosis	ICD-10-CM
O365133	Maternal care for known or suspected placental insufficiency, third trimester, fetus 3	Diagnosis	ICD-10-CM
O365134	Maternal care for known or suspected placental insufficiency, third trimester, fetus 4	Diagnosis	ICD-10-CM
O365135	Maternal care for known or suspected placental insufficiency, third trimester, fetus 5	Diagnosis	ICD-10-CM
O365139	Maternal care for known or suspected placental insufficiency, third trimester, other fetus	Diagnosis	ICD-10-CM
O365910	Maternal care for other known or suspected poor fetal growth, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O365911	Maternal care for other known or suspected poor fetal growth, first trimester, fetus 1	Diagnosis	ICD-10-CM
O365912	Maternal care for other known or suspected poor fetal growth, first trimester, fetus 2	Diagnosis	ICD-10-CM
O365913	Maternal care for other known or suspected poor fetal growth, first trimester, fetus 3	Diagnosis	ICD-10-CM
O365914	Maternal care for other known or suspected poor fetal growth, first trimester, fetus 4	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O365915	Maternal care for other known or suspected poor fetal growth, first trimester, fetus 5	Diagnosis	ICD-10-CM
O365919	Maternal care for other known or suspected poor fetal growth, first trimester, other fetus	Diagnosis	ICD-10-CM
O365920	Maternal care for other known or suspected poor fetal growth, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O365921	Maternal care for other known or suspected poor fetal growth, second trimester, fetus 1	Diagnosis	ICD-10-CM
O365922	Maternal care for other known or suspected poor fetal growth, second trimester, fetus 2	Diagnosis	ICD-10-CM
O365923	Maternal care for other known or suspected poor fetal growth, second trimester, fetus 3	Diagnosis	ICD-10-CM
O365924	Maternal care for other known or suspected poor fetal growth, second trimester, fetus 4	Diagnosis	ICD-10-CM
O365925	Maternal care for other known or suspected poor fetal growth, second trimester, fetus 5	Diagnosis	ICD-10-CM
O365929	Maternal care for other known or suspected poor fetal growth, second trimester, other fetus	Diagnosis	ICD-10-CM
O365930	Maternal care for other known or suspected poor fetal growth, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O365931	Maternal care for other known or suspected poor fetal growth, third trimester, fetus 1	Diagnosis	ICD-10-CM
O365932	Maternal care for other known or suspected poor fetal growth, third trimester, fetus 2	Diagnosis	ICD-10-CM
O365933	Maternal care for other known or suspected poor fetal growth, third trimester, fetus 3	Diagnosis	ICD-10-CM
O365934	Maternal care for other known or suspected poor fetal growth, third trimester, fetus 4	Diagnosis	ICD-10-CM
O365935	Maternal care for other known or suspected poor fetal growth, third trimester, fetus 5	Diagnosis	ICD-10-CM
O365939	Maternal care for other known or suspected poor fetal growth, third trimester, other fetus	Diagnosis	ICD-10-CM
O3661X0	Maternal care for excessive fetal growth, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3661X1	Maternal care for excessive fetal growth, first trimester, fetus 1	Diagnosis	ICD-10-CM
O3661X2	Maternal care for excessive fetal growth, first trimester, fetus 2	Diagnosis	ICD-10-CM
O3661X3	Maternal care for excessive fetal growth, first trimester, fetus 3	Diagnosis	ICD-10-CM
O3661X4	Maternal care for excessive fetal growth, first trimester, fetus 4	Diagnosis	ICD-10-CM
O3661X5	Maternal care for excessive fetal growth, first trimester, fetus 5	Diagnosis	ICD-10-CM
O3661X9	Maternal care for excessive fetal growth, first trimester, other fetus	Diagnosis	ICD-10-CM
O3662X0	Maternal care for excessive fetal growth, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3662X1	Maternal care for excessive fetal growth, second trimester, fetus 1	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O3662X2	Maternal care for excessive fetal growth, second trimester, fetus 2	Diagnosis	ICD-10-CM
O3662X3	Maternal care for excessive fetal growth, second trimester, fetus 3	Diagnosis	ICD-10-CM
O3662X4	Maternal care for excessive fetal growth, second trimester, fetus 4	Diagnosis	ICD-10-CM
O3662X5	Maternal care for excessive fetal growth, second trimester, fetus 5	Diagnosis	ICD-10-CM
O3662X9	Maternal care for excessive fetal growth, second trimester, other fetus	Diagnosis	ICD-10-CM
O3663X0	Maternal care for excessive fetal growth, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3663X1	Maternal care for excessive fetal growth, third trimester, fetus 1	Diagnosis	ICD-10-CM
O3663X2	Maternal care for excessive fetal growth, third trimester, fetus 2	Diagnosis	ICD-10-CM
O3663X3	Maternal care for excessive fetal growth, third trimester, fetus 3	Diagnosis	ICD-10-CM
O3663X4	Maternal care for excessive fetal growth, third trimester, fetus 4	Diagnosis	ICD-10-CM
O3663X5	Maternal care for excessive fetal growth, third trimester, fetus 5	Diagnosis	ICD-10-CM
O3663X9	Maternal care for excessive fetal growth, third trimester, other fetus	Diagnosis	ICD-10-CM
O3671X0	Maternal care for viable fetus in abdominal pregnancy, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3671X1	Maternal care for viable fetus in abdominal pregnancy, first trimester, fetus 1	Diagnosis	ICD-10-CM
O3671X2	Maternal care for viable fetus in abdominal pregnancy, first trimester, fetus 2	Diagnosis	ICD-10-CM
O3671X3	Maternal care for viable fetus in abdominal pregnancy, first trimester, fetus 3	Diagnosis	ICD-10-CM
O3671X4	Maternal care for viable fetus in abdominal pregnancy, first trimester, fetus 4	Diagnosis	ICD-10-CM
O3671X5	Maternal care for viable fetus in abdominal pregnancy, first trimester, fetus 5	Diagnosis	ICD-10-CM
O3671X9	Maternal care for viable fetus in abdominal pregnancy, first trimester, other fetus	Diagnosis	ICD-10-CM
O3672X0	Maternal care for viable fetus in abdominal pregnancy, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3672X1	Maternal care for viable fetus in abdominal pregnancy, second trimester, fetus 1	Diagnosis	ICD-10-CM
O3672X2	Maternal care for viable fetus in abdominal pregnancy, second trimester, fetus 2	Diagnosis	ICD-10-CM
O3672X3	Maternal care for viable fetus in abdominal pregnancy, second trimester, fetus 3	Diagnosis	ICD-10-CM
O3672X4	Maternal care for viable fetus in abdominal pregnancy, second trimester, fetus 4	Diagnosis	ICD-10-CM
O3672X5	Maternal care for viable fetus in abdominal pregnancy, second trimester, fetus 5	Diagnosis	ICD-10-CM
O3672X9	Maternal care for viable fetus in abdominal pregnancy, second trimester, other fetus	Diagnosis	ICD-10-CM
O3673X0	Maternal care for viable fetus in abdominal pregnancy, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3673X1	Maternal care for viable fetus in abdominal pregnancy, third trimester, fetus 1	Diagnosis	ICD-10-CM
O3673X2	Maternal care for viable fetus in abdominal pregnancy, third trimester, fetus 2	Diagnosis	ICD-10-CM
O3673X3	Maternal care for viable fetus in abdominal pregnancy, third trimester, fetus 3	Diagnosis	ICD-10-CM
O3673X4	Maternal care for viable fetus in abdominal pregnancy, third trimester, fetus 4	Diagnosis	ICD-10-CM
O3673X5	Maternal care for viable fetus in abdominal pregnancy, third trimester, fetus 5	Diagnosis	ICD-10-CM
O3673X9	Maternal care for viable fetus in abdominal pregnancy, third trimester, other fetus	Diagnosis	ICD-10-CM
O368120	Decreased fetal movements, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O368121	Decreased fetal movements, second trimester, fetus 1	Diagnosis	ICD-10-CM
O368122	Decreased fetal movements, second trimester, fetus 2	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O368123	Decreased fetal movements, second trimester, fetus 3	Diagnosis	ICD-10-CM
O368124	Decreased fetal movements, second trimester, fetus 4	Diagnosis	ICD-10-CM
O368125	Decreased fetal movements, second trimester, fetus 5	Diagnosis	ICD-10-CM
O368129	Decreased fetal movements, second trimester, other fetus	Diagnosis	ICD-10-CM
O368130	Decreased fetal movements, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O368131	Decreased fetal movements, third trimester, fetus 1	Diagnosis	ICD-10-CM
O368132	Decreased fetal movements, third trimester, fetus 2	Diagnosis	ICD-10-CM
O368133	Decreased fetal movements, third trimester, fetus 3	Diagnosis	ICD-10-CM
O368134	Decreased fetal movements, third trimester, fetus 4	Diagnosis	ICD-10-CM
O368135	Decreased fetal movements, third trimester, fetus 5	Diagnosis	ICD-10-CM
O368139	Decreased fetal movements, third trimester, other fetus	Diagnosis	ICD-10-CM
O368210	Fetal anemia and thrombocytopenia, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O368211	Fetal anemia and thrombocytopenia, first trimester, fetus 1	Diagnosis	ICD-10-CM
O368212	Fetal anemia and thrombocytopenia, first trimester, fetus 2	Diagnosis	ICD-10-CM
O368213	Fetal anemia and thrombocytopenia, first trimester, fetus 3	Diagnosis	ICD-10-CM
O368214	Fetal anemia and thrombocytopenia, first trimester, fetus 4	Diagnosis	ICD-10-CM
O368215	Fetal anemia and thrombocytopenia, first trimester, fetus 5	Diagnosis	ICD-10-CM
O368219	Fetal anemia and thrombocytopenia, first trimester, other fetus	Diagnosis	ICD-10-CM
O368220	Fetal anemia and thrombocytopenia, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O368221	Fetal anemia and thrombocytopenia, second trimester, fetus 1	Diagnosis	ICD-10-CM
O368222	Fetal anemia and thrombocytopenia, second trimester, fetus 2	Diagnosis	ICD-10-CM
O368223	Fetal anemia and thrombocytopenia, second trimester, fetus 3	Diagnosis	ICD-10-CM
O368224	Fetal anemia and thrombocytopenia, second trimester, fetus 4	Diagnosis	ICD-10-CM
O368225	Fetal anemia and thrombocytopenia, second trimester, fetus 5	Diagnosis	ICD-10-CM
O368229	Fetal anemia and thrombocytopenia, second trimester, other fetus	Diagnosis	ICD-10-CM
O368230	Fetal anemia and thrombocytopenia, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O368231	Fetal anemia and thrombocytopenia, third trimester, fetus 1	Diagnosis	ICD-10-CM
O368232	Fetal anemia and thrombocytopenia, third trimester, fetus 2	Diagnosis	ICD-10-CM
O368233	Fetal anemia and thrombocytopenia, third trimester, fetus 3	Diagnosis	ICD-10-CM
O368234	Fetal anemia and thrombocytopenia, third trimester, fetus 4	Diagnosis	ICD-10-CM
O368235	Fetal anemia and thrombocytopenia, third trimester, fetus 5	Diagnosis	ICD-10-CM
O368239	Fetal anemia and thrombocytopenia, third trimester, other fetus	Diagnosis	ICD-10-CM
O368310	Maternal care for abnormalities of the fetal heart rate or rhythm, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O368311	Maternal care for abnormalities of the fetal heart rate or rhythm, first trimester, fetus 1	Diagnosis	ICD-10-CM
O368312	Maternal care for abnormalities of the fetal heart rate or rhythm, first trimester, fetus 2	Diagnosis	ICD-10-CM
O368313	Maternal care for abnormalities of the fetal heart rate or rhythm, first trimester, fetus 3	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O368314	Maternal care for abnormalities of the fetal heart rate or rhythm, first trimester, fetus 4	Diagnosis	ICD-10-CM
O368315	Maternal care for abnormalities of the fetal heart rate or rhythm, first trimester, fetus 5	Diagnosis	ICD-10-CM
O368320	Maternal care for abnormalities of the fetal heart rate or rhythm, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O368321	Maternal care for abnormalities of the fetal heart rate or rhythm, second trimester, fetus 1	Diagnosis	ICD-10-CM
O368322	Maternal care for abnormalities of the fetal heart rate or rhythm, second trimester, fetus 2	Diagnosis	ICD-10-CM
O368323	Maternal care for abnormalities of the fetal heart rate or rhythm, second trimester, fetus 3	Diagnosis	ICD-10-CM
O368324	Maternal care for abnormalities of the fetal heart rate or rhythm, second trimester, fetus 4	Diagnosis	ICD-10-CM
O368325	Maternal care for abnormalities of the fetal heart rate or rhythm, second trimester, fetus 5	Diagnosis	ICD-10-CM
O368329	Maternal care for abnormalities of the fetal heart rate or rhythm, second trimester, other fetus	Diagnosis	ICD-10-CM
O368330	Maternal care for abnormalities of the fetal heart rate or rhythm, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O368331	Maternal care for abnormalities of the fetal heart rate or rhythm, third trimester, fetus 1	Diagnosis	ICD-10-CM
O368332	Maternal care for abnormalities of the fetal heart rate or rhythm, third trimester, fetus 2	Diagnosis	ICD-10-CM
O368333	Maternal care for abnormalities of the fetal heart rate or rhythm, third trimester, fetus 3	Diagnosis	ICD-10-CM
O368334	Maternal care for abnormalities of the fetal heart rate or rhythm, third trimester, fetus 4	Diagnosis	ICD-10-CM
O368335	Maternal care for abnormalities of the fetal heart rate or rhythm, third trimester, fetus 5	Diagnosis	ICD-10-CM
O368339	Maternal care for abnormalities of the fetal heart rate or rhythm, third trimester, other fetus	Diagnosis	ICD-10-CM
O368910	Maternal care for other specified fetal problems, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O368911	Maternal care for other specified fetal problems, first trimester, fetus 1	Diagnosis	ICD-10-CM
O368912	Maternal care for other specified fetal problems, first trimester, fetus 2	Diagnosis	ICD-10-CM
O368913	Maternal care for other specified fetal problems, first trimester, fetus 3	Diagnosis	ICD-10-CM
O368914	Maternal care for other specified fetal problems, first trimester, fetus 4	Diagnosis	ICD-10-CM
O368915	Maternal care for other specified fetal problems, first trimester, fetus 5	Diagnosis	ICD-10-CM
O368919	Maternal care for other specified fetal problems, first trimester, other fetus	Diagnosis	ICD-10-CM
O368920	Maternal care for other specified fetal problems, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O368921	Maternal care for other specified fetal problems, second trimester, fetus 1	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O368922	Maternal care for other specified fetal problems, second trimester, fetus 2	Diagnosis	ICD-10-CM
O368923	Maternal care for other specified fetal problems, second trimester, fetus 3	Diagnosis	ICD-10-CM
O368924	Maternal care for other specified fetal problems, second trimester, fetus 4	Diagnosis	ICD-10-CM
O368925	Maternal care for other specified fetal problems, second trimester, fetus 5	Diagnosis	ICD-10-CM
O368929	Maternal care for other specified fetal problems, second trimester, other fetus	Diagnosis	ICD-10-CM
O368930	Maternal care for other specified fetal problems, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O368931	Maternal care for other specified fetal problems, third trimester, fetus 1	Diagnosis	ICD-10-CM
O368932	Maternal care for other specified fetal problems, third trimester, fetus 2	Diagnosis	ICD-10-CM
O368933	Maternal care for other specified fetal problems, third trimester, fetus 3	Diagnosis	ICD-10-CM
O368934	Maternal care for other specified fetal problems, third trimester, fetus 4	Diagnosis	ICD-10-CM
O368935	Maternal care for other specified fetal problems, third trimester, fetus 5	Diagnosis	ICD-10-CM
O368939	Maternal care for other specified fetal problems, third trimester, other fetus	Diagnosis	ICD-10-CM
O3691X0	Maternal care for fetal problem, unspecified, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3691X1	Maternal care for fetal problem, unspecified, first trimester, fetus 1	Diagnosis	ICD-10-CM
O3691X2	Maternal care for fetal problem, unspecified, first trimester, fetus 2	Diagnosis	ICD-10-CM
O3691X3	Maternal care for fetal problem, unspecified, first trimester, fetus 3	Diagnosis	ICD-10-CM
O3691X4	Maternal care for fetal problem, unspecified, first trimester, fetus 4	Diagnosis	ICD-10-CM
O3691X5	Maternal care for fetal problem, unspecified, first trimester, fetus 5	Diagnosis	ICD-10-CM
O3691X9	Maternal care for fetal problem, unspecified, first trimester, other fetus	Diagnosis	ICD-10-CM
O3692X0	Maternal care for fetal problem, unspecified, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3692X1	Maternal care for fetal problem, unspecified, second trimester, fetus 1	Diagnosis	ICD-10-CM
O3692X2	Maternal care for fetal problem, unspecified, second trimester, fetus 2	Diagnosis	ICD-10-CM
O3692X3	Maternal care for fetal problem, unspecified, second trimester, fetus 3	Diagnosis	ICD-10-CM
O3692X4	Maternal care for fetal problem, unspecified, second trimester, fetus 4	Diagnosis	ICD-10-CM
O3692X5	Maternal care for fetal problem, unspecified, second trimester, fetus 5	Diagnosis	ICD-10-CM
O3692X9	Maternal care for fetal problem, unspecified, second trimester, other fetus	Diagnosis	ICD-10-CM
O3693X0	Maternal care for fetal problem, unspecified, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O3693X1	Maternal care for fetal problem, unspecified, third trimester, fetus 1	Diagnosis	ICD-10-CM
O3693X2	Maternal care for fetal problem, unspecified, third trimester, fetus 2	Diagnosis	ICD-10-CM
O3693X3	Maternal care for fetal problem, unspecified, third trimester, fetus 3	Diagnosis	ICD-10-CM
O3693X4	Maternal care for fetal problem, unspecified, third trimester, fetus 4	Diagnosis	ICD-10-CM
O3693X5	Maternal care for fetal problem, unspecified, third trimester, fetus 5	Diagnosis	ICD-10-CM
O3693X9	Maternal care for fetal problem, unspecified, third trimester, other fetus	Diagnosis	ICD-10-CM
O401XX0	Polyhydramnios, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O401XX1	Polyhydramnios, first trimester, fetus 1	Diagnosis	ICD-10-CM
O401XX2	Polyhydramnios, first trimester, fetus 2	Diagnosis	ICD-10-CM
O401XX3	Polyhydramnios, first trimester, fetus 3	Diagnosis	ICD-10-CM
O401XX4	Polyhydramnios, first trimester, fetus 4	Diagnosis	ICD-10-CM
O401XX5	Polyhydramnios, first trimester, fetus 5	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O401XX9	Polyhydramnios, first trimester, other fetus	Diagnosis	ICD-10-CM
O402XX0	Polyhydramnios, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O402XX1	Polyhydramnios, second trimester, fetus 1	Diagnosis	ICD-10-CM
O402XX2	Polyhydramnios, second trimester, fetus 2	Diagnosis	ICD-10-CM
O402XX3	Polyhydramnios, second trimester, fetus 3	Diagnosis	ICD-10-CM
O402XX4	Polyhydramnios, second trimester, fetus 4	Diagnosis	ICD-10-CM
O402XX5	Polyhydramnios, second trimester, fetus 5	Diagnosis	ICD-10-CM
O402XX9	Polyhydramnios, second trimester, other fetus	Diagnosis	ICD-10-CM
O403XX0	Polyhydramnios, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O403XX1	Polyhydramnios, third trimester, fetus 1	Diagnosis	ICD-10-CM
O403XX2	Polyhydramnios, third trimester, fetus 2	Diagnosis	ICD-10-CM
O403XX3	Polyhydramnios, third trimester, fetus 3	Diagnosis	ICD-10-CM
O403XX4	Polyhydramnios, third trimester, fetus 4	Diagnosis	ICD-10-CM
O403XX5	Polyhydramnios, third trimester, fetus 5	Diagnosis	ICD-10-CM
O403XX9	Polyhydramnios, third trimester, other fetus	Diagnosis	ICD-10-CM
O4101X0	Oligohydramnios, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O4101X1	Oligohydramnios, first trimester, fetus 1	Diagnosis	ICD-10-CM
O4101X2	Oligohydramnios, first trimester, fetus 2	Diagnosis	ICD-10-CM
O4101X3	Oligohydramnios, first trimester, fetus 3	Diagnosis	ICD-10-CM
O4101X4	Oligohydramnios, first trimester, fetus 4	Diagnosis	ICD-10-CM
O4101X5	Oligohydramnios, first trimester, fetus 5	Diagnosis	ICD-10-CM
O4101X9	Oligohydramnios, first trimester, other fetus	Diagnosis	ICD-10-CM
O4102X0	Oligohydramnios, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O4102X1	Oligohydramnios, second trimester, fetus 1	Diagnosis	ICD-10-CM
O4102X2	Oligohydramnios, second trimester, fetus 2	Diagnosis	ICD-10-CM
O4102X3	Oligohydramnios, second trimester, fetus 3	Diagnosis	ICD-10-CM
O4102X4	Oligohydramnios, second trimester, fetus 4	Diagnosis	ICD-10-CM
O4102X5	Oligohydramnios, second trimester, fetus 5	Diagnosis	ICD-10-CM
O4102X9	Oligohydramnios, second trimester, other fetus	Diagnosis	ICD-10-CM
O4103X0	Oligohydramnios, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O4103X1	Oligohydramnios, third trimester, fetus 1	Diagnosis	ICD-10-CM
O4103X2	Oligohydramnios, third trimester, fetus 2	Diagnosis	ICD-10-CM
O4103X3	Oligohydramnios, third trimester, fetus 3	Diagnosis	ICD-10-CM
O4103X4	Oligohydramnios, third trimester, fetus 4	Diagnosis	ICD-10-CM
O4103X5	Oligohydramnios, third trimester, fetus 5	Diagnosis	ICD-10-CM
O4103X9	Oligohydramnios, third trimester, other fetus	Diagnosis	ICD-10-CM
O411010	Infection of amniotic sac and membranes, unspecified, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O411011	Infection of amniotic sac and membranes, unspecified, first trimester, fetus 1	Diagnosis	ICD-10-CM
O411012	Infection of amniotic sac and membranes, unspecified, first trimester, fetus 2	Diagnosis	ICD-10-CM
O411013	Infection of amniotic sac and membranes, unspecified, first trimester, fetus 3	Diagnosis	ICD-10-CM
O411014	Infection of amniotic sac and membranes, unspecified, first trimester, fetus 4	Diagnosis	ICD-10-CM
O411015	Infection of amniotic sac and membranes, unspecified, first trimester, fetus 5	Diagnosis	ICD-10-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
O411019	Infection of amniotic sac and membranes, unspecified, first trimester, other fetus	Diagnosis	ICD-10-CM
O411020	Infection of amniotic sac and membranes, unspecified, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O411021	Infection of amniotic sac and membranes, unspecified, second trimester, fetus 1	Diagnosis	ICD-10-CM
O411022	Infection of amniotic sac and membranes, unspecified, second trimester, fetus 2	Diagnosis	ICD-10-CM
O411023	Infection of amniotic sac and membranes, unspecified, second trimester, fetus 3	Diagnosis	ICD-10-CM
O411024	Infection of amniotic sac and membranes, unspecified, second trimester, fetus 4	Diagnosis	ICD-10-CM
O411025	Infection of amniotic sac and membranes, unspecified, second trimester, fetus 5	Diagnosis	ICD-10-CM
O411029	Infection of amniotic sac and membranes, unspecified, second trimester, other fetus	Diagnosis	ICD-10-CM
O411030	Infection of amniotic sac and membranes, unspecified, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O411031	Infection of amniotic sac and membranes, unspecified, third trimester, fetus 1	Diagnosis	ICD-10-CM
O411032	Infection of amniotic sac and membranes, unspecified, third trimester, fetus 2	Diagnosis	ICD-10-CM
O411033	Infection of amniotic sac and membranes, unspecified, third trimester, fetus 3	Diagnosis	ICD-10-CM
O411034	Infection of amniotic sac and membranes, unspecified, third trimester, fetus 4	Diagnosis	ICD-10-CM
O411035	Infection of amniotic sac and membranes, unspecified, third trimester, fetus 5	Diagnosis	ICD-10-CM
O411039	Infection of amniotic sac and membranes, unspecified, third trimester, other fetus	Diagnosis	ICD-10-CM
O411210	Chorioamnionitis, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O411211	Chorioamnionitis, first trimester, fetus 1	Diagnosis	ICD-10-CM
O411212	Chorioamnionitis, first trimester, fetus 2	Diagnosis	ICD-10-CM
O411213	Chorioamnionitis, first trimester, fetus 3	Diagnosis	ICD-10-CM
O411214	Chorioamnionitis, first trimester, fetus 4	Diagnosis	ICD-10-CM
O411215	Chorioamnionitis, first trimester, fetus 5	Diagnosis	ICD-10-CM
O411219	Chorioamnionitis, first trimester, other fetus	Diagnosis	ICD-10-CM
O411220	Chorioamnionitis, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O411221	Chorioamnionitis, second trimester, fetus 1	Diagnosis	ICD-10-CM
O411222	Chorioamnionitis, second trimester, fetus 2	Diagnosis	ICD-10-CM
O411223	Chorioamnionitis, second trimester, fetus 3	Diagnosis	ICD-10-CM
O411224	Chorioamnionitis, second trimester, fetus 4	Diagnosis	ICD-10-CM
O411225	Chorioamnionitis, second trimester, fetus 5	Diagnosis	ICD-10-CM
O411229	Chorioamnionitis, second trimester, other fetus	Diagnosis	ICD-10-CM
O411230	Chorioamnionitis, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O411231	Chorioamnionitis, third trimester, fetus 1	Diagnosis	ICD-10-CM
O411232	Chorioamnionitis, third trimester, fetus 2	Diagnosis	ICD-10-CM
O411233	Chorioamnionitis, third trimester, fetus 3	Diagnosis	ICD-10-CM
O411234	Chorioamnionitis, third trimester, fetus 4	Diagnosis	ICD-10-CM
O411235	Chorioamnionitis, third trimester, fetus 5	Diagnosis	ICD-10-CM
O411239	Chorioamnionitis, third trimester, other fetus	Diagnosis	ICD-10-CM
O411410	Placentitis, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O411411	Placentitis, first trimester, fetus 1	Diagnosis	ICD-10-CM
O411412	Placentitis, first trimester, fetus 2	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O411413	Placentitis, first trimester, fetus 3	Diagnosis	ICD-10-CM
O411414	Placentitis, first trimester, fetus 4	Diagnosis	ICD-10-CM
O411415	Placentitis, first trimester, fetus 5	Diagnosis	ICD-10-CM
O411419	Placentitis, first trimester, other fetus	Diagnosis	ICD-10-CM
O411420	Placentitis, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O411421	Placentitis, second trimester, fetus 1	Diagnosis	ICD-10-CM
O411422	Placentitis, second trimester, fetus 2	Diagnosis	ICD-10-CM
O411423	Placentitis, second trimester, fetus 3	Diagnosis	ICD-10-CM
O411424	Placentitis, second trimester, fetus 4	Diagnosis	ICD-10-CM
O411425	Placentitis, second trimester, fetus 5	Diagnosis	ICD-10-CM
O411429	Placentitis, second trimester, other fetus	Diagnosis	ICD-10-CM
O411430	Placentitis, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O411431	Placentitis, third trimester, fetus 1	Diagnosis	ICD-10-CM
O411432	Placentitis, third trimester, fetus 2	Diagnosis	ICD-10-CM
O411433	Placentitis, third trimester, fetus 3	Diagnosis	ICD-10-CM
O411434	Placentitis, third trimester, fetus 4	Diagnosis	ICD-10-CM
O411435	Placentitis, third trimester, fetus 5	Diagnosis	ICD-10-CM
O411439	Placentitis, third trimester, other fetus	Diagnosis	ICD-10-CM
O418X10	Other specified disorders of amniotic fluid and membranes, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O418X11	Other specified disorders of amniotic fluid and membranes, first trimester, fetus 1	Diagnosis	ICD-10-CM
O418X12	Other specified disorders of amniotic fluid and membranes, first trimester, fetus 2	Diagnosis	ICD-10-CM
O418X13	Other specified disorders of amniotic fluid and membranes, first trimester, fetus 3	Diagnosis	ICD-10-CM
O418X14	Other specified disorders of amniotic fluid and membranes, first trimester, fetus 4	Diagnosis	ICD-10-CM
O418X15	Other specified disorders of amniotic fluid and membranes, first trimester, other fetus	Diagnosis	ICD-10-CM
O418X19	Other specified disorders of amniotic fluid and membranes, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O418X21	Other specified disorders of amniotic fluid and membranes, second trimester, fetus 1	Diagnosis	ICD-10-CM
O418X22	Other specified disorders of amniotic fluid and membranes, second trimester, fetus 2	Diagnosis	ICD-10-CM
O418X23	Other specified disorders of amniotic fluid and membranes, second trimester, fetus 3	Diagnosis	ICD-10-CM
O418X24	Other specified disorders of amniotic fluid and membranes, second trimester, fetus 4	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O418X25	Other specified disorders of amniotic fluid and membranes, second trimester, fetus 5	Diagnosis	ICD-10-CM
O418X29	Other specified disorders of amniotic fluid and membranes, second trimester, other fetus	Diagnosis	ICD-10-CM
O418X30	Other specified disorders of amniotic fluid and membranes, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O418X31	Other specified disorders of amniotic fluid and membranes, third trimester, fetus 1	Diagnosis	ICD-10-CM
O418X32	Other specified disorders of amniotic fluid and membranes, third trimester, fetus 2	Diagnosis	ICD-10-CM
O418X33	Other specified disorders of amniotic fluid and membranes, third trimester, fetus 3	Diagnosis	ICD-10-CM
O418X34	Other specified disorders of amniotic fluid and membranes, third trimester, fetus 4	Diagnosis	ICD-10-CM
O418X35	Other specified disorders of amniotic fluid and membranes, third trimester, fetus 5	Diagnosis	ICD-10-CM
O418X39	Other specified disorders of amniotic fluid and membranes, third trimester, other fetus	Diagnosis	ICD-10-CM
O4191X0	Disorder of amniotic fluid and membranes, unspecified, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O4191X1	Disorder of amniotic fluid and membranes, unspecified, first trimester, fetus 1	Diagnosis	ICD-10-CM
O4191X2	Disorder of amniotic fluid and membranes, unspecified, first trimester, fetus 2	Diagnosis	ICD-10-CM
O4191X3	Disorder of amniotic fluid and membranes, unspecified, first trimester, fetus 3	Diagnosis	ICD-10-CM
O4191X4	Disorder of amniotic fluid and membranes, unspecified, first trimester, fetus 4	Diagnosis	ICD-10-CM
O4191X5	Disorder of amniotic fluid and membranes, unspecified, first trimester, fetus 5	Diagnosis	ICD-10-CM
O4191X9	Disorder of amniotic fluid and membranes, unspecified, first trimester, other fetus	Diagnosis	ICD-10-CM
O4192X0	Disorder of amniotic fluid and membranes, unspecified, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O4192X1	Disorder of amniotic fluid and membranes, unspecified, second trimester, fetus 1	Diagnosis	ICD-10-CM
O4192X2	Disorder of amniotic fluid and membranes, unspecified, second trimester, fetus 2	Diagnosis	ICD-10-CM
O4192X3	Disorder of amniotic fluid and membranes, unspecified, second trimester, fetus 3	Diagnosis	ICD-10-CM
O4192X4	Disorder of amniotic fluid and membranes, unspecified, second trimester, fetus 4	Diagnosis	ICD-10-CM
O4192X5	Disorder of amniotic fluid and membranes, unspecified, second trimester, fetus 5	Diagnosis	ICD-10-CM
O4192X9	Disorder of amniotic fluid and membranes, unspecified, second trimester, other fetus	Diagnosis	ICD-10-CM
O4193X0	Disorder of amniotic fluid and membranes, unspecified, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O4193X1	Disorder of amniotic fluid and membranes, unspecified, third trimester, fetus 1	Diagnosis	ICD-10-CM
O4193X2	Disorder of amniotic fluid and membranes, unspecified, third trimester, fetus 2	Diagnosis	ICD-10-CM
O4193X3	Disorder of amniotic fluid and membranes, unspecified, third trimester, fetus 3	Diagnosis	ICD-10-CM
O4193X4	Disorder of amniotic fluid and membranes, unspecified, third trimester, fetus 4	Diagnosis	ICD-10-CM
O4193X5	Disorder of amniotic fluid and membranes, unspecified, third trimester, fetus 5	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O4193X9	Disorder of amniotic fluid and membranes, unspecified, third trimester, other fetus	Diagnosis	ICD-10-CM
O42011	Preterm premature rupture of membranes, onset of labor within 24 hours of rupture, first trimester	Diagnosis	ICD-10-CM
O42012	Preterm premature rupture of membranes, onset of labor within 24 hours of rupture, second trimester	Diagnosis	ICD-10-CM
O42013	Preterm premature rupture of membranes, onset of labor within 24 hours of rupture, third trimester	Diagnosis	ICD-10-CM
O42019	Preterm premature rupture of membranes, onset of labor within 24 hours of rupture, unspecified trimester	Diagnosis	ICD-10-CM
O4202	Full-term premature rupture of membranes, onset of labor within 24 hours of rupture	Diagnosis	ICD-10-CM
O42111	Preterm premature rupture of membranes, onset of labor more than 24 hours following rupture, first trimester	Diagnosis	ICD-10-CM
O42112	Preterm premature rupture of membranes, onset of labor more than 24 hours following rupture, second trimester	Diagnosis	ICD-10-CM
O42113	Preterm premature rupture of membranes, onset of labor more than 24 hours following rupture, third trimester	Diagnosis	ICD-10-CM
O42119	Preterm premature rupture of membranes, onset of labor more than 24 hours following rupture, unspecified trimester	Diagnosis	ICD-10-CM
O4212	Full-term premature rupture of membranes, onset of labor more than 24 hours following rupture	Diagnosis	ICD-10-CM
O42911	Preterm premature rupture of membranes, unspecified as to length of time between rupture and onset of labor, first trimester	Diagnosis	ICD-10-CM
O42912	Preterm premature rupture of membranes, unspecified as to length of time between rupture and onset of labor, second trimester	Diagnosis	ICD-10-CM
O42913	Preterm premature rupture of membranes, unspecified as to length of time between rupture and onset of labor, third trimester	Diagnosis	ICD-10-CM
O42919	Preterm premature rupture of membranes, unspecified as to length of time between rupture and onset of labor, unspecified trimester	Diagnosis	ICD-10-CM
O4292	Full-term premature rupture of membranes, unspecified as to length of time between rupture and onset of labor	Diagnosis	ICD-10-CM
O43011	Fetomaternal placental transfusion syndrome, first trimester	Diagnosis	ICD-10-CM
O43012	Fetomaternal placental transfusion syndrome, second trimester	Diagnosis	ICD-10-CM
O43013	Fetomaternal placental transfusion syndrome, third trimester	Diagnosis	ICD-10-CM
O43021	Fetus-to-fetus placental transfusion syndrome, first trimester	Diagnosis	ICD-10-CM
O43022	Fetus-to-fetus placental transfusion syndrome, second trimester	Diagnosis	ICD-10-CM
O43023	Fetus-to-fetus placental transfusion syndrome, third trimester	Diagnosis	ICD-10-CM
O43101	Malformation of placenta, unspecified, first trimester	Diagnosis	ICD-10-CM
O43102	Malformation of placenta, unspecified, second trimester	Diagnosis	ICD-10-CM
O43103	Malformation of placenta, unspecified, third trimester	Diagnosis	ICD-10-CM
O43111	Circumvallate placenta, first trimester	Diagnosis	ICD-10-CM
O43112	Circumvallate placenta, second trimester	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
O43113	Circumvallate placenta, third trimester	Diagnosis	ICD-10-CM
O43121	Velamentous insertion of umbilical cord, first trimester	Diagnosis	ICD-10-CM
O43122	Velamentous insertion of umbilical cord, second trimester	Diagnosis	ICD-10-CM
O43123	Velamentous insertion of umbilical cord, third trimester	Diagnosis	ICD-10-CM
O43191	Other malformation of placenta, first trimester	Diagnosis	ICD-10-CM
O43192	Other malformation of placenta, second trimester	Diagnosis	ICD-10-CM
O43193	Other malformation of placenta, third trimester	Diagnosis	ICD-10-CM
O43211	Placenta accreta, first trimester	Diagnosis	ICD-10-CM
O43212	Placenta accreta, second trimester	Diagnosis	ICD-10-CM
O43213	Placenta accreta, third trimester	Diagnosis	ICD-10-CM
O43221	Placenta increta, first trimester	Diagnosis	ICD-10-CM
O43222	Placenta increta, second trimester	Diagnosis	ICD-10-CM
O43223	Placenta increta, third trimester	Diagnosis	ICD-10-CM
O43231	Placenta percreta, first trimester	Diagnosis	ICD-10-CM
O43232	Placenta percreta, second trimester	Diagnosis	ICD-10-CM
O43233	Placenta percreta, third trimester	Diagnosis	ICD-10-CM
O43811	Placental infarction, first trimester	Diagnosis	ICD-10-CM
O43812	Placental infarction, second trimester	Diagnosis	ICD-10-CM
O43813	Placental infarction, third trimester	Diagnosis	ICD-10-CM
O43891	Other placental disorders, first trimester	Diagnosis	ICD-10-CM
O43892	Other placental disorders, second trimester	Diagnosis	ICD-10-CM
O43893	Other placental disorders, third trimester	Diagnosis	ICD-10-CM
O4391	Unspecified placental disorder, first trimester	Diagnosis	ICD-10-CM
O4392	Unspecified placental disorder, second trimester	Diagnosis	ICD-10-CM
O4393	Unspecified placental disorder, third trimester	Diagnosis	ICD-10-CM
O4401	Complete placenta previa NOS or without hemorrhage, first trimester	Diagnosis	ICD-10-CM
O4402	Complete placenta previa NOS or without hemorrhage, second trimester	Diagnosis	ICD-10-CM
O4403	Complete placenta previa NOS or without hemorrhage, third trimester	Diagnosis	ICD-10-CM
O4411	Complete placenta previa with hemorrhage, first trimester	Diagnosis	ICD-10-CM
O4412	Complete placenta previa with hemorrhage, second trimester	Diagnosis	ICD-10-CM
O4413	Complete placenta previa with hemorrhage, third trimester	Diagnosis	ICD-10-CM
O4421	Partial placenta previa NOS or without hemorrhage, first trimester	Diagnosis	ICD-10-CM
O4422	Partial placenta previa NOS or without hemorrhage, second trimester	Diagnosis	ICD-10-CM
O4423	Partial placenta previa NOS or without hemorrhage, third trimester	Diagnosis	ICD-10-CM
O4431	Partial placenta previa with hemorrhage, first trimester	Diagnosis	ICD-10-CM
O4432	Partial placenta previa with hemorrhage, second trimester	Diagnosis	ICD-10-CM
O4433	Partial placenta previa with hemorrhage, third trimester	Diagnosis	ICD-10-CM
O4441	Low lying placenta NOS or without hemorrhage, first trimester	Diagnosis	ICD-10-CM
O4442	Low lying placenta NOS or without hemorrhage, second trimester	Diagnosis	ICD-10-CM
O4443	Low lying placenta NOS or without hemorrhage, third trimester	Diagnosis	ICD-10-CM
O4451	Low lying placenta with hemorrhage, first trimester	Diagnosis	ICD-10-CM
O4452	Low lying placenta with hemorrhage, second trimester	Diagnosis	ICD-10-CM
O4453	Low lying placenta with hemorrhage, third trimester	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O45001	Premature separation of placenta with coagulation defect, unspecified, first trimester	Diagnosis	ICD-10-CM
O45002	Premature separation of placenta with coagulation defect, unspecified, second trimester	Diagnosis	ICD-10-CM
O45003	Premature separation of placenta with coagulation defect, unspecified, third trimester	Diagnosis	ICD-10-CM
O45011	Premature separation of placenta with afibrinogenemia, first trimester	Diagnosis	ICD-10-CM
O45012	Premature separation of placenta with afibrinogenemia, second trimester	Diagnosis	ICD-10-CM
O45013	Premature separation of placenta with afibrinogenemia, third trimester	Diagnosis	ICD-10-CM
O45021	Premature separation of placenta with disseminated intravascular coagulation, first trimester	Diagnosis	ICD-10-CM
O45022	Premature separation of placenta with disseminated intravascular coagulation, second trimester	Diagnosis	ICD-10-CM
O45023	Premature separation of placenta with disseminated intravascular coagulation, third trimester	Diagnosis	ICD-10-CM
O45091	Premature separation of placenta with other coagulation defect, first trimester	Diagnosis	ICD-10-CM
O45092	Premature separation of placenta with other coagulation defect, second trimester	Diagnosis	ICD-10-CM
O45093	Premature separation of placenta with other coagulation defect, third trimester	Diagnosis	ICD-10-CM
O458X1	Other premature separation of placenta, first trimester	Diagnosis	ICD-10-CM
O458X2	Other premature separation of placenta, second trimester	Diagnosis	ICD-10-CM
O458X3	Other premature separation of placenta, third trimester	Diagnosis	ICD-10-CM
O4591	Premature separation of placenta, unspecified, first trimester	Diagnosis	ICD-10-CM
O4592	Premature separation of placenta, unspecified, second trimester	Diagnosis	ICD-10-CM
O4593	Premature separation of placenta, unspecified, third trimester	Diagnosis	ICD-10-CM
O46001	Antepartum hemorrhage with coagulation defect, unspecified, first trimester	Diagnosis	ICD-10-CM
O46002	Antepartum hemorrhage with coagulation defect, unspecified, second trimester	Diagnosis	ICD-10-CM
O46003	Antepartum hemorrhage with coagulation defect, unspecified, third trimester	Diagnosis	ICD-10-CM
O46011	Antepartum hemorrhage with afibrinogenemia, first trimester	Diagnosis	ICD-10-CM
O46012	Antepartum hemorrhage with afibrinogenemia, second trimester	Diagnosis	ICD-10-CM
O46013	Antepartum hemorrhage with afibrinogenemia, third trimester	Diagnosis	ICD-10-CM
O46021	Antepartum hemorrhage with disseminated intravascular coagulation, first trimester	Diagnosis	ICD-10-CM
O46022	Antepartum hemorrhage with disseminated intravascular coagulation, second trimester	Diagnosis	ICD-10-CM
O46023	Antepartum hemorrhage with disseminated intravascular coagulation, third trimester	Diagnosis	ICD-10-CM
O46091	Antepartum hemorrhage with other coagulation defect, first trimester	Diagnosis	ICD-10-CM
O46092	Antepartum hemorrhage with other coagulation defect, second trimester	Diagnosis	ICD-10-CM
O46093	Antepartum hemorrhage with other coagulation defect, third trimester	Diagnosis	ICD-10-CM
O468X1	Other antepartum hemorrhage, first trimester	Diagnosis	ICD-10-CM
O468X2	Other antepartum hemorrhage, second trimester	Diagnosis	ICD-10-CM
O468X3	Other antepartum hemorrhage, third trimester	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O4691	Antepartum hemorrhage, unspecified, first trimester	Diagnosis	ICD-10-CM
O4692	Antepartum hemorrhage, unspecified, second trimester	Diagnosis	ICD-10-CM
O4693	Antepartum hemorrhage, unspecified, third trimester	Diagnosis	ICD-10-CM
O4702	False labor before 37 completed weeks of gestation, second trimester	Diagnosis	ICD-10-CM
O4703	False labor before 37 completed weeks of gestation, third trimester	Diagnosis	ICD-10-CM
O471	False labor at or after 37 completed weeks of gestation	Diagnosis	ICD-10-CM
O480	Post-term pregnancy	Diagnosis	ICD-10-CM
O481	Prolonged pregnancy	Diagnosis	ICD-10-CM
O6002	Preterm labor without delivery, second trimester	Diagnosis	ICD-10-CM
O6003	Preterm labor without delivery, third trimester	Diagnosis	ICD-10-CM
O6010X0	Preterm labor with preterm delivery, unspecified trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O6010X1	Preterm labor with preterm delivery, unspecified trimester, fetus 1	Diagnosis	ICD-10-CM
O6010X2	Preterm labor with preterm delivery, unspecified trimester, fetus 2	Diagnosis	ICD-10-CM
O6010X3	Preterm labor with preterm delivery, unspecified trimester, fetus 3	Diagnosis	ICD-10-CM
O6010X4	Preterm labor with preterm delivery, unspecified trimester, fetus 4	Diagnosis	ICD-10-CM
O6010X5	Preterm labor with preterm delivery, unspecified trimester, fetus 5	Diagnosis	ICD-10-CM
O6010X9	Preterm labor with preterm delivery, unspecified trimester, other fetus	Diagnosis	ICD-10-CM
O6012X0	Preterm labor second trimester with preterm delivery second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O6012X1	Preterm labor second trimester with preterm delivery second trimester, fetus 1	Diagnosis	ICD-10-CM
O6012X2	Preterm labor second trimester with preterm delivery second trimester, fetus 2	Diagnosis	ICD-10-CM
O6012X3	Preterm labor second trimester with preterm delivery second trimester, fetus 3	Diagnosis	ICD-10-CM
O6012X4	Preterm labor second trimester with preterm delivery second trimester, fetus 4	Diagnosis	ICD-10-CM
O6012X5	Preterm labor second trimester with preterm delivery second trimester, fetus 5	Diagnosis	ICD-10-CM
O6012X9	Preterm labor second trimester with preterm delivery second trimester, other fetus	Diagnosis	ICD-10-CM
O6013X0	Preterm labor second trimester with preterm delivery third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O6013X1	Preterm labor second trimester with preterm delivery third trimester, fetus 1	Diagnosis	ICD-10-CM
O6013X2	Preterm labor second trimester with preterm delivery third trimester, fetus 2	Diagnosis	ICD-10-CM
O6013X3	Preterm labor second trimester with preterm delivery third trimester, fetus 3	Diagnosis	ICD-10-CM
O6013X4	Preterm labor second trimester with preterm delivery third trimester, fetus 4	Diagnosis	ICD-10-CM
O6013X5	Preterm labor second trimester with preterm delivery third trimester, fetus 5	Diagnosis	ICD-10-CM
O6013X9	Preterm labor second trimester with preterm delivery third trimester, other fetus	Diagnosis	ICD-10-CM
O6014X0	Preterm labor third trimester with preterm delivery third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O6014X1	Preterm labor third trimester with preterm delivery third trimester, fetus 1	Diagnosis	ICD-10-CM
O6014X2	Preterm labor third trimester with preterm delivery third trimester, fetus 2	Diagnosis	ICD-10-CM
O6014X3	Preterm labor third trimester with preterm delivery third trimester, fetus 3	Diagnosis	ICD-10-CM
O6014X4	Preterm labor third trimester with preterm delivery third trimester, fetus 4	Diagnosis	ICD-10-CM
O6014X5	Preterm labor third trimester with preterm delivery third trimester, fetus 5	Diagnosis	ICD-10-CM
O6014X9	Preterm labor third trimester with preterm delivery third trimester, other fetus	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
	Term delivery with preterm labor, unspecified trimester, not applicable or		
O6020X0	unspecified	Diagnosis	ICD-10-CM
O6020X1	Term delivery with preterm labor, unspecified trimester, fetus 1	Diagnosis	ICD-10-CM
O6020X2	Term delivery with preterm labor, unspecified trimester, fetus 2	Diagnosis	ICD-10-CM
O6020X3	Term delivery with preterm labor, unspecified trimester, fetus 3	Diagnosis	ICD-10-CM
O6020X4	Term delivery with preterm labor, unspecified trimester, fetus 4	Diagnosis	ICD-10-CM
O6020X5	Term delivery with preterm labor, unspecified trimester, fetus 5	Diagnosis	ICD-10-CM
O6020X9	Term delivery with preterm labor, unspecified trimester, other fetus	Diagnosis	ICD-10-CM
O6022X0	Term delivery with preterm labor, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O6022X1	Term delivery with preterm labor, second trimester, fetus 1	Diagnosis	ICD-10-CM
O6022X2	Term delivery with preterm labor, second trimester, fetus 2	Diagnosis	ICD-10-CM
O6022X3	Term delivery with preterm labor, second trimester, fetus 3	Diagnosis	ICD-10-CM
O6022X4	Term delivery with preterm labor, second trimester, fetus 4	Diagnosis	ICD-10-CM
O6022X5	Term delivery with preterm labor, second trimester, fetus 5	Diagnosis	ICD-10-CM
O6022X9	Term delivery with preterm labor, second trimester, other fetus	Diagnosis	ICD-10-CM
O6023X0	Term delivery with preterm labor, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O6023X1	Term delivery with preterm labor, third trimester, fetus 1	Diagnosis	ICD-10-CM
O6023X2	Term delivery with preterm labor, third trimester, fetus 2	Diagnosis	ICD-10-CM
O6023X3	Term delivery with preterm labor, third trimester, fetus 3	Diagnosis	ICD-10-CM
O6023X4	Term delivery with preterm labor, third trimester, fetus 4	Diagnosis	ICD-10-CM
O6023X5	Term delivery with preterm labor, third trimester, fetus 5	Diagnosis	ICD-10-CM
O6023X9	Term delivery with preterm labor, third trimester, other fetus	Diagnosis	ICD-10-CM
O632	Delayed delivery of second twin, triplet, etc	Diagnosis	ICD-10-CM
O670	Intrapartum hemorrhage with coagulation defect	Diagnosis	ICD-10-CM
O678	Other intrapartum hemorrhage	Diagnosis	ICD-10-CM
O679	Intrapartum hemorrhage, unspecified	Diagnosis	ICD-10-CM
O68	Labor and delivery complicated by abnormality of fetal acid-base balance	Diagnosis	ICD-10-CM
O690XX0	Labor and delivery complicated by prolapse of cord, not applicable or unspecified	Diagnosis	ICD-10-CM
O690XX1	Labor and delivery complicated by prolapse of cord, fetus 1	Diagnosis	ICD-10-CM
O690XX2	Labor and delivery complicated by prolapse of cord, fetus 2	Diagnosis	ICD-10-CM
O690XX3	Labor and delivery complicated by prolapse of cord, fetus 3	Diagnosis	ICD-10-CM
O690XX4	Labor and delivery complicated by prolapse of cord, fetus 4	Diagnosis	ICD-10-CM
O690XX5	Labor and delivery complicated by prolapse of cord, fetus 5	Diagnosis	ICD-10-CM
O690XX9	Labor and delivery complicated by prolapse of cord, other fetus	Diagnosis	ICD-10-CM
O691XX0	Labor and delivery complicated by cord around neck, with compression, not applicable or unspecified	Diagnosis	ICD-10-CM
O691XX1	Labor and delivery complicated by cord around neck, with compression, fetus 1	Diagnosis	ICD-10-CM
O691XX2	Labor and delivery complicated by cord around neck, with compression, fetus 2	Diagnosis	ICD-10-CM
O691XX3	Labor and delivery complicated by cord around neck, with compression, fetus 3	Diagnosis	ICD-10-CM
O691XX4	Labor and delivery complicated by cord around neck, with compression, fetus 4	Diagnosis	ICD-10-CM
O691XX5	Labor and delivery complicated by cord around neck, with compression, fetus 5	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O691XX9	Labor and delivery complicated by cord around neck, with compression, other fetus	Diagnosis	ICD-10-CM
O692XX0	Labor and delivery complicated by other cord entanglement, with compression, not applicable or unspecified	Diagnosis	ICD-10-CM
O692XX1	Labor and delivery complicated by other cord entanglement, with compression, fetus 1	Diagnosis	ICD-10-CM
O692XX2	Labor and delivery complicated by other cord entanglement, with compression, fetus 2	Diagnosis	ICD-10-CM
O692XX3	Labor and delivery complicated by other cord entanglement, with compression, fetus 3	Diagnosis	ICD-10-CM
O692XX4	Labor and delivery complicated by other cord entanglement, with compression, fetus 4	Diagnosis	ICD-10-CM
O692XX5	Labor and delivery complicated by other cord entanglement, with compression, fetus 5	Diagnosis	ICD-10-CM
O692XX9	Labor and delivery complicated by other cord entanglement, with compression, other fetus	Diagnosis	ICD-10-CM
O693XX0	Labor and delivery complicated by short cord, not applicable or unspecified	Diagnosis	ICD-10-CM
O693XX1	Labor and delivery complicated by short cord, fetus 1	Diagnosis	ICD-10-CM
O693XX2	Labor and delivery complicated by short cord, fetus 2	Diagnosis	ICD-10-CM
O693XX3	Labor and delivery complicated by short cord, fetus 3	Diagnosis	ICD-10-CM
O693XX4	Labor and delivery complicated by short cord, fetus 4	Diagnosis	ICD-10-CM
O693XX5	Labor and delivery complicated by short cord, fetus 5	Diagnosis	ICD-10-CM
O693XX9	Labor and delivery complicated by short cord, other fetus	Diagnosis	ICD-10-CM
O694XX0	Labor and delivery complicated by vasa previa, not applicable or unspecified	Diagnosis	ICD-10-CM
O694XX1	Labor and delivery complicated by vasa previa, fetus 1	Diagnosis	ICD-10-CM
O694XX2	Labor and delivery complicated by vasa previa, fetus 2	Diagnosis	ICD-10-CM
O694XX3	Labor and delivery complicated by vasa previa, fetus 3	Diagnosis	ICD-10-CM
O694XX4	Labor and delivery complicated by vasa previa, fetus 4	Diagnosis	ICD-10-CM
O694XX5	Labor and delivery complicated by vasa previa, fetus 5	Diagnosis	ICD-10-CM
O694XX9	Labor and delivery complicated by vasa previa, other fetus	Diagnosis	ICD-10-CM
O695XX0	Labor and delivery complicated by vascular lesion of cord, not applicable or unspecified	Diagnosis	ICD-10-CM
O695XX1	Labor and delivery complicated by vascular lesion of cord, fetus 1	Diagnosis	ICD-10-CM
O695XX2	Labor and delivery complicated by vascular lesion of cord, fetus 2	Diagnosis	ICD-10-CM
O695XX3	Labor and delivery complicated by vascular lesion of cord, fetus 3	Diagnosis	ICD-10-CM
O695XX4	Labor and delivery complicated by vascular lesion of cord, fetus 4	Diagnosis	ICD-10-CM
O695XX5	Labor and delivery complicated by vascular lesion of cord, fetus 5	Diagnosis	ICD-10-CM
O695XX9	Labor and delivery complicated by vascular lesion of cord, other fetus	Diagnosis	ICD-10-CM
O6981X0	Labor and delivery complicated by cord around neck, without compression, not applicable or unspecified	Diagnosis	ICD-10-CM
O6981X1	Labor and delivery complicated by cord around neck, without compression, fetus 1	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O6981X2	Labor and delivery complicated by cord around neck, without compression, fetus 2	Diagnosis	ICD-10-CM
O6981X3	Labor and delivery complicated by cord around neck, without compression, fetus 3	Diagnosis	ICD-10-CM
O6981X4	Labor and delivery complicated by cord around neck, without compression, fetus 4	Diagnosis	ICD-10-CM
O6981X5	Labor and delivery complicated by cord around neck, without compression, fetus 5	Diagnosis	ICD-10-CM
O6981X9	Labor and delivery complicated by cord around neck, without compression, other fetus	Diagnosis	ICD-10-CM
O6982X0	Labor and delivery complicated by other cord entanglement, without compression, not applicable or unspecified	Diagnosis	ICD-10-CM
O6982X1	Labor and delivery complicated by other cord entanglement, without compression, fetus 1	Diagnosis	ICD-10-CM
O6982X2	Labor and delivery complicated by other cord entanglement, without compression, fetus 2	Diagnosis	ICD-10-CM
O6982X3	Labor and delivery complicated by other cord entanglement, without compression, fetus 3	Diagnosis	ICD-10-CM
O6982X4	Labor and delivery complicated by other cord entanglement, without compression, fetus 4	Diagnosis	ICD-10-CM
O6982X5	Labor and delivery complicated by other cord entanglement, without compression, fetus 5	Diagnosis	ICD-10-CM
O6982X9	Labor and delivery complicated by other cord entanglement, without compression, other fetus	Diagnosis	ICD-10-CM
O6989X0	Labor and delivery complicated by other cord complications, not applicable or unspecified	Diagnosis	ICD-10-CM
O6989X1	Labor and delivery complicated by other cord complications, fetus 1	Diagnosis	ICD-10-CM
O6989X2	Labor and delivery complicated by other cord complications, fetus 2	Diagnosis	ICD-10-CM
O6989X3	Labor and delivery complicated by other cord complications, fetus 3	Diagnosis	ICD-10-CM
O6989X4	Labor and delivery complicated by other cord complications, fetus 4	Diagnosis	ICD-10-CM
O6989X5	Labor and delivery complicated by other cord complications, fetus 5	Diagnosis	ICD-10-CM
O6989X9	Labor and delivery complicated by other cord complications, other fetus	Diagnosis	ICD-10-CM
O699XX0	Labor and delivery complicated by cord complication, unspecified, not applicable or unspecified	Diagnosis	ICD-10-CM
O699XX1	Labor and delivery complicated by cord complication, unspecified, fetus 1	Diagnosis	ICD-10-CM
O699XX2	Labor and delivery complicated by cord complication, unspecified, fetus 2	Diagnosis	ICD-10-CM
O699XX3	Labor and delivery complicated by cord complication, unspecified, fetus 3	Diagnosis	ICD-10-CM
O699XX4	Labor and delivery complicated by cord complication, unspecified, fetus 4	Diagnosis	ICD-10-CM
O699XX5	Labor and delivery complicated by cord complication, unspecified, fetus 5	Diagnosis	ICD-10-CM
O699XX9	Labor and delivery complicated by cord complication, unspecified, other fetus	Diagnosis	ICD-10-CM
O700	First degree perineal laceration during delivery	Diagnosis	ICD-10-CM
O701	Second degree perineal laceration during delivery	Diagnosis	ICD-10-CM
O7020	Third degree perineal laceration during delivery, unspecified	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O7021	Third degree perineal laceration during delivery, IIIa	Diagnosis	ICD-10-CM
O7022	Third degree perineal laceration during delivery, IIIb	Diagnosis	ICD-10-CM
O7023	Third degree perineal laceration during delivery, IIIc	Diagnosis	ICD-10-CM
O703	Fourth degree perineal laceration during delivery	Diagnosis	ICD-10-CM
O704	Anal sphincter tear complicating delivery, not associated with third degree laceration	Diagnosis	ICD-10-CM
O709	Perineal laceration during delivery, unspecified	Diagnosis	ICD-10-CM
O7102	Rupture of uterus before onset of labor, second trimester	Diagnosis	ICD-10-CM
O7103	Rupture of uterus before onset of labor, third trimester	Diagnosis	ICD-10-CM
O740	Aspiration pneumonitis due to anesthesia during labor and delivery	Diagnosis	ICD-10-CM
O741	Other pulmonary complications of anesthesia during labor and delivery	Diagnosis	ICD-10-CM
O742	Cardiac complications of anesthesia during labor and delivery	Diagnosis	ICD-10-CM
O743	Central nervous system complications of anesthesia during labor and delivery	Diagnosis	ICD-10-CM
O744	Toxic reaction to local anesthesia during labor and delivery	Diagnosis	ICD-10-CM
O745	Spinal and epidural anesthesia-induced headache during labor and delivery	Diagnosis	ICD-10-CM
O746	Other complications of spinal and epidural anesthesia during labor and delivery	Diagnosis	ICD-10-CM
O747	Failed or difficult intubation for anesthesia during labor and delivery	Diagnosis	ICD-10-CM
O748	Other complications of anesthesia during labor and delivery	Diagnosis	ICD-10-CM
O749	Complication of anesthesia during labor and delivery, unspecified	Diagnosis	ICD-10-CM
O750	Maternal distress during labor and delivery	Diagnosis	ICD-10-CM
O751	Shock during or following labor and delivery	Diagnosis	ICD-10-CM
O755	Delayed delivery after artificial rupture of membranes	Diagnosis	ICD-10-CM
O7581	Maternal exhaustion complicating labor and delivery	Diagnosis	ICD-10-CM
O7582	Onset (spontaneous) of labor after 37 completed weeks of gestation but before 39 completed weeks gestation, with delivery by (planned) cesarean section	Diagnosis	ICD-10-CM
O7589	Other specified complications of labor and delivery	Diagnosis	ICD-10-CM
O759	Complication of labor and delivery, unspecified	Diagnosis	ICD-10-CM
O76	Abnormality in fetal heart rate and rhythm complicating labor and delivery	Diagnosis	ICD-10-CM
O770	Labor and delivery complicated by meconium in amniotic fluid	Diagnosis	ICD-10-CM
O778	Labor and delivery complicated by other evidence of fetal stress	Diagnosis	ICD-10-CM
O779	Labor and delivery complicated by fetal stress, unspecified	Diagnosis	ICD-10-CM
O80	Encounter for full-term uncomplicated delivery	Diagnosis	ICD-10-CM
O82	Encounter for cesarean delivery without indication	Diagnosis	ICD-10-CM
O88011	Air embolism in pregnancy, first trimester	Diagnosis	ICD-10-CM
O88012	Air embolism in pregnancy, second trimester	Diagnosis	ICD-10-CM
O88013	Air embolism in pregnancy, third trimester	Diagnosis	ICD-10-CM
O8802	Air embolism in childbirth	Diagnosis	ICD-10-CM
O88111	Amniotic fluid embolism in pregnancy, first trimester	Diagnosis	ICD-10-CM
O88112	Amniotic fluid embolism in pregnancy, second trimester	Diagnosis	ICD-10-CM
O88113	Amniotic fluid embolism in pregnancy, third trimester	Diagnosis	ICD-10-CM
O8812	Amniotic fluid embolism in childbirth	Diagnosis	ICD-10-CM
O88211	Thromboembolism in pregnancy, first trimester	Diagnosis	ICD-10-CM
O88212	Thromboembolism in pregnancy, second trimester	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
O88213	Thromboembolism in pregnancy, third trimester	Diagnosis	ICD-10-CM
O8822	Thromboembolism in childbirth	Diagnosis	ICD-10-CM
O88311	Pyemic and septic embolism in pregnancy, first trimester	Diagnosis	ICD-10-CM
O88312	Pyemic and septic embolism in pregnancy, second trimester	Diagnosis	ICD-10-CM
O88313	Pyemic and septic embolism in pregnancy, third trimester	Diagnosis	ICD-10-CM
O8832	Pyemic and septic embolism in childbirth	Diagnosis	ICD-10-CM
O88811	Other embolism in pregnancy, first trimester	Diagnosis	ICD-10-CM
O88812	Other embolism in pregnancy, second trimester	Diagnosis	ICD-10-CM
O88813	Other embolism in pregnancy, third trimester	Diagnosis	ICD-10-CM
O8882	Other embolism in childbirth	Diagnosis	ICD-10-CM
O91011	Infection of nipple associated with pregnancy, first trimester	Diagnosis	ICD-10-CM
O91012	Infection of nipple associated with pregnancy, second trimester	Diagnosis	ICD-10-CM
O91013	Infection of nipple associated with pregnancy, third trimester	Diagnosis	ICD-10-CM
O91111	Abscess of breast associated with pregnancy, first trimester	Diagnosis	ICD-10-CM
O91112	Abscess of breast associated with pregnancy, second trimester	Diagnosis	ICD-10-CM
O91113	Abscess of breast associated with pregnancy, third trimester	Diagnosis	ICD-10-CM
O91211	Nonpurulent mastitis associated with pregnancy, first trimester	Diagnosis	ICD-10-CM
O91212	Nonpurulent mastitis associated with pregnancy, second trimester	Diagnosis	ICD-10-CM
O91213	Nonpurulent mastitis associated with pregnancy, third trimester	Diagnosis	ICD-10-CM
O92011	Retracted nipple associated with pregnancy, first trimester	Diagnosis	ICD-10-CM
O92012	Retracted nipple associated with pregnancy, second trimester	Diagnosis	ICD-10-CM
O92013	Retracted nipple associated with pregnancy, third trimester	Diagnosis	ICD-10-CM
O92111	Cracked nipple associated with pregnancy, first trimester	Diagnosis	ICD-10-CM
O92112	Cracked nipple associated with pregnancy, second trimester	Diagnosis	ICD-10-CM
O92113	Cracked nipple associated with pregnancy, third trimester	Diagnosis	ICD-10-CM
O98011	Tuberculosis complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O98012	Tuberculosis complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O98013	Tuberculosis complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O9802	Tuberculosis complicating childbirth	Diagnosis	ICD-10-CM
O98111	Syphilis complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O98112	Syphilis complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O98113	Syphilis complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O9812	Syphilis complicating childbirth	Diagnosis	ICD-10-CM
O98211	Gonorrhea complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O98212	Gonorrhea complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O98213	Gonorrhea complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O9822	Gonorrhea complicating childbirth	Diagnosis	ICD-10-CM
O98311	Other infections with a predominantly sexual mode of transmission complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O98312	Other infections with a predominantly sexual mode of transmission complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O98313	Other infections with a predominantly sexual mode of transmission complicating pregnancy, third trimester	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
	Other infections with a predominantly sexual mode of transmission complicating		
O9832	childbirth	Diagnosis	ICD-10-CM
O98411	Viral hepatitis complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O98412	Viral hepatitis complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O98413	Viral hepatitis complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O9842	Viral hepatitis complicating childbirth	Diagnosis	ICD-10-CM
O98511	Other viral diseases complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O98512	Other viral diseases complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O98513	Other viral diseases complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O9852	Other viral diseases complicating childbirth	Diagnosis	ICD-10-CM
O98611	Protozoal diseases complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O98612	Protozoal diseases complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O98613	Protozoal diseases complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O9862	Protozoal diseases complicating childbirth	Diagnosis	ICD-10-CM
O98711	Human immunodeficiency virus [HIV] disease complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O98712	Human immunodeficiency virus [HIV] disease complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O98713	Human immunodeficiency virus [HIV] disease complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O9872	Human immunodeficiency virus [HIV] disease complicating childbirth	Diagnosis	ICD-10-CM
O98811	Other maternal infectious and parasitic diseases complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O98812	Other maternal infectious and parasitic diseases complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O98813	Other maternal infectious and parasitic diseases complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O9882	Other maternal infectious and parasitic diseases complicating childbirth	Diagnosis	ICD-10-CM
O98911	Unspecified maternal infectious and parasitic disease complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O98912	Unspecified maternal infectious and parasitic disease complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O98913	Unspecified maternal infectious and parasitic disease complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O9892	Unspecified maternal infectious and parasitic disease complicating childbirth	Diagnosis	ICD-10-CM
O99011	Anemia complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99012	Anemia complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99013	Anemia complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O9902	Anemia complicating childbirth	Diagnosis	ICD-10-CM
O99111	Other diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99112	Other diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism complicating pregnancy, second trimester	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
099113	Other diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
09912	Other diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism complicating childbirth	Diagnosis	ICD-10-CM
099211	Obesity complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
099212	Obesity complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
099213	Obesity complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
099214	Obesity complicating childbirth	Diagnosis	ICD-10-CM
099281	Endocrine, nutritional and metabolic diseases complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
099282	Endocrine, nutritional and metabolic diseases complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
099283	Endocrine, nutritional and metabolic diseases complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
099284	Endocrine, nutritional and metabolic diseases complicating childbirth	Diagnosis	ICD-10-CM
099311	Alcohol use complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
099312	Alcohol use complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
099313	Alcohol use complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
099314	Alcohol use complicating childbirth	Diagnosis	ICD-10-CM
099321	Drug use complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
099322	Drug use complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
099323	Drug use complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
099324	Drug use complicating childbirth	Diagnosis	ICD-10-CM
099331	Smoking (tobacco) complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
099332	Smoking (tobacco) complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
099333	Smoking (tobacco) complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
099334	Smoking (tobacco) complicating childbirth	Diagnosis	ICD-10-CM
099341	Other mental disorders complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
099342	Other mental disorders complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
099343	Other mental disorders complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
099344	Other mental disorders complicating childbirth	Diagnosis	ICD-10-CM
099351	Diseases of the nervous system complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
099352	Diseases of the nervous system complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
099353	Diseases of the nervous system complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
099354	Diseases of the nervous system complicating childbirth	Diagnosis	ICD-10-CM
099411	Diseases of the circulatory system complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
099412	Diseases of the circulatory system complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
099413	Diseases of the circulatory system complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
09942	Diseases of the circulatory system complicating childbirth	Diagnosis	ICD-10-CM
099511	Diseases of the respiratory system complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
099512	Diseases of the respiratory system complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
099513	Diseases of the respiratory system complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
09952	Diseases of the respiratory system complicating childbirth	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O99611	Diseases of the digestive system complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99612	Diseases of the digestive system complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99613	Diseases of the digestive system complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O9962	Diseases of the digestive system complicating childbirth	Diagnosis	ICD-10-CM
O99711	Diseases of the skin and subcutaneous tissue complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99712	Diseases of the skin and subcutaneous tissue complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99713	Diseases of the skin and subcutaneous tissue complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O9972	Diseases of the skin and subcutaneous tissue complicating childbirth	Diagnosis	ICD-10-CM
O99814	Abnormal glucose complicating childbirth	Diagnosis	ICD-10-CM
O99824	Streptococcus B carrier state complicating childbirth	Diagnosis	ICD-10-CM
O99834	Other infection carrier state complicating childbirth	Diagnosis	ICD-10-CM
O99841	Bariatric surgery status complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99842	Bariatric surgery status complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99843	Bariatric surgery status complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99844	Bariatric surgery status complicating childbirth	Diagnosis	ICD-10-CM
O9A111	Malignant neoplasm complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O9A112	Malignant neoplasm complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O9A113	Malignant neoplasm complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O9A12	Malignant neoplasm complicating childbirth	Diagnosis	ICD-10-CM
O9A211	Injury, poisoning and certain other consequences of external causes complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O9A212	Injury, poisoning and certain other consequences of external causes complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O9A213	Injury, poisoning and certain other consequences of external causes complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O9A22	Injury, poisoning and certain other consequences of external causes complicating childbirth	Diagnosis	ICD-10-CM
O9A311	Physical abuse complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O9A312	Physical abuse complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O9A313	Physical abuse complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O9A32	Physical abuse complicating childbirth	Diagnosis	ICD-10-CM
O9A411	Sexual abuse complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O9A412	Sexual abuse complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O9A413	Sexual abuse complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O9A42	Sexual abuse complicating childbirth	Diagnosis	ICD-10-CM
O9A511	Psychological abuse complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O9A512	Psychological abuse complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O9A513	Psychological abuse complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O9A52	Psychological abuse complicating childbirth	Diagnosis	ICD-10-CM
P030	Newborn affected by breech delivery and extraction	Diagnosis	ICD-10-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
P032	Newborn affected by forceps delivery	Diagnosis	ICD-10-CM
P033	Newborn affected by delivery by vacuum extractor [ventouse]	Diagnosis	ICD-10-CM
P034	Newborn affected by Cesarean delivery	Diagnosis	ICD-10-CM
P035	Newborn affected by precipitate delivery	Diagnosis	ICD-10-CM
P0700	Extremely low birth weight newborn, unspecified weight	Diagnosis	ICD-10-CM
P0701	Extremely low birth weight newborn, less than 500 grams	Diagnosis	ICD-10-CM
P0702	Extremely low birth weight newborn, 500-749 grams	Diagnosis	ICD-10-CM
P0703	Extremely low birth weight newborn, 750-999 grams	Diagnosis	ICD-10-CM
P0710	Other low birth weight newborn, unspecified weight	Diagnosis	ICD-10-CM
P0714	Other low birth weight newborn, 1000-1249 grams	Diagnosis	ICD-10-CM
P0715	Other low birth weight newborn, 1250-1499 grams	Diagnosis	ICD-10-CM
P0716	Other low birth weight newborn, 1500-1749 grams	Diagnosis	ICD-10-CM
P0717	Other low birth weight newborn, 1750-1999 grams	Diagnosis	ICD-10-CM
P0718	Other low birth weight newborn, 2000-2499 grams	Diagnosis	ICD-10-CM
P0720	Extreme immaturity of newborn, unspecified weeks of gestation	Diagnosis	ICD-10-CM
P0721	Extreme immaturity of newborn, gestational age less than 23 completed weeks	Diagnosis	ICD-10-CM
P0722	Extreme immaturity of newborn, gestational age 23 completed weeks	Diagnosis	ICD-10-CM
P0723	Extreme immaturity of newborn, gestational age 24 completed weeks	Diagnosis	ICD-10-CM
P0724	Extreme immaturity of newborn, gestational age 25 completed weeks	Diagnosis	ICD-10-CM
P0725	Extreme immaturity of newborn, gestational age 26 completed weeks	Diagnosis	ICD-10-CM
P0726	Extreme immaturity of newborn, gestational age 27 completed weeks	Diagnosis	ICD-10-CM
P0730	Preterm newborn, unspecified weeks of gestation	Diagnosis	ICD-10-CM
P0731	Preterm newborn, gestational age 28 completed weeks	Diagnosis	ICD-10-CM
P0732	Preterm newborn, gestational age 29 completed weeks	Diagnosis	ICD-10-CM
P0733	Preterm newborn, gestational age 30 completed weeks	Diagnosis	ICD-10-CM
P0734	Preterm newborn, gestational age 31 completed weeks	Diagnosis	ICD-10-CM
P0735	Preterm newborn, gestational age 32 completed weeks	Diagnosis	ICD-10-CM
P0736	Preterm newborn, gestational age 33 completed weeks	Diagnosis	ICD-10-CM
P0737	Preterm newborn, gestational age 34 completed weeks	Diagnosis	ICD-10-CM
P0738	Preterm newborn, gestational age 35 completed weeks	Diagnosis	ICD-10-CM
P0739	Preterm newborn, gestational age 36 completed weeks	Diagnosis	ICD-10-CM
P0821	Post-term newborn	Diagnosis	ICD-10-CM
P0822	Prolonged gestation of newborn	Diagnosis	ICD-10-CM
P95	Stillbirth	Diagnosis	ICD-10-CM
S0190	Mifepristone, oral, 200 mg	Procedure	HCPCS
S0191	Misoprostol, oral, 200 mcg	Procedure	HCPCS
	Medically induced abortion by oral ingestion of medication including all associated services and supplies (e.g., patient counseling, office visits, confirmation of pregnancy by HCG, ultrasound to confirm duration of pregnancy, ultrasound to confirm completion of abortion) except drugs		
S0199		Procedure	HCPCS
S2260	Induced abortion, 17 to 24 weeks	Procedure	HCPCS
S2262	Abortion for maternal indication, 25 weeks or greater	Procedure	HCPCS
S2265	Induced abortion, 25 to 28 weeks	Procedure	HCPCS

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Code	Description	Code	
		Category	Code Type
S2266	Induced abortion, 29 to 31 weeks	Procedure	HCPCS
S2267	Induced abortion, 32 weeks or greater	Procedure	HCPCS
S4011	IN VITRO FERTILIZATION;	Procedure	HCPCS
S4013	COMPLETE CYCLE GIFT CASE RATE	Procedure	HCPCS
S4014	COMPLETE CYCLE ZIFT CASE RATE	Procedure	HCPCS
S4015	COMPLETE IVF CYCLE CASE RATE NOS	Procedure	HCPCS
S4016	FROZEN IVF CYCLE CASE RATE	Procedure	HCPCS
S4035	STIMULATED INTRAUTERINE INSEMINATION (IUI), CASE RATE	Procedure	HCPCS
S4037	Cryopreserved embryo transfer, case rate	Procedure	HCPCS
V27	Outcome of delivery	Diagnosis	ICD-9-CM
V270	Outcome of delivery, single liveborn	Diagnosis	ICD-9-CM
V271	Outcome of delivery, single stillborn	Diagnosis	ICD-9-CM
V272	Outcome of delivery, twins, both liveborn	Diagnosis	ICD-9-CM
V273	Outcome of delivery, twins, one liveborn and one stillborn	Diagnosis	ICD-9-CM
V274	Outcome of delivery, twins, both stillborn	Diagnosis	ICD-9-CM
V275	Outcome of delivery, other multiple birth, all liveborn	Diagnosis	ICD-9-CM
V276	Outcome of delivery, other multiple birth, some liveborn	Diagnosis	ICD-9-CM
V277	Outcome of delivery, other multiple birth, all stillborn	Diagnosis	ICD-9-CM
V279	Outcome of delivery, unspecified	Diagnosis	ICD-9-CM
V30	Single liveborn	Diagnosis	ICD-9-CM
V300	Single liveborn, born in hospital	Diagnosis	ICD-9-CM
V3000	Single liveborn, born in hospital, delivered without mention of cesarean delivery	Diagnosis	ICD-9-CM
V3001	Single liveborn, born in hospital, delivered by cesarean delivery	Diagnosis	ICD-9-CM
V301	Single liveborn, born before admission to hospital	Diagnosis	ICD-9-CM
V302	Single liveborn, born outside hospital and not hospitalized	Diagnosis	ICD-9-CM
V31	Twin birth, mate liveborn	Diagnosis	ICD-9-CM
V310	Twin, mate liveborn, born in hospital	Diagnosis	ICD-9-CM
V3100	Twin, mate liveborn, born in hospital, delivered without mention of cesarean delivery	Diagnosis	ICD-9-CM
V3101	Twin, mate liveborn, born in hospital, delivered by cesarean delivery	Diagnosis	ICD-9-CM
V311	Twin birth, mate liveborn, born before admission to hospital	Diagnosis	ICD-9-CM
V312	Twin birth, mate liveborn, born outside hospital and not hospitalized	Diagnosis	ICD-9-CM
V32	Twin birth, mate stillborn	Diagnosis	ICD-9-CM
V320	Twin, mate stillborn, born in hospital	Diagnosis	ICD-9-CM
V3200	Twin, mate stillborn, born in hospital, delivered without mention of cesarean delivery	Diagnosis	ICD-9-CM
V3201	Twin, mate stillborn, born in hospital, delivered by cesarean delivery	Diagnosis	ICD-9-CM
V321	Twin birth, mate stillborn, born before admission to hospital	Diagnosis	ICD-9-CM
V322	Twin birth, mate stillborn, born outside hospital and not hospitalized	Diagnosis	ICD-9-CM
V33	Twin birth, unspecified whether mate liveborn or stillborn	Diagnosis	ICD-9-CM
V330	Twin, unspecified, born in hospital	Diagnosis	ICD-9-CM
V3300	Twin, unspecified whether mate stillborn or liveborn, born in hospital, delivered without mention of cesarean delivery	Diagnosis	ICD-9-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
V3301	Twin, unspecified whether mate stillborn or liveborn, born in hospital, delivered by cesarean delivery	Diagnosis	ICD-9-CM
V331	Twin birth, unspecified whether mate liveborn or stillborn, born before admission to hospital	Diagnosis	ICD-9-CM
V332	Twin birth, unspecified whether mate liveborn or stillborn, born outside hospital and not hospitalized	Diagnosis	ICD-9-CM
V34	Other multiple birth (three or more), mates all liveborn	Diagnosis	ICD-9-CM
V340	Other multiple, mates all liveborn, born in hospital	Diagnosis	ICD-9-CM
V3400	Other multiple, mates all liveborn, born in hospital, delivered without mention of cesarean delivery	Diagnosis	ICD-9-CM
V3401	Other multiple, mates all liveborn, born in hospital, delivered by cesarean delivery	Diagnosis	ICD-9-CM
V341	Other multiple birth (three or more), mates all liveborn, born before admission to hospital	Diagnosis	ICD-9-CM
V342	Other multiple birth (three or more), mates all liveborn, born outside hospital and not hospitalized	Diagnosis	ICD-9-CM
V35	Other multiple birth (three or more), mates all stillborn	Diagnosis	ICD-9-CM
V350	Other multiple, mates all stillborn, born in hospital	Diagnosis	ICD-9-CM
V3500	Other multiple birth (three or more), mates all still born, born in hospital, delivered without mention of cesarean section	Diagnosis	ICD-9-CM
V3501	Other multiple birth (three or more), mates all still born, born in hospital, delivered by cesarean section	Diagnosis	ICD-9-CM
V351	Other multiple birth (three or more), mates all stillborn, born before admission to hospital	Diagnosis	ICD-9-CM
V352	Other multiple birth (three or more), mates all stillborn, born outside of hospital and not hospitalized	Diagnosis	ICD-9-CM
V36	Other multiple birth (three or more), mates liveborn and stillborn	Diagnosis	ICD-9-CM
V360	Other multiple, mates liveborn and stillborn, born in hospital	Diagnosis	ICD-9-CM
V3600	Other multiple, mates liveborn and stillborn, born in hospital, delivered without mention of cesarean delivery	Diagnosis	ICD-9-CM
V3601	Other multiple, mates liveborn and stillborn, born in hospital, delivered by cesarean delivery	Diagnosis	ICD-9-CM
V361	Other multiple birth (three or more), mates liveborn and stillborn, born before admission to hospital	Diagnosis	ICD-9-CM
V362	Other multiple birth (three or more), mates liveborn and stillborn, born outside hospital and not hospitalized	Diagnosis	ICD-9-CM
V37	Other multiple birth (three or more), unspecified whether mates liveborn or stillborn	Diagnosis	ICD-9-CM
V370	Other multiple, unspecified whether mates stillborn or liveborn, born in hospital	Diagnosis	ICD-9-CM
V3700	Other multiple, unspecified whether mates stillborn or liveborn, born in hospital, delivered without mention of cesarean delivery	Diagnosis	ICD-9-CM
V3701	Other multiple, unspecified whether mates stillborn or liveborn, born in hospital, delivered by cesarean delivery	Diagnosis	ICD-9-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
V371	Other multiple birth (three or more), unspecified whether mates liveborn or stillborn, born before admission to hospital	Diagnosis	ICD-9-CM
V372	Other multiple birth (three or more), unspecified whether mates liveborn or stillborn, born outside of hospital	Diagnosis	ICD-9-CM
V39	Liveborn, unspecified whether single, twin, or multiple	Diagnosis	ICD-9-CM
V390	Other liveborn, unspecified whether single, twin, or multiple, born in hospital	Diagnosis	ICD-9-CM
V3900	Liveborn infant, unspecified whether single, twin, or multiple, born in hospital, delivered without mention of cesarean delivery	Diagnosis	ICD-9-CM
V3901	Liveborn infant, unspecified whether single, twin, or multiple, born in hospital, delivered by cesarean	Diagnosis	ICD-9-CM
V391	Liveborn, unspecified whether single, twin or multiple, born before admission to hospital	Diagnosis	ICD-9-CM
V392	Liveborn, unspecified whether single, twin or multiple, born outside hospital and not hospitalized	Diagnosis	ICD-9-CM
Z332	Encounter for elective termination of pregnancy	Diagnosis	ICD-10-CM
Z3401	Encounter for supervision of normal first pregnancy, first trimester	Diagnosis	ICD-10-CM
Z3402	Encounter for supervision of normal first pregnancy, second trimester	Diagnosis	ICD-10-CM
Z3403	Encounter for supervision of normal first pregnancy, third trimester	Diagnosis	ICD-10-CM
Z3481	Encounter for supervision of other normal pregnancy, first trimester	Diagnosis	ICD-10-CM
Z3482	Encounter for supervision of other normal pregnancy, second trimester	Diagnosis	ICD-10-CM
Z3483	Encounter for supervision of other normal pregnancy, third trimester	Diagnosis	ICD-10-CM
Z3491	Encounter for supervision of normal pregnancy, unspecified, first trimester	Diagnosis	ICD-10-CM
Z3492	Encounter for supervision of normal pregnancy, unspecified, second trimester	Diagnosis	ICD-10-CM
Z3493	Encounter for supervision of normal pregnancy, unspecified, third trimester	Diagnosis	ICD-10-CM
Z370	Single live birth	Diagnosis	ICD-10-CM
Z371	Single stillbirth	Diagnosis	ICD-10-CM
Z372	Twins, both liveborn	Diagnosis	ICD-10-CM
Z373	Twins, one liveborn and one stillborn	Diagnosis	ICD-10-CM
Z374	Twins, both stillborn	Diagnosis	ICD-10-CM
Z3750	Multiple births, unspecified, all liveborn	Diagnosis	ICD-10-CM
Z3751	Triplets, all liveborn	Diagnosis	ICD-10-CM
Z3752	Quadruplets, all liveborn	Diagnosis	ICD-10-CM
Z3753	Quintuplets, all liveborn	Diagnosis	ICD-10-CM
Z3754	Sextuplets, all liveborn	Diagnosis	ICD-10-CM
Z3759	Other multiple births, all liveborn	Diagnosis	ICD-10-CM
Z3760	Multiple births, unspecified, some liveborn	Diagnosis	ICD-10-CM
Z3761	Triplets, some liveborn	Diagnosis	ICD-10-CM
Z3762	Quadruplets, some liveborn	Diagnosis	ICD-10-CM
Z3763	Quintuplets, some liveborn	Diagnosis	ICD-10-CM
Z3764	Sextuplets, some liveborn	Diagnosis	ICD-10-CM
Z3769	Other multiple births, some liveborn	Diagnosis	ICD-10-CM
Z377	Other multiple births, all stillborn	Diagnosis	ICD-10-CM
Z379	Outcome of delivery, unspecified	Diagnosis	ICD-10-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
Z3800	Single liveborn infant, delivered vaginally	Diagnosis	ICD-10-CM
Z3801	Single liveborn infant, delivered by cesarean	Diagnosis	ICD-10-CM
Z381	Single liveborn infant, born outside hospital	Diagnosis	ICD-10-CM
Z382	Single liveborn infant, unspecified as to place of birth	Diagnosis	ICD-10-CM
Z3830	Twin liveborn infant, delivered vaginally	Diagnosis	ICD-10-CM
Z3831	Twin liveborn infant, delivered by cesarean	Diagnosis	ICD-10-CM
Z384	Twin liveborn infant, born outside hospital	Diagnosis	ICD-10-CM
Z385	Twin liveborn infant, unspecified as to place of birth	Diagnosis	ICD-10-CM
Z3861	Triplet liveborn infant, delivered vaginally	Diagnosis	ICD-10-CM
Z3862	Triplet liveborn infant, delivered by cesarean	Diagnosis	ICD-10-CM
Z3863	Quadruplet liveborn infant, delivered vaginally	Diagnosis	ICD-10-CM
Z3864	Quadruplet liveborn infant, delivered by cesarean	Diagnosis	ICD-10-CM
Z3865	Quintuplet liveborn infant, delivered vaginally	Diagnosis	ICD-10-CM
Z3866	Quintuplet liveborn infant, delivered by cesarean	Diagnosis	ICD-10-CM
Z3868	Other multiple liveborn infant, delivered vaginally	Diagnosis	ICD-10-CM
Z3869	Other multiple liveborn infant, delivered by cesarean	Diagnosis	ICD-10-CM
Z387	Other multiple liveborn infant, born outside hospital	Diagnosis	ICD-10-CM
Z388	Other multiple liveborn infant, unspecified as to place of birth	Diagnosis	ICD-10-CM
Z3A01	Less than 8 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A08	8 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A09	9 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A10	10 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A11	11 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A12	12 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A13	13 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A14	14 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A15	15 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A16	16 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A17	17 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A18	18 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A19	19 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A20	20 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A21	21 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A22	22 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A23	23 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A24	24 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A25	25 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A26	26 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A27	27 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A28	28 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A29	29 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A30	30 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A31	31 weeks gestation of pregnancy	Diagnosis	ICD-10-CM

Appendix BE. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
Z3A32	32 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A33	33 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A34	34 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A35	35 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A36	36 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A37	37 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A38	38 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A39	39 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A40	40 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A41	41 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A42	42 weeks gestation of pregnancy	Diagnosis	ICD-10-CM
Z3A49	Greater than 42 weeks gestation of pregnancy	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
Intentional Self-Harm (Covariate)			
293.83	Mood disorder in conditions classified elsewhere	Diagnosis	ICD-9-CM
296.0	Bipolar I disorder, single manic episode	Diagnosis	ICD-9-CM
296.00	Bipolar I disorder, single manic episode, unspecified	Diagnosis	ICD-9-CM
296.01	Bipolar I disorder, single manic episode, mild	Diagnosis	ICD-9-CM
296.02	Bipolar I disorder, single manic episode, moderate	Diagnosis	ICD-9-CM
296.03	Bipolar I disorder, single manic episode, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.04	Bipolar I disorder, single manic episode, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.05	Bipolar I disorder, single manic episode, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.06	Bipolar I disorder, single manic episode, in full remission	Diagnosis	ICD-9-CM
296.1	Manic disorder, recurrent episode	Diagnosis	ICD-9-CM
296.10	Manic disorder, recurrent episode, unspecified	Diagnosis	ICD-9-CM
296.11	Manic disorder, recurrent episode, mild	Diagnosis	ICD-9-CM
296.12	Manic disorder, recurrent episode, moderate	Diagnosis	ICD-9-CM
296.13	Manic disorder, recurrent episode, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.14	Manic disorder, recurrent episode, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.15	Manic disorder, recurrent episode, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.16	Manic disorder, recurrent episode, in full remission	Diagnosis	ICD-9-CM
296.2	Major depressive disorder, single episode	Diagnosis	ICD-9-CM
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
296.3	Major depressive disorder, recurrent episode	Diagnosis	ICD-9-CM
296.30	Major depressive disorder, recurrent episode, unspecified	Diagnosis	ICD-9-CM
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
296.4	Bipolar I disorder, most recent episode (or current) manic	Diagnosis	ICD-9-CM
296.40	Bipolar I disorder, most recent episode (or current) manic, unspecified	Diagnosis	ICD-9-CM
296.41	Bipolar I disorder, most recent episode (or current) manic, mild	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
296.42	Bipolar I disorder, most recent episode (or current) manic, moderate	Diagnosis	ICD-9-CM
296.43	Bipolar I disorder, most recent episode (or current) manic, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.44	Bipolar I disorder, most recent episode (or current) manic, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.45	Bipolar I disorder, most recent episode (or current) manic, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.46	Bipolar I disorder, most recent episode (or current) manic, in full remission	Diagnosis	ICD-9-CM
296.5	Bipolar I disorder, most recent episode (or current), depressed	Diagnosis	ICD-9-CM
296.50	Bipolar I disorder, most recent episode (or current) depressed, unspecified	Diagnosis	ICD-9-CM
296.51	Bipolar I disorder, most recent episode (or current) depressed, mild	Diagnosis	ICD-9-CM
296.52	Bipolar I disorder, most recent episode (or current) depressed, moderate	Diagnosis	ICD-9-CM
296.53	Bipolar I disorder, most recent episode (or current) depressed, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.54	Bipolar I disorder, most recent episode (or current) depressed, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.55	Bipolar I disorder, most recent episode (or current) depressed, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.56	Bipolar I disorder, most recent episode (or current) depressed, in full remission	Diagnosis	ICD-9-CM
296.6	Bipolar I disorder, most recent episode (or current), mixed	Diagnosis	ICD-9-CM
296.60	Bipolar I disorder, most recent episode (or current) mixed, unspecified	Diagnosis	ICD-9-CM
296.61	Bipolar I disorder, most recent episode (or current) mixed, mild	Diagnosis	ICD-9-CM
296.62	Bipolar I disorder, most recent episode (or current) mixed, moderate	Diagnosis	ICD-9-CM
296.63	Bipolar I disorder, most recent episode (or current) mixed, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.64	Bipolar I disorder, most recent episode (or current) mixed, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.65	Bipolar I disorder, most recent episode (or current) mixed, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.66	Bipolar I disorder, most recent episode (or current) mixed, in full remission	Diagnosis	ICD-9-CM
296.7	Bipolar I disorder, most recent episode (or current) unspecified	Diagnosis	ICD-9-CM
296.8	Other and unspecified bipolar disorders	Diagnosis	ICD-9-CM
296.80	Bipolar disorder, unspecified	Diagnosis	ICD-9-CM
296.81	Atypical manic disorder	Diagnosis	ICD-9-CM
296.82	Atypical depressive disorder	Diagnosis	ICD-9-CM
296.89	Other and unspecified bipolar disorders	Diagnosis	ICD-9-CM
296.90	Unspecified episodic mood disorder	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
300.9	Unspecified nonpsychotic mental disorder	Diagnosis	ICD-9-CM
301.0	Paranoid personality disorder	Diagnosis	ICD-9-CM
301.1	Affective personality disorder	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
301.10	Affective personality disorder, unspecified	Diagnosis	ICD-9-CM
301.11	Chronic hypomanic personality disorder	Diagnosis	ICD-9-CM
301.12	Chronic depressive personality disorder	Diagnosis	ICD-9-CM
301.13	Cyclothymic disorder	Diagnosis	ICD-9-CM
301.2	Schizoid personality disorder	Diagnosis	ICD-9-CM
301.20	Schizoid personality disorder, unspecified	Diagnosis	ICD-9-CM
301.21	Introverted personality	Diagnosis	ICD-9-CM
301.22	Schizotypal personality disorder	Diagnosis	ICD-9-CM
301.3	Explosive personality disorder	Diagnosis	ICD-9-CM
301.4	Obsessive-compulsive personality disorder	Diagnosis	ICD-9-CM
301.5	Histrionic personality disorder	Diagnosis	ICD-9-CM
301.50	Histrionic personality disorder, unspecified	Diagnosis	ICD-9-CM
301.51	Chronic factitious illness with physical symptoms	Diagnosis	ICD-9-CM
301.59	Other histrionic personality disorder	Diagnosis	ICD-9-CM
301.6	Dependent personality disorder	Diagnosis	ICD-9-CM
301.7	Antisocial personality disorder	Diagnosis	ICD-9-CM
301.8	Other personality disorders	Diagnosis	ICD-9-CM
301.81	Narcissistic personality disorder	Diagnosis	ICD-9-CM
301.82	Avoidant personality disorder	Diagnosis	ICD-9-CM
301.83	Borderline personality disorder	Diagnosis	ICD-9-CM
301.84	Passive-aggressive personality	Diagnosis	ICD-9-CM
301.89	Other personality disorder	Diagnosis	ICD-9-CM
301.9	Unspecified 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
309.2	Predominant disturbance of other emotions as adjustment reaction	Diagnosis	ICD-9-CM
309.21	Separation anxiety disorder	Diagnosis	ICD-9-CM
309.22	Emancipation disorder of adolescence and early adult life	Diagnosis	ICD-9-CM
309.23	Specific academic or work inhibition as adjustment reaction	Diagnosis	ICD-9-CM
309.24	Adjustment disorder with anxiety	Diagnosis	ICD-9-CM
309.28	Adjustment disorder with mixed anxiety and depressed mood	Diagnosis	ICD-9-CM
309.29	Other adjustment reaction with predominant disturbance of other emotions	Diagnosis	ICD-9-CM
309.3	Adjustment disorder with disturbance of conduct	Diagnosis	ICD-9-CM
309.4	Adjustment disorder with mixed disturbance of emotions and conduct	Diagnosis	ICD-9-CM
309.8	Other specified adjustment reactions	Diagnosis	ICD-9-CM
309.81	Posttraumatic stress disorder	Diagnosis	ICD-9-CM
309.82	Adjustment reaction with physical symptoms	Diagnosis	ICD-9-CM
309.83	Adjustment reaction with withdrawal	Diagnosis	ICD-9-CM
309.89	Other specified adjustment reaction	Diagnosis	ICD-9-CM
309.9	Unspecified adjustment reaction	Diagnosis	ICD-9-CM
311	Depressive disorder, not elsewhere classified	Diagnosis	ICD-9-CM
E950	Suicide and self-inflicted poisoning by solid or liquid substances	Diagnosis	ICD-9-CM
E951	Suicide and self-inflicted poisoning by gases in domestic use	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E952	Suicide and self-inflicted poisoning by other gases and vapors	Diagnosis	ICD-9-CM
E953	Suicide and self-inflicted injury by hanging strangulation and suffocation	Diagnosis	ICD-9-CM
E954	Suicide and self-inflicted injury by submersion [drowning]	Diagnosis	ICD-9-CM
E955	Suicide and self-inflicted injury by firearms air guns and explosives	Diagnosis	ICD-9-CM
E956	Suicide and self-inflicted injury by cutting and piercing instrument	Diagnosis	ICD-9-CM
E957	Suicide and self-inflicted injuries by jumping from high place	Diagnosis	ICD-9-CM
E958	Suicide and self-inflicted injury by other and unspecified means	Diagnosis	ICD-9-CM
T14.91	Suicide attempt	Diagnosis	ICD-10-CM
T14.91XA	Suicide attempt, initial encounter	Diagnosis	ICD-10-CM
T14.91XD	Suicide attempt, subsequent encounter	Diagnosis	ICD-10-CM
T14.91XS	Suicide attempt, sequela	Diagnosis	ICD-10-CM
T36.0X2	Poisoning by penicillins, intentional self-harm	Diagnosis	ICD-10-CM
T36.0X2A	Poisoning by penicillins, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.0X2D	Poisoning by penicillins, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.0X2S	Poisoning by penicillins, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.1X2	Poisoning by cephalosporins and other beta-lactam antibiotics, intentional self-harm	Diagnosis	ICD-10-CM
T36.1X2A	Poisoning by cephalosporins and other beta-lactam antibiotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.1X2D	Poisoning by cephalosporins and other beta-lactam antibiotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.1X2S	Poisoning by cephalosporins and other beta-lactam antibiotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.2X2	Poisoning by chloramphenicol group, intentional self-harm	Diagnosis	ICD-10-CM
T36.2X2A	Poisoning by chloramphenicol group, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.2X2D	Poisoning by chloramphenicol group, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.2X2S	Poisoning by chloramphenicol group, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.3X2	Poisoning by macrolides, intentional self-harm	Diagnosis	ICD-10-CM
T36.3X2A	Poisoning by macrolides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.3X2D	Poisoning by macrolides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.3X2S	Poisoning by macrolides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.4X2	Poisoning by tetracyclines, intentional self-harm	Diagnosis	ICD-10-CM
T36.4X2A	Poisoning by tetracyclines, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.4X2D	Poisoning by tetracyclines, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.4X2S	Poisoning by tetracyclines, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.5X2	Poisoning by aminoglycosides, intentional self-harm	Diagnosis	ICD-10-CM
T36.5X2A	Poisoning by aminoglycosides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.5X2D	Poisoning by aminoglycosides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.5X2S	Poisoning by aminoglycosides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.6X2	Poisoning by rifampicins, intentional self-harm	Diagnosis	ICD-10-CM
T36.6X2A	Poisoning by rifampicins, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.6X2D	Poisoning by rifampicins, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.6X2S	Poisoning by rifampicins, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T36.7X2	Poisoning by antifungal antibiotics, systemically used, intentional self-harm	Diagnosis	ICD-10-CM
T36.7X2A	Poisoning by antifungal antibiotics, systemically used, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.7X2D	Poisoning by antifungal antibiotics, systemically used, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.7X2S	Poisoning by antifungal antibiotics, systemically used, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.8X2	Poisoning by other systemic antibiotics, intentional self-harm	Diagnosis	ICD-10-CM
T36.8X2A	Poisoning by other systemic antibiotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.8X2D	Poisoning by other systemic antibiotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.8X2S	Poisoning by other systemic antibiotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.92	Poisoning by unspecified systemic antibiotic, intentional self-harm	Diagnosis	ICD-10-CM
T36.92XA	Poisoning by unspecified systemic antibiotic, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.92XD	Poisoning by unspecified systemic antibiotic, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.92XS	Poisoning by unspecified systemic antibiotic, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.0X2	Poisoning by sulfonamides, intentional self-harm	Diagnosis	ICD-10-CM
T37.0X2A	Poisoning by sulfonamides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.0X2D	Poisoning by sulfonamides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.0X2S	Poisoning by sulfonamides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.1X2	Poisoning by antimycobacterial drugs, intentional self-harm	Diagnosis	ICD-10-CM
T37.1X2A	Poisoning by antimycobacterial drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.1X2D	Poisoning by antimycobacterial drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.1X2S	Poisoning by antimycobacterial drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.2X2	Poisoning by antimalarials and drugs acting on other blood protozoa, intentional self-harm	Diagnosis	ICD-10-CM
T37.2X2A	Poisoning by antimalarials and drugs acting on other blood protozoa, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.2X2D	Poisoning by antimalarials and drugs acting on other blood protozoa, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.2X2S	Poisoning by antimalarials and drugs acting on other blood protozoa, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.3X2	Poisoning by other antiprotozoal drugs, intentional self-harm	Diagnosis	ICD-10-CM
T37.3X2A	Poisoning by other antiprotozoal drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.3X2D	Poisoning by other antiprotozoal drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.3X2S	Poisoning by other antiprotozoal drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.4X2	Poisoning by anthelmintics, intentional self-harm	Diagnosis	ICD-10-CM
T37.4X2A	Poisoning by anthelmintics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.4X2D	Poisoning by anthelmintics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.4X2S	Poisoning by anthelmintics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.5X2	Poisoning by antiviral drugs, intentional self-harm	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T37.5X2A	Poisoning by antiviral drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.5X2D	Poisoning by antiviral drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.5X2S	Poisoning by antiviral drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.8X2	Poisoning by other specified systemic anti-infectives and antiparasitics, intentional self-harm	Diagnosis	ICD-10-CM
T37.8X2A	Poisoning by other specified systemic anti-infectives and antiparasitics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.8X2D	Poisoning by other specified systemic anti-infectives and antiparasitics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.8X2S	Poisoning by other specified systemic anti-infectives and antiparasitics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.92	Poisoning by unspecified systemic anti-infective and antiparasitics, intentional self-harm	Diagnosis	ICD-10-CM
T37.92XA	Poisoning by unspecified systemic anti-infective and antiparasitics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.92XD	Poisoning by unspecified systemic anti-infective and antiparasitics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.92XS	Poisoning by unspecified systemic anti-infective and antiparasitics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.0X2	Poisoning by glucocorticoids and synthetic analogues, intentional self-harm	Diagnosis	ICD-10-CM
T38.0X2A	Poisoning by glucocorticoids and synthetic analogues, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.0X2D	Poisoning by glucocorticoids and synthetic analogues, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.0X2S	Poisoning by glucocorticoids and synthetic analogues, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.1X2	Poisoning by thyroid hormones and substitutes, intentional self-harm	Diagnosis	ICD-10-CM
T38.1X2A	Poisoning by thyroid hormones and substitutes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.1X2D	Poisoning by thyroid hormones and substitutes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.1X2S	Poisoning by thyroid hormones and substitutes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.2X2	Poisoning by antithyroid drugs, intentional self-harm	Diagnosis	ICD-10-CM
T38.2X2A	Poisoning by antithyroid drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.2X2D	Poisoning by antithyroid drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.2X2S	Poisoning by antithyroid drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.3X2	Poisoning by insulin and oral hypoglycemic [antidiabetic] drugs, intentional self-harm	Diagnosis	ICD-10-CM
T38.3X2A	Poisoning by insulin and oral hypoglycemic [antidiabetic] drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.3X2D	Poisoning by insulin and oral hypoglycemic [antidiabetic] drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T38.3X2S	Poisoning by insulin and oral hypoglycemic [antidiabetic] drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.4X2	Poisoning by oral contraceptives, intentional self-harm	Diagnosis	ICD-10-CM
T38.4X2A	Poisoning by oral contraceptives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.4X2D	Poisoning by oral contraceptives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.4X2S	Poisoning by oral contraceptives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.5X2	Poisoning by other estrogens and progestogens, intentional self-harm	Diagnosis	ICD-10-CM
T38.5X2A	Poisoning by other estrogens and progestogens, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.5X2D	Poisoning by other estrogens and progestogens, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.5X2S	Poisoning by other estrogens and progestogens, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.6X2	Poisoning by antigonadotrophins, antiestrogens, antiandrogens, not elsewhere classified, intentional self-harm	Diagnosis	ICD-10-CM
T38.6X2A	Poisoning by antigonadotrophins, antiestrogens, antiandrogens, not elsewhere classified, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.6X2D	Poisoning by antigonadotrophins, antiestrogens, antiandrogens, not elsewhere classified, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.6X2S	Poisoning by antigonadotrophins, antiestrogens, antiandrogens, not elsewhere classified, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.7X2	Poisoning by androgens and anabolic congeners, intentional self-harm	Diagnosis	ICD-10-CM
T38.7X2A	Poisoning by androgens and anabolic congeners, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.7X2D	Poisoning by androgens and anabolic congeners, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.7X2S	Poisoning by androgens and anabolic congeners, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.802	Poisoning by unspecified hormones and synthetic substitutes, intentional self-harm	Diagnosis	ICD-10-CM
T38.802A	Poisoning by unspecified hormones and synthetic substitutes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.802D	Poisoning by unspecified hormones and synthetic substitutes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.802S	Poisoning by unspecified hormones and synthetic substitutes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.812	Poisoning by anterior pituitary [adenohypophyseal] hormones, intentional self-harm	Diagnosis	ICD-10-CM
T38.812A	Poisoning by anterior pituitary [adenohypophyseal] hormones, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.812D	Poisoning by anterior pituitary [adenohypophyseal] hormones, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.812S	Poisoning by anterior pituitary [adenohypophyseal] hormones, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.892	Poisoning by other hormones and synthetic substitutes, intentional self-harm	Diagnosis	ICD-10-CM
T38.892A	Poisoning by other hormones and synthetic substitutes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T38.892D	Poisoning by other hormones and synthetic substitutes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.892S	Poisoning by other hormones and synthetic substitutes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.902	Poisoning by unspecified hormone antagonists, intentional self-harm	Diagnosis	ICD-10-CM
T38.902A	Poisoning by unspecified hormone antagonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.902D	Poisoning by unspecified hormone antagonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.902S	Poisoning by unspecified hormone antagonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.992	Poisoning by other hormone antagonists, intentional self-harm	Diagnosis	ICD-10-CM
T38.992A	Poisoning by other hormone antagonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.992D	Poisoning by other hormone antagonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.992S	Poisoning by other hormone antagonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.012	Poisoning by aspirin, intentional self-harm	Diagnosis	ICD-10-CM
T39.012A	Poisoning by aspirin, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.012D	Poisoning by aspirin, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.012S	Poisoning by aspirin, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.092	Poisoning by salicylates, intentional self-harm	Diagnosis	ICD-10-CM
T39.092A	Poisoning by salicylates, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.092D	Poisoning by salicylates, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.092S	Poisoning by salicylates, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.1X2	Poisoning by 4-Aminophenol derivatives, intentional self-harm	Diagnosis	ICD-10-CM
T39.1X2A	Poisoning by 4-Aminophenol derivatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.1X2D	Poisoning by 4-Aminophenol derivatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.1X2S	Poisoning by 4-Aminophenol derivatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.2X2	Poisoning by pyrazolone derivatives, intentional self-harm	Diagnosis	ICD-10-CM
T39.2X2A	Poisoning by pyrazolone derivatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.2X2D	Poisoning by pyrazolone derivatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.2X2S	Poisoning by pyrazolone derivatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.312	Poisoning by propionic acid derivatives, intentional self-harm	Diagnosis	ICD-10-CM
T39.312A	Poisoning by propionic acid derivatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.312D	Poisoning by propionic acid derivatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.312S	Poisoning by propionic acid derivatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.392	Poisoning by other nonsteroidal anti-inflammatory drugs [NSAID], intentional self-harm	Diagnosis	ICD-10-CM
T39.392A	Poisoning by other nonsteroidal anti-inflammatory drugs [NSAID], intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.392D	Poisoning by other nonsteroidal anti-inflammatory drugs [NSAID], intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T39.392S	Poisoning by other nonsteroidal anti-inflammatory drugs [NSAID], intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.4X2	Poisoning by antirheumatics, not elsewhere classified, intentional self-harm	Diagnosis	ICD-10-CM
T39.4X2A	Poisoning by antirheumatics, not elsewhere classified, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.4X2D	Poisoning by antirheumatics, not elsewhere classified, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.4X2S	Poisoning by antirheumatics, not elsewhere classified, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.8X2	Poisoning by other nonopioid analgesics and antipyretics, not elsewhere classified, intentional self-harm	Diagnosis	ICD-10-CM
T39.8X2A	Poisoning by other nonopioid analgesics and antipyretics, not elsewhere classified, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.8X2D	Poisoning by other nonopioid analgesics and antipyretics, not elsewhere classified, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.8X2S	Poisoning by other nonopioid analgesics and antipyretics, not elsewhere classified, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.92	Poisoning by unspecified nonopioid analgesic, antipyretic and antirheumatic, intentional self-harm	Diagnosis	ICD-10-CM
T39.92XA	Poisoning by unspecified nonopioid analgesic, antipyretic and antirheumatic, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.92XD	Poisoning by unspecified nonopioid analgesic, antipyretic and antirheumatic, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.92XS	Poisoning by unspecified nonopioid analgesic, antipyretic and antirheumatic, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.0X2	Poisoning by opium, intentional self-harm	Diagnosis	ICD-10-CM
T40.0X2A	Poisoning by opium, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.0X2D	Poisoning by opium, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.0X2S	Poisoning by opium, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.1X2	Poisoning by heroin, intentional self-harm	Diagnosis	ICD-10-CM
T40.1X2A	Poisoning by heroin, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.1X2D	Poisoning by heroin, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.1X2S	Poisoning by heroin, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.2X2	Poisoning by other opioids, intentional self-harm	Diagnosis	ICD-10-CM
T40.2X2A	Poisoning by other opioids, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.2X2D	Poisoning by other opioids, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.2X2S	Poisoning by other opioids, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.3X2	Poisoning by methadone, intentional self-harm	Diagnosis	ICD-10-CM
T40.3X2A	Poisoning by methadone, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.3X2D	Poisoning by methadone, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.3X2S	Poisoning by methadone, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.412	Poisoning by fentanyl or fentanyl analogs, intentional self-harm	Diagnosis	ICD-10-CM
T40.412A	Poisoning by fentanyl or fentanyl analogs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T40.412D	Poisoning by fentanyl or fentanyl analogs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.412S	Poisoning by fentanyl or fentanyl analogs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.422	Poisoning by tramadol, intentional self-harm	Diagnosis	ICD-10-CM
T40.422A	Poisoning by tramadol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.422D	Poisoning by tramadol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.422S	Poisoning by tramadol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.492	Poisoning by other synthetic narcotics, intentional self-harm	Diagnosis	ICD-10-CM
T40.492A	Poisoning by other synthetic narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.492D	Poisoning by other synthetic narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.492S	Poisoning by other synthetic narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.4X2	Poisoning by other synthetic narcotics, intentional self-harm	Diagnosis	ICD-10-CM
T40.4X2A	Poisoning by other synthetic narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.4X2D	Poisoning by other synthetic narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.4X2S	Poisoning by other synthetic narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.5X2	Poisoning by cocaine, intentional self-harm	Diagnosis	ICD-10-CM
T40.5X2A	Poisoning by cocaine, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.5X2D	Poisoning by cocaine, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.5X2S	Poisoning by cocaine, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.602	Poisoning by unspecified narcotics, intentional self-harm	Diagnosis	ICD-10-CM
T40.602A	Poisoning by unspecified narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.602D	Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.602S	Poisoning by unspecified narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.692	Poisoning by other narcotics, intentional self-harm	Diagnosis	ICD-10-CM
T40.692A	Poisoning by other narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.692D	Poisoning by other narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.692S	Poisoning by other narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.712	Poisoning by cannabis, intentional self-harm	Diagnosis	ICD-10-CM
T40.712A	Poisoning by cannabis, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.712D	Poisoning by cannabis, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.712S	Poisoning by cannabis, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.722	Poisoning by synthetic cannabinoids, intentional self-harm	Diagnosis	ICD-10-CM
T40.722A	Poisoning by synthetic cannabinoids, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.722D	Poisoning by synthetic cannabinoids, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.722S	Poisoning by synthetic cannabinoids, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.7X2	Poisoning by cannabis (derivatives), intentional self-harm	Diagnosis	ICD-10-CM
T40.7X2A	Poisoning by cannabis (derivatives), intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.7X2D	Poisoning by cannabis (derivatives), intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.7X2S	Poisoning by cannabis (derivatives), intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.8X2	Poisoning by lysergide [LSD], intentional self-harm	Diagnosis	ICD-10-CM
T40.8X2A	Poisoning by lysergide [LSD], intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.8X2D	Poisoning by lysergide [LSD], intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.8X2S	Poisoning by lysergide [LSD], intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T40.902	Poisoning by unspecified psychodysleptics [hallucinogens], intentional self-harm	Diagnosis	ICD-10-CM
T40.902A	Poisoning by unspecified psychodysleptics [hallucinogens], intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.902D	Poisoning by unspecified psychodysleptics [hallucinogens], intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.902S	Poisoning by unspecified psychodysleptics [hallucinogens], intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.992	Poisoning by other psychodysleptics [hallucinogens], intentional self-harm	Diagnosis	ICD-10-CM
T40.992A	Poisoning by other psychodysleptics [hallucinogens], intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.992D	Poisoning by other psychodysleptics [hallucinogens], intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.992S	Poisoning by other psychodysleptics [hallucinogens], intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.0X2	Poisoning by inhaled anesthetics, intentional self-harm	Diagnosis	ICD-10-CM
T41.0X2A	Poisoning by inhaled anesthetics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.0X2D	Poisoning by inhaled anesthetics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.0X2S	Poisoning by inhaled anesthetics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.1X2	Poisoning by intravenous anesthetics, intentional self-harm	Diagnosis	ICD-10-CM
T41.1X2A	Poisoning by intravenous anesthetics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.1X2D	Poisoning by intravenous anesthetics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.1X2S	Poisoning by intravenous anesthetics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.202	Poisoning by unspecified general anesthetics, intentional self-harm	Diagnosis	ICD-10-CM
T41.202A	Poisoning by unspecified general anesthetics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.202D	Poisoning by unspecified general anesthetics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.202S	Poisoning by unspecified general anesthetics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.292	Poisoning by other general anesthetics, intentional self-harm	Diagnosis	ICD-10-CM
T41.292A	Poisoning by other general anesthetics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.292D	Poisoning by other general anesthetics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.292S	Poisoning by other general anesthetics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.3X2	Poisoning by local anesthetics, intentional self-harm	Diagnosis	ICD-10-CM
T41.3X2A	Poisoning by local anesthetics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.3X2D	Poisoning by local anesthetics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.3X2S	Poisoning by local anesthetics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.42	Poisoning by unspecified anesthetic, intentional self-harm	Diagnosis	ICD-10-CM
T41.42XA	Poisoning by unspecified anesthetic, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.42XD	Poisoning by unspecified anesthetic, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.42XS	Poisoning by unspecified anesthetic, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.5X2	Poisoning by therapeutic gases, intentional self-harm	Diagnosis	ICD-10-CM
T41.5X2A	Poisoning by therapeutic gases, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.5X2D	Poisoning by therapeutic gases, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.5X2S	Poisoning by therapeutic gases, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T42.0X2	Poisoning by hydantoin derivatives, intentional self-harm	Diagnosis	ICD-10-CM
T42.0X2A	Poisoning by hydantoin derivatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.0X2D	Poisoning by hydantoin derivatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.0X2S	Poisoning by hydantoin derivatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.1X2	Poisoning by iminostilbenes, intentional self-harm	Diagnosis	ICD-10-CM
T42.1X2A	Poisoning by iminostilbenes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.1X2D	Poisoning by iminostilbenes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.1X2S	Poisoning by iminostilbenes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.2X2	Poisoning by succinimides and oxazolidinediones, intentional self-harm	Diagnosis	ICD-10-CM
T42.2X2A	Poisoning by succinimides and oxazolidinediones, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.2X2D	Poisoning by succinimides and oxazolidinediones, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.2X2S	Poisoning by succinimides and oxazolidinediones, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.3X2	Poisoning by barbiturates, intentional self-harm	Diagnosis	ICD-10-CM
T42.3X2A	Poisoning by barbiturates, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.3X2D	Poisoning by barbiturates, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.3X2S	Poisoning by barbiturates, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.4X2	Poisoning by benzodiazepines, intentional self-harm	Diagnosis	ICD-10-CM
T42.4X2A	Poisoning by benzodiazepines, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.4X2D	Poisoning by benzodiazepines, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.4X2S	Poisoning by benzodiazepines, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.5X2	Poisoning by mixed antiepileptics, intentional self-harm	Diagnosis	ICD-10-CM
T42.5X2A	Poisoning by mixed antiepileptics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.5X2D	Poisoning by mixed antiepileptics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.5X2S	Poisoning by mixed antiepileptics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.6X2	Poisoning by other antiepileptic and sedative-hypnotic drugs, intentional self-harm	Diagnosis	ICD-10-CM
T42.6X2A	Poisoning by other antiepileptic and sedative-hypnotic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.6X2D	Poisoning by other antiepileptic and sedative-hypnotic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.6X2S	Poisoning by other antiepileptic and sedative-hypnotic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.72	Poisoning by unspecified antiepileptic and sedative-hypnotic drugs, intentional self-harm	Diagnosis	ICD-10-CM
T42.72XA	Poisoning by unspecified antiepileptic and sedative-hypnotic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.72XD	Poisoning by unspecified antiepileptic and sedative-hypnotic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.72XS	Poisoning by unspecified antiepileptic and sedative-hypnotic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.8X2	Poisoning by antiparkinsonism drugs and other central muscle-tone depressants, intentional self-harm	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T42.8X2A	Poisoning by antiparkinsonism drugs and other central muscle-tone depressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.8X2D	Poisoning by antiparkinsonism drugs and other central muscle-tone depressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.8X2S	Poisoning by antiparkinsonism drugs and other central muscle-tone depressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.012	Poisoning by tricyclic antidepressants, intentional self-harm	Diagnosis	ICD-10-CM
T43.012A	Poisoning by tricyclic antidepressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.012D	Poisoning by tricyclic antidepressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.012S	Poisoning by tricyclic antidepressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.022	Poisoning by tetracyclic antidepressants, intentional self-harm	Diagnosis	ICD-10-CM
T43.022A	Poisoning by tetracyclic antidepressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.022D	Poisoning by tetracyclic antidepressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.022S	Poisoning by tetracyclic antidepressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.1X2	Poisoning by monoamine-oxidase-inhibitor antidepressants, intentional self-harm	Diagnosis	ICD-10-CM
T43.1X2A	Poisoning by monoamine-oxidase-inhibitor antidepressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.1X2D	Poisoning by monoamine-oxidase-inhibitor antidepressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.1X2S	Poisoning by monoamine-oxidase-inhibitor antidepressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.202	Poisoning by unspecified antidepressants, intentional self-harm	Diagnosis	ICD-10-CM
T43.202A	Poisoning by unspecified antidepressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.202D	Poisoning by unspecified antidepressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.202S	Poisoning by unspecified antidepressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.212	Poisoning by selective serotonin and norepinephrine reuptake inhibitors, intentional self-harm	Diagnosis	ICD-10-CM
T43.212A	Poisoning by selective serotonin and norepinephrine reuptake inhibitors, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.212D	Poisoning by selective serotonin and norepinephrine reuptake inhibitors, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.212S	Poisoning by selective serotonin and norepinephrine reuptake inhibitors, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.222	Poisoning by selective serotonin reuptake inhibitors, intentional self-harm	Diagnosis	ICD-10-CM
T43.222A	Poisoning by selective serotonin reuptake inhibitors, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.222D	Poisoning by selective serotonin reuptake inhibitors, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.222S	Poisoning by selective serotonin reuptake inhibitors, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.292	Poisoning by other antidepressants, intentional self-harm	Diagnosis	ICD-10-CM
T43.292A	Poisoning by other antidepressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T43.292D	Poisoning by other antidepressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.292S	Poisoning by other antidepressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.3X2	Poisoning by phenothiazine antipsychotics and neuroleptics, intentional self-harm	Diagnosis	ICD-10-CM
T43.3X2A	Poisoning by phenothiazine antipsychotics and neuroleptics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.3X2D	Poisoning by phenothiazine antipsychotics and neuroleptics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.3X2S	Poisoning by phenothiazine antipsychotics and neuroleptics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.4X2	Poisoning by butyrophenone and thiothixene neuroleptics, intentional self-harm	Diagnosis	ICD-10-CM
T43.4X2A	Poisoning by butyrophenone and thiothixene neuroleptics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.4X2D	Poisoning by butyrophenone and thiothixene neuroleptics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.4X2S	Poisoning by butyrophenone and thiothixene neuroleptics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.502	Poisoning by unspecified antipsychotics and neuroleptics, intentional self-harm	Diagnosis	ICD-10-CM
T43.502A	Poisoning by unspecified antipsychotics and neuroleptics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.502D	Poisoning by unspecified antipsychotics and neuroleptics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.502S	Poisoning by unspecified antipsychotics and neuroleptics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.592	Poisoning by other antipsychotics and neuroleptics, intentional self-harm	Diagnosis	ICD-10-CM
T43.592A	Poisoning by other antipsychotics and neuroleptics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.592D	Poisoning by other antipsychotics and neuroleptics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.592S	Poisoning by other antipsychotics and neuroleptics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.602	Poisoning by unspecified psychostimulants, intentional self-harm	Diagnosis	ICD-10-CM
T43.602A	Poisoning by unspecified psychostimulants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.602D	Poisoning by unspecified psychostimulants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.602S	Poisoning by unspecified psychostimulants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.612	Poisoning by caffeine, intentional self-harm	Diagnosis	ICD-10-CM
T43.612A	Poisoning by caffeine, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.612D	Poisoning by caffeine, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.612S	Poisoning by caffeine, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.622	Poisoning by amphetamines, intentional self-harm	Diagnosis	ICD-10-CM
T43.622A	Poisoning by amphetamines, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.622D	Poisoning by amphetamines, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.622S	Poisoning by amphetamines, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.632	Poisoning by methylphenidate, intentional self-harm	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T43.632A	Poisoning by methylphenidate, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.632D	Poisoning by methylphenidate, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.632S	Poisoning by methylphenidate, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.642	Poisoning by ecstasy, intentional self-harm	Diagnosis	ICD-10-CM
T43.642A	Poisoning by ecstasy, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.642D	Poisoning by ecstasy, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.642S	Poisoning by ecstasy, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.692	Poisoning by other psychostimulants, intentional self-harm	Diagnosis	ICD-10-CM
T43.692A	Poisoning by other psychostimulants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.692D	Poisoning by other psychostimulants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.692S	Poisoning by other psychostimulants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.8X2	Poisoning by other psychotropic drugs, intentional self-harm	Diagnosis	ICD-10-CM
T43.8X2A	Poisoning by other psychotropic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.8X2D	Poisoning by other psychotropic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.8X2S	Poisoning by other psychotropic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.92	Poisoning by unspecified psychotropic drug, intentional self-harm	Diagnosis	ICD-10-CM
T43.92XA	Poisoning by unspecified psychotropic drug, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.92XD	Poisoning by unspecified psychotropic drug, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.92XS	Poisoning by unspecified psychotropic drug, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.0X2	Poisoning by anticholinesterase agents, intentional self-harm	Diagnosis	ICD-10-CM
T44.0X2A	Poisoning by anticholinesterase agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.0X2D	Poisoning by anticholinesterase agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.0X2S	Poisoning by anticholinesterase agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.1X2	Poisoning by other parasympathomimetics [cholinergics], intentional self-harm	Diagnosis	ICD-10-CM
T44.1X2A	Poisoning by other parasympathomimetics [cholinergics], intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.1X2D	Poisoning by other parasympathomimetics [cholinergics], intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.1X2S	Poisoning by other parasympathomimetics [cholinergics], intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.2X2	Poisoning by ganglionic blocking drugs, intentional self-harm	Diagnosis	ICD-10-CM
T44.2X2A	Poisoning by ganglionic blocking drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.2X2D	Poisoning by ganglionic blocking drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.2X2S	Poisoning by ganglionic blocking drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.3X2	Poisoning by other parasympatholytics [anticholinergics and antimuscarinics] and spasmolytics, intentional self-harm	Diagnosis	ICD-10-CM
T44.3X2A	Poisoning by other parasympatholytics [anticholinergics and antimuscarinics] and spasmolytics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.3X2D	Poisoning by other parasympatholytics [anticholinergics and antimuscarinics] and spasmolytics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.3X2S	Poisoning by other parasympatholytics [anticholinergics and antimuscarinics] and spasmolytics, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T44.4X2	Poisoning by predominantly alpha-adrenoreceptor agonists, intentional self-harm	Diagnosis	ICD-10-CM
T44.4X2A	Poisoning by predominantly alpha-adrenoreceptor agonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.4X2D	Poisoning by predominantly alpha-adrenoreceptor agonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.4X2S	Poisoning by predominantly alpha-adrenoreceptor agonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.5X2	Poisoning by predominantly beta-adrenoreceptor agonists, intentional self-harm	Diagnosis	ICD-10-CM
T44.5X2A	Poisoning by predominantly beta-adrenoreceptor agonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.5X2D	Poisoning by predominantly beta-adrenoreceptor agonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.5X2S	Poisoning by predominantly beta-adrenoreceptor agonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.6X2	Poisoning by alpha-adrenoreceptor antagonists, intentional self-harm	Diagnosis	ICD-10-CM
T44.6X2A	Poisoning by alpha-adrenoreceptor antagonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.6X2D	Poisoning by alpha-adrenoreceptor antagonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.6X2S	Poisoning by alpha-adrenoreceptor antagonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.7X2	Poisoning by beta-adrenoreceptor antagonists, intentional self-harm	Diagnosis	ICD-10-CM
T44.7X2A	Poisoning by beta-adrenoreceptor antagonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.7X2D	Poisoning by beta-adrenoreceptor antagonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.7X2S	Poisoning by beta-adrenoreceptor antagonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.8X2	Poisoning by centrally-acting and adrenergic-neuron-blocking agents, intentional self-harm	Diagnosis	ICD-10-CM
T44.8X2A	Poisoning by centrally-acting and adrenergic-neuron-blocking agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.8X2D	Poisoning by centrally-acting and adrenergic-neuron-blocking agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.8X2S	Poisoning by centrally-acting and adrenergic-neuron-blocking agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.902	Poisoning by unspecified drugs primarily affecting the autonomic nervous system, intentional self-harm	Diagnosis	ICD-10-CM
T44.902A	Poisoning by unspecified drugs primarily affecting the autonomic nervous system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.902D	Poisoning by unspecified drugs primarily affecting the autonomic nervous system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.902S	Poisoning by unspecified drugs primarily affecting the autonomic nervous system, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T44.992	Poisoning by other drug primarily affecting the autonomic nervous system, intentional self-harm	Diagnosis	ICD-10-CM
T44.992A	Poisoning by other drug primarily affecting the autonomic nervous system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.992D	Poisoning by other drug primarily affecting the autonomic nervous system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.992S	Poisoning by other drug primarily affecting the autonomic nervous system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.0X2	Poisoning by antiallergic and antiemetic drugs, intentional self-harm	Diagnosis	ICD-10-CM
T45.0X2A	Poisoning by antiallergic and antiemetic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.0X2D	Poisoning by antiallergic and antiemetic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.0X2S	Poisoning by antiallergic and antiemetic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.1X2	Poisoning by antineoplastic and immunosuppressive drugs, intentional self-harm	Diagnosis	ICD-10-CM
T45.1X2A	Poisoning by antineoplastic and immunosuppressive drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.1X2D	Poisoning by antineoplastic and immunosuppressive drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.1X2S	Poisoning by antineoplastic and immunosuppressive drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.2X2	Poisoning by vitamins, intentional self-harm	Diagnosis	ICD-10-CM
T45.2X2A	Poisoning by vitamins, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.2X2D	Poisoning by vitamins, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.2X2S	Poisoning by vitamins, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.3X2	Poisoning by enzymes, intentional self-harm	Diagnosis	ICD-10-CM
T45.3X2A	Poisoning by enzymes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.3X2D	Poisoning by enzymes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.3X2S	Poisoning by enzymes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.4X2	Poisoning by iron and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T45.4X2A	Poisoning by iron and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.4X2D	Poisoning by iron and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.4X2S	Poisoning by iron and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.512	Poisoning by anticoagulants, intentional self-harm	Diagnosis	ICD-10-CM
T45.512A	Poisoning by anticoagulants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.512D	Poisoning by anticoagulants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.512S	Poisoning by anticoagulants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.522	Poisoning by antithrombotic drugs, intentional self-harm	Diagnosis	ICD-10-CM
T45.522A	Poisoning by antithrombotic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.522D	Poisoning by antithrombotic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.522S	Poisoning by antithrombotic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.602	Poisoning by unspecified fibrinolysis-affecting drugs, intentional self-harm	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T45.602A	Poisoning by unspecified fibrinolysis-affecting drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.602D	Poisoning by unspecified fibrinolysis-affecting drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.602S	Poisoning by unspecified fibrinolysis-affecting drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.612	Poisoning by thrombolytic drug, intentional self-harm	Diagnosis	ICD-10-CM
T45.612A	Poisoning by thrombolytic drug, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.612D	Poisoning by thrombolytic drug, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.612S	Poisoning by thrombolytic drug, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.622	Poisoning by hemostatic drug, intentional self-harm	Diagnosis	ICD-10-CM
T45.622A	Poisoning by hemostatic drug, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.622D	Poisoning by hemostatic drug, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.622S	Poisoning by hemostatic drug, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.692	Poisoning by other fibrinolysis-affecting drugs, intentional self-harm	Diagnosis	ICD-10-CM
T45.692A	Poisoning by other fibrinolysis-affecting drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.692D	Poisoning by other fibrinolysis-affecting drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.692S	Poisoning by other fibrinolysis-affecting drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.7X2	Poisoning by anticoagulant antagonists, vitamin K and other coagulants, intentional self-harm	Diagnosis	ICD-10-CM
T45.7X2A	Poisoning by anticoagulant antagonists, vitamin K and other coagulants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.7X2D	Poisoning by anticoagulant antagonists, vitamin K and other coagulants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.7X2S	Poisoning by anticoagulant antagonists, vitamin K and other coagulants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.8X2	Poisoning by other primarily systemic and hematological agents, intentional self-harm	Diagnosis	ICD-10-CM
T45.8X2A	Poisoning by other primarily systemic and hematological agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.8X2D	Poisoning by other primarily systemic and hematological agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.8X2S	Poisoning by other primarily systemic and hematological agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.92	Poisoning by unspecified primarily systemic and hematological agent, intentional self-harm	Diagnosis	ICD-10-CM
T45.92XA	Poisoning by unspecified primarily systemic and hematological agent, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.92XD	Poisoning by unspecified primarily systemic and hematological agent, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.92XS	Poisoning by unspecified primarily systemic and hematological agent, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T46.0X2	Poisoning by cardiac-stimulant glycosides and drugs of similar action, intentional self-harm	Diagnosis	ICD-10-CM
T46.0X2A	Poisoning by cardiac-stimulant glycosides and drugs of similar action, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.0X2D	Poisoning by cardiac-stimulant glycosides and drugs of similar action, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.0X2S	Poisoning by cardiac-stimulant glycosides and drugs of similar action, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.1X2	Poisoning by calcium-channel blockers, intentional self-harm	Diagnosis	ICD-10-CM
T46.1X2A	Poisoning by calcium-channel blockers, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.1X2D	Poisoning by calcium-channel blockers, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.1X2S	Poisoning by calcium-channel blockers, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.2X2	Poisoning by other antidysrhythmic drugs, intentional self-harm	Diagnosis	ICD-10-CM
T46.2X2A	Poisoning by other antidysrhythmic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.2X2D	Poisoning by other antidysrhythmic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.2X2S	Poisoning by other antidysrhythmic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.3X2	Poisoning by coronary vasodilators, intentional self-harm	Diagnosis	ICD-10-CM
T46.3X2A	Poisoning by coronary vasodilators, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.3X2D	Poisoning by coronary vasodilators, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.3X2S	Poisoning by coronary vasodilators, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.4X2	Poisoning by angiotensin-converting-enzyme inhibitors, intentional self-harm	Diagnosis	ICD-10-CM
T46.4X2A	Poisoning by angiotensin-converting-enzyme inhibitors, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.4X2D	Poisoning by angiotensin-converting-enzyme inhibitors, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.4X2S	Poisoning by angiotensin-converting-enzyme inhibitors, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.5X2	Poisoning by other antihypertensive drugs, intentional self-harm	Diagnosis	ICD-10-CM
T46.5X2A	Poisoning by other antihypertensive drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.5X2D	Poisoning by other antihypertensive drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.5X2S	Poisoning by other antihypertensive drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.6X2	Poisoning by antihyperlipidemic and antiarteriosclerotic drugs, intentional self-harm	Diagnosis	ICD-10-CM
T46.6X2A	Poisoning by antihyperlipidemic and antiarteriosclerotic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.6X2D	Poisoning by antihyperlipidemic and antiarteriosclerotic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.6X2S	Poisoning by antihyperlipidemic and antiarteriosclerotic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.7X2	Poisoning by peripheral vasodilators, intentional self-harm	Diagnosis	ICD-10-CM
T46.7X2A	Poisoning by peripheral vasodilators, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T46.7X2D	Poisoning by peripheral vasodilators, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.7X2S	Poisoning by peripheral vasodilators, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.8X2	Poisoning by antivaricose drugs, including sclerosing agents, intentional self-harm	Diagnosis	ICD-10-CM
T46.8X2A	Poisoning by antivaricose drugs, including sclerosing agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.8X2D	Poisoning by antivaricose drugs, including sclerosing agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.8X2S	Poisoning by antivaricose drugs, including sclerosing agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.902	Poisoning by unspecified agents primarily affecting the cardiovascular system, intentional self-harm	Diagnosis	ICD-10-CM
T46.902A	Poisoning by unspecified agents primarily affecting the cardiovascular system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.902D	Poisoning by unspecified agents primarily affecting the cardiovascular system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.902S	Poisoning by unspecified agents primarily affecting the cardiovascular system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.992	Poisoning by other agents primarily affecting the cardiovascular system, intentional self-harm	Diagnosis	ICD-10-CM
T46.992A	Poisoning by other agents primarily affecting the cardiovascular system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.992D	Poisoning by other agents primarily affecting the cardiovascular system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.992S	Poisoning by other agents primarily affecting the cardiovascular system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.0X2	Poisoning by histamine H2-receptor blockers, intentional self-harm	Diagnosis	ICD-10-CM
T47.0X2A	Poisoning by histamine H2-receptor blockers, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.0X2D	Poisoning by histamine H2-receptor blockers, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.0X2S	Poisoning by histamine H2-receptor blockers, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.1X2	Poisoning by other antacids and anti-gastric-secretion drugs, intentional self-harm	Diagnosis	ICD-10-CM
T47.1X2A	Poisoning by other antacids and anti-gastric-secretion drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.1X2D	Poisoning by other antacids and anti-gastric-secretion drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.1X2S	Poisoning by other antacids and anti-gastric-secretion drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.2X2	Poisoning by stimulant laxatives, intentional self-harm	Diagnosis	ICD-10-CM
T47.2X2A	Poisoning by stimulant laxatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.2X2D	Poisoning by stimulant laxatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.2X2S	Poisoning by stimulant laxatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.3X2	Poisoning by saline and osmotic laxatives, intentional self-harm	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T47.3X2A	Poisoning by saline and osmotic laxatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.3X2D	Poisoning by saline and osmotic laxatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.3X2S	Poisoning by saline and osmotic laxatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.4X2	Poisoning by other laxatives, intentional self-harm	Diagnosis	ICD-10-CM
T47.4X2A	Poisoning by other laxatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.4X2D	Poisoning by other laxatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.4X2S	Poisoning by other laxatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.5X2	Poisoning by digestants, intentional self-harm	Diagnosis	ICD-10-CM
T47.5X2A	Poisoning by digestants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.5X2D	Poisoning by digestants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.5X2S	Poisoning by digestants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.6X2	Poisoning by antidiarrheal drugs, intentional self-harm	Diagnosis	ICD-10-CM
T47.6X2A	Poisoning by antidiarrheal drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.6X2D	Poisoning by antidiarrheal drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.6X2S	Poisoning by antidiarrheal drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.7X2	Poisoning by emetics, intentional self-harm	Diagnosis	ICD-10-CM
T47.7X2A	Poisoning by emetics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.7X2D	Poisoning by emetics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.7X2S	Poisoning by emetics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.8X2	Poisoning by other agents primarily affecting gastrointestinal system, intentional self-harm	Diagnosis	ICD-10-CM
T47.8X2A	Poisoning by other agents primarily affecting gastrointestinal system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.8X2D	Poisoning by other agents primarily affecting gastrointestinal system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.8X2S	Poisoning by other agents primarily affecting gastrointestinal system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.92	Poisoning by unspecified agents primarily affecting the gastrointestinal system, intentional self-harm	Diagnosis	ICD-10-CM
T47.92XA	Poisoning by unspecified agents primarily affecting the gastrointestinal system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.92XD	Poisoning by unspecified agents primarily affecting the gastrointestinal system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.92XS	Poisoning by unspecified agents primarily affecting the gastrointestinal system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.0X2	Poisoning by oxytocic drugs, intentional self-harm	Diagnosis	ICD-10-CM
T48.0X2A	Poisoning by oxytocic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.0X2D	Poisoning by oxytocic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.0X2S	Poisoning by oxytocic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.1X2	Poisoning by skeletal muscle relaxants [neuromuscular blocking agents], intentional self-harm	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T48.1X2A	Poisoning by skeletal muscle relaxants [neuromuscular blocking agents], intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.1X2D	Poisoning by skeletal muscle relaxants [neuromuscular blocking agents], intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.1X2S	Poisoning by skeletal muscle relaxants [neuromuscular blocking agents], intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.202	Poisoning by unspecified drugs acting on muscles, intentional self-harm	Diagnosis	ICD-10-CM
T48.202A	Poisoning by unspecified drugs acting on muscles, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.202D	Poisoning by unspecified drugs acting on muscles, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.202S	Poisoning by unspecified drugs acting on muscles, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.292	Poisoning by other drugs acting on muscles, intentional self-harm	Diagnosis	ICD-10-CM
T48.292A	Poisoning by other drugs acting on muscles, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.292D	Poisoning by other drugs acting on muscles, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.292S	Poisoning by other drugs acting on muscles, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.3X2	Poisoning by antitussives, intentional self-harm	Diagnosis	ICD-10-CM
T48.3X2A	Poisoning by antitussives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.3X2D	Poisoning by antitussives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.3X2S	Poisoning by antitussives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.4X2	Poisoning by expectorants, intentional self-harm	Diagnosis	ICD-10-CM
T48.4X2A	Poisoning by expectorants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.4X2D	Poisoning by expectorants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.4X2S	Poisoning by expectorants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.5X2	Poisoning by other anti-common-cold drugs, intentional self-harm	Diagnosis	ICD-10-CM
T48.5X2A	Poisoning by other anti-common-cold drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.5X2D	Poisoning by other anti-common-cold drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.5X2S	Poisoning by other anti-common-cold drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.6X2	Poisoning by antiasthmatics, intentional self-harm	Diagnosis	ICD-10-CM
T48.6X2A	Poisoning by antiasthmatics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.6X2D	Poisoning by antiasthmatics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.6X2S	Poisoning by antiasthmatics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.902	Poisoning by unspecified agents primarily acting on the respiratory system, intentional self-harm	Diagnosis	ICD-10-CM
T48.902A	Poisoning by unspecified agents primarily acting on the respiratory system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.902D	Poisoning by unspecified agents primarily acting on the respiratory system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.902S	Poisoning by unspecified agents primarily acting on the respiratory system, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T48.992	Poisoning by other agents primarily acting on the respiratory system, intentional self-harm	Diagnosis	ICD-10-CM
T48.992A	Poisoning by other agents primarily acting on the respiratory system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.992D	Poisoning by other agents primarily acting on the respiratory system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.992S	Poisoning by other agents primarily acting on the respiratory system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.0X2	Poisoning by local antifungal, anti-infective and anti-inflammatory drugs, intentional self-harm	Diagnosis	ICD-10-CM
T49.0X2A	Poisoning by local antifungal, anti-infective and anti-inflammatory drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.0X2D	Poisoning by local antifungal, anti-infective and anti-inflammatory drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.0X2S	Poisoning by local antifungal, anti-infective and anti-inflammatory drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.1X2	Poisoning by antipruritics, intentional self-harm	Diagnosis	ICD-10-CM
T49.1X2A	Poisoning by antipruritics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.1X2D	Poisoning by antipruritics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.1X2S	Poisoning by antipruritics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.2X2	Poisoning by local astringents and local detergents, intentional self-harm	Diagnosis	ICD-10-CM
T49.2X2A	Poisoning by local astringents and local detergents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.2X2D	Poisoning by local astringents and local detergents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.2X2S	Poisoning by local astringents and local detergents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.3X2	Poisoning by emollients, demulcents and protectants, intentional self-harm	Diagnosis	ICD-10-CM
T49.3X2A	Poisoning by emollients, demulcents and protectants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.3X2D	Poisoning by emollients, demulcents and protectants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.3X2S	Poisoning by emollients, demulcents and protectants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.4X2	Poisoning by keratolytics, keratoplastics, and other hair treatment drugs and preparations, intentional self-harm	Diagnosis	ICD-10-CM
T49.4X2A	Poisoning by keratolytics, keratoplastics, and other hair treatment drugs and preparations, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.4X2D	Poisoning by keratolytics, keratoplastics, and other hair treatment drugs and preparations, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.4X2S	Poisoning by keratolytics, keratoplastics, and other hair treatment drugs and preparations, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.5X2	Poisoning by ophthalmological drugs and preparations, intentional self-harm	Diagnosis	ICD-10-CM
T49.5X2A	Poisoning by ophthalmological drugs and preparations, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T49.5X2D	Poisoning by ophthalmological drugs and preparations, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.5X2S	Poisoning by ophthalmological drugs and preparations, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.6X2	Poisoning by otorhinolaryngological drugs and preparations, intentional self-harm	Diagnosis	ICD-10-CM
T49.6X2A	Poisoning by otorhinolaryngological drugs and preparations, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.6X2D	Poisoning by otorhinolaryngological drugs and preparations, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.6X2S	Poisoning by otorhinolaryngological drugs and preparations, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.7X2	Poisoning by dental drugs, topically applied, intentional self-harm	Diagnosis	ICD-10-CM
T49.7X2A	Poisoning by dental drugs, topically applied, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.7X2D	Poisoning by dental drugs, topically applied, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.7X2S	Poisoning by dental drugs, topically applied, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.8X2	Poisoning by other topical agents, intentional self-harm	Diagnosis	ICD-10-CM
T49.8X2A	Poisoning by other topical agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.8X2D	Poisoning by other topical agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.8X2S	Poisoning by other topical agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.92	Poisoning by unspecified topical agent, intentional self-harm	Diagnosis	ICD-10-CM
T49.92XA	Poisoning by unspecified topical agent, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.92XD	Poisoning by unspecified topical agent, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.92XS	Poisoning by unspecified topical agent, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.0X2	Poisoning by mineralocorticoids and their antagonists, intentional self-harm	Diagnosis	ICD-10-CM
T50.0X2A	Poisoning by mineralocorticoids and their antagonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.0X2D	Poisoning by mineralocorticoids and their antagonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.0X2S	Poisoning by mineralocorticoids and their antagonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.1X2	Poisoning by loop [high-ceiling] diuretics, intentional self-harm	Diagnosis	ICD-10-CM
T50.1X2A	Poisoning by loop [high-ceiling] diuretics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.1X2D	Poisoning by loop [high-ceiling] diuretics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.1X2S	Poisoning by loop [high-ceiling] diuretics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.2X2	Poisoning by carbonic-anhydrase inhibitors, benzothiadiazides and other diuretics, intentional self-harm	Diagnosis	ICD-10-CM
T50.2X2A	Poisoning by carbonic-anhydrase inhibitors, benzothiadiazides and other diuretics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.2X2D	Poisoning by carbonic-anhydrase inhibitors, benzothiadiazides and other diuretics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T50.2X2S	Poisoning by carbonic-anhydrase inhibitors, benzothiadiazides and other diuretics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.3X2	Poisoning by electrolytic, caloric and water-balance agents, intentional self-harm	Diagnosis	ICD-10-CM
T50.3X2A	Poisoning by electrolytic, caloric and water-balance agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.3X2D	Poisoning by electrolytic, caloric and water-balance agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.3X2S	Poisoning by electrolytic, caloric and water-balance agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.4X2	Poisoning by drugs affecting uric acid metabolism, intentional self-harm	Diagnosis	ICD-10-CM
T50.4X2A	Poisoning by drugs affecting uric acid metabolism, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.4X2D	Poisoning by drugs affecting uric acid metabolism, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.4X2S	Poisoning by drugs affecting uric acid metabolism, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.5X2	Poisoning by appetite depressants, intentional self-harm	Diagnosis	ICD-10-CM
T50.5X2A	Poisoning by appetite depressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.5X2D	Poisoning by appetite depressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.5X2S	Poisoning by appetite depressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.6X2	Poisoning by antidotes and chelating agents, intentional self-harm	Diagnosis	ICD-10-CM
T50.6X2A	Poisoning by antidotes and chelating agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.6X2D	Poisoning by antidotes and chelating agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.6X2S	Poisoning by antidotes and chelating agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.7X2	Poisoning by analeptics and opioid receptor antagonists, intentional self-harm	Diagnosis	ICD-10-CM
T50.7X2A	Poisoning by analeptics and opioid receptor antagonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.7X2D	Poisoning by analeptics and opioid receptor antagonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.7X2S	Poisoning by analeptics and opioid receptor antagonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.8X2	Poisoning by diagnostic agents, intentional self-harm	Diagnosis	ICD-10-CM
T50.8X2A	Poisoning by diagnostic agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.8X2D	Poisoning by diagnostic agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.8X2S	Poisoning by diagnostic agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.902	Poisoning by unspecified drugs, medicaments and biological substances, intentional self-harm	Diagnosis	ICD-10-CM
T50.902A	Poisoning by unspecified drugs, medicaments and biological substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.902D	Poisoning by unspecified drugs, medicaments and biological substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.902S	Poisoning by unspecified drugs, medicaments and biological substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T50.912	Poisoning by multiple unspecified drugs, medicaments and biological substances, intentional self-harm	Diagnosis	ICD-10-CM
T50.912A	Poisoning by multiple unspecified drugs, medicaments and biological substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.912D	Poisoning by multiple unspecified drugs, medicaments and biological substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.912S	Poisoning by multiple unspecified drugs, medicaments and biological substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.992	Poisoning by other drugs, medicaments and biological substances, intentional self-harm	Diagnosis	ICD-10-CM
T50.992A	Poisoning by other drugs, medicaments and biological substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.992D	Poisoning by other drugs, medicaments and biological substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.992S	Poisoning by other drugs, medicaments and biological substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.A12	Poisoning by pertussis vaccine, including combinations with a pertussis component, intentional self-harm	Diagnosis	ICD-10-CM
T50.A12A	Poisoning by pertussis vaccine, including combinations with a pertussis component, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.A12D	Poisoning by pertussis vaccine, including combinations with a pertussis component, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.A12S	Poisoning by pertussis vaccine, including combinations with a pertussis component, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.A22	Poisoning by mixed bacterial vaccines without a pertussis component, intentional self-harm	Diagnosis	ICD-10-CM
T50.A22A	Poisoning by mixed bacterial vaccines without a pertussis component, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.A22D	Poisoning by mixed bacterial vaccines without a pertussis component, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.A22S	Poisoning by mixed bacterial vaccines without a pertussis component, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.A92	Poisoning by other bacterial vaccines, intentional self-harm	Diagnosis	ICD-10-CM
T50.A92A	Poisoning by other bacterial vaccines, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.A92D	Poisoning by other bacterial vaccines, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.A92S	Poisoning by other bacterial vaccines, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.B12	Poisoning by smallpox vaccines, intentional self-harm	Diagnosis	ICD-10-CM
T50.B12A	Poisoning by smallpox vaccines, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.B12D	Poisoning by smallpox vaccines, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.B12S	Poisoning by smallpox vaccines, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.B92	Poisoning by other viral vaccines, intentional self-harm	Diagnosis	ICD-10-CM
T50.B92A	Poisoning by other viral vaccines, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.B92D	Poisoning by other viral vaccines, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T50.B92S	Poisoning by other viral vaccines, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.Z12	Poisoning by immunoglobulin, intentional self-harm	Diagnosis	ICD-10-CM
T50.Z12A	Poisoning by immunoglobulin, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.Z12D	Poisoning by immunoglobulin, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.Z12S	Poisoning by immunoglobulin, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.Z92	Poisoning by other vaccines and biological substances, intentional self-harm	Diagnosis	ICD-10-CM
T50.Z92A	Poisoning by other vaccines and biological substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.Z92D	Poisoning by other vaccines and biological substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.Z92S	Poisoning by other vaccines and biological substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.0X2	Toxic effect of ethanol, intentional self-harm	Diagnosis	ICD-10-CM
T51.0X2A	Toxic effect of ethanol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.0X2D	Toxic effect of ethanol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.0X2S	Toxic effect of ethanol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.1X2	Toxic effect of methanol, intentional self-harm	Diagnosis	ICD-10-CM
T51.1X2A	Toxic effect of methanol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.1X2D	Toxic effect of methanol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.1X2S	Toxic effect of methanol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.2X2	Toxic effect of 2-Propanol, intentional self-harm	Diagnosis	ICD-10-CM
T51.2X2A	Toxic effect of 2-Propanol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.2X2D	Toxic effect of 2-Propanol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.2X2S	Toxic effect of 2-Propanol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.3X2	Toxic effect of fusel oil, intentional self-harm	Diagnosis	ICD-10-CM
T51.3X2A	Toxic effect of fusel oil, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.3X2D	Toxic effect of fusel oil, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.3X2S	Toxic effect of fusel oil, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.8X2	Toxic effect of other alcohols, intentional self-harm	Diagnosis	ICD-10-CM
T51.8X2A	Toxic effect of other alcohols, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.8X2D	Toxic effect of other alcohols, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.8X2S	Toxic effect of other alcohols, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.92	Toxic effect of unspecified alcohol, intentional self-harm	Diagnosis	ICD-10-CM
T51.92XA	Toxic effect of unspecified alcohol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.92XD	Toxic effect of unspecified alcohol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.92XS	Toxic effect of unspecified alcohol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.0X2	Toxic effect of petroleum products, intentional self-harm	Diagnosis	ICD-10-CM
T52.0X2A	Toxic effect of petroleum products, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.0X2D	Toxic effect of petroleum products, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.0X2S	Toxic effect of petroleum products, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.1X2	Toxic effect of benzene, intentional self-harm	Diagnosis	ICD-10-CM
T52.1X2A	Toxic effect of benzene, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.1X2D	Toxic effect of benzene, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T52.1X2S	Toxic effect of benzene, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.2X2	Toxic effect of homologues of benzene, intentional self-harm	Diagnosis	ICD-10-CM
T52.2X2A	Toxic effect of homologues of benzene, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.2X2D	Toxic effect of homologues of benzene, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.2X2S	Toxic effect of homologues of benzene, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.3X2	Toxic effect of glycols, intentional self-harm	Diagnosis	ICD-10-CM
T52.3X2A	Toxic effect of glycols, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.3X2D	Toxic effect of glycols, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.3X2S	Toxic effect of glycols, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.4X2	Toxic effect of ketones, intentional self-harm	Diagnosis	ICD-10-CM
T52.4X2A	Toxic effect of ketones, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.4X2D	Toxic effect of ketones, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.4X2S	Toxic effect of ketones, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.8X2	Toxic effect of other organic solvents, intentional self-harm	Diagnosis	ICD-10-CM
T52.8X2A	Toxic effect of other organic solvents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.8X2D	Toxic effect of other organic solvents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.8X2S	Toxic effect of other organic solvents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.92	Toxic effect of unspecified organic solvent, intentional self-harm	Diagnosis	ICD-10-CM
T52.92XA	Toxic effect of unspecified organic solvent, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.92XD	Toxic effect of unspecified organic solvent, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.92XS	Toxic effect of unspecified organic solvent, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.0X2	Toxic effect of carbon tetrachloride, intentional self-harm	Diagnosis	ICD-10-CM
T53.0X2A	Toxic effect of carbon tetrachloride, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.0X2D	Toxic effect of carbon tetrachloride, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.0X2S	Toxic effect of carbon tetrachloride, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.1X2	Toxic effect of chloroform, intentional self-harm	Diagnosis	ICD-10-CM
T53.1X2A	Toxic effect of chloroform, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.1X2D	Toxic effect of chloroform, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.1X2S	Toxic effect of chloroform, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.2X2	Toxic effect of trichloroethylene, intentional self-harm	Diagnosis	ICD-10-CM
T53.2X2A	Toxic effect of trichloroethylene, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.2X2D	Toxic effect of trichloroethylene, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.2X2S	Toxic effect of trichloroethylene, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.3X2	Toxic effect of tetrachloroethylene, intentional self-harm	Diagnosis	ICD-10-CM
T53.3X2A	Toxic effect of tetrachloroethylene, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.3X2D	Toxic effect of tetrachloroethylene, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.3X2S	Toxic effect of tetrachloroethylene, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.4X2	Toxic effect of dichloromethane, intentional self-harm	Diagnosis	ICD-10-CM
T53.4X2A	Toxic effect of dichloromethane, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.4X2D	Toxic effect of dichloromethane, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.4X2S	Toxic effect of dichloromethane, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.5X2	Toxic effect of chlorofluorocarbons, intentional self-harm	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T53.5X2A	Toxic effect of chlorofluorocarbons, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.5X2D	Toxic effect of chlorofluorocarbons, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.5X2S	Toxic effect of chlorofluorocarbons, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.6X2	Toxic effect of other halogen derivatives of aliphatic hydrocarbons, intentional self-harm	Diagnosis	ICD-10-CM
T53.6X2A	Toxic effect of other halogen derivatives of aliphatic hydrocarbons, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.6X2D	Toxic effect of other halogen derivatives of aliphatic hydrocarbons, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.6X2S	Toxic effect of other halogen derivatives of aliphatic hydrocarbons, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.7X2	Toxic effect of other halogen derivatives of aromatic hydrocarbons, intentional self-harm	Diagnosis	ICD-10-CM
T53.7X2A	Toxic effect of other halogen derivatives of aromatic hydrocarbons, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.7X2D	Toxic effect of other halogen derivatives of aromatic hydrocarbons, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.7X2S	Toxic effect of other halogen derivatives of aromatic hydrocarbons, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.92	Toxic effect of unspecified halogen derivatives of aliphatic and aromatic hydrocarbons, intentional self-harm	Diagnosis	ICD-10-CM
T53.92XA	Toxic effect of unspecified halogen derivatives of aliphatic and aromatic hydrocarbons, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.92XD	Toxic effect of unspecified halogen derivatives of aliphatic and aromatic hydrocarbons, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.92XS	Toxic effect of unspecified halogen derivatives of aliphatic and aromatic hydrocarbons, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T54.0X2	Toxic effect of phenol and phenol homologues, intentional self-harm	Diagnosis	ICD-10-CM
T54.0X2A	Toxic effect of phenol and phenol homologues, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T54.0X2D	Toxic effect of phenol and phenol homologues, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T54.0X2S	Toxic effect of phenol and phenol homologues, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T54.1X2	Toxic effect of other corrosive organic compounds, intentional self-harm	Diagnosis	ICD-10-CM
T54.1X2A	Toxic effect of other corrosive organic compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T54.1X2D	Toxic effect of other corrosive organic compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T54.1X2S	Toxic effect of other corrosive organic compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T54.2X2	Toxic effect of corrosive acids and acid-like substances, intentional self-harm	Diagnosis	ICD-10-CM
T54.2X2A	Toxic effect of corrosive acids and acid-like substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T54.2X2D	Toxic effect of corrosive acids and acid-like substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T54.2X2S	Toxic effect of corrosive acids and acid-like substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T54.3X2	Toxic effect of corrosive alkalis and alkali-like substances, intentional self-harm	Diagnosis	ICD-10-CM
T54.3X2A	Toxic effect of corrosive alkalis and alkali-like substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T54.3X2D	Toxic effect of corrosive alkalis and alkali-like substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T54.3X2S	Toxic effect of corrosive alkalis and alkali-like substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T54.92	Toxic effect of unspecified corrosive substance, intentional self-harm	Diagnosis	ICD-10-CM
T54.92XA	Toxic effect of unspecified corrosive substance, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T54.92XD	Toxic effect of unspecified corrosive substance, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T54.92XS	Toxic effect of unspecified corrosive substance, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T55.0X2	Toxic effect of soaps, intentional self-harm	Diagnosis	ICD-10-CM
T55.0X2A	Toxic effect of soaps, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T55.0X2D	Toxic effect of soaps, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T55.0X2S	Toxic effect of soaps, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T55.1X2	Toxic effect of detergents, intentional self-harm	Diagnosis	ICD-10-CM
T55.1X2A	Toxic effect of detergents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T55.1X2D	Toxic effect of detergents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T55.1X2S	Toxic effect of detergents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.0X2	Toxic effect of lead and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T56.0X2A	Toxic effect of lead and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.0X2D	Toxic effect of lead and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.0X2S	Toxic effect of lead and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.1X2	Toxic effect of mercury and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T56.1X2A	Toxic effect of mercury and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.1X2D	Toxic effect of mercury and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.1X2S	Toxic effect of mercury and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.2X2	Toxic effect of chromium and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T56.2X2A	Toxic effect of chromium and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.2X2D	Toxic effect of chromium and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.2X2S	Toxic effect of chromium and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.3X2	Toxic effect of cadmium and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T56.3X2A	Toxic effect of cadmium and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.3X2D	Toxic effect of cadmium and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T56.3X2S	Toxic effect of cadmium and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.4X2	Toxic effect of copper and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T56.4X2A	Toxic effect of copper and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.4X2D	Toxic effect of copper and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.4X2S	Toxic effect of copper and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.5X2	Toxic effect of zinc and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T56.5X2A	Toxic effect of zinc and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.5X2D	Toxic effect of zinc and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.5X2S	Toxic effect of zinc and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.6X2	Toxic effect of tin and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T56.6X2A	Toxic effect of tin and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.6X2D	Toxic effect of tin and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.6X2S	Toxic effect of tin and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.7X2	Toxic effect of beryllium and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T56.7X2A	Toxic effect of beryllium and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.7X2D	Toxic effect of beryllium and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.7X2S	Toxic effect of beryllium and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.812	Toxic effect of thallium, intentional self-harm	Diagnosis	ICD-10-CM
T56.812A	Toxic effect of thallium, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.812D	Toxic effect of thallium, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.812S	Toxic effect of thallium, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.892	Toxic effect of other metals, intentional self-harm	Diagnosis	ICD-10-CM
T56.892A	Toxic effect of other metals, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.892D	Toxic effect of other metals, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.892S	Toxic effect of other metals, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.92	Toxic effect of unspecified metal, intentional self-harm	Diagnosis	ICD-10-CM
T56.92XA	Toxic effect of unspecified metal, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.92XD	Toxic effect of unspecified metal, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.92XS	Toxic effect of unspecified metal, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T57.0X2	Toxic effect of arsenic and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T57.0X2A	Toxic effect of arsenic and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T57.0X2D	Toxic effect of arsenic and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T57.0X2S	Toxic effect of arsenic and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T57.1X2	Toxic effect of phosphorus and its compounds, intentional self-harm	Diagnosis	ICD-10-CM
T57.1X2A	Toxic effect of phosphorus and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T57.1X2D	Toxic effect of phosphorus and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T57.1X2S	Toxic effect of phosphorus and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T57.2X2	Toxic effect of manganese and its compounds, intentional self-harm	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T57.2X2A	Toxic effect of manganese and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T57.2X2D	Toxic effect of manganese and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T57.2X2S	Toxic effect of manganese and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T57.3X2	Toxic effect of hydrogen cyanide, intentional self-harm	Diagnosis	ICD-10-CM
T57.3X2A	Toxic effect of hydrogen cyanide, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T57.3X2D	Toxic effect of hydrogen cyanide, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T57.3X2S	Toxic effect of hydrogen cyanide, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T57.8X2	Toxic effect of other specified inorganic substances, intentional self-harm	Diagnosis	ICD-10-CM
T57.8X2A	Toxic effect of other specified inorganic substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T57.8X2D	Toxic effect of other specified inorganic substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T57.8X2S	Toxic effect of other specified inorganic substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T57.92	Toxic effect of unspecified inorganic substance, intentional self-harm	Diagnosis	ICD-10-CM
T57.92XA	Toxic effect of unspecified inorganic substance, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T57.92XD	Toxic effect of unspecified inorganic substance, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T57.92XS	Toxic effect of unspecified inorganic substance, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T58.02	Toxic effect of carbon monoxide from motor vehicle exhaust, intentional self-harm	Diagnosis	ICD-10-CM
T58.02XA	Toxic effect of carbon monoxide from motor vehicle exhaust, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T58.02XD	Toxic effect of carbon monoxide from motor vehicle exhaust, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T58.02XS	Toxic effect of carbon monoxide from motor vehicle exhaust, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T58.12	Toxic effect of carbon monoxide from utility gas, intentional self-harm	Diagnosis	ICD-10-CM
T58.12XA	Toxic effect of carbon monoxide from utility gas, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T58.12XD	Toxic effect of carbon monoxide from utility gas, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T58.12XS	Toxic effect of carbon monoxide from utility gas, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T58.2X2	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, intentional self-harm	Diagnosis	ICD-10-CM
T58.2X2A	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T58.2X2D	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T58.2X2S	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T58.8X2	Toxic effect of carbon monoxide from other source, intentional self-harm	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T58.8X2A	Toxic effect of carbon monoxide from other source, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T58.8X2D	Toxic effect of carbon monoxide from other source, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T58.8X2S	Toxic effect of carbon monoxide from other source, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T58.92	Toxic effect of carbon monoxide from unspecified source, intentional self-harm	Diagnosis	ICD-10-CM
T58.92XA	Toxic effect of carbon monoxide from unspecified source, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T58.92XD	Toxic effect of carbon monoxide from unspecified source, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T58.92XS	Toxic effect of carbon monoxide from unspecified source, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.0X2	Toxic effect of nitrogen oxides, intentional self-harm	Diagnosis	ICD-10-CM
T59.0X2A	Toxic effect of nitrogen oxides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.0X2D	Toxic effect of nitrogen oxides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.0X2S	Toxic effect of nitrogen oxides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.1X2	Toxic effect of sulfur dioxide, intentional self-harm	Diagnosis	ICD-10-CM
T59.1X2A	Toxic effect of sulfur dioxide, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.1X2D	Toxic effect of sulfur dioxide, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.1X2S	Toxic effect of sulfur dioxide, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.2X2	Toxic effect of formaldehyde, intentional self-harm	Diagnosis	ICD-10-CM
T59.2X2A	Toxic effect of formaldehyde, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.2X2D	Toxic effect of formaldehyde, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.2X2S	Toxic effect of formaldehyde, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.3X2	Toxic effect of lacrimogenic gas, intentional self-harm	Diagnosis	ICD-10-CM
T59.3X2A	Toxic effect of lacrimogenic gas, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.3X2D	Toxic effect of lacrimogenic gas, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.3X2S	Toxic effect of lacrimogenic gas, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.4X2	Toxic effect of chlorine gas, intentional self-harm	Diagnosis	ICD-10-CM
T59.4X2A	Toxic effect of chlorine gas, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.4X2D	Toxic effect of chlorine gas, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.4X2S	Toxic effect of chlorine gas, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.5X2	Toxic effect of fluorine gas and hydrogen fluoride, intentional self-harm	Diagnosis	ICD-10-CM
T59.5X2A	Toxic effect of fluorine gas and hydrogen fluoride, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.5X2D	Toxic effect of fluorine gas and hydrogen fluoride, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.5X2S	Toxic effect of fluorine gas and hydrogen fluoride, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.6X2	Toxic effect of hydrogen sulfide, intentional self-harm	Diagnosis	ICD-10-CM
T59.6X2A	Toxic effect of hydrogen sulfide, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.6X2D	Toxic effect of hydrogen sulfide, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.6X2S	Toxic effect of hydrogen sulfide, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.7X2	Toxic effect of carbon dioxide, intentional self-harm	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T59.7X2A	Toxic effect of carbon dioxide, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.7X2D	Toxic effect of carbon dioxide, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.7X2S	Toxic effect of carbon dioxide, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.812	Toxic effect of smoke, intentional self-harm	Diagnosis	ICD-10-CM
T59.812A	Toxic effect of smoke, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.812D	Toxic effect of smoke, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.812S	Toxic effect of smoke, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.892	Toxic effect of other specified gases, fumes and vapors, intentional self-harm	Diagnosis	ICD-10-CM
T59.892A	Toxic effect of other specified gases, fumes and vapors, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.892D	Toxic effect of other specified gases, fumes and vapors, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.892S	Toxic effect of other specified gases, fumes and vapors, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.92	Toxic effect of unspecified gases, fumes and vapors, intentional self-harm	Diagnosis	ICD-10-CM
T59.92XA	Toxic effect of unspecified gases, fumes and vapors, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.92XD	Toxic effect of unspecified gases, fumes and vapors, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.92XS	Toxic effect of unspecified gases, fumes and vapors, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.0X2	Toxic effect of organophosphate and carbamate insecticides, intentional self-harm	Diagnosis	ICD-10-CM
T60.0X2A	Toxic effect of organophosphate and carbamate insecticides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.0X2D	Toxic effect of organophosphate and carbamate insecticides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.0X2S	Toxic effect of organophosphate and carbamate insecticides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.1X2	Toxic effect of halogenated insecticides, intentional self-harm	Diagnosis	ICD-10-CM
T60.1X2A	Toxic effect of halogenated insecticides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.1X2D	Toxic effect of halogenated insecticides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.1X2S	Toxic effect of halogenated insecticides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.2X2	Toxic effect of other insecticides, intentional self-harm	Diagnosis	ICD-10-CM
T60.2X2A	Toxic effect of other insecticides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.2X2D	Toxic effect of other insecticides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.2X2S	Toxic effect of other insecticides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.3X2	Toxic effect of herbicides and fungicides, intentional self-harm	Diagnosis	ICD-10-CM
T60.3X2A	Toxic effect of herbicides and fungicides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.3X2D	Toxic effect of herbicides and fungicides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.3X2S	Toxic effect of herbicides and fungicides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.4X2	Toxic effect of rodenticides, intentional self-harm	Diagnosis	ICD-10-CM
T60.4X2A	Toxic effect of rodenticides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.4X2D	Toxic effect of rodenticides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T60.4X2S	Toxic effect of rodenticides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.8X2	Toxic effect of other pesticides, intentional self-harm	Diagnosis	ICD-10-CM
T60.8X2A	Toxic effect of other pesticides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.8X2D	Toxic effect of other pesticides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.8X2S	Toxic effect of other pesticides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.92	Toxic effect of unspecified pesticide, intentional self-harm	Diagnosis	ICD-10-CM
T60.92XA	Toxic effect of unspecified pesticide, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.92XD	Toxic effect of unspecified pesticide, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.92XS	Toxic effect of unspecified pesticide, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T61.02	Ciguatera fish poisoning, intentional self-harm	Diagnosis	ICD-10-CM
T61.02XA	Ciguatera fish poisoning, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T61.02XD	Ciguatera fish poisoning, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T61.02XS	Ciguatera fish poisoning, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T61.12	Scombroid fish poisoning, intentional self-harm	Diagnosis	ICD-10-CM
T61.12XA	Scombroid fish poisoning, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T61.12XD	Scombroid fish poisoning, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T61.12XS	Scombroid fish poisoning, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T61.772	Other fish poisoning, intentional self-harm	Diagnosis	ICD-10-CM
T61.772A	Other fish poisoning, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T61.772D	Other fish poisoning, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T61.772S	Other fish poisoning, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T61.782	Other shellfish poisoning, intentional self-harm	Diagnosis	ICD-10-CM
T61.782A	Other shellfish poisoning, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T61.782D	Other shellfish poisoning, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T61.782S	Other shellfish poisoning, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T61.8X2	Toxic effect of other seafood, intentional self-harm	Diagnosis	ICD-10-CM
T61.8X2A	Toxic effect of other seafood, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T61.8X2D	Toxic effect of other seafood, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T61.8X2S	Toxic effect of other seafood, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T61.92	Toxic effect of unspecified seafood, intentional self-harm	Diagnosis	ICD-10-CM
T61.92XA	Toxic effect of unspecified seafood, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T61.92XD	Toxic effect of unspecified seafood, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T61.92XS	Toxic effect of unspecified seafood, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T62.0X2	Toxic effect of ingested mushrooms, intentional self-harm	Diagnosis	ICD-10-CM
T62.0X2A	Toxic effect of ingested mushrooms, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T62.0X2D	Toxic effect of ingested mushrooms, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T62.0X2S	Toxic effect of ingested mushrooms, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T62.1X2	Toxic effect of ingested berries, intentional self-harm	Diagnosis	ICD-10-CM
T62.1X2A	Toxic effect of ingested berries, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T62.1X2D	Toxic effect of ingested berries, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T62.1X2S	Toxic effect of ingested berries, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T62.2X2	Toxic effect of other ingested (parts of) plant(s), intentional self-harm	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T62.2X2A	Toxic effect of other ingested (parts of) plant(s), intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T62.2X2D	Toxic effect of other ingested (parts of) plant(s), intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T62.2X2S	Toxic effect of other ingested (parts of) plant(s), intentional self-harm, sequela	Diagnosis	ICD-10-CM
T62.8X2	Toxic effect of other specified noxious substances eaten as food, intentional self-harm	Diagnosis	ICD-10-CM
T62.8X2A	Toxic effect of other specified noxious substances eaten as food, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T62.8X2D	Toxic effect of other specified noxious substances eaten as food, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T62.8X2S	Toxic effect of other specified noxious substances eaten as food, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T62.92	Toxic effect of unspecified noxious substance eaten as food, intentional self-harm	Diagnosis	ICD-10-CM
T62.92XA	Toxic effect of unspecified noxious substance eaten as food, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T62.92XD	Toxic effect of unspecified noxious substance eaten as food, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T62.92XS	Toxic effect of unspecified noxious substance eaten as food, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.002	Toxic effect of unspecified snake venom, intentional self-harm	Diagnosis	ICD-10-CM
T63.002A	Toxic effect of unspecified snake venom, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.002D	Toxic effect of unspecified snake venom, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.002S	Toxic effect of unspecified snake venom, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.012	Toxic effect of rattlesnake venom, intentional self-harm	Diagnosis	ICD-10-CM
T63.012A	Toxic effect of rattlesnake venom, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.012D	Toxic effect of rattlesnake venom, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.012S	Toxic effect of rattlesnake venom, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.022	Toxic effect of coral snake venom, intentional self-harm	Diagnosis	ICD-10-CM
T63.022A	Toxic effect of coral snake venom, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.022D	Toxic effect of coral snake venom, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.022S	Toxic effect of coral snake venom, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.032	Toxic effect of taipan venom, intentional self-harm	Diagnosis	ICD-10-CM
T63.032A	Toxic effect of taipan venom, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.032D	Toxic effect of taipan venom, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.032S	Toxic effect of taipan venom, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.042	Toxic effect of cobra venom, intentional self-harm	Diagnosis	ICD-10-CM
T63.042A	Toxic effect of cobra venom, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.042D	Toxic effect of cobra venom, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.042S	Toxic effect of cobra venom, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.062	Toxic effect of venom of other North and South American snake, intentional self-	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T63.062A	Toxic effect of venom of other North and South American snake, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.062D	Toxic effect of venom of other North and South American snake, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.062S	Toxic effect of venom of other North and South American snake, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.072	Toxic effect of venom of other Australian snake, intentional self-harm	Diagnosis	ICD-10-CM
T63.072A	Toxic effect of venom of other Australian snake, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.072D	Toxic effect of venom of other Australian snake, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.072S	Toxic effect of venom of other Australian snake, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.082	Toxic effect of venom of other African and Asian snake, intentional self-harm	Diagnosis	ICD-10-CM
T63.082A	Toxic effect of venom of other African and Asian snake, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.082D	Toxic effect of venom of other African and Asian snake, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.082S	Toxic effect of venom of other African and Asian snake, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.092	Toxic effect of venom of other snake, intentional self-harm	Diagnosis	ICD-10-CM
T63.092A	Toxic effect of venom of other snake, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.092D	Toxic effect of venom of other snake, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.092S	Toxic effect of venom of other snake, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.112	Toxic effect of venom of gila monster, intentional self-harm	Diagnosis	ICD-10-CM
T63.112A	Toxic effect of venom of gila monster, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.112D	Toxic effect of venom of gila monster, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.112S	Toxic effect of venom of gila monster, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.122	Toxic effect of venom of other venomous lizard, intentional self-harm	Diagnosis	ICD-10-CM
T63.122A	Toxic effect of venom of other venomous lizard, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.122D	Toxic effect of venom of other venomous lizard, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.122S	Toxic effect of venom of other venomous lizard, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.192	Toxic effect of venom of other reptiles, intentional self-harm	Diagnosis	ICD-10-CM
T63.192A	Toxic effect of venom of other reptiles, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.192D	Toxic effect of venom of other reptiles, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.192S	Toxic effect of venom of other reptiles, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.2X2	Toxic effect of venom of scorpion, intentional self-harm	Diagnosis	ICD-10-CM
T63.2X2A	Toxic effect of venom of scorpion, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.2X2D	Toxic effect of venom of scorpion, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.2X2S	Toxic effect of venom of scorpion, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.302	Toxic effect of unspecified spider venom, intentional self-harm	Diagnosis	ICD-10-CM
T63.302A	Toxic effect of unspecified spider venom, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T63.302D	Toxic effect of unspecified spider venom, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.302S	Toxic effect of unspecified spider venom, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.312	Toxic effect of venom of black widow spider, intentional self-harm	Diagnosis	ICD-10-CM
T63.312A	Toxic effect of venom of black widow spider, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.312D	Toxic effect of venom of black widow spider, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.312S	Toxic effect of venom of black widow spider, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.322	Toxic effect of venom of tarantula, intentional self-harm	Diagnosis	ICD-10-CM
T63.322A	Toxic effect of venom of tarantula, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.322D	Toxic effect of venom of tarantula, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.322S	Toxic effect of venom of tarantula, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.332	Toxic effect of venom of brown recluse spider, intentional self-harm	Diagnosis	ICD-10-CM
T63.332A	Toxic effect of venom of brown recluse spider, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.332D	Toxic effect of venom of brown recluse spider, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.332S	Toxic effect of venom of brown recluse spider, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.392	Toxic effect of venom of other spider, intentional self-harm	Diagnosis	ICD-10-CM
T63.392A	Toxic effect of venom of other spider, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.392D	Toxic effect of venom of other spider, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.392S	Toxic effect of venom of other spider, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.412	Toxic effect of venom of centipedes and venomous millipedes, intentional self-harm	Diagnosis	ICD-10-CM
T63.412A	Toxic effect of venom of centipedes and venomous millipedes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.412D	Toxic effect of venom of centipedes and venomous millipedes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.412S	Toxic effect of venom of centipedes and venomous millipedes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.422	Toxic effect of venom of ants, intentional self-harm	Diagnosis	ICD-10-CM
T63.422A	Toxic effect of venom of ants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.422D	Toxic effect of venom of ants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.422S	Toxic effect of venom of ants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.432	Toxic effect of venom of caterpillars, intentional self-harm	Diagnosis	ICD-10-CM
T63.432A	Toxic effect of venom of caterpillars, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.432D	Toxic effect of venom of caterpillars, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.432S	Toxic effect of venom of caterpillars, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.442	Toxic effect of venom of bees, intentional self-harm	Diagnosis	ICD-10-CM
T63.442A	Toxic effect of venom of bees, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.442D	Toxic effect of venom of bees, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.442S	Toxic effect of venom of bees, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.452	Toxic effect of venom of hornets, intentional self-harm	Diagnosis	ICD-10-CM
T63.452A	Toxic effect of venom of hornets, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T63.452D	Toxic effect of venom of hornets, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.452S	Toxic effect of venom of hornets, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.462	Toxic effect of venom of wasps, intentional self-harm	Diagnosis	ICD-10-CM
T63.462A	Toxic effect of venom of wasps, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.462D	Toxic effect of venom of wasps, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.462S	Toxic effect of venom of wasps, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.482	Toxic effect of venom of other arthropod, intentional self-harm	Diagnosis	ICD-10-CM
T63.482A	Toxic effect of venom of other arthropod, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.482D	Toxic effect of venom of other arthropod, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.482S	Toxic effect of venom of other arthropod, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.512	Toxic effect of contact with stingray, intentional self-harm	Diagnosis	ICD-10-CM
T63.512A	Toxic effect of contact with stingray, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.512D	Toxic effect of contact with stingray, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.512S	Toxic effect of contact with stingray, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.592	Toxic effect of contact with other venomous fish, intentional self-harm	Diagnosis	ICD-10-CM
T63.592A	Toxic effect of contact with other venomous fish, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.592D	Toxic effect of contact with other venomous fish, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.592S	Toxic effect of contact with other venomous fish, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.612	Toxic effect of contact with Portuguese Man-o-war, intentional self-harm	Diagnosis	ICD-10-CM
T63.612A	Toxic effect of contact with Portuguese Man-o-war, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.612D	Toxic effect of contact with Portuguese Man-o-war, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.612S	Toxic effect of contact with Portuguese Man-o-war, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.622	Toxic effect of contact with other jellyfish, intentional self-harm	Diagnosis	ICD-10-CM
T63.622A	Toxic effect of contact with other jellyfish, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.622D	Toxic effect of contact with other jellyfish, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.622S	Toxic effect of contact with other jellyfish, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.632	Toxic effect of contact with sea anemone, intentional self-harm	Diagnosis	ICD-10-CM
T63.632A	Toxic effect of contact with sea anemone, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.632D	Toxic effect of contact with sea anemone, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.632S	Toxic effect of contact with sea anemone, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.692	Toxic effect of contact with other venomous marine animals, intentional self-harm	Diagnosis	ICD-10-CM
T63.692A	Toxic effect of contact with other venomous marine animals, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.692D	Toxic effect of contact with other venomous marine animals, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T63.692S	Toxic effect of contact with other venomous marine animals, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.712	Toxic effect of contact with venomous marine plant, intentional self-harm	Diagnosis	ICD-10-CM
T63.712A	Toxic effect of contact with venomous marine plant, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.712D	Toxic effect of contact with venomous marine plant, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.712S	Toxic effect of contact with venomous marine plant, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.792	Toxic effect of contact with other venomous plant, intentional self-harm	Diagnosis	ICD-10-CM
T63.792A	Toxic effect of contact with other venomous plant, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.792D	Toxic effect of contact with other venomous plant, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.792S	Toxic effect of contact with other venomous plant, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.812	Toxic effect of contact with venomous frog, intentional self-harm	Diagnosis	ICD-10-CM
T63.812A	Toxic effect of contact with venomous frog, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.812D	Toxic effect of contact with venomous frog, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.812S	Toxic effect of contact with venomous frog, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.822	Toxic effect of contact with venomous toad, intentional self-harm	Diagnosis	ICD-10-CM
T63.822A	Toxic effect of contact with venomous toad, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.822D	Toxic effect of contact with venomous toad, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.822S	Toxic effect of contact with venomous toad, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.832	Toxic effect of contact with other venomous amphibian, intentional self-harm	Diagnosis	ICD-10-CM
T63.832A	Toxic effect of contact with other venomous amphibian, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.832D	Toxic effect of contact with other venomous amphibian, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.832S	Toxic effect of contact with other venomous amphibian, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.892	Toxic effect of contact with other venomous animals, intentional self-harm	Diagnosis	ICD-10-CM
T63.892A	Toxic effect of contact with other venomous animals, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.892D	Toxic effect of contact with other venomous animals, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.892S	Toxic effect of contact with other venomous animals, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.92	Toxic effect of contact with unspecified venomous animal, intentional self-harm	Diagnosis	ICD-10-CM
T63.92XA	Toxic effect of contact with unspecified venomous animal, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.92XD	Toxic effect of contact with unspecified venomous animal, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T63.92XS	Toxic effect of contact with unspecified venomous animal, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T64.02	Toxic effect of aflatoxin, intentional self-harm	Diagnosis	ICD-10-CM
T64.02XA	Toxic effect of aflatoxin, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T64.02XD	Toxic effect of aflatoxin, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T64.02XS	Toxic effect of aflatoxin, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T64.82	Toxic effect of other mycotoxin food contaminants, intentional self-harm	Diagnosis	ICD-10-CM
T64.82XA	Toxic effect of other mycotoxin food contaminants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T64.82XD	Toxic effect of other mycotoxin food contaminants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T64.82XS	Toxic effect of other mycotoxin food contaminants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.0X2	Toxic effect of cyanides, intentional self-harm	Diagnosis	ICD-10-CM
T65.0X2A	Toxic effect of cyanides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.0X2D	Toxic effect of cyanides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.0X2S	Toxic effect of cyanides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.1X2	Toxic effect of strychnine and its salts, intentional self-harm	Diagnosis	ICD-10-CM
T65.1X2A	Toxic effect of strychnine and its salts, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.1X2D	Toxic effect of strychnine and its salts, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.1X2S	Toxic effect of strychnine and its salts, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.212	Toxic effect of chewing tobacco, intentional self-harm	Diagnosis	ICD-10-CM
T65.212A	Toxic effect of chewing tobacco, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.212D	Toxic effect of chewing tobacco, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.212S	Toxic effect of chewing tobacco, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.222	Toxic effect of tobacco cigarettes, intentional self-harm	Diagnosis	ICD-10-CM
T65.222A	Toxic effect of tobacco cigarettes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.222D	Toxic effect of tobacco cigarettes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.222S	Toxic effect of tobacco cigarettes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.292	Toxic effect of other tobacco and nicotine, intentional self-harm	Diagnosis	ICD-10-CM
T65.292A	Toxic effect of other tobacco and nicotine, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.292D	Toxic effect of other tobacco and nicotine, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.292S	Toxic effect of other tobacco and nicotine, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.3X2	Toxic effect of nitroderivatives and aminoderivatives of benzene and its homologues, intentional self-harm	Diagnosis	ICD-10-CM
T65.3X2A	Toxic effect of nitroderivatives and aminoderivatives of benzene and its homologues, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.3X2D	Toxic effect of nitroderivatives and aminoderivatives of benzene and its homologues, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.3X2S	Toxic effect of nitroderivatives and aminoderivatives of benzene and its homologues, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.4X2	Toxic effect of carbon disulfide, intentional self-harm	Diagnosis	ICD-10-CM
T65.4X2A	Toxic effect of carbon disulfide, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T65.4X2D	Toxic effect of carbon disulfide, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.4X2S	Toxic effect of carbon disulfide, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.5X2	Toxic effect of nitroglycerin and other nitric acids and esters, intentional self-harm	Diagnosis	ICD-10-CM
T65.5X2A	Toxic effect of nitroglycerin and other nitric acids and esters, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.5X2D	Toxic effect of nitroglycerin and other nitric acids and esters, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.5X2S	Toxic effect of nitroglycerin and other nitric acids and esters, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.6X2	Toxic effect of paints and dyes, not elsewhere classified, intentional self-harm	Diagnosis	ICD-10-CM
T65.6X2A	Toxic effect of paints and dyes, not elsewhere classified, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.6X2D	Toxic effect of paints and dyes, not elsewhere classified, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.6X2S	Toxic effect of paints and dyes, not elsewhere classified, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.812	Toxic effect of latex, intentional self-harm	Diagnosis	ICD-10-CM
T65.812A	Toxic effect of latex, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.812D	Toxic effect of latex, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.812S	Toxic effect of latex, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.822	Toxic effect of harmful algae and algae toxins, intentional self-harm	Diagnosis	ICD-10-CM
T65.822A	Toxic effect of harmful algae and algae toxins, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.822D	Toxic effect of harmful algae and algae toxins, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.822S	Toxic effect of harmful algae and algae toxins, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.832	Toxic effect of fiberglass, intentional self-harm	Diagnosis	ICD-10-CM
T65.832A	Toxic effect of fiberglass, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.832D	Toxic effect of fiberglass, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.832S	Toxic effect of fiberglass, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.892	Toxic effect of other specified substances, intentional self-harm	Diagnosis	ICD-10-CM
T65.892A	Toxic effect of other specified substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.892D	Toxic effect of other specified substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.892S	Toxic effect of other specified substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.92	Toxic effect of unspecified substance, intentional self-harm	Diagnosis	ICD-10-CM
T65.92XA	Toxic effect of unspecified substance, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.92XD	Toxic effect of unspecified substance, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.92XS	Toxic effect of unspecified substance, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.112	Asphyxiation due to smothering under pillow, intentional self-harm	Diagnosis	ICD-10-CM
T71.112A	Asphyxiation due to smothering under pillow, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T71.112D	Asphyxiation due to smothering under pillow, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.112S	Asphyxiation due to smothering under pillow, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.122	Asphyxiation due to plastic bag, intentional self-harm	Diagnosis	ICD-10-CM
T71.122A	Asphyxiation due to plastic bag, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.122D	Asphyxiation due to plastic bag, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.122S	Asphyxiation due to plastic bag, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.132	Asphyxiation due to being trapped in bed linens, intentional self-harm	Diagnosis	ICD-10-CM
T71.132A	Asphyxiation due to being trapped in bed linens, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.132D	Asphyxiation due to being trapped in bed linens, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.132S	Asphyxiation due to being trapped in bed linens, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.152	Asphyxiation due to smothering in furniture, intentional self-harm	Diagnosis	ICD-10-CM
T71.152A	Asphyxiation due to smothering in furniture, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.152D	Asphyxiation due to smothering in furniture, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.152S	Asphyxiation due to smothering in furniture, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.162	Asphyxiation due to hanging, intentional self-harm	Diagnosis	ICD-10-CM
T71.162A	Asphyxiation due to hanging, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.162D	Asphyxiation due to hanging, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.162S	Asphyxiation due to hanging, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.192	Asphyxiation due to mechanical threat to breathing due to other causes, intentional self-harm	Diagnosis	ICD-10-CM
T71.192A	Asphyxiation due to mechanical threat to breathing due to other causes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.192D	Asphyxiation due to mechanical threat to breathing due to other causes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.192S	Asphyxiation due to mechanical threat to breathing due to other causes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.222	Asphyxiation due to being trapped in a car trunk, intentional self-harm	Diagnosis	ICD-10-CM
T71.222A	Asphyxiation due to being trapped in a car trunk, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.222D	Asphyxiation due to being trapped in a car trunk, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.222S	Asphyxiation due to being trapped in a car trunk, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.232	Asphyxiation due to being trapped in a (discarded) refrigerator, intentional self-harm	Diagnosis	ICD-10-CM
T71.232A	Asphyxiation due to being trapped in a (discarded) refrigerator, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.232D	Asphyxiation due to being trapped in a (discarded) refrigerator, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T71.232S	Asphyxiation due to being trapped in a (discarded) refrigerator, intentional self-harm, sequela	Diagnosis	ICD-10-CM
X71	Intentional self-harm by drowning and submersion	Diagnosis	ICD-10-CM
X71.0	Intentional self-harm by drowning and submersion while in bathtub	Diagnosis	ICD-10-CM
X71.0XXA	Intentional self-harm by drowning and submersion while in bathtub, initial encounter	Diagnosis	ICD-10-CM
X71.0XXD	Intentional self-harm by drowning and submersion while in bathtub, subsequent encounter	Diagnosis	ICD-10-CM
X71.0XXS	Intentional self-harm by drowning and submersion while in bathtub, sequela	Diagnosis	ICD-10-CM
X71.1	Intentional self-harm by drowning and submersion while in swimming pool	Diagnosis	ICD-10-CM
X71.1XXA	Intentional self-harm by drowning and submersion while in swimming pool, initial encounter	Diagnosis	ICD-10-CM
X71.1XXD	Intentional self-harm by drowning and submersion while in swimming pool, subsequent encounter	Diagnosis	ICD-10-CM
X71.1XXS	Intentional self-harm by drowning and submersion while in swimming pool, sequela	Diagnosis	ICD-10-CM
X71.2	Intentional self-harm by drowning and submersion after jump into swimming pool	Diagnosis	ICD-10-CM
X71.2XXA	Intentional self-harm by drowning and submersion after jump into swimming pool, initial encounter	Diagnosis	ICD-10-CM
X71.2XXD	Intentional self-harm by drowning and submersion after jump into swimming pool, subsequent encounter	Diagnosis	ICD-10-CM
X71.2XXS	Intentional self-harm by drowning and submersion after jump into swimming pool, sequela	Diagnosis	ICD-10-CM
X71.3	Intentional self-harm by drowning and submersion in natural water	Diagnosis	ICD-10-CM
X71.3XXA	Intentional self-harm by drowning and submersion in natural water, initial encounter	Diagnosis	ICD-10-CM
X71.3XXD	Intentional self-harm by drowning and submersion in natural water, subsequent encounter	Diagnosis	ICD-10-CM
X71.3XXS	Intentional self-harm by drowning and submersion in natural water, sequela	Diagnosis	ICD-10-CM
X71.8	Other intentional self-harm by drowning and submersion	Diagnosis	ICD-10-CM
X71.8XXA	Other intentional self-harm by drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
X71.8XXD	Other intentional self-harm by drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
X71.8XXS	Other intentional self-harm by drowning and submersion, sequela	Diagnosis	ICD-10-CM
X71.9	Intentional self-harm by drowning and submersion, unspecified	Diagnosis	ICD-10-CM
X71.9XXA	Intentional self-harm by drowning and submersion, unspecified, initial encounter	Diagnosis	ICD-10-CM
X71.9XXD	Intentional self-harm by drowning and submersion, unspecified, subsequent encounter	Diagnosis	ICD-10-CM
X71.9XXS	Intentional self-harm by drowning and submersion, unspecified, sequela	Diagnosis	ICD-10-CM
X72	Intentional self-harm by handgun discharge	Diagnosis	ICD-10-CM
X72.XXXA	Intentional self-harm by handgun discharge, initial encounter	Diagnosis	ICD-10-CM
X72.XXXD	Intentional self-harm by handgun discharge, subsequent encounter	Diagnosis	ICD-10-CM
X72.XXXS	Intentional self-harm by handgun discharge, sequela	Diagnosis	ICD-10-CM
X73	Intentional self-harm by rifle, shotgun and larger firearm discharge	Diagnosis	ICD-10-CM
X73.0	Intentional self-harm by shotgun discharge	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
X73.0XXA	Intentional self-harm by shotgun discharge, initial encounter	Diagnosis	ICD-10-CM
X73.0XXD	Intentional self-harm by shotgun discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.0XXS	Intentional self-harm by shotgun discharge, sequela	Diagnosis	ICD-10-CM
X73.1	Intentional self-harm by hunting rifle discharge	Diagnosis	ICD-10-CM
X73.1XXA	Intentional self-harm by hunting rifle discharge, initial encounter	Diagnosis	ICD-10-CM
X73.1XXD	Intentional self-harm by hunting rifle discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.1XXS	Intentional self-harm by hunting rifle discharge, sequela	Diagnosis	ICD-10-CM
X73.2	Intentional self-harm by machine gun discharge	Diagnosis	ICD-10-CM
X73.2XXA	Intentional self-harm by machine gun discharge, initial encounter	Diagnosis	ICD-10-CM
X73.2XXD	Intentional self-harm by machine gun discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.2XXS	Intentional self-harm by machine gun discharge, sequela	Diagnosis	ICD-10-CM
X73.8	Intentional self-harm by other larger firearm discharge	Diagnosis	ICD-10-CM
X73.8XXA	Intentional self-harm by other larger firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X73.8XXD	Intentional self-harm by other larger firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.8XXS	Intentional self-harm by other larger firearm discharge, sequela	Diagnosis	ICD-10-CM
X73.9	Intentional self-harm by unspecified larger firearm discharge	Diagnosis	ICD-10-CM
X73.9XXA	Intentional self-harm by unspecified larger firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X73.9XXD	Intentional self-harm by unspecified larger firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.9XXS	Intentional self-harm by unspecified larger firearm discharge, sequela	Diagnosis	ICD-10-CM
X74	Intentional self-harm by other and unspecified firearm and gun discharge	Diagnosis	ICD-10-CM
X74.0	Intentional self-harm by gas, air or spring-operated guns	Diagnosis	ICD-10-CM
X74.01	Intentional self-harm by airgun	Diagnosis	ICD-10-CM
X74.01XA	Intentional self-harm by airgun, initial encounter	Diagnosis	ICD-10-CM
X74.01XD	Intentional self-harm by airgun, subsequent encounter	Diagnosis	ICD-10-CM
X74.01XS	Intentional self-harm by airgun, sequela	Diagnosis	ICD-10-CM
X74.02	Intentional self-harm by paintball gun	Diagnosis	ICD-10-CM
X74.02XA	Intentional self-harm by paintball gun, initial encounter	Diagnosis	ICD-10-CM
X74.02XD	Intentional self-harm by paintball gun, subsequent encounter	Diagnosis	ICD-10-CM
X74.02XS	Intentional self-harm by paintball gun, sequela	Diagnosis	ICD-10-CM
X74.09	Intentional self-harm by other gas, air or spring-operated gun	Diagnosis	ICD-10-CM
X74.09XA	Intentional self-harm by other gas, air or spring-operated gun, initial encounter	Diagnosis	ICD-10-CM
X74.09XD	Intentional self-harm by other gas, air or spring-operated gun, subsequent encounter	Diagnosis	ICD-10-CM
X74.09XS	Intentional self-harm by other gas, air or spring-operated gun, sequela	Diagnosis	ICD-10-CM
X74.8	Intentional self-harm by other firearm discharge	Diagnosis	ICD-10-CM
X74.8XXA	Intentional self-harm by other firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X74.8XXD	Intentional self-harm by other firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X74.8XXS	Intentional self-harm by other firearm discharge, sequela	Diagnosis	ICD-10-CM
X74.9	Intentional self-harm by unspecified firearm discharge	Diagnosis	ICD-10-CM
X74.9XXA	Intentional self-harm by unspecified firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X74.9XXD	Intentional self-harm by unspecified firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X74.9XXS	Intentional self-harm by unspecified firearm discharge, sequela	Diagnosis	ICD-10-CM
X75	Intentional self-harm by explosive material	Diagnosis	ICD-10-CM
X75.XXXA	Intentional self-harm by explosive material, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
X75.XXXD	Intentional self-harm by explosive material, subsequent encounter	Diagnosis	ICD-10-CM
X75.XXXS	Intentional self-harm by explosive material, sequela	Diagnosis	ICD-10-CM
X76	Intentional self-harm by smoke, fire and flames	Diagnosis	ICD-10-CM
X76.XXXA	Intentional self-harm by smoke, fire and flames, initial encounter	Diagnosis	ICD-10-CM
X76.XXXD	Intentional self-harm by smoke, fire and flames, subsequent encounter	Diagnosis	ICD-10-CM
X76.XXXS	Intentional self-harm by smoke, fire and flames, sequela	Diagnosis	ICD-10-CM
X77	Intentional self-harm by steam, hot vapors and hot objects	Diagnosis	ICD-10-CM
X77.0	Intentional self-harm by steam or hot vapors	Diagnosis	ICD-10-CM
X77.0XXA	Intentional self-harm by steam or hot vapors, initial encounter	Diagnosis	ICD-10-CM
X77.0XXD	Intentional self-harm by steam or hot vapors, subsequent encounter	Diagnosis	ICD-10-CM
X77.0XXS	Intentional self-harm by steam or hot vapors, sequela	Diagnosis	ICD-10-CM
X77.1	Intentional self-harm by hot tap water	Diagnosis	ICD-10-CM
X77.1XXA	Intentional self-harm by hot tap water, initial encounter	Diagnosis	ICD-10-CM
X77.1XXD	Intentional self-harm by hot tap water, subsequent encounter	Diagnosis	ICD-10-CM
X77.1XXS	Intentional self-harm by hot tap water, sequela	Diagnosis	ICD-10-CM
X77.2	Intentional self-harm by other hot fluids	Diagnosis	ICD-10-CM
X77.2XXA	Intentional self-harm by other hot fluids, initial encounter	Diagnosis	ICD-10-CM
X77.2XXD	Intentional self-harm by other hot fluids, subsequent encounter	Diagnosis	ICD-10-CM
X77.2XXS	Intentional self-harm by other hot fluids, sequela	Diagnosis	ICD-10-CM
X77.3	Intentional self-harm by hot household appliances	Diagnosis	ICD-10-CM
X77.3XXA	Intentional self-harm by hot household appliances, initial encounter	Diagnosis	ICD-10-CM
X77.3XXD	Intentional self-harm by hot household appliances, subsequent encounter	Diagnosis	ICD-10-CM
X77.3XXS	Intentional self-harm by hot household appliances, sequela	Diagnosis	ICD-10-CM
X77.8	Intentional self-harm by other hot objects	Diagnosis	ICD-10-CM
X77.8XXA	Intentional self-harm by other hot objects, initial encounter	Diagnosis	ICD-10-CM
X77.8XXD	Intentional self-harm by other hot objects, subsequent encounter	Diagnosis	ICD-10-CM
X77.8XXS	Intentional self-harm by other hot objects, sequela	Diagnosis	ICD-10-CM
X77.9	Intentional self-harm by unspecified hot objects	Diagnosis	ICD-10-CM
X77.9XXA	Intentional self-harm by unspecified hot objects, initial encounter	Diagnosis	ICD-10-CM
X77.9XXD	Intentional self-harm by unspecified hot objects, subsequent encounter	Diagnosis	ICD-10-CM
X77.9XXS	Intentional self-harm by unspecified hot objects, sequela	Diagnosis	ICD-10-CM
X78	Intentional self-harm by sharp object	Diagnosis	ICD-10-CM
X78.0	Intentional self-harm by sharp glass	Diagnosis	ICD-10-CM
X78.0XXA	Intentional self-harm by sharp glass, initial encounter	Diagnosis	ICD-10-CM
X78.0XXD	Intentional self-harm by sharp glass, subsequent encounter	Diagnosis	ICD-10-CM
X78.0XXS	Intentional self-harm by sharp glass, sequela	Diagnosis	ICD-10-CM
X78.1	Intentional self-harm by knife	Diagnosis	ICD-10-CM
X78.1XXA	Intentional self-harm by knife, initial encounter	Diagnosis	ICD-10-CM
X78.1XXD	Intentional self-harm by knife, subsequent encounter	Diagnosis	ICD-10-CM
X78.1XXS	Intentional self-harm by knife, sequela	Diagnosis	ICD-10-CM
X78.2	Intentional self-harm by sword or dagger	Diagnosis	ICD-10-CM
X78.2XXA	Intentional self-harm by sword or dagger, initial encounter	Diagnosis	ICD-10-CM
X78.2XXD	Intentional self-harm by sword or dagger, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
X78.2XXS	Intentional self-harm by sword or dagger, sequela	Diagnosis	ICD-10-CM
X78.8	Intentional self-harm by other sharp object	Diagnosis	ICD-10-CM
X78.8XXA	Intentional self-harm by other sharp object, initial encounter	Diagnosis	ICD-10-CM
X78.8XXD	Intentional self-harm by other sharp object, subsequent encounter	Diagnosis	ICD-10-CM
X78.8XXS	Intentional self-harm by other sharp object, sequela	Diagnosis	ICD-10-CM
X78.9	Intentional self-harm by unspecified sharp object	Diagnosis	ICD-10-CM
X78.9XXA	Intentional self-harm by unspecified sharp object, initial encounter	Diagnosis	ICD-10-CM
X78.9XXD	Intentional self-harm by unspecified sharp object, subsequent encounter	Diagnosis	ICD-10-CM
X78.9XXS	Intentional self-harm by unspecified sharp object, sequela	Diagnosis	ICD-10-CM
X79	Intentional self-harm by blunt object	Diagnosis	ICD-10-CM
X79.XXXA	Intentional self-harm by blunt object, initial encounter	Diagnosis	ICD-10-CM
X79.XXXD	Intentional self-harm by blunt object, subsequent encounter	Diagnosis	ICD-10-CM
X79.XXXS	Intentional self-harm by blunt object, sequela	Diagnosis	ICD-10-CM
X80	Intentional self-harm by jumping from a high place	Diagnosis	ICD-10-CM
X80.XXXA	Intentional self-harm by jumping from a high place, initial encounter	Diagnosis	ICD-10-CM
X80.XXXD	Intentional self-harm by jumping from a high place, subsequent encounter	Diagnosis	ICD-10-CM
X80.XXXS	Intentional self-harm by jumping from a high place, sequela	Diagnosis	ICD-10-CM
X81	Intentional self-harm by jumping or lying in front of moving object	Diagnosis	ICD-10-CM
X81.0	Intentional self-harm by jumping or lying in front of motor vehicle	Diagnosis	ICD-10-CM
X81.0XXA	Intentional self-harm by jumping or lying in front of motor vehicle, initial encounter	Diagnosis	ICD-10-CM
X81.0XXD	Intentional self-harm by jumping or lying in front of motor vehicle, subsequent encounter	Diagnosis	ICD-10-CM
X81.0XXS	Intentional self-harm by jumping or lying in front of motor vehicle, sequela	Diagnosis	ICD-10-CM
X81.1	Intentional self-harm by jumping or lying in front of (subway) train	Diagnosis	ICD-10-CM
X81.1XXA	Intentional self-harm by jumping or lying in front of (subway) train, initial encounter	Diagnosis	ICD-10-CM
X81.1XXD	Intentional self-harm by jumping or lying in front of (subway) train, subsequent encounter	Diagnosis	ICD-10-CM
X81.1XXS	Intentional self-harm by jumping or lying in front of (subway) train, sequela	Diagnosis	ICD-10-CM
X81.8	Intentional self-harm by jumping or lying in front of other moving object	Diagnosis	ICD-10-CM
X81.8XXA	Intentional self-harm by jumping or lying in front of other moving object, initial encounter	Diagnosis	ICD-10-CM
X81.8XXD	Intentional self-harm by jumping or lying in front of other moving object, subsequent encounter	Diagnosis	ICD-10-CM
X81.8XXS	Intentional self-harm by jumping or lying in front of other moving object, sequela	Diagnosis	ICD-10-CM
X82	Intentional self-harm by crashing of motor vehicle	Diagnosis	ICD-10-CM
X82.0	Intentional collision of motor vehicle with other motor vehicle	Diagnosis	ICD-10-CM
X82.0XXA	Intentional collision of motor vehicle with other motor vehicle, initial encounter	Diagnosis	ICD-10-CM
X82.0XXD	Intentional collision of motor vehicle with other motor vehicle, subsequent encounter	Diagnosis	ICD-10-CM
X82.0XXS	Intentional collision of motor vehicle with other motor vehicle, sequela	Diagnosis	ICD-10-CM
X82.1	Intentional collision of motor vehicle with train	Diagnosis	ICD-10-CM
X82.1XXA	Intentional collision of motor vehicle with train, initial encounter	Diagnosis	ICD-10-CM
X82.1XXD	Intentional collision of motor vehicle with train, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
X82.1XXS	Intentional collision of motor vehicle with train, sequela	Diagnosis	ICD-10-CM
X82.2	Intentional collision of motor vehicle with tree	Diagnosis	ICD-10-CM
X82.2XXA	Intentional collision of motor vehicle with tree, initial encounter	Diagnosis	ICD-10-CM
X82.2XXD	Intentional collision of motor vehicle with tree, subsequent encounter	Diagnosis	ICD-10-CM
X82.2XXS	Intentional collision of motor vehicle with tree, sequela	Diagnosis	ICD-10-CM
X82.8	Other intentional self-harm by crashing of motor vehicle	Diagnosis	ICD-10-CM
X82.8XXA	Other intentional self-harm by crashing of motor vehicle, initial encounter	Diagnosis	ICD-10-CM
X82.8XXD	Other intentional self-harm by crashing of motor vehicle, subsequent encounter	Diagnosis	ICD-10-CM
X82.8XXS	Other intentional self-harm by crashing of motor vehicle, sequela	Diagnosis	ICD-10-CM
X83	Intentional self-harm by other specified means	Diagnosis	ICD-10-CM
X83.0	Intentional self-harm by crashing of aircraft	Diagnosis	ICD-10-CM
X83.0XXA	Intentional self-harm by crashing of aircraft, initial encounter	Diagnosis	ICD-10-CM
X83.0XXD	Intentional self-harm by crashing of aircraft, subsequent encounter	Diagnosis	ICD-10-CM
X83.0XXS	Intentional self-harm by crashing of aircraft, sequela	Diagnosis	ICD-10-CM
X83.1	Intentional self-harm by electrocution	Diagnosis	ICD-10-CM
X83.1XXA	Intentional self-harm by electrocution, initial encounter	Diagnosis	ICD-10-CM
X83.1XXD	Intentional self-harm by electrocution, subsequent encounter	Diagnosis	ICD-10-CM
X83.1XXS	Intentional self-harm by electrocution, sequela	Diagnosis	ICD-10-CM
X83.2	Intentional self-harm by exposure to extremes of cold	Diagnosis	ICD-10-CM
X83.2XXA	Intentional self-harm by exposure to extremes of cold, initial encounter	Diagnosis	ICD-10-CM
X83.2XXD	Intentional self-harm by exposure to extremes of cold, subsequent encounter	Diagnosis	ICD-10-CM
X83.2XXS	Intentional self-harm by exposure to extremes of cold, sequela	Diagnosis	ICD-10-CM
X83.8	Intentional self-harm by other specified means	Diagnosis	ICD-10-CM
X83.8XXA	Intentional self-harm by other specified means, initial encounter	Diagnosis	ICD-10-CM
X83.8XXD	Intentional self-harm by other specified means, subsequent encounter	Diagnosis	ICD-10-CM
X83.8XXS	Intentional self-harm by other specified means, sequela	Diagnosis	ICD-10-CM
Psychiatric drug dispensings			
80184	Phenobarbital	Procedure	CPT-4
C9035	Injection, aripiprazole lauroxil (Aristada Initio), 1 mg	Procedure	HCPCS
C9037	Injection, risperidone (Perseris), 0.5 mg	Procedure	HCPCS
C9055	Injection, brexanolone, 1 mg	Procedure	HCPCS
C9470	Injection, aripiprazole lauroxil, 1 mg	Procedure	HCPCS
C9497	Loxapine, inhalation powder, 10 mg	Procedure	HCPCS
G2082	Office or other outpatient visit for the evaluation and management of an established patient that requires the supervision of a physician or other qualified health care professional and provision of up to 56 mg of esketamine nasal self administration, includes 2 hours post administration observation	Procedure	HCPCS
G2083	Office or other outpatient visit for the evaluation and management of an established patient that requires the supervision of a physician or other qualified health care professional and provision of greater than 56 mg esketamine nasal self administration, includes 2 hours post administration observation	Procedure	HCPCS
J0400	Injection, aripiprazole, intramuscular, 0.25 mg	Procedure	HCPCS
J0401	Injection, aripiprazole, extended release, 1 mg	Procedure	HCPCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
J1320	Injection, amitriptyline HCl, up to 20 mg	Procedure	HCPCS
J1630	Injection, haloperidol, up to 5 mg	Procedure	HCPCS
J1631	Injection, haloperidol decanoate, per 50 mg	Procedure	HCPCS
J1632	Injection, brexanolone, 1 mg	Procedure	HCPCS
J1790	Injection, droperidol, up to 5 mg	Procedure	HCPCS
J1810	Injection, droperidol and fentanyl citrate, up to 2 ml ampule	Procedure	HCPCS
J1942	Injection, aripiprazole lauroxil, 1 mg	Procedure	HCPCS
J1990	Injection, chlordiazepoxide HCl, up to 100 mg	Procedure	HCPCS
J2060	Injection, lorazepam, 2 mg	Procedure	HCPCS
J2062	Loxapine for inhalation, 1 mg	Procedure	HCPCS
J2358	Injection, olanzapine, long-acting, 1 mg	Procedure	HCPCS
J2426	Injection, paliperidone palmitate extended release, 1 mg	Procedure	HCPCS
J2515	Injection, pentobarbital sodium, per 50 mg	Procedure	HCPCS
J2560	Injection, phenobarbital sodium, up to 120 mg	Procedure	HCPCS
J2561	Injection, phenobarbital sodium (Sezaby), 1 mg	Procedure	HCPCS
J2680	Injection, fluphenazine decanoate, up to 25 mg	Procedure	HCPCS
J2794	Injection, risperidone (RISPERDAL CONSTA), 0.5 mg	Procedure	HCPCS
J3230	Injection, chlorpromazine HCl, up to 50 mg	Procedure	HCPCS
J3310	Injection, perphenazine, up to 5 mg	Procedure	HCPCS
J3360	Injection, diazepam, up to 5 mg	Procedure	HCPCS
J3486	Injection, ziprasidone mesylate, 10 mg	Procedure	HCPCS
S0013	Esketamine, nasal spray, 1 mg	Procedure	HCPCS
S0136	Clozapine, 25 mg	Procedure	HCPCS
S0160	Dextroamphetamine sulfate, 5 mg	Procedure	HCPCS
S0166	Injection, olanzapine, 2.5 mg	Procedure	HCPCS
S0183	Prochlorperazine maleate, oral, 5 mg (for circumstances falling under the Medicare statute, use Q0164)	Procedure	HCPCS
Attention deficit hyperactivity disorder			
314	Hyperkinetic syndrome of childhood	Diagnosis	ICD-9-CM
314.0	Attention deficit disorder of childhood	Diagnosis	ICD-9-CM
314.00	Attention deficit disorder of childhood without mention of hyperactivity	Diagnosis	ICD-9-CM
314.01	Attention deficit disorder of childhood with hyperactivity	Diagnosis	ICD-9-CM
314.1	Hyperkinesis of childhood with developmental delay	Diagnosis	ICD-9-CM
314.2	Hyperkinetic conduct disorder of childhood	Diagnosis	ICD-9-CM
314.8	Other specified manifestations of hyperkinetic syndrome of childhood	Diagnosis	ICD-9-CM
314.9	Unspecified hyperkinetic syndrome of childhood	Diagnosis	ICD-9-CM
F90.0	Attention-deficit hyperactivity disorder, predominantly inattentive type	Diagnosis	ICD-10-CM
F90.1	Attention-deficit hyperactivity disorder, predominantly hyperactive type	Diagnosis	ICD-10-CM
F90.2	Attention-deficit hyperactivity disorder, combined type	Diagnosis	ICD-10-CM
F90.8	Attention-deficit hyperactivity disorder, other type	Diagnosis	ICD-10-CM
F90.9	Attention-deficit hyperactivity disorder, unspecified type	Diagnosis	ICD-10-CM
Akathisia			
333.99	Other extrapyramidal disease and abnormal movement disorder	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
G25.70	Drug induced movement disorder, unspecified	Diagnosis	ICD-10-CM
G25.71	Drug induced akathisia	Diagnosis	ICD-10-CM
G25.79	Other drug induced movement disorders	Diagnosis	ICD-10-CM
G25.89	Other specified extrapyramidal and movement disorders	Diagnosis	ICD-10-CM
G25.9	Extrapyramidal and movement disorder, unspecified	Diagnosis	ICD-10-CM
G26	Extrapyramidal and movement disorders in diseases classified elsewhere	Diagnosis	ICD-10-CM
Anxiety			
293.84	Anxiety disorder in conditions classified elsewhere	Diagnosis	ICD-9-CM
300.0	Anxiety states	Diagnosis	ICD-9-CM
300.00	Anxiety state, unspecified	Diagnosis	ICD-9-CM
300.01	Panic disorder without agoraphobia	Diagnosis	ICD-9-CM
300.02	Generalized anxiety disorder	Diagnosis	ICD-9-CM
300.09	Other anxiety states	Diagnosis	ICD-9-CM
300.10	Hysteria, unspecified	Diagnosis	ICD-9-CM
300.2	Phobic disorders	Diagnosis	ICD-9-CM
300.20	Phobia, unspecified	Diagnosis	ICD-9-CM
300.21	Agoraphobia with panic disorder	Diagnosis	ICD-9-CM
300.22	Agoraphobia without mention of panic attacks	Diagnosis	ICD-9-CM
300.23	Social phobia	Diagnosis	ICD-9-CM
300.29	Other isolated or specific phobias	Diagnosis	ICD-9-CM
300.5	Neurasthenia	Diagnosis	ICD-9-CM
300.89	Other somatoform disorders	Diagnosis	ICD-9-CM
300.9	Unspecified nonpsychotic mental disorder	Diagnosis	ICD-9-CM
308.0	Predominant disturbance of emotions	Diagnosis	ICD-9-CM
308.1	Predominant disturbance of consciousness as reaction to stress	Diagnosis	ICD-9-CM
308.2	Predominant psychomotor disturbance as reaction to stress	Diagnosis	ICD-9-CM
308.3	Other acute reactions to stress	Diagnosis	ICD-9-CM
308.4	Mixed disorders as reaction to stress	Diagnosis	ICD-9-CM
308.9	Unspecified acute reaction to stress	Diagnosis	ICD-9-CM
313.0	Overanxious disorder specific to childhood and adolescence	Diagnosis	ICD-9-CM
313.1	Misery and unhappiness disorder specific to childhood and adolescence	Diagnosis	ICD-9-CM
313.21	Shyness disorder of childhood	Diagnosis	ICD-9-CM
313.22	Introverted disorder of childhood	Diagnosis	ICD-9-CM
313.3	Relationship problems specific to childhood and adolescence	Diagnosis	ICD-9-CM
313.82	Identity disorder of childhood or adolescence	Diagnosis	ICD-9-CM
313.83	Academic underachievement disorder of childhood or adolescence	Diagnosis	ICD-9-CM
F06.4	Anxiety disorder due to known physiological condition	Diagnosis	ICD-10-CM
F40.00	Agoraphobia, unspecified	Diagnosis	ICD-10-CM
F40.01	Agoraphobia with panic disorder	Diagnosis	ICD-10-CM
F40.02	Agoraphobia without panic disorder	Diagnosis	ICD-10-CM
F40.10	Social phobia, unspecified	Diagnosis	ICD-10-CM
F40.11	Social phobia, generalized	Diagnosis	ICD-10-CM
F40.210	Arachnophobia	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
F40.218	Other animal type phobia	Diagnosis	ICD-10-CM
F40.220	Fear of thunderstorms	Diagnosis	ICD-10-CM
F40.228	Other natural environment type phobia	Diagnosis	ICD-10-CM
F40.230	Fear of blood	Diagnosis	ICD-10-CM
F40.231	Fear of injections and transfusions	Diagnosis	ICD-10-CM
F40.232	Fear of other medical care	Diagnosis	ICD-10-CM
F40.233	Fear of injury	Diagnosis	ICD-10-CM
F40.240	Claustrophobia	Diagnosis	ICD-10-CM
F40.241	Acrophobia	Diagnosis	ICD-10-CM
F40.242	Fear of bridges	Diagnosis	ICD-10-CM
F40.243	Fear of flying	Diagnosis	ICD-10-CM
F40.248	Other situational type phobia	Diagnosis	ICD-10-CM
F40.290	Androphobia	Diagnosis	ICD-10-CM
F40.291	Gynephobia	Diagnosis	ICD-10-CM
F40.298	Other specified phobia	Diagnosis	ICD-10-CM
F40.8	Other phobic anxiety disorders	Diagnosis	ICD-10-CM
F40.9	Phobic anxiety disorder, unspecified	Diagnosis	ICD-10-CM
F41.0	Panic disorder [episodic paroxysmal anxiety]	Diagnosis	ICD-10-CM
F41.1	Generalized anxiety disorder	Diagnosis	ICD-10-CM
F41.3	Other mixed anxiety disorders	Diagnosis	ICD-10-CM
F41.8	Other specified anxiety disorders	Diagnosis	ICD-10-CM
F41.9	Anxiety disorder, unspecified	Diagnosis	ICD-10-CM
F42	Obsessive-compulsive disorder	Diagnosis	ICD-10-CM
F42.2	Mixed obsessional thoughts and acts	Diagnosis	ICD-10-CM
F42.3	Hoarding disorder	Diagnosis	ICD-10-CM
F42.4	Excoriation (skin-picking) disorder	Diagnosis	ICD-10-CM
F43.0	Acute stress reaction	Diagnosis	ICD-10-CM
F44.9	Dissociative and conversion disorder, unspecified	Diagnosis	ICD-10-CM
F45.8	Other somatoform disorders	Diagnosis	ICD-10-CM
F48.8	Other specified nonpsychotic mental disorders	Diagnosis	ICD-10-CM
F48.9	Nonpsychotic mental disorder, unspecified	Diagnosis	ICD-10-CM
F93.8	Other childhood emotional disorders	Diagnosis	ICD-10-CM
F99	Mental disorder, not otherwise specified	Diagnosis	ICD-10-CM
R45.2	Unhappiness	Diagnosis	ICD-10-CM
R45.5	Hostility	Diagnosis	ICD-10-CM
R45.6	Violent behavior	Diagnosis	ICD-10-CM
R45.7	State of emotional shock and stress, unspecified	Diagnosis	ICD-10-CM
Behavioral Disorder			
300.11	Conversion disorder	Diagnosis	ICD-9-CM
300.12	Dissociative amnesia	Diagnosis	ICD-9-CM
300.13	Dissociative fugue	Diagnosis	ICD-9-CM
300.14	Dissociative identity disorder	Diagnosis	ICD-9-CM
300.15	Dissociative disorder or reaction, unspecified	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
300.16	Factitious disorder with predominantly psychological signs and symptoms	Diagnosis	ICD-9-CM
300.19	Other and unspecified factitious illness	Diagnosis	ICD-9-CM
300.6	Depersonalization disorder	Diagnosis	ICD-9-CM
300.7	Hypochondriasis	Diagnosis	ICD-9-CM
300.81	Somatization disorder	Diagnosis	ICD-9-CM
300.82	Undifferentiated somatoform disorder	Diagnosis	ICD-9-CM
301.10	Affective personality disorder, unspecified	Diagnosis	ICD-9-CM
302.1	Zoophilia	Diagnosis	ICD-9-CM
302.2	Pedophilia	Diagnosis	ICD-9-CM
302.3	Transvestic fetishism	Diagnosis	ICD-9-CM
302.4	Exhibitionism	Diagnosis	ICD-9-CM
302.50	Trans-sexualism with unspecified sexual history	Diagnosis	ICD-9-CM
302.51	Trans-sexualism with asexual history	Diagnosis	ICD-9-CM
302.52	Trans-sexualism with homosexual history	Diagnosis	ICD-9-CM
302.53	Trans-sexualism with heterosexual history	Diagnosis	ICD-9-CM
302.6	Gender identity disorder in children	Diagnosis	ICD-9-CM
302.70	Psychosexual dysfunction, unspecified	Diagnosis	ICD-9-CM
302.71	Hypoactive sexual desire disorder	Diagnosis	ICD-9-CM
302.72	Psychosexual dysfunction with inhibited sexual excitement	Diagnosis	ICD-9-CM
302.73	Female orgasmic disorder	Diagnosis	ICD-9-CM
302.74	Male orgasmic disorder	Diagnosis	ICD-9-CM
302.75	Premature ejaculation	Diagnosis	ICD-9-CM
302.76	Dyspareunia, psychogenic	Diagnosis	ICD-9-CM
302.79	Psychosexual dysfunction with other specified psychosexual dysfunctions	Diagnosis	ICD-9-CM
302.81	Fetishism	Diagnosis	ICD-9-CM
302.82	Voyeurism	Diagnosis	ICD-9-CM
302.83	Sexual masochism	Diagnosis	ICD-9-CM
302.84	Sexual sadism	Diagnosis	ICD-9-CM
302.85	Gender identity disorder in adolescents or adults	Diagnosis	ICD-9-CM
302.89	Other specified psychosexual disorder	Diagnosis	ICD-9-CM
302.9	Unspecified psychosexual disorder	Diagnosis	ICD-9-CM
306.0	Musculoskeletal malfunction arising from mental factors	Diagnosis	ICD-9-CM
306.1	Respiratory malfunction arising from mental factors	Diagnosis	ICD-9-CM
306.2	Cardiovascular malfunction arising from mental factors	Diagnosis	ICD-9-CM
306.3	Skin malfunction arising from mental factors	Diagnosis	ICD-9-CM
306.4	Gastrointestinal malfunction arising from mental factors	Diagnosis	ICD-9-CM
306.50	Psychogenic genitourinary malfunction, unspecified	Diagnosis	ICD-9-CM
306.51	Psychogenic vaginismus	Diagnosis	ICD-9-CM
306.52	Psychogenic dysmenorrhea	Diagnosis	ICD-9-CM
306.53	Psychogenic dysuria	Diagnosis	ICD-9-CM
306.59	Other genitourinary malfunction arising from mental factors	Diagnosis	ICD-9-CM
306.6	Endocrine malfunction arising from mental factors	Diagnosis	ICD-9-CM
306.7	Malfunction of organs of special sense arising from mental factors	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
306.8	Other specified psychophysiological malfunction	Diagnosis	ICD-9-CM
306.9	Unspecified psychophysiological malfunction	Diagnosis	ICD-9-CM
307.1	Anorexia nervosa	Diagnosis	ICD-9-CM
307.50	Eating disorder, unspecified	Diagnosis	ICD-9-CM
307.51	Bulimia nervosa	Diagnosis	ICD-9-CM
307.52	Pica	Diagnosis	ICD-9-CM
307.53	Rumination disorder	Diagnosis	ICD-9-CM
307.54	Psychogenic vomiting	Diagnosis	ICD-9-CM
307.59	Other disorder of eating	Diagnosis	ICD-9-CM
307.80	Psychogenic pain, site unspecified	Diagnosis	ICD-9-CM
307.81	Tension headache	Diagnosis	ICD-9-CM
307.89	Other pain disorder related to psychological factors	Diagnosis	ICD-9-CM
309.22	Emancipation disorder of adolescence and early adult life	Diagnosis	ICD-9-CM
309.23	Specific academic or work inhibition as adjustment reaction	Diagnosis	ICD-9-CM
309.24	Adjustment disorder with anxiety	Diagnosis	ICD-9-CM
309.28	Adjustment disorder with mixed anxiety and depressed mood	Diagnosis	ICD-9-CM
309.29	Other adjustment reaction with predominant disturbance of other emotions	Diagnosis	ICD-9-CM
309.3	Adjustment disorder with disturbance of conduct	Diagnosis	ICD-9-CM
309.4	Adjustment disorder with mixed disturbance of emotions and conduct	Diagnosis	ICD-9-CM
309.82	Adjustment reaction with physical symptoms	Diagnosis	ICD-9-CM
309.83	Adjustment reaction with withdrawal	Diagnosis	ICD-9-CM
309.89	Other specified adjustment reaction	Diagnosis	ICD-9-CM
309.9	Unspecified adjustment reaction	Diagnosis	ICD-9-CM
310.1	Personality change due to conditions classified elsewhere	Diagnosis	ICD-9-CM
312.32	Kleptomania	Diagnosis	ICD-9-CM
312.81	Conduct disorder, childhood onset type	Diagnosis	ICD-9-CM
312.82	Conduct disorder, adolescent onset type	Diagnosis	ICD-9-CM
313.81	Oppositional defiant disorder	Diagnosis	ICD-9-CM
316	Psychic factors associated with diseases classified elsewhere	Diagnosis	ICD-9-CM
E952.8	Suicide and self-inflicted poisoning by other specified gases and vapors	Diagnosis	ICD-9-CM
E952.9	Suicide and self-inflicted poisoning by unspecified gases and vapors	Diagnosis	ICD-9-CM
E953.0	Suicide and self-inflicted injury by hanging	Diagnosis	ICD-9-CM
E953.1	Suicide and self-inflicted injury by suffocation by plastic bag	Diagnosis	ICD-9-CM
E953.8	Suicide and self-inflicted injury by other specified means	Diagnosis	ICD-9-CM
E953.9	Suicide and self-inflicted injury by unspecified means	Diagnosis	ICD-9-CM
E955.1	Suicide and self-inflicted injury by shotgun	Diagnosis	ICD-9-CM
E955.2	Suicide and self-inflicted injury by hunting rifle	Diagnosis	ICD-9-CM
E955.3	Suicide and self-inflicted injury by military firearms	Diagnosis	ICD-9-CM
E955.4	Suicide and self-inflicted injury by other and unspecified firearm	Diagnosis	ICD-9-CM
E955.5	Suicide and self-inflicted injury by explosives	Diagnosis	ICD-9-CM
E955.6	Suicide and self-inflicted injury by air gun	Diagnosis	ICD-9-CM
E955.7	Suicide and self-inflicted injury by paintball gun	Diagnosis	ICD-9-CM
E955.9	Suicide and self-inflicted injury by firearms and explosives, unspecified	Diagnosis	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
E957.0	Suicide and self-inflicted injuries by jumping from residential premises	Diagnosis	ICD-9-CM
E957.1	Suicide and self-inflicted injuries by jumping from other man-made structures	Diagnosis	ICD-9-CM
E957.2	Suicide and self-inflicted injuries by jumping from natural sites	Diagnosis	ICD-9-CM
E957.9	Suicide and self-inflicted injuries by jumping from unspecified site	Diagnosis	ICD-9-CM
E958.0	Suicide and self-inflicted injury by jumping or lying before moving object	Diagnosis	ICD-9-CM
E958.1	Suicide and self-inflicted injury by burns, fire	Diagnosis	ICD-9-CM
E958.2	Suicide and self-inflicted injury by scald	Diagnosis	ICD-9-CM
E958.3	Suicide and self-inflicted injury by extremes of cold	Diagnosis	ICD-9-CM
E958.4	Suicide and self-inflicted injury by electrocution	Diagnosis	ICD-9-CM
E958.5	Suicide and self-inflicted injury by crashing of motor vehicle	Diagnosis	ICD-9-CM
E958.6	Suicide and self-inflicted injury by crashing of aircraft	Diagnosis	ICD-9-CM
E958.7	Suicide and self-inflicted injury by caustic substances, except poisoning	Diagnosis	ICD-9-CM
E958.8	Suicide and self-inflicted injury by other specified means	Diagnosis	ICD-9-CM
E958.9	Suicide and self-inflicted injury by unspecified means	Diagnosis	ICD-9-CM
E959	Late effects of self-inflicted injury	Diagnosis	ICD-9-CM
F22	Delusional disorders	Diagnosis	ICD-10-CM
F23	Brief psychotic disorder	Diagnosis	ICD-10-CM
F32.8	Other depressive episodes	Diagnosis	ICD-10-CM
F32.81	Premenstrual dysphoric disorder	Diagnosis	ICD-10-CM
F34.8	Other persistent mood [affective] disorders	Diagnosis	ICD-10-CM
F43.20	Adjustment disorder, unspecified	Diagnosis	ICD-10-CM
F43.22	Adjustment disorder with anxiety	Diagnosis	ICD-10-CM
F43.23	Adjustment disorder with mixed anxiety and depressed mood	Diagnosis	ICD-10-CM
F43.24	Adjustment disorder with disturbance of conduct	Diagnosis	ICD-10-CM
F43.25	Adjustment disorder with mixed disturbance of emotions and conduct	Diagnosis	ICD-10-CM
F43.29	Adjustment disorder with other symptoms	Diagnosis	ICD-10-CM
F43.8	Other reactions to severe stress	Diagnosis	ICD-10-CM
F43.9	Reaction to severe stress, unspecified	Diagnosis	ICD-10-CM
F44.0	Dissociative amnesia	Diagnosis	ICD-10-CM
F44.1	Dissociative fugue	Diagnosis	ICD-10-CM
F44.2	Dissociative stupor	Diagnosis	ICD-10-CM
F44.4	Conversion disorder with motor symptom or deficit	Diagnosis	ICD-10-CM
F44.5	Conversion disorder with seizures or convulsions	Diagnosis	ICD-10-CM
F44.6	Conversion disorder with sensory symptom or deficit	Diagnosis	ICD-10-CM
F44.7	Conversion disorder with mixed symptom presentation	Diagnosis	ICD-10-CM
F44.81	Dissociative identity disorder	Diagnosis	ICD-10-CM
F45.0	Somatization disorder	Diagnosis	ICD-10-CM
F45.1	Undifferentiated somatoform disorder	Diagnosis	ICD-10-CM
F45.20	Hypochondriacal disorder, unspecified	Diagnosis	ICD-10-CM
F45.21	Hypochondriasis	Diagnosis	ICD-10-CM
F45.22	Body dysmorphic disorder	Diagnosis	ICD-10-CM
F45.29	Other hypochondriacal disorders	Diagnosis	ICD-10-CM
F45.41	Pain disorder exclusively related to psychological factors	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
F45.42	Pain disorder with related psychological factors	Diagnosis	ICD-10-CM
F45.9	Somatoform disorder, unspecified	Diagnosis	ICD-10-CM
F48.1	Depersonalization-derealization syndrome	Diagnosis	ICD-10-CM
F50.00	Anorexia nervosa, unspecified	Diagnosis	ICD-10-CM
F50.01	Anorexia nervosa, restricting type	Diagnosis	ICD-10-CM
F50.02	Anorexia nervosa, binge eating/purging type	Diagnosis	ICD-10-CM
F50.2	Bulimia nervosa	Diagnosis	ICD-10-CM
F50.8	Other eating disorders	Diagnosis	ICD-10-CM
F50.81	Binge eating disorder	Diagnosis	ICD-10-CM
F50.82	Avoidant/restrictive food intake disorder	Diagnosis	ICD-10-CM
F50.89	Other specified eating disorder	Diagnosis	ICD-10-CM
F50.9	Eating disorder, unspecified	Diagnosis	ICD-10-CM
F52.0	Hypoactive sexual desire disorder	Diagnosis	ICD-10-CM
F52.1	Sexual aversion disorder	Diagnosis	ICD-10-CM
F52.21	Male erectile disorder	Diagnosis	ICD-10-CM
F52.22	Female sexual arousal disorder	Diagnosis	ICD-10-CM
F52.31	Female orgasmic disorder	Diagnosis	ICD-10-CM
F52.32	Male orgasmic disorder	Diagnosis	ICD-10-CM
F52.4	Premature ejaculation	Diagnosis	ICD-10-CM
F52.5	Vaginismus not due to a substance or known physiological condition	Diagnosis	ICD-10-CM
F52.6	Dyspareunia not due to a substance or known physiological condition	Diagnosis	ICD-10-CM
F52.8	Other sexual dysfunction not due to a substance or known physiological condition	Diagnosis	ICD-10-CM
F52.9	Unspecified sexual dysfunction not due to a substance or known physiological condition	Diagnosis	ICD-10-CM
F53.0	Postpartum depression	Diagnosis	ICD-10-CM
F53.1	Puerperal psychosis	Diagnosis	ICD-10-CM
F54	Psychological and behavioral factors associated with disorders or diseases classified elsewhere	Diagnosis	ICD-10-CM
F59	Unspecified behavioral syndromes associated with physiological disturbances and physical factors	Diagnosis	ICD-10-CM
F60.1	Schizoid personality disorder	Diagnosis	ICD-10-CM
F60.7	Dependent personality disorder	Diagnosis	ICD-10-CM
F60.9	Personality disorder, unspecified	Diagnosis	ICD-10-CM
F63.0	Pathological gambling	Diagnosis	ICD-10-CM
F63.2	Kleptomania	Diagnosis	ICD-10-CM
F63.3	Trichotillomania	Diagnosis	ICD-10-CM
F63.9	Impulse disorder, unspecified	Diagnosis	ICD-10-CM
F64.0	Transsexualism	Diagnosis	ICD-10-CM
F64.1	Dual role transvestism	Diagnosis	ICD-10-CM
F64.8	Other gender identity disorders	Diagnosis	ICD-10-CM
F64.9	Gender identity disorder, unspecified	Diagnosis	ICD-10-CM
F65.0	Fetishism	Diagnosis	ICD-10-CM
F65.1	Transvestic fetishism	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
F65.2	Exhibitionism	Diagnosis	ICD-10-CM
F65.3	Voyeurism	Diagnosis	ICD-10-CM
F65.4	Pedophilia	Diagnosis	ICD-10-CM
F65.50	Sadomasochism, unspecified	Diagnosis	ICD-10-CM
F65.51	Sexual masochism	Diagnosis	ICD-10-CM
F65.52	Sexual sadism	Diagnosis	ICD-10-CM
F65.81	Frotteurism	Diagnosis	ICD-10-CM
F65.89	Other paraphilias	Diagnosis	ICD-10-CM
F65.9	Paraphilia, unspecified	Diagnosis	ICD-10-CM
F68.10	Factitious disorder imposed on self, unspecified	Diagnosis	ICD-10-CM
F68.11	Factitious disorder imposed on self, with predominantly psychological signs and symptoms	Diagnosis	ICD-10-CM
F68.12	Factitious disorder imposed on self, with predominantly physical signs and symptoms	Diagnosis	ICD-10-CM
F68.13	Factitious disorder imposed on self, with combined psychological and physical signs and symptoms	Diagnosis	ICD-10-CM
F68.8	Other specified disorders of adult personality and behavior	Diagnosis	ICD-10-CM
F68.A	Factitious disorder imposed on another	Diagnosis	ICD-10-CM
F69	Unspecified disorder of adult personality and behavior	Diagnosis	ICD-10-CM
F91.0	Conduct disorder confined to family context	Diagnosis	ICD-10-CM
F91.1	Conduct disorder, childhood-onset type	Diagnosis	ICD-10-CM
F91.2	Conduct disorder, adolescent-onset type	Diagnosis	ICD-10-CM
F91.3	Oppositional defiant disorder	Diagnosis	ICD-10-CM
F91.8	Other conduct disorders	Diagnosis	ICD-10-CM
F91.9	Conduct disorder, unspecified	Diagnosis	ICD-10-CM
O90.6	Postpartum mood disturbance	Diagnosis	ICD-10-CM
R37	Sexual dysfunction, unspecified	Diagnosis	ICD-10-CM
R45.3	Demoralization and apathy	Diagnosis	ICD-10-CM
R45.4	Irritability and anger	Diagnosis	ICD-10-CM
R45.81	Low self-esteem	Diagnosis	ICD-10-CM
R45.82	Worries	Diagnosis	ICD-10-CM
R45.83	Excessive crying of child, adolescent or adult	Diagnosis	ICD-10-CM
R45.84	Anhedonia	Diagnosis	ICD-10-CM
R45.850	Homicidal ideations	Diagnosis	ICD-10-CM
R45.851	Suicidal ideations	Diagnosis	ICD-10-CM
R45.86	Emotional lability	Diagnosis	ICD-10-CM
R45.89	Other symptoms and signs involving emotional state	Diagnosis	ICD-10-CM
R46.0	Very low level of personal hygiene	Diagnosis	ICD-10-CM
R46.1	Bizarre personal appearance	Diagnosis	ICD-10-CM
R46.2	Strange and inexplicable behavior	Diagnosis	ICD-10-CM
R46.3	Overactivity	Diagnosis	ICD-10-CM
R46.4	Slowness and poor responsiveness	Diagnosis	ICD-10-CM
R46.5	Suspiciousness and marked evasiveness	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
R46.6	Undue concern and preoccupation with stressful events	Diagnosis	ICD-10-CM
R46.7	Verbosity and circumstantial detail obscuring reason for contact	Diagnosis	ICD-10-CM
R46.81	Obsessive-compulsive behavior	Diagnosis	ICD-10-CM
R46.89	Other symptoms and signs involving appearance and behavior	Diagnosis	ICD-10-CM
T14.91	Suicide attempt	Diagnosis	ICD-10-CM
T14.91XA	Suicide attempt, initial encounter	Diagnosis	ICD-10-CM
T14.91XD	Suicide attempt, subsequent encounter	Diagnosis	ICD-10-CM
T14.91XS	Suicide attempt, sequela	Diagnosis	ICD-10-CM
T36.0X2D	Poisoning by penicillins, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.0X2S	Poisoning by penicillins, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.1X2D	Poisoning by cephalosporins and other beta-lactam antibiotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.1X2S	Poisoning by cephalosporins and other beta-lactam antibiotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.2X2D	Poisoning by chloramphenicol group, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.2X2S	Poisoning by chloramphenicol group, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.3X2D	Poisoning by macrolides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.3X2S	Poisoning by macrolides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.4X2D	Poisoning by tetracyclines, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.4X2S	Poisoning by tetracyclines, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.5X2D	Poisoning by aminoglycosides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.5X2S	Poisoning by aminoglycosides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.6X2D	Poisoning by rifampicins, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.6X2S	Poisoning by rifampicins, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.7X2D	Poisoning by antifungal antibiotics, systemically used, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.7X2S	Poisoning by antifungal antibiotics, systemically used, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.8X2D	Poisoning by other systemic antibiotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.8X2S	Poisoning by other systemic antibiotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T36.92XD	Poisoning by unspecified systemic antibiotic, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T36.92XS	Poisoning by unspecified systemic antibiotic, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.0X2D	Poisoning by sulfonamides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.0X2S	Poisoning by sulfonamides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.1X2D	Poisoning by antimycobacterial drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.1X2S	Poisoning by antimycobacterial drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.2X2D	Poisoning by antimalarials and drugs acting on other blood protozoa, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.2X2S	Poisoning by antimalarials and drugs acting on other blood protozoa, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.3X2D	Poisoning by other antiprotozoal drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T37.3X2S	Poisoning by other antiprotozoal drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.4X2D	Poisoning by anthelmintics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.4X2S	Poisoning by anthelmintics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.5X2D	Poisoning by antiviral drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.5X2S	Poisoning by antiviral drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.8X2D	Poisoning by other specified systemic anti-infectives and antiparasitics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.8X2S	Poisoning by other specified systemic anti-infectives and antiparasitics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T37.92XD	Poisoning by unspecified systemic anti-infective and antiparasitics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T37.92XS	Poisoning by unspecified systemic anti-infective and antiparasitics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.0X2D	Poisoning by glucocorticoids and synthetic analogues, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.0X2S	Poisoning by glucocorticoids and synthetic analogues, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.1X2D	Poisoning by thyroid hormones and substitutes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.1X2S	Poisoning by thyroid hormones and substitutes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.2X2D	Poisoning by antithyroid drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.2X2S	Poisoning by antithyroid drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.3X2D	Poisoning by insulin and oral hypoglycemic [antidiabetic] drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.3X2S	Poisoning by insulin and oral hypoglycemic [antidiabetic] drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.4X2D	Poisoning by oral contraceptives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.4X2S	Poisoning by oral contraceptives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.5X2D	Poisoning by other estrogens and progestogens, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.5X2S	Poisoning by other estrogens and progestogens, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.6X2D	Poisoning by antigonadotrophins, antiestrogens, antiandrogens, not elsewhere classified, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.6X2S	Poisoning by antigonadotrophins, antiestrogens, antiandrogens, not elsewhere classified, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.7X2D	Poisoning by androgens and anabolic congeners, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.7X2S	Poisoning by androgens and anabolic congeners, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.802D	Poisoning by unspecified hormones and synthetic substitutes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.802S	Poisoning by unspecified hormones and synthetic substitutes, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T38.812D	Poisoning by anterior pituitary [adenohypophyseal] hormones, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.812S	Poisoning by anterior pituitary [adenohypophyseal] hormones, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.892D	Poisoning by other hormones and synthetic substitutes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.892S	Poisoning by other hormones and synthetic substitutes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.902D	Poisoning by unspecified hormone antagonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.902S	Poisoning by unspecified hormone antagonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T38.992D	Poisoning by other hormone antagonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T38.992S	Poisoning by other hormone antagonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.012D	Poisoning by aspirin, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.012S	Poisoning by aspirin, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.092D	Poisoning by salicylates, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.092S	Poisoning by salicylates, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.1X2D	Poisoning by 4-Aminophenol derivatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.1X2S	Poisoning by 4-Aminophenol derivatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.2X2D	Poisoning by pyrazolone derivatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.2X2S	Poisoning by pyrazolone derivatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.312D	Poisoning by propionic acid derivatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.312S	Poisoning by propionic acid derivatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.392D	Poisoning by other nonsteroidal anti-inflammatory drugs [NSAID], intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.392S	Poisoning by other nonsteroidal anti-inflammatory drugs [NSAID], intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.4X2D	Poisoning by antirheumatics, not elsewhere classified, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.4X2S	Poisoning by antirheumatics, not elsewhere classified, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.8X2D	Poisoning by other nonopioid analgesics and antipyretics, not elsewhere classified, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.8X2S	Poisoning by other nonopioid analgesics and antipyretics, not elsewhere classified, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T39.92XD	Poisoning by unspecified nonopioid analgesic, antipyretic and antirheumatic, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T39.92XS	Poisoning by unspecified nonopioid analgesic, antipyretic and antirheumatic, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.0X2D	Poisoning by opium, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T40.0X2S	Poisoning by opium, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.1X2D	Poisoning by heroin, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.1X2S	Poisoning by heroin, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.2X2D	Poisoning by other opioids, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.2X2S	Poisoning by other opioids, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.3X2D	Poisoning by methadone, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.3X2S	Poisoning by methadone, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.4X2D	Poisoning by other synthetic narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.4X2S	Poisoning by other synthetic narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.5X2A	Poisoning by cocaine, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.5X2D	Poisoning by cocaine, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.5X2S	Poisoning by cocaine, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.602D	Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.602S	Poisoning by unspecified narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.692D	Poisoning by other narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.692S	Poisoning by other narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.7X2D	Poisoning by cannabis (derivatives), intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.7X2S	Poisoning by cannabis (derivatives), intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.8X2D	Poisoning by lysergide [LSD], intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.8X2S	Poisoning by lysergide [LSD], intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.902D	Poisoning by unspecified psychodysleptics [hallucinogens], intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.902S	Poisoning by unspecified psychodysleptics [hallucinogens], intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.992D	Poisoning by other psychodysleptics [hallucinogens], intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.992S	Poisoning by other psychodysleptics [hallucinogens], intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.0X2D	Poisoning by inhaled anesthetics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.0X2S	Poisoning by inhaled anesthetics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.1X2D	Poisoning by intravenous anesthetics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.1X2S	Poisoning by intravenous anesthetics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.202D	Poisoning by unspecified general anesthetics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.202S	Poisoning by unspecified general anesthetics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.292D	Poisoning by other general anesthetics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.292S	Poisoning by other general anesthetics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.3X2D	Poisoning by local anesthetics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.3X2S	Poisoning by local anesthetics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.42XD	Poisoning by unspecified anesthetic, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.42XS	Poisoning by unspecified anesthetic, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T41.5X2A	Poisoning by therapeutic gases, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.5X2D	Poisoning by therapeutic gases, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T41.5X2S	Poisoning by therapeutic gases, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T42.0X2D	Poisoning by hydantoin derivatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.0X2S	Poisoning by hydantoin derivatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.1X2D	Poisoning by iminostilbenes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.1X2S	Poisoning by iminostilbenes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.2X2D	Poisoning by succinimides and oxazolidinediones, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.2X2S	Poisoning by succinimides and oxazolidinediones, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.3X2D	Poisoning by barbiturates, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.3X2S	Poisoning by barbiturates, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.4X2D	Poisoning by benzodiazepines, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.4X2S	Poisoning by benzodiazepines, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.5X2D	Poisoning by mixed antiepileptics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.5X2S	Poisoning by mixed antiepileptics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.6X2D	Poisoning by other antiepileptic and sedative-hypnotic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.6X2S	Poisoning by other antiepileptic and sedative-hypnotic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.72XD	Poisoning by unspecified antiepileptic and sedative-hypnotic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.72XS	Poisoning by unspecified antiepileptic and sedative-hypnotic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T42.8X2D	Poisoning by antiparkinsonism drugs and other central muscle-tone depressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T42.8X2S	Poisoning by antiparkinsonism drugs and other central muscle-tone depressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.012D	Poisoning by tricyclic antidepressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.012S	Poisoning by tricyclic antidepressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.022D	Poisoning by tetracyclic antidepressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.022S	Poisoning by tetracyclic antidepressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.1X2D	Poisoning by monoamine-oxidase-inhibitor antidepressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.1X2S	Poisoning by monoamine-oxidase-inhibitor antidepressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.202D	Poisoning by unspecified antidepressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.202S	Poisoning by unspecified antidepressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.212D	Poisoning by selective serotonin and norepinephrine reuptake inhibitors, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.212S	Poisoning by selective serotonin and norepinephrine reuptake inhibitors, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.222D	Poisoning by selective serotonin reuptake inhibitors, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T43.222S	Poisoning by selective serotonin reuptake inhibitors, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.292D	Poisoning by other antidepressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.292S	Poisoning by other antidepressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.3X2D	Poisoning by phenothiazine antipsychotics and neuroleptics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.3X2S	Poisoning by phenothiazine antipsychotics and neuroleptics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.4X2D	Poisoning by butyrophenone and thiothixene neuroleptics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.4X2S	Poisoning by butyrophenone and thiothixene neuroleptics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.502D	Poisoning by unspecified antipsychotics and neuroleptics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.502S	Poisoning by unspecified antipsychotics and neuroleptics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.592D	Poisoning by other antipsychotics and neuroleptics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.592S	Poisoning by other antipsychotics and neuroleptics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.602D	Poisoning by unspecified psychostimulants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.602S	Poisoning by unspecified psychostimulants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.612D	Poisoning by caffeine, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.612S	Poisoning by caffeine, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.622D	Poisoning by amphetamines, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.622S	Poisoning by amphetamines, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.632D	Poisoning by methylphenidate, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.632S	Poisoning by methylphenidate, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.692D	Poisoning by other psychostimulants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.692S	Poisoning by other psychostimulants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.8X2D	Poisoning by other psychotropic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.8X2S	Poisoning by other psychotropic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T43.92XD	Poisoning by unspecified psychotropic drug, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T43.92XS	Poisoning by unspecified psychotropic drug, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.0X2A	Poisoning by anticholinesterase agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.0X2D	Poisoning by anticholinesterase agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.0X2S	Poisoning by anticholinesterase agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.1X2A	Poisoning by other parasympathomimetics [cholinergics], intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.1X2D	Poisoning by other parasympathomimetics [cholinergics], intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.1X2S	Poisoning by other parasympathomimetics [cholinergics], intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T44.2X2A	Poisoning by ganglionic blocking drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.2X2D	Poisoning by ganglionic blocking drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.2X2S	Poisoning by ganglionic blocking drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.3X2A	Poisoning by other parasympatholytics [anticholinergics and antimuscarinics] and spasmolytics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.3X2D	Poisoning by other parasympatholytics [anticholinergics and antimuscarinics] and spasmolytics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.3X2S	Poisoning by other parasympatholytics [anticholinergics and antimuscarinics] and spasmolytics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.4X2A	Poisoning by predominantly alpha-adrenoreceptor agonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.4X2D	Poisoning by predominantly alpha-adrenoreceptor agonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.4X2S	Poisoning by predominantly alpha-adrenoreceptor agonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.5X2A	Poisoning by predominantly beta-adrenoreceptor agonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.5X2D	Poisoning by predominantly beta-adrenoreceptor agonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.5X2S	Poisoning by predominantly beta-adrenoreceptor agonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.6X2A	Poisoning by alpha-adrenoreceptor antagonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.6X2D	Poisoning by alpha-adrenoreceptor antagonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.6X2S	Poisoning by alpha-adrenoreceptor antagonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.7X2A	Poisoning by beta-adrenoreceptor antagonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.7X2D	Poisoning by beta-adrenoreceptor antagonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.7X2S	Poisoning by beta-adrenoreceptor antagonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.8X2A	Poisoning by centrally-acting and adrenergic-neuron-blocking agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.8X2D	Poisoning by centrally-acting and adrenergic-neuron-blocking agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.8X2S	Poisoning by centrally-acting and adrenergic-neuron-blocking agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T44.902A	Poisoning by unspecified drugs primarily affecting the autonomic nervous system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.902D	Poisoning by unspecified drugs primarily affecting the autonomic nervous system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.902S	Poisoning by unspecified drugs primarily affecting the autonomic nervous system, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T44.992A	Poisoning by other drug primarily affecting the autonomic nervous system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T44.992D	Poisoning by other drug primarily affecting the autonomic nervous system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T44.992S	Poisoning by other drug primarily affecting the autonomic nervous system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.0X2D	Poisoning by antiallergic and antiemetic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.0X2S	Poisoning by antiallergic and antiemetic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.1X2D	Poisoning by antineoplastic and immunosuppressive drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.1X2S	Poisoning by antineoplastic and immunosuppressive drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.2X2D	Poisoning by vitamins, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.2X2S	Poisoning by vitamins, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.3X2D	Poisoning by enzymes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.3X2S	Poisoning by enzymes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.4X2D	Poisoning by iron and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.4X2S	Poisoning by iron and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.512D	Poisoning by anticoagulants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.512S	Poisoning by anticoagulants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.522D	Poisoning by antithrombotic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.522S	Poisoning by antithrombotic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.602D	Poisoning by unspecified fibrinolysis-affecting drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.602S	Poisoning by unspecified fibrinolysis-affecting drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.612D	Poisoning by thrombolytic drug, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.612S	Poisoning by thrombolytic drug, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.622D	Poisoning by hemostatic drug, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.622S	Poisoning by hemostatic drug, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.692D	Poisoning by other fibrinolysis-affecting drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.692S	Poisoning by other fibrinolysis-affecting drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.7X2D	Poisoning by anticoagulant antagonists, vitamin K and other coagulants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.7X2S	Poisoning by anticoagulant antagonists, vitamin K and other coagulants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.8X2D	Poisoning by other primarily systemic and hematological agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T45.8X2S	Poisoning by other primarily systemic and hematological agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T45.92XD	Poisoning by unspecified primarily systemic and hematological agent, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T45.92XS	Poisoning by unspecified primarily systemic and hematological agent, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.0X2A	Poisoning by cardiac-stimulant glycosides and drugs of similar action, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.0X2D	Poisoning by cardiac-stimulant glycosides and drugs of similar action, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.0X2S	Poisoning by cardiac-stimulant glycosides and drugs of similar action, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.1X2A	Poisoning by calcium-channel blockers, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.1X2D	Poisoning by calcium-channel blockers, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.1X2S	Poisoning by calcium-channel blockers, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.2X2A	Poisoning by other antidysrhythmic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.2X2D	Poisoning by other antidysrhythmic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.2X2S	Poisoning by other antidysrhythmic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.3X2A	Poisoning by coronary vasodilators, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.3X2D	Poisoning by coronary vasodilators, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.3X2S	Poisoning by coronary vasodilators, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.4X2A	Poisoning by angiotensin-converting-enzyme inhibitors, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.4X2D	Poisoning by angiotensin-converting-enzyme inhibitors, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.4X2S	Poisoning by angiotensin-converting-enzyme inhibitors, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.5X2A	Poisoning by other antihypertensive drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.5X2D	Poisoning by other antihypertensive drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.5X2S	Poisoning by other antihypertensive drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.6X2A	Poisoning by antihyperlipidemic and antiarteriosclerotic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.6X2D	Poisoning by antihyperlipidemic and antiarteriosclerotic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.6X2S	Poisoning by antihyperlipidemic and antiarteriosclerotic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.7X2A	Poisoning by peripheral vasodilators, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.7X2D	Poisoning by peripheral vasodilators, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.7X2S	Poisoning by peripheral vasodilators, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.8X2A	Poisoning by antivaricose drugs, including sclerosing agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.8X2D	Poisoning by antivaricose drugs, including sclerosing agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.8X2S	Poisoning by antivaricose drugs, including sclerosing agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T46.902A	Poisoning by unspecified agents primarily affecting the cardiovascular system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.902D	Poisoning by unspecified agents primarily affecting the cardiovascular system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.902S	Poisoning by unspecified agents primarily affecting the cardiovascular system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T46.992A	Poisoning by other agents primarily affecting the cardiovascular system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T46.992D	Poisoning by other agents primarily affecting the cardiovascular system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T46.992S	Poisoning by other agents primarily affecting the cardiovascular system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.0X2A	Poisoning by histamine H2-receptor blockers, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.0X2D	Poisoning by histamine H2-receptor blockers, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.0X2S	Poisoning by histamine H2-receptor blockers, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.1X2A	Poisoning by other antacids and anti-gastric-secretion drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.1X2D	Poisoning by other antacids and anti-gastric-secretion drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.1X2S	Poisoning by other antacids and anti-gastric-secretion drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.2X2A	Poisoning by stimulant laxatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.2X2D	Poisoning by stimulant laxatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.2X2S	Poisoning by stimulant laxatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.3X2A	Poisoning by saline and osmotic laxatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.3X2D	Poisoning by saline and osmotic laxatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.3X2S	Poisoning by saline and osmotic laxatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.4X2A	Poisoning by other laxatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.4X2D	Poisoning by other laxatives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.4X2S	Poisoning by other laxatives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.5X2A	Poisoning by digestants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.5X2D	Poisoning by digestants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.5X2S	Poisoning by digestants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.6X2A	Poisoning by antidiarrheal drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.6X2D	Poisoning by antidiarrheal drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.6X2S	Poisoning by antidiarrheal drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.7X2A	Poisoning by emetics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.7X2D	Poisoning by emetics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.7X2S	Poisoning by emetics, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T47.8X2A	Poisoning by other agents primarily affecting gastrointestinal system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.8X2D	Poisoning by other agents primarily affecting gastrointestinal system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.8X2S	Poisoning by other agents primarily affecting gastrointestinal system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T47.92XA	Poisoning by unspecified agents primarily affecting the gastrointestinal system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T47.92XD	Poisoning by unspecified agents primarily affecting the gastrointestinal system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T47.92XS	Poisoning by unspecified agents primarily affecting the gastrointestinal system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.0X2A	Poisoning by oxytocic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.0X2D	Poisoning by oxytocic drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.0X2S	Poisoning by oxytocic drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.1X2A	Poisoning by skeletal muscle relaxants [neuromuscular blocking agents], intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.1X2D	Poisoning by skeletal muscle relaxants [neuromuscular blocking agents], intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.1X2S	Poisoning by skeletal muscle relaxants [neuromuscular blocking agents], intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.202A	Poisoning by unspecified drugs acting on muscles, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.202D	Poisoning by unspecified drugs acting on muscles, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.202S	Poisoning by unspecified drugs acting on muscles, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.292A	Poisoning by other drugs acting on muscles, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.292D	Poisoning by other drugs acting on muscles, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.292S	Poisoning by other drugs acting on muscles, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.3X2A	Poisoning by antitussives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.3X2D	Poisoning by antitussives, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.3X2S	Poisoning by antitussives, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.4X2A	Poisoning by expectorants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.4X2D	Poisoning by expectorants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.4X2S	Poisoning by expectorants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.5X2A	Poisoning by other anti-common-cold drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.5X2D	Poisoning by other anti-common-cold drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.5X2S	Poisoning by other anti-common-cold drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.6X2A	Poisoning by antiasthmatics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.6X2D	Poisoning by antiasthmatics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.6X2S	Poisoning by antiasthmatics, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T48.902A	Poisoning by unspecified agents primarily acting on the respiratory system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.902D	Poisoning by unspecified agents primarily acting on the respiratory system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.902S	Poisoning by unspecified agents primarily acting on the respiratory system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T48.992A	Poisoning by other agents primarily acting on the respiratory system, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T48.992D	Poisoning by other agents primarily acting on the respiratory system, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T48.992S	Poisoning by other agents primarily acting on the respiratory system, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.0X2A	Poisoning by local antifungal, anti-infective and anti-inflammatory drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.0X2D	Poisoning by local antifungal, anti-infective and anti-inflammatory drugs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.0X2S	Poisoning by local antifungal, anti-infective and anti-inflammatory drugs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.1X2A	Poisoning by antipruritics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.1X2D	Poisoning by antipruritics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.1X2S	Poisoning by antipruritics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.2X2A	Poisoning by local astringents and local detergents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.2X2D	Poisoning by local astringents and local detergents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.2X2S	Poisoning by local astringents and local detergents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.3X2A	Poisoning by emollients, demulcents and protectants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.3X2D	Poisoning by emollients, demulcents and protectants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.3X2S	Poisoning by emollients, demulcents and protectants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.4X2A	Poisoning by keratolytics, keratoplastics, and other hair treatment drugs and preparations, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.4X2D	Poisoning by keratolytics, keratoplastics, and other hair treatment drugs and preparations, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.4X2S	Poisoning by keratolytics, keratoplastics, and other hair treatment drugs and preparations, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.5X2A	Poisoning by ophthalmological drugs and preparations, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.5X2D	Poisoning by ophthalmological drugs and preparations, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.5X2S	Poisoning by ophthalmological drugs and preparations, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T49.6X2A	Poisoning by otorhinolaryngological drugs and preparations, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.6X2D	Poisoning by otorhinolaryngological drugs and preparations, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.6X2S	Poisoning by otorhinolaryngological drugs and preparations, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.7X2A	Poisoning by dental drugs, topically applied, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.7X2D	Poisoning by dental drugs, topically applied, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.7X2S	Poisoning by dental drugs, topically applied, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.8X2A	Poisoning by other topical agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.8X2D	Poisoning by other topical agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.8X2S	Poisoning by other topical agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T49.92XA	Poisoning by unspecified topical agent, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T49.92XD	Poisoning by unspecified topical agent, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T49.92XS	Poisoning by unspecified topical agent, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.0X2D	Poisoning by mineralocorticoids and their antagonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.0X2S	Poisoning by mineralocorticoids and their antagonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.1X2A	Poisoning by loop [high-ceiling] diuretics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.1X2D	Poisoning by loop [high-ceiling] diuretics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.1X2S	Poisoning by loop [high-ceiling] diuretics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.2X2A	Poisoning by carbonic-anhydrase inhibitors, benzothiadiazides and other diuretics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.2X2D	Poisoning by carbonic-anhydrase inhibitors, benzothiadiazides and other diuretics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.2X2S	Poisoning by carbonic-anhydrase inhibitors, benzothiadiazides and other diuretics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.3X2A	Poisoning by electrolytic, caloric and water-balance agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.3X2D	Poisoning by electrolytic, caloric and water-balance agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.3X2S	Poisoning by electrolytic, caloric and water-balance agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.4X2A	Poisoning by drugs affecting uric acid metabolism, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.4X2D	Poisoning by drugs affecting uric acid metabolism, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.4X2S	Poisoning by drugs affecting uric acid metabolism, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.5X2A	Poisoning by appetite depressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.5X2D	Poisoning by appetite depressants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T50.5X2S	Poisoning by appetite depressants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.6X2A	Poisoning by antidotes and chelating agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.6X2D	Poisoning by antidotes and chelating agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.6X2S	Poisoning by antidotes and chelating agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.7X2A	Poisoning by analeptics and opioid receptor antagonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.7X2D	Poisoning by analeptics and opioid receptor antagonists, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.7X2S	Poisoning by analeptics and opioid receptor antagonists, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.8X2A	Poisoning by diagnostic agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.8X2D	Poisoning by diagnostic agents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.8X2S	Poisoning by diagnostic agents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.902A	Poisoning by unspecified drugs, medicaments and biological substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.902D	Poisoning by unspecified drugs, medicaments and biological substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.902S	Poisoning by unspecified drugs, medicaments and biological substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.992A	Poisoning by other drugs, medicaments and biological substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.992D	Poisoning by other drugs, medicaments and biological substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.992S	Poisoning by other drugs, medicaments and biological substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.A12A	Poisoning by pertussis vaccine, including combinations with a pertussis component, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.A12D	Poisoning by pertussis vaccine, including combinations with a pertussis component, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.A12S	Poisoning by pertussis vaccine, including combinations with a pertussis component, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.A22A	Poisoning by mixed bacterial vaccines without a pertussis component, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.A22D	Poisoning by mixed bacterial vaccines without a pertussis component, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.A22S	Poisoning by mixed bacterial vaccines without a pertussis component, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.A92A	Poisoning by other bacterial vaccines, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.A92D	Poisoning by other bacterial vaccines, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.A92S	Poisoning by other bacterial vaccines, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.B12A	Poisoning by smallpox vaccines, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.B12D	Poisoning by smallpox vaccines, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T50.B12S	Poisoning by smallpox vaccines, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.B92A	Poisoning by other viral vaccines, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.B92D	Poisoning by other viral vaccines, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.B92S	Poisoning by other viral vaccines, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.Z12D	Poisoning by immunoglobulin, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.Z12S	Poisoning by immunoglobulin, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T50.Z92A	Poisoning by other vaccines and biological substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.Z92D	Poisoning by other vaccines and biological substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T50.Z92S	Poisoning by other vaccines and biological substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.0X2D	Toxic effect of ethanol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.0X2S	Toxic effect of ethanol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.1X2D	Toxic effect of methanol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.1X2S	Toxic effect of methanol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.2X2A	Toxic effect of 2-Propanol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.2X2D	Toxic effect of 2-Propanol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.2X2S	Toxic effect of 2-Propanol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.3X2D	Toxic effect of fusel oil, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.3X2S	Toxic effect of fusel oil, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.8X2D	Toxic effect of other alcohols, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.8X2S	Toxic effect of other alcohols, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.92XD	Toxic effect of unspecified alcohol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.92XS	Toxic effect of unspecified alcohol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.0X2D	Toxic effect of petroleum products, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.0X2S	Toxic effect of petroleum products, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.1X2D	Toxic effect of benzene, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.1X2S	Toxic effect of benzene, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.2X2D	Toxic effect of homologues of benzene, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.2X2S	Toxic effect of homologues of benzene, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.3X2D	Toxic effect of glycols, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.3X2S	Toxic effect of glycols, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.4X2D	Toxic effect of ketones, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.4X2S	Toxic effect of ketones, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.8X2D	Toxic effect of other organic solvents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.8X2S	Toxic effect of other organic solvents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T52.92XD	Toxic effect of unspecified organic solvent, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T52.92XS	Toxic effect of unspecified organic solvent, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.0X2D	Toxic effect of carbon tetrachloride, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.0X2S	Toxic effect of carbon tetrachloride, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.1X2D	Toxic effect of chloroform, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T53.1X2S	Toxic effect of chloroform, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.2X2D	Toxic effect of trichloroethylene, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.2X2S	Toxic effect of trichloroethylene, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.3X2D	Toxic effect of tetrachloroethylene, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.3X2S	Toxic effect of tetrachloroethylene, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.4X2D	Toxic effect of dichloromethane, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.4X2S	Toxic effect of dichloromethane, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.5X2D	Toxic effect of chlorofluorocarbons, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.5X2S	Toxic effect of chlorofluorocarbons, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.6X2D	Toxic effect of other halogen derivatives of aliphatic hydrocarbons, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.6X2S	Toxic effect of other halogen derivatives of aliphatic hydrocarbons, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.7X2D	Toxic effect of other halogen derivatives of aromatic hydrocarbons, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.7X2S	Toxic effect of other halogen derivatives of aromatic hydrocarbons, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T53.92XD	Toxic effect of unspecified halogen derivatives of aliphatic and aromatic hydrocarbons, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T53.92XS	Toxic effect of unspecified halogen derivatives of aliphatic and aromatic hydrocarbons, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T54.0X2D	Toxic effect of phenol and phenol homologues, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T54.0X2S	Toxic effect of phenol and phenol homologues, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T54.1X2D	Toxic effect of other corrosive organic compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T54.1X2S	Toxic effect of other corrosive organic compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T54.2X2D	Toxic effect of corrosive acids and acid-like substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T54.2X2S	Toxic effect of corrosive acids and acid-like substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T54.3X2D	Toxic effect of corrosive alkalis and alkali-like substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T54.3X2S	Toxic effect of corrosive alkalis and alkali-like substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T54.92XD	Toxic effect of unspecified corrosive substance, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T54.92XS	Toxic effect of unspecified corrosive substance, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T55.0X2D	Toxic effect of soaps, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T55.0X2S	Toxic effect of soaps, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T55.1X2D	Toxic effect of detergents, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T55.1X2S	Toxic effect of detergents, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.0X2D	Toxic effect of lead and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T56.0X2S	Toxic effect of lead and its compounds, intentional self-harm, sequela Toxic effect of mercury and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.1X2D	encounter	Diagnosis	ICD-10-CM
T56.1X2S	Toxic effect of mercury and its compounds, intentional self-harm, sequela Toxic effect of chromium and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.2X2D	encounter	Diagnosis	ICD-10-CM
T56.2X2S	Toxic effect of chromium and its compounds, intentional self-harm, sequela Toxic effect of cadmium and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.3X2D	encounter	Diagnosis	ICD-10-CM
T56.3X2S	Toxic effect of cadmium and its compounds, intentional self-harm, sequela Toxic effect of copper and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.4X2D	encounter	Diagnosis	ICD-10-CM
T56.4X2S	Toxic effect of copper and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.5X2D	Toxic effect of zinc and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.5X2S	Toxic effect of zinc and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.6X2D	Toxic effect of tin and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.6X2S	Toxic effect of tin and its compounds, intentional self-harm, sequela Toxic effect of beryllium and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.7X2D	encounter	Diagnosis	ICD-10-CM
T56.7X2S	Toxic effect of beryllium and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.812D	Toxic effect of thallium, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.812S	Toxic effect of thallium, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.892D	Toxic effect of other metals, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.892S	Toxic effect of other metals, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T56.92XD	Toxic effect of unspecified metal, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T56.92XS	Toxic effect of unspecified metal, intentional self-harm, sequela Toxic effect of arsenic and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T57.0X2D	encounter	Diagnosis	ICD-10-CM
T57.0X2S	Toxic effect of arsenic and its compounds, intentional self-harm, sequela Toxic effect of phosphorus and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T57.1X2D	encounter	Diagnosis	ICD-10-CM
T57.1X2S	Toxic effect of phosphorus and its compounds, intentional self-harm, sequela Toxic effect of manganese and its compounds, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T57.2X2D	encounter	Diagnosis	ICD-10-CM
T57.2X2S	Toxic effect of manganese and its compounds, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T57.3X2D	Toxic effect of hydrogen cyanide, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T57.3X2S	Toxic effect of hydrogen cyanide, intentional self-harm, sequela Toxic effect of other specified inorganic substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T57.8X2D	subsequent encounter	Diagnosis	ICD-10-CM
T57.8X2S	Toxic effect of other specified inorganic substances, intentional self-harm, sequela Toxic effect of unspecified inorganic substance, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T57.92XD	encounter	Diagnosis	ICD-10-CM
T57.92XS	Toxic effect of unspecified inorganic substance, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T58.02XD	Toxic effect of carbon monoxide from motor vehicle exhaust, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T58.02XS	Toxic effect of carbon monoxide from motor vehicle exhaust, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T58.12XD	Toxic effect of carbon monoxide from utility gas, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T58.12XS	Toxic effect of carbon monoxide from utility gas, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T58.2X2D	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T58.2X2S	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T58.8X2D	Toxic effect of carbon monoxide from other source, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T58.8X2S	Toxic effect of carbon monoxide from other source, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T58.92XD	Toxic effect of carbon monoxide from unspecified source, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T58.92XS	Toxic effect of carbon monoxide from unspecified source, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.0X2D	Toxic effect of nitrogen oxides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.0X2S	Toxic effect of nitrogen oxides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.1X2D	Toxic effect of sulfur dioxide, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.1X2S	Toxic effect of sulfur dioxide, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.2X2D	Toxic effect of formaldehyde, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.2X2S	Toxic effect of formaldehyde, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.3X2D	Toxic effect of lacrimogenic gas, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.3X2S	Toxic effect of lacrimogenic gas, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.4X2D	Toxic effect of chlorine gas, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.4X2S	Toxic effect of chlorine gas, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.5X2D	Toxic effect of fluorine gas and hydrogen fluoride, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.5X2S	Toxic effect of fluorine gas and hydrogen fluoride, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.6X2D	Toxic effect of hydrogen sulfide, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.6X2S	Toxic effect of hydrogen sulfide, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.7X2D	Toxic effect of carbon dioxide, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.7X2S	Toxic effect of carbon dioxide, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.812D	Toxic effect of smoke, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.812S	Toxic effect of smoke, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.892D	Toxic effect of other specified gases, fumes and vapors, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T59.892S	Toxic effect of other specified gases, fumes and vapors, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T59.92XD	Toxic effect of unspecified gases, fumes and vapors, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T59.92XS	Toxic effect of unspecified gases, fumes and vapors, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.0X2D	Toxic effect of organophosphate and carbamate insecticides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.0X2S	Toxic effect of organophosphate and carbamate insecticides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.1X2D	Toxic effect of halogenated insecticides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.1X2S	Toxic effect of halogenated insecticides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.2X2D	Toxic effect of other insecticides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.2X2S	Toxic effect of other insecticides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.3X2D	Toxic effect of herbicides and fungicides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.3X2S	Toxic effect of herbicides and fungicides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.4X2D	Toxic effect of rodenticides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.4X2S	Toxic effect of rodenticides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.8X2D	Toxic effect of other pesticides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.8X2S	Toxic effect of other pesticides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T60.92XD	Toxic effect of unspecified pesticide, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T60.92XS	Toxic effect of unspecified pesticide, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T61.02XD	Ciguatera fish poisoning, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T61.02XS	Ciguatera fish poisoning, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T61.12XD	Scombroid fish poisoning, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T61.12XS	Scombroid fish poisoning, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T61.772D	Other fish poisoning, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T61.772S	Other fish poisoning, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T61.782D	Other shellfish poisoning, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T61.782S	Other shellfish poisoning, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T61.8X2D	Toxic effect of other seafood, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T61.8X2S	Toxic effect of other seafood, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T61.92XD	Toxic effect of unspecified seafood, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T61.92XS	Toxic effect of unspecified seafood, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T62.0X2D	Toxic effect of ingested mushrooms, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T62.0X2S	Toxic effect of ingested mushrooms, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T62.1X2D	Toxic effect of ingested berries, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T62.1X2S	Toxic effect of ingested berries, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T62.2X2D	Toxic effect of other ingested (parts of) plant(s), intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T62.2X2S	Toxic effect of other ingested (parts of) plant(s), intentional self-harm, sequela	Diagnosis	ICD-10-CM
T62.8X2D	Toxic effect of other specified noxious substances eaten as food, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T62.8X2S	Toxic effect of other specified noxious substances eaten as food, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T62.92XD	Toxic effect of unspecified noxious substance eaten as food, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T62.92XS	Toxic effect of unspecified noxious substance eaten as food, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.002D	Toxic effect of unspecified snake venom, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.002S	Toxic effect of unspecified snake venom, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.012D	Toxic effect of rattlesnake venom, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.012S	Toxic effect of rattlesnake venom, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.022D	Toxic effect of coral snake venom, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.022S	Toxic effect of coral snake venom, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.032D	Toxic effect of taipan venom, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.032S	Toxic effect of taipan venom, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.042D	Toxic effect of cobra venom, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.042S	Toxic effect of cobra venom, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.062D	Toxic effect of venom of other North and South American snake, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.062S	Toxic effect of venom of other North and South American snake, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.072D	Toxic effect of venom of other Australian snake, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.072S	Toxic effect of venom of other Australian snake, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.082D	Toxic effect of venom of other African and Asian snake, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.082S	Toxic effect of venom of other African and Asian snake, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.092D	Toxic effect of venom of other snake, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.092S	Toxic effect of venom of other snake, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.112D	Toxic effect of venom of gila monster, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.112S	Toxic effect of venom of gila monster, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.122D	Toxic effect of venom of other venomous lizard, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.122S	Toxic effect of venom of other venomous lizard, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.192D	Toxic effect of venom of other reptiles, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.192S	Toxic effect of venom of other reptiles, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.2X2D	Toxic effect of venom of scorpion, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.2X2S	Toxic effect of venom of scorpion, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.302D	Toxic effect of unspecified spider venom, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.302S	Toxic effect of unspecified spider venom, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.312D	Toxic effect of venom of black widow spider, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.312S	Toxic effect of venom of black widow spider, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.322D	Toxic effect of venom of tarantula, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.322S	Toxic effect of venom of tarantula, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T63.332D	Toxic effect of venom of brown recluse spider, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.332S	Toxic effect of venom of brown recluse spider, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.392D	Toxic effect of venom of other spider, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.392S	Toxic effect of venom of other spider, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.412D	Toxic effect of venom of centipedes and venomous millipedes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.412S	Toxic effect of venom of centipedes and venomous millipedes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.422D	Toxic effect of venom of ants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.422S	Toxic effect of venom of ants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.432D	Toxic effect of venom of caterpillars, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.432S	Toxic effect of venom of caterpillars, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.442D	Toxic effect of venom of bees, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.442S	Toxic effect of venom of bees, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.452D	Toxic effect of venom of hornets, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.452S	Toxic effect of venom of hornets, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.462D	Toxic effect of venom of wasps, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.462S	Toxic effect of venom of wasps, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.482D	Toxic effect of venom of other arthropod, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.482S	Toxic effect of venom of other arthropod, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.512D	Toxic effect of contact with stingray, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.512S	Toxic effect of contact with stingray, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.592D	Toxic effect of contact with other venomous fish, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.592S	Toxic effect of contact with other venomous fish, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.612D	Toxic effect of contact with Portuguese Man-o-war, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.612S	Toxic effect of contact with Portuguese Man-o-war, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.622D	Toxic effect of contact with other jellyfish, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.622S	Toxic effect of contact with other jellyfish, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.632D	Toxic effect of contact with sea anemone, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.632S	Toxic effect of contact with sea anemone, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.692D	Toxic effect of contact with other venomous marine animals, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.692S	Toxic effect of contact with other venomous marine animals, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.712D	Toxic effect of contact with venomous marine plant, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.712S	Toxic effect of contact with venomous marine plant, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T63.792D	Toxic effect of contact with other venomous plant, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.792S	Toxic effect of contact with other venomous plant, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.812D	Toxic effect of contact with venomous frog, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.812S	Toxic effect of contact with venomous frog, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.822D	Toxic effect of contact with venomous toad, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.822S	Toxic effect of contact with venomous toad, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.832D	Toxic effect of contact with other venomous amphibian, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.832S	Toxic effect of contact with other venomous amphibian, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.892D	Toxic effect of contact with other venomous animals, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.892S	Toxic effect of contact with other venomous animals, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T63.92XD	Toxic effect of contact with unspecified venomous animal, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T63.92XS	Toxic effect of contact with unspecified venomous animal, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T64.02XD	Toxic effect of aflatoxin, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T64.02XS	Toxic effect of aflatoxin, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T64.82XD	Toxic effect of other mycotoxin food contaminants, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T64.82XS	Toxic effect of other mycotoxin food contaminants, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.0X2D	Toxic effect of cyanides, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.0X2S	Toxic effect of cyanides, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.1X2D	Toxic effect of strychnine and its salts, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.1X2S	Toxic effect of strychnine and its salts, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.212D	Toxic effect of chewing tobacco, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.212S	Toxic effect of chewing tobacco, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.222D	Toxic effect of tobacco cigarettes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.222S	Toxic effect of tobacco cigarettes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.292D	Toxic effect of other tobacco and nicotine, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.292S	Toxic effect of other tobacco and nicotine, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.3X2D	Toxic effect of nitroderivatives and aminoderivatives of benzene and its homologues, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.3X2S	Toxic effect of nitroderivatives and aminoderivatives of benzene and its homologues, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.4X2D	Toxic effect of carbon disulfide, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.4X2S	Toxic effect of carbon disulfide, intentional self-harm, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T65.5X2D	Toxic effect of nitroglycerin and other nitric acids and esters, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.5X2S	Toxic effect of nitroglycerin and other nitric acids and esters, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.6X2D	Toxic effect of paints and dyes, not elsewhere classified, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.6X2S	Toxic effect of paints and dyes, not elsewhere classified, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.812D	Toxic effect of latex, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.812S	Toxic effect of latex, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.822D	Toxic effect of harmful algae and algae toxins, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.822S	Toxic effect of harmful algae and algae toxins, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.832D	Toxic effect of fiberglass, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.832S	Toxic effect of fiberglass, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.892D	Toxic effect of other specified substances, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.892S	Toxic effect of other specified substances, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.92XD	Toxic effect of unspecified substance, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.92XS	Toxic effect of unspecified substance, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.112D	Asphyxiation due to smothering under pillow, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.112S	Asphyxiation due to smothering under pillow, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.122D	Asphyxiation due to plastic bag, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.122S	Asphyxiation due to plastic bag, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.132D	Asphyxiation due to being trapped in bed linens, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.132S	Asphyxiation due to being trapped in bed linens, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.152D	Asphyxiation due to smothering in furniture, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.152S	Asphyxiation due to smothering in furniture, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.162D	Asphyxiation due to hanging, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.162S	Asphyxiation due to hanging, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.192D	Asphyxiation due to mechanical threat to breathing due to other causes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.192S	Asphyxiation due to mechanical threat to breathing due to other causes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.222D	Asphyxiation due to being trapped in a car trunk, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T71.222S	Asphyxiation due to being trapped in a car trunk, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T71.232D	Asphyxiation due to being trapped in a (discarded) refrigerator, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T71.232S	Asphyxiation due to being trapped in a (discarded) refrigerator, intentional self-harm, sequela	Diagnosis	ICD-10-CM
V40.2	Other mental problems	Diagnosis	ICD-9-CM
V40.3	Other behavioral problems	Diagnosis	ICD-9-CM
V40.31	Wandering in diseases classified elsewhere	Diagnosis	ICD-9-CM
V40.39	Other specified behavioral problem	Diagnosis	ICD-9-CM
V40.9	Unspecified mental or behavioral problem	Diagnosis	ICD-9-CM
V62.84	Suicidal ideation	Diagnosis	ICD-9-CM
V67.3	Psychotherapy and other treatment for mental disorder follow-up examination	Diagnosis	ICD-9-CM
X71.0XXA	Intentional self-harm by drowning and submersion while in bathtub, initial encounter	Diagnosis	ICD-10-CM
X71.0XXD	Intentional self-harm by drowning and submersion while in bathtub, subsequent encounter	Diagnosis	ICD-10-CM
X71.0XXS	Intentional self-harm by drowning and submersion while in bathtub, sequela	Diagnosis	ICD-10-CM
X71.1XXA	Intentional self-harm by drowning and submersion while in swimming pool, initial encounter	Diagnosis	ICD-10-CM
X71.1XXD	Intentional self-harm by drowning and submersion while in swimming pool, subsequent encounter	Diagnosis	ICD-10-CM
X71.1XXS	Intentional self-harm by drowning and submersion while in swimming pool, sequela	Diagnosis	ICD-10-CM
X71.2XXA	Intentional self-harm by drowning and submersion after jump into swimming pool, initial encounter	Diagnosis	ICD-10-CM
X71.2XXD	Intentional self-harm by drowning and submersion after jump into swimming pool, subsequent encounter	Diagnosis	ICD-10-CM
X71.2XXS	Intentional self-harm by drowning and submersion after jump into swimming pool, sequela	Diagnosis	ICD-10-CM
X71.3XXA	Intentional self-harm by drowning and submersion in natural water, initial encounter	Diagnosis	ICD-10-CM
X71.3XXD	Intentional self-harm by drowning and submersion in natural water, subsequent encounter	Diagnosis	ICD-10-CM
X71.3XXS	Intentional self-harm by drowning and submersion in natural water, sequela	Diagnosis	ICD-10-CM
X71.8XXA	Other intentional self-harm by drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
X71.8XXD	Other intentional self-harm by drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
X71.8XXS	Other intentional self-harm by drowning and submersion, sequela	Diagnosis	ICD-10-CM
X71.9XXA	Intentional self-harm by drowning and submersion, unspecified, initial encounter	Diagnosis	ICD-10-CM
X71.9XXD	Intentional self-harm by drowning and submersion, unspecified, subsequent encounter	Diagnosis	ICD-10-CM
X71.9XXS	Intentional self-harm by drowning and submersion, unspecified, sequela	Diagnosis	ICD-10-CM
X72.XXXA	Intentional self-harm by handgun discharge, initial encounter	Diagnosis	ICD-10-CM
X72.XXXD	Intentional self-harm by handgun discharge, subsequent encounter	Diagnosis	ICD-10-CM
X72.XXXS	Intentional self-harm by handgun discharge, sequela	Diagnosis	ICD-10-CM
X73.0XXA	Intentional self-harm by shotgun discharge, initial encounter	Diagnosis	ICD-10-CM
X73.0XXD	Intentional self-harm by shotgun discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.0XXS	Intentional self-harm by shotgun discharge, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
X73.1XXA	Intentional self-harm by hunting rifle discharge, initial encounter	Diagnosis	ICD-10-CM
X73.1XXD	Intentional self-harm by hunting rifle discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.1XXS	Intentional self-harm by hunting rifle discharge, sequela	Diagnosis	ICD-10-CM
X73.2XXA	Intentional self-harm by machine gun discharge, initial encounter	Diagnosis	ICD-10-CM
X73.2XXD	Intentional self-harm by machine gun discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.2XXS	Intentional self-harm by machine gun discharge, sequela	Diagnosis	ICD-10-CM
X73.8XXA	Intentional self-harm by other larger firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X73.8XXD	Intentional self-harm by other larger firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.8XXS	Intentional self-harm by other larger firearm discharge, sequela	Diagnosis	ICD-10-CM
X73.9XXA	Intentional self-harm by unspecified larger firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X73.9XXD	Intentional self-harm by unspecified larger firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.9XXS	Intentional self-harm by unspecified larger firearm discharge, sequela	Diagnosis	ICD-10-CM
X74.01XA	Intentional self-harm by airgun, initial encounter	Diagnosis	ICD-10-CM
X74.01XD	Intentional self-harm by airgun, subsequent encounter	Diagnosis	ICD-10-CM
X74.01XS	Intentional self-harm by airgun, sequela	Diagnosis	ICD-10-CM
X74.02XA	Intentional self-harm by paintball gun, initial encounter	Diagnosis	ICD-10-CM
X74.02XD	Intentional self-harm by paintball gun, subsequent encounter	Diagnosis	ICD-10-CM
X74.02XS	Intentional self-harm by paintball gun, sequela	Diagnosis	ICD-10-CM
X74.09XA	Intentional self-harm by other gas, air or spring-operated gun, initial encounter	Diagnosis	ICD-10-CM
X74.09XD	Intentional self-harm by other gas, air or spring-operated gun, subsequent encounter	Diagnosis	ICD-10-CM
X74.09XS	Intentional self-harm by other gas, air or spring-operated gun, sequela	Diagnosis	ICD-10-CM
X74.8XXA	Intentional self-harm by other firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X74.8XXD	Intentional self-harm by other firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X74.8XXS	Intentional self-harm by other firearm discharge, sequela	Diagnosis	ICD-10-CM
X74.9XXA	Intentional self-harm by unspecified firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X74.9XXD	Intentional self-harm by unspecified firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X74.9XXS	Intentional self-harm by unspecified firearm discharge, sequela	Diagnosis	ICD-10-CM
X75.XXXA	Intentional self-harm by explosive material, initial encounter	Diagnosis	ICD-10-CM
X75.XXXD	Intentional self-harm by explosive material, subsequent encounter	Diagnosis	ICD-10-CM
X75.XXXS	Intentional self-harm by explosive material, sequela	Diagnosis	ICD-10-CM
X76.XXXA	Intentional self-harm by smoke, fire and flames, initial encounter	Diagnosis	ICD-10-CM
X76.XXXD	Intentional self-harm by smoke, fire and flames, subsequent encounter	Diagnosis	ICD-10-CM
X76.XXXS	Intentional self-harm by smoke, fire and flames, sequela	Diagnosis	ICD-10-CM
X77.0XXA	Intentional self-harm by steam or hot vapors, initial encounter	Diagnosis	ICD-10-CM
X77.0XXD	Intentional self-harm by steam or hot vapors, subsequent encounter	Diagnosis	ICD-10-CM
X77.0XXS	Intentional self-harm by steam or hot vapors, sequela	Diagnosis	ICD-10-CM
X77.1XXA	Intentional self-harm by hot tap water, initial encounter	Diagnosis	ICD-10-CM
X77.1XXD	Intentional self-harm by hot tap water, subsequent encounter	Diagnosis	ICD-10-CM
X77.1XXS	Intentional self-harm by hot tap water, sequela	Diagnosis	ICD-10-CM
X77.2XXA	Intentional self-harm by other hot fluids, initial encounter	Diagnosis	ICD-10-CM
X77.2XXD	Intentional self-harm by other hot fluids, subsequent encounter	Diagnosis	ICD-10-CM
X77.2XXS	Intentional self-harm by other hot fluids, sequela	Diagnosis	ICD-10-CM
X77.3XXA	Intentional self-harm by hot household appliances, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
X77.3XXD	Intentional self-harm by hot household appliances, subsequent encounter	Diagnosis	ICD-10-CM
X77.3XXS	Intentional self-harm by hot household appliances, sequela	Diagnosis	ICD-10-CM
X77.8XXA	Intentional self-harm by other hot objects, initial encounter	Diagnosis	ICD-10-CM
X77.8XXD	Intentional self-harm by other hot objects, subsequent encounter	Diagnosis	ICD-10-CM
X77.8XXS	Intentional self-harm by other hot objects, sequela	Diagnosis	ICD-10-CM
X77.9XXA	Intentional self-harm by unspecified hot objects, initial encounter	Diagnosis	ICD-10-CM
X77.9XXD	Intentional self-harm by unspecified hot objects, subsequent encounter	Diagnosis	ICD-10-CM
X77.9XXS	Intentional self-harm by unspecified hot objects, sequela	Diagnosis	ICD-10-CM
X78.0XXA	Intentional self-harm by sharp glass, initial encounter	Diagnosis	ICD-10-CM
X78.0XXD	Intentional self-harm by sharp glass, subsequent encounter	Diagnosis	ICD-10-CM
X78.0XXS	Intentional self-harm by sharp glass, sequela	Diagnosis	ICD-10-CM
X78.1XXA	Intentional self-harm by knife, initial encounter	Diagnosis	ICD-10-CM
X78.1XXD	Intentional self-harm by knife, subsequent encounter	Diagnosis	ICD-10-CM
X78.1XXS	Intentional self-harm by knife, sequela	Diagnosis	ICD-10-CM
X78.2XXA	Intentional self-harm by sword or dagger, initial encounter	Diagnosis	ICD-10-CM
X78.2XXD	Intentional self-harm by sword or dagger, subsequent encounter	Diagnosis	ICD-10-CM
X78.2XXS	Intentional self-harm by sword or dagger, sequela	Diagnosis	ICD-10-CM
X78.8XXA	Intentional self-harm by other sharp object, initial encounter	Diagnosis	ICD-10-CM
X78.8XXD	Intentional self-harm by other sharp object, subsequent encounter	Diagnosis	ICD-10-CM
X78.8XXS	Intentional self-harm by other sharp object, sequela	Diagnosis	ICD-10-CM
X78.9XXA	Intentional self-harm by unspecified sharp object, initial encounter	Diagnosis	ICD-10-CM
X78.9XXD	Intentional self-harm by unspecified sharp object, subsequent encounter	Diagnosis	ICD-10-CM
X78.9XXS	Intentional self-harm by unspecified sharp object, sequela	Diagnosis	ICD-10-CM
X79.XXXA	Intentional self-harm by blunt object, initial encounter	Diagnosis	ICD-10-CM
X79.XXXD	Intentional self-harm by blunt object, subsequent encounter	Diagnosis	ICD-10-CM
X79.XXXS	Intentional self-harm by blunt object, sequela	Diagnosis	ICD-10-CM
X80.XXXA	Intentional self-harm by jumping from a high place, initial encounter	Diagnosis	ICD-10-CM
X80.XXXD	Intentional self-harm by jumping from a high place, subsequent encounter	Diagnosis	ICD-10-CM
X80.XXXS	Intentional self-harm by jumping from a high place, sequela	Diagnosis	ICD-10-CM
X81.0XXA	Intentional self-harm by jumping or lying in front of motor vehicle, initial encounter	Diagnosis	ICD-10-CM
X81.0XXD	Intentional self-harm by jumping or lying in front of motor vehicle, subsequent encounter	Diagnosis	ICD-10-CM
X81.0XXS	Intentional self-harm by jumping or lying in front of motor vehicle, sequela	Diagnosis	ICD-10-CM
X81.1XXA	Intentional self-harm by jumping or lying in front of (subway) train, initial encounter	Diagnosis	ICD-10-CM
X81.1XXD	Intentional self-harm by jumping or lying in front of (subway) train, subsequent encounter	Diagnosis	ICD-10-CM
X81.1XXS	Intentional self-harm by jumping or lying in front of (subway) train, sequela	Diagnosis	ICD-10-CM
X81.8XXA	Intentional self-harm by jumping or lying in front of other moving object, initial encounter	Diagnosis	ICD-10-CM
X81.8XXD	Intentional self-harm by jumping or lying in front of other moving object, subsequent encounter	Diagnosis	ICD-10-CM
X81.8XXS	Intentional self-harm by jumping or lying in front of other moving object, sequela	Diagnosis	ICD-10-CM
X82.0XXA	Intentional collision of motor vehicle with other motor vehicle, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
X82.0XXD	Intentional collision of motor vehicle with other motor vehicle, subsequent encounter	Diagnosis	ICD-10-CM
X82.0XXS	Intentional collision of motor vehicle with other motor vehicle, sequela	Diagnosis	ICD-10-CM
X82.1XXA	Intentional collision of motor vehicle with train, initial encounter	Diagnosis	ICD-10-CM
X82.1XXD	Intentional collision of motor vehicle with train, subsequent encounter	Diagnosis	ICD-10-CM
X82.1XXS	Intentional collision of motor vehicle with train, sequela	Diagnosis	ICD-10-CM
X82.2XXA	Intentional collision of motor vehicle with tree, initial encounter	Diagnosis	ICD-10-CM
X82.2XXD	Intentional collision of motor vehicle with tree, subsequent encounter	Diagnosis	ICD-10-CM
X82.2XXS	Intentional collision of motor vehicle with tree, sequela	Diagnosis	ICD-10-CM
X82.8XXA	Other intentional self-harm by crashing of motor vehicle, initial encounter	Diagnosis	ICD-10-CM
X82.8XXD	Other intentional self-harm by crashing of motor vehicle, subsequent encounter	Diagnosis	ICD-10-CM
X82.8XXS	Other intentional self-harm by crashing of motor vehicle, sequela	Diagnosis	ICD-10-CM
X83.0XXA	Intentional self-harm by crashing of aircraft, initial encounter	Diagnosis	ICD-10-CM
X83.0XXD	Intentional self-harm by crashing of aircraft, subsequent encounter	Diagnosis	ICD-10-CM
X83.0XXS	Intentional self-harm by crashing of aircraft, sequela	Diagnosis	ICD-10-CM
X83.1XXA	Intentional self-harm by electrocution, initial encounter	Diagnosis	ICD-10-CM
X83.1XXD	Intentional self-harm by electrocution, subsequent encounter	Diagnosis	ICD-10-CM
X83.1XXS	Intentional self-harm by electrocution, sequela	Diagnosis	ICD-10-CM
X83.2XXA	Intentional self-harm by exposure to extremes of cold, initial encounter	Diagnosis	ICD-10-CM
X83.2XXD	Intentional self-harm by exposure to extremes of cold, subsequent encounter	Diagnosis	ICD-10-CM
X83.2XXS	Intentional self-harm by exposure to extremes of cold, sequela	Diagnosis	ICD-10-CM
X83.8XXA	Intentional self-harm by other specified means, initial encounter	Diagnosis	ICD-10-CM
X83.8XXD	Intentional self-harm by other specified means, subsequent encounter	Diagnosis	ICD-10-CM
X83.8XXS	Intentional self-harm by other specified means, sequela	Diagnosis	ICD-10-CM
Z87.890	Personal history of sex reassignment	Diagnosis	ICD-10-CM
Z91.5	Personal history of self-harm	Diagnosis	ICD-10-CM
Z91.83	Wandering in diseases classified elsewhere	Diagnosis	ICD-10-CM
Bipolar Disorder			
296.0	Bipolar I disorder, single manic episode	Diagnosis	ICD-9-CM
296.00	Bipolar I disorder, single manic episode, unspecified	Diagnosis	ICD-9-CM
296.01	Bipolar I disorder, single manic episode, mild	Diagnosis	ICD-9-CM
296.02	Bipolar I disorder, single manic episode, moderate	Diagnosis	ICD-9-CM
296.03	Bipolar I disorder, single manic episode, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.04	Bipolar I disorder, single manic episode, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.05	Bipolar I disorder, single manic episode, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.06	Bipolar I disorder, single manic episode, in full remission	Diagnosis	ICD-9-CM
296.1	Manic disorder, recurrent episode	Diagnosis	ICD-9-CM
296.10	Manic disorder, recurrent episode, unspecified	Diagnosis	ICD-9-CM
296.11	Manic disorder, recurrent episode, mild	Diagnosis	ICD-9-CM
296.12	Manic disorder, recurrent episode, moderate	Diagnosis	ICD-9-CM
296.13	Manic disorder, recurrent episode, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
296.14	Manic disorder, recurrent episode, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.15	Manic disorder, recurrent episode, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.16	Manic disorder, recurrent episode, in full remission	Diagnosis	ICD-9-CM
296.4	Bipolar I disorder, most recent episode (or current) manic	Diagnosis	ICD-9-CM
296.40	Bipolar I disorder, most recent episode (or current) manic, unspecified	Diagnosis	ICD-9-CM
296.41	Bipolar I disorder, most recent episode (or current) manic, mild	Diagnosis	ICD-9-CM
296.42	Bipolar I disorder, most recent episode (or current) manic, moderate	Diagnosis	ICD-9-CM
296.43	Bipolar I disorder, most recent episode (or current) manic, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.44	Bipolar I disorder, most recent episode (or current) manic, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.45	Bipolar I disorder, most recent episode (or current) manic, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.46	Bipolar I disorder, most recent episode (or current) manic, in full remission	Diagnosis	ICD-9-CM
296.5	Bipolar I disorder, most recent episode (or current), depressed	Diagnosis	ICD-9-CM
296.50	Bipolar I disorder, most recent episode (or current) depressed, unspecified	Diagnosis	ICD-9-CM
296.51	Bipolar I disorder, most recent episode (or current) depressed, mild	Diagnosis	ICD-9-CM
296.52	Bipolar I disorder, most recent episode (or current) depressed, moderate	Diagnosis	ICD-9-CM
296.53	Bipolar I disorder, most recent episode (or current) depressed, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.54	Bipolar I disorder, most recent episode (or current) depressed, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.55	Bipolar I disorder, most recent episode (or current) depressed, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.56	Bipolar I disorder, most recent episode (or current) depressed, in full remission	Diagnosis	ICD-9-CM
296.6	Bipolar I disorder, most recent episode (or current), mixed	Diagnosis	ICD-9-CM
296.60	Bipolar I disorder, most recent episode (or current) mixed, unspecified	Diagnosis	ICD-9-CM
296.61	Bipolar I disorder, most recent episode (or current) mixed, mild	Diagnosis	ICD-9-CM
296.62	Bipolar I disorder, most recent episode (or current) mixed, moderate	Diagnosis	ICD-9-CM
296.63	Bipolar I disorder, most recent episode (or current) mixed, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.64	Bipolar I disorder, most recent episode (or current) mixed, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.65	Bipolar I disorder, most recent episode (or current) mixed, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.66	Bipolar I disorder, most recent episode (or current) mixed, in full remission	Diagnosis	ICD-9-CM
296.7	Bipolar I disorder, most recent episode (or current) unspecified	Diagnosis	ICD-9-CM
296.8	Other and unspecified bipolar disorders	Diagnosis	ICD-9-CM
296.80	Bipolar disorder, unspecified	Diagnosis	ICD-9-CM
296.81	Atypical manic disorder	Diagnosis	ICD-9-CM
296.82	Atypical depressive disorder	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

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
F30.10	Manic episode without psychotic symptoms, unspecified	Diagnosis	ICD-10-CM
F30.11	Manic episode without psychotic symptoms, mild	Diagnosis	ICD-10-CM
F30.12	Manic episode without psychotic symptoms, moderate	Diagnosis	ICD-10-CM
F30.13	Manic episode, severe, without psychotic symptoms	Diagnosis	ICD-10-CM
F30.2	Manic episode, severe with psychotic symptoms	Diagnosis	ICD-10-CM
F30.3	Manic episode in partial remission	Diagnosis	ICD-10-CM
F30.4	Manic episode in full remission	Diagnosis	ICD-10-CM
F30.8	Other manic episodes	Diagnosis	ICD-10-CM
F30.9	Manic episode, unspecified	Diagnosis	ICD-10-CM
F31.0	Bipolar disorder, current episode hypomanic	Diagnosis	ICD-10-CM
F31.10	Bipolar disorder, current episode manic without psychotic features, unspecified	Diagnosis	ICD-10-CM
F31.11	Bipolar disorder, current episode manic without psychotic features, mild	Diagnosis	ICD-10-CM
F31.12	Bipolar disorder, current episode manic without psychotic features, moderate	Diagnosis	ICD-10-CM
F31.13	Bipolar disorder, current episode manic without psychotic features, severe	Diagnosis	ICD-10-CM
F31.2	Bipolar disorder, current episode manic severe with psychotic features	Diagnosis	ICD-10-CM
F31.30	Bipolar disorder, current episode depressed, mild or moderate severity, unspecified	Diagnosis	ICD-10-CM
F31.31	Bipolar disorder, current episode depressed, mild	Diagnosis	ICD-10-CM
F31.32	Bipolar disorder, current episode depressed, moderate	Diagnosis	ICD-10-CM
F31.4	Bipolar disorder, current episode depressed, severe, without psychotic features	Diagnosis	ICD-10-CM
F31.5	Bipolar disorder, current episode depressed, severe, with psychotic features	Diagnosis	ICD-10-CM
F31.60	Bipolar disorder, current episode mixed, unspecified	Diagnosis	ICD-10-CM
F31.61	Bipolar disorder, current episode mixed, mild	Diagnosis	ICD-10-CM
F31.62	Bipolar disorder, current episode mixed, moderate	Diagnosis	ICD-10-CM
F31.63	Bipolar disorder, current episode mixed, severe, without psychotic features	Diagnosis	ICD-10-CM
F31.64	Bipolar disorder, current episode mixed, severe, with psychotic features	Diagnosis	ICD-10-CM
F31.70	Bipolar disorder, currently in remission, most recent episode unspecified	Diagnosis	ICD-10-CM
F31.71	Bipolar disorder, in partial remission, most recent episode hypomanic	Diagnosis	ICD-10-CM
F31.72	Bipolar disorder, in full remission, most recent episode hypomanic	Diagnosis	ICD-10-CM
F31.73	Bipolar disorder, in partial remission, most recent episode manic	Diagnosis	ICD-10-CM
F31.74	Bipolar disorder, in full remission, most recent episode manic	Diagnosis	ICD-10-CM
F31.75	Bipolar disorder, in partial remission, most recent episode depressed	Diagnosis	ICD-10-CM
F31.76	Bipolar disorder, in full remission, most recent episode depressed	Diagnosis	ICD-10-CM
F31.77	Bipolar disorder, in partial remission, most recent episode mixed	Diagnosis	ICD-10-CM
F31.78	Bipolar disorder, in full remission, most recent episode mixed	Diagnosis	ICD-10-CM
F31.81	Bipolar II disorder	Diagnosis	ICD-10-CM
F31.89	Other bipolar disorder	Diagnosis	ICD-10-CM
F31.9	Bipolar disorder, unspecified	Diagnosis	ICD-10-CM
F32.89	Other specified depressive episodes	Diagnosis	ICD-10-CM
F33.8	Other recurrent depressive disorders	Diagnosis	ICD-10-CM
F34.81	Disruptive mood dysregulation disorder	Diagnosis	ICD-10-CM
F34.89	Other specified persistent mood disorders	Diagnosis	ICD-10-CM
F34.9	Persistent mood [affective] disorder, unspecified	Diagnosis	ICD-10-CM

Cerebral Degenerations

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
330	Cerebral degenerations usually manifest in childhood	Diagnosis	ICD-9-CM
330.0	Leukodystrophy	Diagnosis	ICD-9-CM
330.1	Cerebral lipidoses	Diagnosis	ICD-9-CM
330.2	Cerebral degeneration in generalized lipidoses	Diagnosis	ICD-9-CM
330.3	Cerebral degeneration of childhood in other diseases classified elsewhere	Diagnosis	ICD-9-CM
330.8	Other specified cerebral degenerations in childhood	Diagnosis	ICD-9-CM
330.9	Unspecified cerebral degeneration in childhood	Diagnosis	ICD-9-CM
E75.00	GM2 gangliosidosis, unspecified	Diagnosis	ICD-10-CM
E75.01	Sandhoff disease	Diagnosis	ICD-10-CM
E75.02	Tay-Sachs disease	Diagnosis	ICD-10-CM
E75.09	Other GM2 gangliosidosis	Diagnosis	ICD-10-CM
E75.10	Unspecified gangliosidosis	Diagnosis	ICD-10-CM
E75.11	Mucopolipidosis IV	Diagnosis	ICD-10-CM
E75.19	Other gangliosidosis	Diagnosis	ICD-10-CM
E75.23	Krabbe disease	Diagnosis	ICD-10-CM
E75.25	Metachromatic leukodystrophy	Diagnosis	ICD-10-CM
E75.29	Other sphingolipidosis	Diagnosis	ICD-10-CM
E75.4	Neuronal ceroid lipofuscinosis	Diagnosis	ICD-10-CM
F84.2	Rett's syndrome	Diagnosis	ICD-10-CM
G31.81	Alpers disease	Diagnosis	ICD-10-CM
G31.82	Leigh's disease	Diagnosis	ICD-10-CM
G31.9	Degenerative disease of nervous system, unspecified	Diagnosis	ICD-10-CM
G93.89	Other specified disorders of brain	Diagnosis	ICD-10-CM
G93.9	Disorder of brain, unspecified	Diagnosis	ICD-10-CM
Conduct Disorder			
312	Disturbance of conduct, not elsewhere classified	Diagnosis	ICD-9-CM
312.0	Undersocialized conduct disorder, aggressive type	Diagnosis	ICD-9-CM
312.00	Undersocialized conduct disorder, aggressive type, unspecified	Diagnosis	ICD-9-CM
312.01	Undersocialized conduct disorder, aggressive type, mild	Diagnosis	ICD-9-CM
312.02	Undersocialized conduct disorder, aggressive type, moderate	Diagnosis	ICD-9-CM
312.03	Undersocialized conduct disorder, aggressive type, severe	Diagnosis	ICD-9-CM
312.1	Undersocialized conduct disorder, unaggressive type	Diagnosis	ICD-9-CM
312.10	Undersocialized conduct disorder, unaggressive type, unspecified	Diagnosis	ICD-9-CM
312.11	Undersocialized conduct disorder, unaggressive type, mild	Diagnosis	ICD-9-CM
312.12	Undersocialized conduct disorder, unaggressive type, moderate	Diagnosis	ICD-9-CM
312.13	Undersocialized conduct disorder, unaggressive type, severe	Diagnosis	ICD-9-CM
312.2	Socialized conduct disorder	Diagnosis	ICD-9-CM
312.20	Socialized conduct disorder, unspecified	Diagnosis	ICD-9-CM
312.21	Socialized conduct disorder, mild	Diagnosis	ICD-9-CM
312.22	Socialized conduct disorder, moderate	Diagnosis	ICD-9-CM
312.23	Socialized conduct disorder, severe	Diagnosis	ICD-9-CM
312.3	Disorders of impulse control, not elsewhere classified	Diagnosis	ICD-9-CM
312.30	Impulse control disorder, unspecified	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
312.31	Pathological gambling	Diagnosis	ICD-9-CM
312.33	Pyromania	Diagnosis	ICD-9-CM
312.34	Intermittent explosive disorder	Diagnosis	ICD-9-CM
312.35	Isolated explosive disorder	Diagnosis	ICD-9-CM
312.39	Other disorder of impulse control	Diagnosis	ICD-9-CM
312.4	Mixed disturbance of conduct and emotions	Diagnosis	ICD-9-CM
312.8	Other specified disturbances of conduct, not elsewhere classified	Diagnosis	ICD-9-CM
312.89	Other specified disturbance of conduct, not elsewhere classified	Diagnosis	ICD-9-CM
312.9	Unspecified disturbance of conduct	Diagnosis	ICD-9-CM
F63.1	Pyromania	Diagnosis	ICD-10-CM
F63.81	Intermittent explosive disorder	Diagnosis	ICD-10-CM
F63.89	Other impulse disorders	Diagnosis	ICD-10-CM
Delirium			
292.81	Drug-induced delirium	Diagnosis	ICD-9-CM
293	Transient mental disorders due to conditions classified elsewhere	Diagnosis	ICD-9-CM
293.0	Delirium due to conditions classified elsewhere	Diagnosis	ICD-9-CM
293.1	Subacute delirium	Diagnosis	ICD-9-CM
293.8	Other specified transient mental disorders due to conditions classified elsewhere	Diagnosis	ICD-9-CM
293.81	Psychotic disorder with delusions in conditions classified elsewhere	Diagnosis	ICD-9-CM
293.82	Psychotic disorder with hallucinations in conditions classified elsewhere	Diagnosis	ICD-9-CM
293.83	Mood disorder in conditions classified elsewhere	Diagnosis	ICD-9-CM
293.89	Other transient mental disorders due to conditions classified elsewhere	Diagnosis	ICD-9-CM
293.9	Unspecified transient mental disorder in conditions classified elsewhere	Diagnosis	ICD-9-CM
348.3	Encephalopathy, not elsewhere classified	Diagnosis	ICD-9-CM
348.30	Encephalopathy, unspecified	Diagnosis	ICD-9-CM
348.31	Metabolic encephalopathy	Diagnosis	ICD-9-CM
348.39	Other encephalopathy	Diagnosis	ICD-9-CM
F05	Delirium due to known physiological condition	Diagnosis	ICD-10-CM
F06.0	Psychotic disorder with hallucinations due to known physiological condition	Diagnosis	ICD-10-CM
F06.1	Catatonic disorder due to known physiological condition	Diagnosis	ICD-10-CM
F06.2	Psychotic disorder with delusions due to known physiological condition	Diagnosis	ICD-10-CM
F06.30	Mood disorder due to known physiological condition, unspecified	Diagnosis	ICD-10-CM
F06.31	Mood disorder due to known physiological condition with depressive features	Diagnosis	ICD-10-CM
F06.32	Mood disorder due to known physiological condition with major depressive-like episode	Diagnosis	ICD-10-CM
F06.33	Mood disorder due to known physiological condition with manic features	Diagnosis	ICD-10-CM
F06.34	Mood disorder due to known physiological condition with mixed features	Diagnosis	ICD-10-CM
F06.8	Other specified mental disorders due to known physiological condition	Diagnosis	ICD-10-CM
F10.121	Alcohol abuse with intoxication delirium	Diagnosis	ICD-10-CM
F53	Mental and behavioral disorders associated with the puerperium, not elsewhere classified	Diagnosis	ICD-10-CM
G93.40	Encephalopathy, unspecified	Diagnosis	ICD-10-CM
G93.41	Metabolic encephalopathy	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
G93.49	Other encephalopathy	Diagnosis	ICD-10-CM
I67.83	Posterior reversible encephalopathy syndrome	Diagnosis	ICD-10-CM
Depression			
296.2	Major depressive disorder, single episode	Diagnosis	ICD-9-CM
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
296.3	Major depressive disorder, recurrent episode	Diagnosis	ICD-9-CM
296.30	Major depressive disorder, recurrent episode, unspecified	Diagnosis	ICD-9-CM
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
296.90	Unspecified episodic mood disorder	Diagnosis	ICD-9-CM
300.4	Dysthymic 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
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
F33.9	Major depressive disorder, recurrent, unspecified	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
F34.1	Dysthymic disorder	Diagnosis	ICD-10-CM
F39	Unspecified mood [affective] disorder	Diagnosis	ICD-10-CM
F43.21	Adjustment disorder with depressed mood	Diagnosis	ICD-10-CM
Electroconvulsive Therapy			
90870	Electroconvulsive therapy (includes necessary monitoring)	Procedure	CPT-4
90871	Electroconvulsive therapy (includes necessary monitoring); multiple seizures, per day	Procedure	CPT-4
Hallucination			
780.1	Hallucinations	Diagnosis	ICD-9-CM
R44.0	Auditory hallucinations	Diagnosis	ICD-10-CM
R44.2	Other hallucinations	Diagnosis	ICD-10-CM
R44.3	Hallucinations, unspecified	Diagnosis	ICD-10-CM
Obsessive-Compulsive Disorder			
300.3	Obsessive-compulsive disorders	Diagnosis	ICD-9-CM
F42.8	Other obsessive-compulsive disorder	Diagnosis	ICD-10-CM
F42.9	Obsessive-compulsive disorder, unspecified	Diagnosis	ICD-10-CM
Other Cerebral Degenerations			
331	Other cerebral degenerations	Diagnosis	ICD-9-CM
331.0	Alzheimer's disease	Diagnosis	ICD-9-CM
331.1	Frontotemporal dementia	Diagnosis	ICD-9-CM
331.11	Pick's disease	Diagnosis	ICD-9-CM
331.19	Other frontotemporal dementia	Diagnosis	ICD-9-CM
331.2	Senile degeneration of brain	Diagnosis	ICD-9-CM
331.3	Communicating hydrocephalus	Diagnosis	ICD-9-CM
331.4	Obstructive hydrocephalus	Diagnosis	ICD-9-CM
331.5	Idiopathic normal pressure hydrocephalus [INPH]	Diagnosis	ICD-9-CM
331.6	Corticobasal degeneration	Diagnosis	ICD-9-CM
331.7	Cerebral degeneration in diseases classified elsewhere	Diagnosis	ICD-9-CM
331.8	Other cerebral degeneration	Diagnosis	ICD-9-CM
331.81	Reye's syndrome	Diagnosis	ICD-9-CM
331.82	Dementia with Lewy bodies	Diagnosis	ICD-9-CM
331.83	Mild cognitive impairment, so stated	Diagnosis	ICD-9-CM
331.89	Other cerebral degeneration	Diagnosis	ICD-9-CM
331.9	Unspecified cerebral degeneration	Diagnosis	ICD-9-CM
G13.2	Systemic atrophy primarily affecting the central nervous system in myxedema	Diagnosis	ICD-10-CM
G13.2	Systemic atrophy primarily affecting central nervous system in other diseases		
G13.8	classified elsewhere	Diagnosis	ICD-10-CM
G30.0	Alzheimer's disease with early onset	Diagnosis	ICD-10-CM
G30.1	Alzheimer's disease with late onset	Diagnosis	ICD-10-CM
G30.8	Other Alzheimer's disease	Diagnosis	ICD-10-CM
G30.9	Alzheimer's disease, unspecified	Diagnosis	ICD-10-CM
G31.01	Pick's disease	Diagnosis	ICD-10-CM
G31.09	Other frontotemporal dementia	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
G31.1	Senile degeneration of brain, not elsewhere classified	Diagnosis	ICD-10-CM
G31.2	Degeneration of nervous system due to alcohol	Diagnosis	ICD-10-CM
G31.83	Dementia with Lewy bodies	Diagnosis	ICD-10-CM
G31.84	Mild cognitive impairment, so stated	Diagnosis	ICD-10-CM
G31.85	Corticobasal degeneration	Diagnosis	ICD-10-CM
G31.89	Other specified degenerative diseases of nervous system	Diagnosis	ICD-10-CM
G91.0	Communicating hydrocephalus	Diagnosis	ICD-10-CM
G91.1	Obstructive hydrocephalus	Diagnosis	ICD-10-CM
G91.2	(Idiopathic) normal pressure hydrocephalus	Diagnosis	ICD-10-CM
G91.3	Post-traumatic hydrocephalus, unspecified	Diagnosis	ICD-10-CM
G91.4	Hydrocephalus in diseases classified elsewhere	Diagnosis	ICD-10-CM
G91.8	Other hydrocephalus	Diagnosis	ICD-10-CM
G91.9	Hydrocephalus, unspecified	Diagnosis	ICD-10-CM
G93.7	Reye's syndrome	Diagnosis	ICD-10-CM
G94	Other disorders of brain in diseases classified elsewhere	Diagnosis	ICD-10-CM
Other Mental Disorders			
300.1	Dissociative, conversion and factitious disorders	Diagnosis	ICD-9-CM
300.8	Somatoform disorders	Diagnosis	ICD-9-CM
302	Sexual and gender identity disorders	Diagnosis	ICD-9-CM
302.0	Ego-dystonic sexual orientation	Diagnosis	ICD-9-CM
302.5	Trans-sexualism	Diagnosis	ICD-9-CM
302.7	Psychosexual dysfunction	Diagnosis	ICD-9-CM
302.8	Other specified psychosexual disorders	Diagnosis	ICD-9-CM
306	Physiological malfunction arising from mental factors	Diagnosis	ICD-9-CM
306.5	Genitourinary malfunctions arising from mental factors	Diagnosis	ICD-9-CM
307	Special symptoms or syndromes, not elsewhere classified	Diagnosis	ICD-9-CM
307.2	Tics	Diagnosis	ICD-9-CM
307.20	Tic disorder, unspecified	Diagnosis	ICD-9-CM
307.21	Transient tic disorder	Diagnosis	ICD-9-CM
307.23	Tourette's disorder	Diagnosis	ICD-9-CM
307.3	Stereotypic movement disorder	Diagnosis	ICD-9-CM
307.5	Other and unspecified disorders of eating	Diagnosis	ICD-9-CM
307.6	Enuresis	Diagnosis	ICD-9-CM
307.7	Encopresis	Diagnosis	ICD-9-CM
307.8	Pain disorders related to psychological factors	Diagnosis	ICD-9-CM
308	Acute reaction to stress	Diagnosis	ICD-9-CM
309.2	Predominant disturbance of other emotions as adjustment reaction	Diagnosis	ICD-9-CM
309.21	Separation anxiety disorder	Diagnosis	ICD-9-CM
309.8	Other specified adjustment reactions	Diagnosis	ICD-9-CM
310	Specific nonpsychotic mental disorders due to brain damage	Diagnosis	ICD-9-CM
310.0	Frontal lobe syndrome	Diagnosis	ICD-9-CM
310.2	Postconcussion syndrome	Diagnosis	ICD-9-CM
310.8	Other specified nonpsychotic mental disorder following organic brain damage	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
310.81	Pseudobulbar affect	Diagnosis	ICD-9-CM
310.89	Other specified nonpsychotic mental disorders following organic brain damage	Diagnosis	ICD-9-CM
310.9	Unspecified nonpsychotic mental disorder following organic brain damage	Diagnosis	ICD-9-CM
313	Disturbance of emotions specific to childhood and adolescence	Diagnosis	ICD-9-CM
313.2	Sensitivity, shyness, and social withdrawal disorder specific to childhood and adolescence	Diagnosis	ICD-9-CM
313.8	Other or mixed emotional disturbances of childhood or adolescence	Diagnosis	ICD-9-CM
313.89	Other emotional disturbance of childhood or adolescence	Diagnosis	ICD-9-CM
313.9	Unspecified emotional disturbance of childhood or adolescence	Diagnosis	ICD-9-CM
315	Specific delays in development	Diagnosis	ICD-9-CM
315.0	Specific developmental reading disorder	Diagnosis	ICD-9-CM
315.00	Developmental reading disorder, unspecified	Diagnosis	ICD-9-CM
315.01	Alexia	Diagnosis	ICD-9-CM
315.02	Developmental dyslexia	Diagnosis	ICD-9-CM
315.09	Other specific developmental reading disorder	Diagnosis	ICD-9-CM
315.1	Mathematics disorder	Diagnosis	ICD-9-CM
315.2	Other specific developmental learning difficulties	Diagnosis	ICD-9-CM
315.3	Developmental speech or language disorder	Diagnosis	ICD-9-CM
315.31	Expressive language disorder	Diagnosis	ICD-9-CM
315.32	Mixed receptive-expressive language disorder	Diagnosis	ICD-9-CM
315.39	Other developmental speech or language disorder	Diagnosis	ICD-9-CM
315.4	Developmental coordination disorder	Diagnosis	ICD-9-CM
315.5	Mixed development disorder	Diagnosis	ICD-9-CM
315.8	Other specified delay in development	Diagnosis	ICD-9-CM
315.9	Unspecified delay in development	Diagnosis	ICD-9-CM
F07.81	Postconcussional syndrome	Diagnosis	ICD-10-CM
F07.89	Other personality and behavioral disorders due to known physiological condition	Diagnosis	ICD-10-CM
F09	Unspecified mental disorder due to known physiological condition	Diagnosis	ICD-10-CM
F66	Other sexual disorders	Diagnosis	ICD-10-CM
F80.89	Other developmental disorders of speech and language	Diagnosis	ICD-10-CM
F81.2	Mathematics disorder	Diagnosis	ICD-10-CM
F81.89	Other developmental disorders of scholastic skills	Diagnosis	ICD-10-CM
F88	Other disorders of psychological development	Diagnosis	ICD-10-CM
F89	Unspecified disorder of psychological development	Diagnosis	ICD-10-CM
F94.8	Other childhood disorders of social functioning	Diagnosis	ICD-10-CM
F95.0	Transient tic disorder	Diagnosis	ICD-10-CM
F98.29	Other feeding disorders of infancy and early childhood	Diagnosis	ICD-10-CM
G44.209	Tension-type headache, unspecified, not intractable	Diagnosis	ICD-10-CM
H93.25	Central auditory processing disorder	Diagnosis	ICD-10-CM
R45.1	Restlessness and agitation	Diagnosis	ICD-10-CM
R48.0	Dyslexia and alexia	Diagnosis	ICD-10-CM
Other Psychological Disorders			
290.0	Senile dementia, uncomplicated	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
290.10	Presenile dementia, uncomplicated	Diagnosis	ICD-9-CM
290.11	Presenile dementia with delirium	Diagnosis	ICD-9-CM
290.12	Presenile dementia with delusional features	Diagnosis	ICD-9-CM
290.13	Presenile dementia with depressive features	Diagnosis	ICD-9-CM
290.20	Senile dementia with delusional features	Diagnosis	ICD-9-CM
290.21	Senile dementia with depressive features	Diagnosis	ICD-9-CM
290.3	Senile dementia with delirium	Diagnosis	ICD-9-CM
290.40	Vascular dementia, uncomplicated	Diagnosis	ICD-9-CM
290.41	Vascular dementia, with delirium	Diagnosis	ICD-9-CM
290.42	Vascular dementia, with delusions	Diagnosis	ICD-9-CM
290.43	Vascular dementia, with depressed mood	Diagnosis	ICD-9-CM
305.1	Nondependent tobacco use disorder	Diagnosis	ICD-9-CM
307.0	Adult onset fluency disorder	Diagnosis	ICD-9-CM
307.22	Chronic motor or vocal tic disorder	Diagnosis	ICD-9-CM
307.9	Other and unspecified special symptom or syndrome, not elsewhere classified	Diagnosis	ICD-9-CM
313.23	Selective mutism	Diagnosis	ICD-9-CM
315.34	Speech and language developmental delay due to hearing loss	Diagnosis	ICD-9-CM
315.35	Childhood onset fluency disorder	Diagnosis	ICD-9-CM
317	Mild intellectual disabilities	Diagnosis	ICD-9-CM
318.0	Moderate intellectual disabilities	Diagnosis	ICD-9-CM
318.1	Severe intellectual disabilities	Diagnosis	ICD-9-CM
318.2	Profound intellectual disabilities	Diagnosis	ICD-9-CM
319	Unspecified intellectual disabilities	Diagnosis	ICD-9-CM
625.4	Premenstrual tension syndromes	Diagnosis	ICD-9-CM
F01	Vascular dementia	Diagnosis	ICD-10-CM
F01.5	Vascular dementia	Diagnosis	ICD-10-CM
F01.50	Vascular dementia without behavioral disturbance	Diagnosis	ICD-10-CM
F01.51	Vascular dementia with behavioral disturbance	Diagnosis	ICD-10-CM
F02	Dementia in other diseases classified elsewhere	Diagnosis	ICD-10-CM
F02.8	Dementia in other diseases classified elsewhere	Diagnosis	ICD-10-CM
F03	Unspecified dementia	Diagnosis	ICD-10-CM
F03.9	Unspecified dementia	Diagnosis	ICD-10-CM
F06	Other mental disorders due to known physiological condition	Diagnosis	ICD-10-CM
F06.3	Mood disorder due to known physiological condition	Diagnosis	ICD-10-CM
F07	Personality and behavioral disorders due to known physiological condition	Diagnosis	ICD-10-CM
F07.0	Personality change due to known physiological condition	Diagnosis	ICD-10-CM
F07.8	Other personality and behavioral disorders due to known physiological condition	Diagnosis	ICD-10-CM
F07.9	Unspecified personality and behavioral disorder due to known physiological condition	Diagnosis	ICD-10-CM
F10	Alcohol related disorders	Diagnosis	ICD-10-CM
F10.1	Alcohol abuse	Diagnosis	ICD-10-CM
F10.12	Alcohol abuse with intoxication	Diagnosis	ICD-10-CM
F10.15	Alcohol abuse with alcohol-induced psychotic disorder	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
F10.18	Alcohol abuse with other alcohol-induced disorders	Diagnosis	ICD-10-CM
F10.2	Alcohol dependence	Diagnosis	ICD-10-CM
F10.22	Alcohol dependence with intoxication	Diagnosis	ICD-10-CM
F10.23	Alcohol dependence with withdrawal	Diagnosis	ICD-10-CM
F10.25	Alcohol dependence with alcohol-induced psychotic disorder	Diagnosis	ICD-10-CM
F10.28	Alcohol dependence with other alcohol-induced disorders	Diagnosis	ICD-10-CM
F10.9	Alcohol use, unspecified	Diagnosis	ICD-10-CM
F10.92	Alcohol use, unspecified with intoxication	Diagnosis	ICD-10-CM
F10.95	Alcohol use, unspecified with alcohol-induced psychotic disorder	Diagnosis	ICD-10-CM
F10.98	Alcohol use, unspecified with other alcohol-induced disorders	Diagnosis	ICD-10-CM
F11	Opioid related disorders	Diagnosis	ICD-10-CM
F11.1	Opioid abuse	Diagnosis	ICD-10-CM
F11.12	Opioid abuse with intoxication	Diagnosis	ICD-10-CM
F11.15	Opioid abuse with opioid-induced psychotic disorder	Diagnosis	ICD-10-CM
F11.18	Opioid abuse with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.2	Opioid dependence	Diagnosis	ICD-10-CM
F11.22	Opioid dependence with intoxication	Diagnosis	ICD-10-CM
F11.25	Opioid dependence with opioid-induced psychotic disorder	Diagnosis	ICD-10-CM
F11.28	Opioid dependence with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.9	Opioid use, unspecified	Diagnosis	ICD-10-CM
F11.92	Opioid use, unspecified with intoxication	Diagnosis	ICD-10-CM
F11.95	Opioid use, unspecified with opioid-induced psychotic disorder	Diagnosis	ICD-10-CM
F11.98	Opioid use, unspecified with other specified opioid-induced disorder	Diagnosis	ICD-10-CM
F12	Cannabis related disorders	Diagnosis	ICD-10-CM
F12.1	Cannabis abuse	Diagnosis	ICD-10-CM
F12.12	Cannabis abuse with intoxication	Diagnosis	ICD-10-CM
F12.15	Cannabis abuse with psychotic disorder	Diagnosis	ICD-10-CM
F12.18	Cannabis abuse with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.2	Cannabis dependence	Diagnosis	ICD-10-CM
F12.22	Cannabis dependence with intoxication	Diagnosis	ICD-10-CM
F12.25	Cannabis dependence with psychotic disorder	Diagnosis	ICD-10-CM
F12.28	Cannabis dependence with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.9	Cannabis use, unspecified	Diagnosis	ICD-10-CM
F12.92	Cannabis use, unspecified with intoxication	Diagnosis	ICD-10-CM
F12.95	Cannabis use, unspecified with psychotic disorder	Diagnosis	ICD-10-CM
F12.98	Cannabis use, unspecified with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F13	Sedative, hypnotic, or anxiolytic related disorders	Diagnosis	ICD-10-CM
F13.1	Sedative, hypnotic or anxiolytic-related abuse	Diagnosis	ICD-10-CM
F13.11	Sedative, hypnotic or anxiolytic abuse, in remission	Diagnosis	ICD-10-CM
F13.12	Sedative, hypnotic or anxiolytic abuse with intoxication	Diagnosis	ICD-10-CM
F13.15	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
F13.18	Sedative, hypnotic or anxiolytic abuse with other sedative, hypnotic or anxiolytic-induced disorders	Diagnosis	ICD-10-CM
F13.2	Sedative, hypnotic or anxiolytic-related dependence	Diagnosis	ICD-10-CM
F13.22	Sedative, hypnotic or anxiolytic dependence with intoxication	Diagnosis	ICD-10-CM
F13.23	Sedative, hypnotic or anxiolytic dependence with withdrawal	Diagnosis	ICD-10-CM
F13.25	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder	Diagnosis	ICD-10-CM
F13.28	Sedative, hypnotic or anxiolytic dependence with other sedative, hypnotic or anxiolytic-induced disorders	Diagnosis	ICD-10-CM
F13.9	Sedative, hypnotic or anxiolytic-related use, unspecified	Diagnosis	ICD-10-CM
F13.92	Sedative, hypnotic or anxiolytic use, unspecified with intoxication	Diagnosis	ICD-10-CM
F13.93	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F13.95	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder	Diagnosis	ICD-10-CM
F13.98	Sedative, hypnotic or anxiolytic use, unspecified with other sedative, hypnotic or anxiolytic-induced disorders	Diagnosis	ICD-10-CM
F14	Cocaine related disorders	Diagnosis	ICD-10-CM
F14.1	Cocaine abuse	Diagnosis	ICD-10-CM
F14.12	Cocaine abuse with intoxication	Diagnosis	ICD-10-CM
F14.122	Cocaine abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F14.15	Cocaine abuse with cocaine-induced psychotic disorder	Diagnosis	ICD-10-CM
F14.18	Cocaine abuse with other cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.2	Cocaine dependence	Diagnosis	ICD-10-CM
F14.22	Cocaine dependence with intoxication	Diagnosis	ICD-10-CM
F14.25	Cocaine dependence with cocaine-induced psychotic disorder	Diagnosis	ICD-10-CM
F14.28	Cocaine dependence with other cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.9	Cocaine use, unspecified	Diagnosis	ICD-10-CM
F14.92	Cocaine use, unspecified with intoxication	Diagnosis	ICD-10-CM
F14.95	Cocaine use, unspecified with cocaine-induced psychotic disorder	Diagnosis	ICD-10-CM
F14.98	Cocaine use, unspecified with other specified cocaine-induced disorder	Diagnosis	ICD-10-CM
F15	Other stimulant related disorders	Diagnosis	ICD-10-CM
F15.1	Other stimulant abuse	Diagnosis	ICD-10-CM
F15.12	Other stimulant abuse with intoxication	Diagnosis	ICD-10-CM
F15.15	Other stimulant abuse with stimulant-induced psychotic disorder	Diagnosis	ICD-10-CM
F15.18	Other stimulant abuse with other stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.2	Other stimulant dependence	Diagnosis	ICD-10-CM
F15.22	Other stimulant dependence with intoxication	Diagnosis	ICD-10-CM
F15.25	Other stimulant dependence with stimulant-induced psychotic disorder	Diagnosis	ICD-10-CM
F15.28	Other stimulant dependence with other stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.9	Other stimulant use, unspecified	Diagnosis	ICD-10-CM
F15.92	Other stimulant use, unspecified with intoxication	Diagnosis	ICD-10-CM
F15.95	Other stimulant use, unspecified with stimulant-induced psychotic disorder	Diagnosis	ICD-10-CM
F15.98	Other stimulant use, unspecified with other stimulant-induced disorder	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
F16	Hallucinogen related disorders	Diagnosis	ICD-10-CM
F16.1	Hallucinogen abuse	Diagnosis	ICD-10-CM
F16.12	Hallucinogen abuse with intoxication	Diagnosis	ICD-10-CM
F16.15	Hallucinogen abuse with hallucinogen-induced psychotic disorder	Diagnosis	ICD-10-CM
F16.18	Hallucinogen abuse with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.2	Hallucinogen dependence	Diagnosis	ICD-10-CM
F16.22	Hallucinogen dependence with intoxication	Diagnosis	ICD-10-CM
F16.25	Hallucinogen dependence with hallucinogen-induced psychotic disorder	Diagnosis	ICD-10-CM
F16.28	Hallucinogen dependence with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.9	Hallucinogen use, unspecified	Diagnosis	ICD-10-CM
F16.92	Hallucinogen use, unspecified with intoxication	Diagnosis	ICD-10-CM
F16.95	Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder	Diagnosis	ICD-10-CM
F16.98	Hallucinogen use, unspecified with other specified hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F17	Nicotine dependence	Diagnosis	ICD-10-CM
F17.2	Nicotine dependence	Diagnosis	ICD-10-CM
F17.20	Nicotine dependence, unspecified	Diagnosis	ICD-10-CM
F17.200	Nicotine dependence, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F17.201	Nicotine dependence, unspecified, in remission	Diagnosis	ICD-10-CM
F17.21	Nicotine dependence, cigarettes	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
F17.22	Nicotine dependence, chewing tobacco	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
F17.29	Nicotine dependence, other tobacco product	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
F18	Inhalant related disorders	Diagnosis	ICD-10-CM
F18.1	Inhalant abuse	Diagnosis	ICD-10-CM
F18.12	Inhalant abuse with intoxication	Diagnosis	ICD-10-CM
F18.15	Inhalant abuse with inhalant-induced psychotic disorder	Diagnosis	ICD-10-CM
F18.18	Inhalant abuse with other inhalant-induced disorders	Diagnosis	ICD-10-CM
F18.2	Inhalant dependence	Diagnosis	ICD-10-CM
F18.22	Inhalant dependence with intoxication	Diagnosis	ICD-10-CM
F18.25	Inhalant dependence with inhalant-induced psychotic disorder	Diagnosis	ICD-10-CM
F18.28	Inhalant dependence with other inhalant-induced disorders	Diagnosis	ICD-10-CM
F18.9	Inhalant use, unspecified	Diagnosis	ICD-10-CM
F18.92	Inhalant use, unspecified with intoxication	Diagnosis	ICD-10-CM
F18.95	Inhalant use, unspecified with inhalant-induced psychotic disorder	Diagnosis	ICD-10-CM
F18.98	Inhalant use, unspecified with other inhalant-induced disorders	Diagnosis	ICD-10-CM
F19	Other psychoactive substance related disorders	Diagnosis	ICD-10-CM
F19.1	Other psychoactive substance abuse	Diagnosis	ICD-10-CM
F19.12	Other psychoactive substance abuse with intoxication	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
F19.15	Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder	Diagnosis	ICD-10-CM
F19.18	Other psychoactive substance abuse with other psychoactive substance-induced disorders	Diagnosis	ICD-10-CM
F19.2	Other psychoactive substance dependence	Diagnosis	ICD-10-CM
F19.22	Other psychoactive substance dependence with intoxication	Diagnosis	ICD-10-CM
F19.23	Other psychoactive substance dependence with withdrawal	Diagnosis	ICD-10-CM
F19.25	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder	Diagnosis	ICD-10-CM
F19.28	Other psychoactive substance dependence with other psychoactive substance-induced disorders	Diagnosis	ICD-10-CM
F19.9	Other psychoactive substance use, unspecified	Diagnosis	ICD-10-CM
F19.92	Other psychoactive substance use, unspecified with intoxication	Diagnosis	ICD-10-CM
F19.93	Other psychoactive substance use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F19.95	Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder	Diagnosis	ICD-10-CM
F19.98	Other psychoactive substance use, unspecified with other psychoactive substance-induced disorders	Diagnosis	ICD-10-CM
F20	Schizophrenia	Diagnosis	ICD-10-CM
F20.8	Other schizophrenia	Diagnosis	ICD-10-CM
F25	Schizoaffective disorders	Diagnosis	ICD-10-CM
F30	Manic episode	Diagnosis	ICD-10-CM
F30.1	Manic episode without psychotic symptoms	Diagnosis	ICD-10-CM
F31	Bipolar disorder	Diagnosis	ICD-10-CM
F31.1	Bipolar disorder, current episode manic without psychotic features	Diagnosis	ICD-10-CM
F31.3	Bipolar disorder, current episode depressed, mild or moderate severity	Diagnosis	ICD-10-CM
F31.6	Bipolar disorder, current episode mixed	Diagnosis	ICD-10-CM
F31.7	Bipolar disorder, currently in remission	Diagnosis	ICD-10-CM
F31.8	Other bipolar disorders	Diagnosis	ICD-10-CM
F32	Depressive episode	Diagnosis	ICD-10-CM
F33	Major depressive disorder, recurrent	Diagnosis	ICD-10-CM
F33.4	Major depressive disorder, recurrent, in remission	Diagnosis	ICD-10-CM
F34	Persistent mood [affective] disorders	Diagnosis	ICD-10-CM
F40	Phobic anxiety disorders	Diagnosis	ICD-10-CM
F40.0	Agoraphobia	Diagnosis	ICD-10-CM
F40.1	Social phobias	Diagnosis	ICD-10-CM
F40.2	Specific (isolated) phobias	Diagnosis	ICD-10-CM
F40.21	Animal type phobia	Diagnosis	ICD-10-CM
F40.22	Natural environment type phobia	Diagnosis	ICD-10-CM
F40.23	Blood, injection, injury type phobia	Diagnosis	ICD-10-CM
F40.24	Situational type phobia	Diagnosis	ICD-10-CM
F40.29	Other specified phobia	Diagnosis	ICD-10-CM
F41	Other anxiety disorders	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
F43	Reaction to severe stress, and adjustment disorders	Diagnosis	ICD-10-CM
F43.1	Post-traumatic stress disorder (PTSD)	Diagnosis	ICD-10-CM
F43.2	Adjustment disorders	Diagnosis	ICD-10-CM
F44	Dissociative and conversion disorders	Diagnosis	ICD-10-CM
F44.8	Other dissociative and conversion disorders	Diagnosis	ICD-10-CM
F45	Somatoform disorders	Diagnosis	ICD-10-CM
F45.2	Hypochondriacal disorders	Diagnosis	ICD-10-CM
F45.4	Pain disorders related to psychological factors	Diagnosis	ICD-10-CM
F48	Other nonpsychotic mental disorders	Diagnosis	ICD-10-CM
F48.2	Pseudobulbar affect	Diagnosis	ICD-10-CM
F50	Eating disorders	Diagnosis	ICD-10-CM
F50.0	Anorexia nervosa	Diagnosis	ICD-10-CM
F52	Sexual dysfunction not due to a substance or known physiological condition	Diagnosis	ICD-10-CM
F52.2	Sexual arousal disorders	Diagnosis	ICD-10-CM
F52.3	Orgasmic disorder	Diagnosis	ICD-10-CM
F60	Specific personality disorders	Diagnosis	ICD-10-CM
F60.8	Other specific personality disorders	Diagnosis	ICD-10-CM
F63	Impulse disorders	Diagnosis	ICD-10-CM
F63.8	Other impulse disorders	Diagnosis	ICD-10-CM
F64	Gender identity disorders	Diagnosis	ICD-10-CM
F64.2	Gender identity disorder of childhood	Diagnosis	ICD-10-CM
F65	Paraphilias	Diagnosis	ICD-10-CM
F65.5	Sadomasochism	Diagnosis	ICD-10-CM
F65.8	Other paraphilias	Diagnosis	ICD-10-CM
F68	Other disorders of adult personality and behavior	Diagnosis	ICD-10-CM
F68.1	Factitious disorder imposed on self	Diagnosis	ICD-10-CM
F70	Mild intellectual disabilities	Diagnosis	ICD-10-CM
F71	Moderate intellectual disabilities	Diagnosis	ICD-10-CM
F72	Severe intellectual disabilities	Diagnosis	ICD-10-CM
F73	Profound intellectual disabilities	Diagnosis	ICD-10-CM
F78	Other intellectual disabilities	Diagnosis	ICD-10-CM
F79	Unspecified intellectual disabilities	Diagnosis	ICD-10-CM
F80	Specific developmental disorders of speech and language	Diagnosis	ICD-10-CM
F80.0	Phonological disorder	Diagnosis	ICD-10-CM
F80.1	Expressive language disorder	Diagnosis	ICD-10-CM
F80.2	Mixed receptive-expressive language disorder	Diagnosis	ICD-10-CM
F80.4	Speech and language development delay due to hearing loss	Diagnosis	ICD-10-CM
F80.8	Other developmental disorders of speech and language	Diagnosis	ICD-10-CM
F80.81	Childhood onset fluency disorder	Diagnosis	ICD-10-CM
F80.82	Social pragmatic communication disorder	Diagnosis	ICD-10-CM
F80.9	Developmental disorder of speech and language, unspecified	Diagnosis	ICD-10-CM
F81	Specific developmental disorders of scholastic skills	Diagnosis	ICD-10-CM
F81.0	Specific reading disorder	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
F81.8	Other developmental disorders of scholastic skills	Diagnosis	ICD-10-CM
F81.81	Disorder of written expression	Diagnosis	ICD-10-CM
F81.9	Developmental disorder of scholastic skills, unspecified	Diagnosis	ICD-10-CM
F82	Specific developmental disorder of motor function	Diagnosis	ICD-10-CM
F84	Pervasive developmental disorders	Diagnosis	ICD-10-CM
F90	Attention-deficit hyperactivity disorders	Diagnosis	ICD-10-CM
F91	Conduct disorders	Diagnosis	ICD-10-CM
F93	Emotional disorders with onset specific to childhood	Diagnosis	ICD-10-CM
F93.0	Separation anxiety disorder of childhood	Diagnosis	ICD-10-CM
F93.9	Childhood emotional disorder, unspecified	Diagnosis	ICD-10-CM
F94	Disorders of social functioning with onset specific to childhood and adolescence	Diagnosis	ICD-10-CM
F94.0	Selective mutism	Diagnosis	ICD-10-CM
F94.1	Reactive attachment disorder of childhood	Diagnosis	ICD-10-CM
F94.2	Disinhibited attachment disorder of childhood	Diagnosis	ICD-10-CM
F94.9	Childhood disorder of social functioning, unspecified	Diagnosis	ICD-10-CM
F95	Tic disorder	Diagnosis	ICD-10-CM
F95.1	Chronic motor or vocal tic disorder	Diagnosis	ICD-10-CM
F95.2	Tourette's disorder	Diagnosis	ICD-10-CM
F95.8	Other tic disorders	Diagnosis	ICD-10-CM
F95.9	Tic disorder, unspecified	Diagnosis	ICD-10-CM
F98	Other behavioral and emotional disorders with onset usually occurring in childhood and adolescence	Diagnosis	ICD-10-CM
F98.0	Enuresis not due to a substance or known physiological condition	Diagnosis	ICD-10-CM
F98.1	Encopresis not due to a substance or known physiological condition	Diagnosis	ICD-10-CM
F98.2	Other feeding disorders of infancy and childhood	Diagnosis	ICD-10-CM
F98.21	Rumination disorder of infancy	Diagnosis	ICD-10-CM
F98.3	Pica of infancy and childhood	Diagnosis	ICD-10-CM
F98.4	Stereotyped movement disorders	Diagnosis	ICD-10-CM
F98.5	Adult onset fluency disorder	Diagnosis	ICD-10-CM
F98.8	Other specified behavioral and emotional disorders with onset usually occurring in childhood and adolescence	Diagnosis	ICD-10-CM
F98.9	Unspecified behavioral and emotional disorders with onset usually occurring in childhood and adolescence	Diagnosis	ICD-10-CM
V40.0	Problems with learning	Diagnosis	ICD-9-CM
V41.7	Problems with sexual function	Diagnosis	ICD-9-CM
Persistent Mental Disorders			
294	Persistent mental disorders due to conditions classified elsewhere	Diagnosis	ICD-9-CM
294.0	Amnestic disorder in conditions classified elsewhere	Diagnosis	ICD-9-CM
294.1	Dementia in conditions classified elsewhere	Diagnosis	ICD-9-CM
294.10	Dementia in conditions classified elsewhere without behavioral disturbance	Diagnosis	ICD-9-CM
294.11	Dementia in conditions classified elsewhere with behavioral disturbance	Diagnosis	ICD-9-CM
294.2	Dementia, unspecified	Diagnosis	ICD-9-CM
294.20	Dementia, unspecified, without behavioral disturbance	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
294.21	Dementia, unspecified, with behavioral disturbance	Diagnosis	ICD-9-CM
294.8	Other persistent mental disorders due to conditions classified elsewhere	Diagnosis	ICD-9-CM
294.9	Unspecified persistent mental disorders due to conditions classified elsewhere	Diagnosis	ICD-9-CM
F02.80	Dementia in other diseases classified elsewhere without behavioral disturbance	Diagnosis	ICD-10-CM
F02.81	Dementia in other diseases classified elsewhere with behavioral disturbance	Diagnosis	ICD-10-CM
F03.90	Unspecified dementia without behavioral disturbance	Diagnosis	ICD-10-CM
F03.91	Unspecified dementia with behavioral disturbance	Diagnosis	ICD-10-CM
F04	Amnestic disorder due to known physiological condition	Diagnosis	ICD-10-CM
Personality Disorders			
301	Personality disorders	Diagnosis	ICD-9-CM
301.0	Paranoid personality disorder	Diagnosis	ICD-9-CM
301.1	Affective personality disorder	Diagnosis	ICD-9-CM
301.11	Chronic hypomanic personality disorder	Diagnosis	ICD-9-CM
301.12	Chronic depressive personality disorder	Diagnosis	ICD-9-CM
301.13	Cyclothymic disorder	Diagnosis	ICD-9-CM
301.2	Schizoid personality disorder	Diagnosis	ICD-9-CM
301.20	Schizoid personality disorder, unspecified	Diagnosis	ICD-9-CM
301.21	Introverted personality	Diagnosis	ICD-9-CM
301.22	Schizotypal personality disorder	Diagnosis	ICD-9-CM
301.3	Explosive personality disorder	Diagnosis	ICD-9-CM
301.4	Obsessive-compulsive personality disorder	Diagnosis	ICD-9-CM
301.5	Histrionic personality disorder	Diagnosis	ICD-9-CM
301.50	Histrionic personality disorder, unspecified	Diagnosis	ICD-9-CM
301.51	Chronic factitious illness with physical symptoms	Diagnosis	ICD-9-CM
301.59	Other histrionic personality disorder	Diagnosis	ICD-9-CM
301.6	Dependent personality disorder	Diagnosis	ICD-9-CM
301.7	Antisocial personality disorder	Diagnosis	ICD-9-CM
301.8	Other personality disorders	Diagnosis	ICD-9-CM
301.81	Narcissistic personality disorder	Diagnosis	ICD-9-CM
301.82	Avoidant personality disorder	Diagnosis	ICD-9-CM
301.83	Borderline personality disorder	Diagnosis	ICD-9-CM
301.84	Passive-aggressive personality	Diagnosis	ICD-9-CM
301.89	Other personality disorder	Diagnosis	ICD-9-CM
301.9	Unspecified personality disorder	Diagnosis	ICD-9-CM
F21	Schizotypal disorder	Diagnosis	ICD-10-CM
F34.0	Cyclothymic disorder	Diagnosis	ICD-10-CM
F60.0	Paranoid personality disorder	Diagnosis	ICD-10-CM
F60.2	Antisocial personality disorder	Diagnosis	ICD-10-CM
F60.3	Borderline personality disorder	Diagnosis	ICD-10-CM
F60.4	Histrionic personality disorder	Diagnosis	ICD-10-CM
F60.5	Obsessive-compulsive personality disorder	Diagnosis	ICD-10-CM
F60.6	Avoidant personality disorder	Diagnosis	ICD-10-CM
F60.81	Narcissistic personality disorder	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
F60.89	Other specific personality disorders	Diagnosis	ICD-10-CM
Pervasive Developmental Disorders			
299	Pervasive developmental disorders	Diagnosis	ICD-9-CM
299.0	Autistic disorder	Diagnosis	ICD-9-CM
299.00	Autistic disorder, current or active state	Diagnosis	ICD-9-CM
299.01	Autistic disorder, residual state	Diagnosis	ICD-9-CM
299.1	Childhood disintegrative disorder	Diagnosis	ICD-9-CM
299.10	Childhood disintegrative disorder, current or active state	Diagnosis	ICD-9-CM
299.11	Childhood disintegrative disorder, residual state	Diagnosis	ICD-9-CM
299.8	Other specified pervasive developmental disorders	Diagnosis	ICD-9-CM
299.80	Other specified pervasive developmental disorders, current or active state	Diagnosis	ICD-9-CM
299.81	Other specified pervasive developmental disorders, residual state	Diagnosis	ICD-9-CM
299.9	Unspecified pervasive developmental disorder	Diagnosis	ICD-9-CM
299.90	Unspecified pervasive developmental disorder, current or active state	Diagnosis	ICD-9-CM
299.91	Unspecified pervasive developmental disorder, residual state	Diagnosis	ICD-9-CM
F84.0	Autistic disorder	Diagnosis	ICD-10-CM
F84.3	Other childhood disintegrative disorder	Diagnosis	ICD-10-CM
F84.5	Asperger's syndrome	Diagnosis	ICD-10-CM
F84.8	Other pervasive developmental disorders	Diagnosis	ICD-10-CM
F84.9	Pervasive developmental disorder, unspecified	Diagnosis	ICD-10-CM
Post-traumatic Stress Disorder			
309.81	Posttraumatic stress disorder	Diagnosis	ICD-9-CM
F43.10	Post-traumatic stress disorder, unspecified	Diagnosis	ICD-10-CM
F43.11	Post-traumatic stress disorder, acute	Diagnosis	ICD-10-CM
F43.12	Post-traumatic stress disorder, chronic	Diagnosis	ICD-10-CM
Psychotherapy			
8E0ZX5	Meditation	Procedure	ICD-10-PCS
90810	Individual psychotherapy, interactive, using play equipment, physical devices, language interpreter, or other mechanisms of non-verbal communication, in an office or outpatient facility, approximately 20 to 30 minutes face-to-face with the patient;	Procedure	CPT-4
90811	Individual psychotherapy, interactive, using play equipment, physical devices, language interpreter, or other mechanisms of non-verbal communication, in an office or outpatient facility, approximately 20 to 30 minutes face-to-face with the patient; with medical evaluation and management services	Procedure	CPT-4
90812	Individual psychotherapy, interactive, using play equipment, physical devices, language interpreter, or other mechanisms of non-verbal communication, in an office or outpatient facility, approximately 45 to 50 minutes face-to-face with the patient;	Procedure	CPT-4

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Code	Description	Code Category	Code Type
90813	Individual psychotherapy, interactive, using play equipment, physical devices, language interpreter, or other mechanisms of non-verbal communication, in an office or outpatient facility, approximately 45 to 50 minutes face-to-face with the patient; with medical evaluation and management services	Procedure	CPT-4
90814	Individual psychotherapy, interactive, using play equipment, physical devices, language interpreter, or other mechanisms of non-verbal communication, in an office or outpatient facility, approximately 75 to 80 minutes face-to-face with the patient;	Procedure	CPT-4
90815	Individual psychotherapy, interactive, using play equipment, physical devices, language interpreter, or other mechanisms of non-verbal communication, in an office or outpatient facility, approximately 75 to 80 minutes face-to-face with the patient; with medical evaluation and management services	Procedure	CPT-4
90823	Individual psychotherapy, interactive, using play equipment, physical devices, language interpreter, or other mechanisms of non-verbal communication, in an inpatient hospital, partial hospital or residential care setting, approximately 20 to 30 minutes face-to-face with the patient;	Procedure	CPT-4
90824	Individual psychotherapy, interactive, using play equipment, physical devices, language interpreter, or other mechanisms of non-verbal communication, in an inpatient hospital, partial hospital or residential care setting, approximately 20 to 30 minutes face-to-face with the patient; with medical evaluation and management services	Procedure	CPT-4
90826	Individual psychotherapy, interactive, using play equipment, physical devices, language interpreter, or other mechanisms of non-verbal communication, in an inpatient hospital, partial hospital or residential care setting, approximately 45 to 50 minutes face-to-face with the patient;	Procedure	CPT-4
90827	Individual psychotherapy, interactive, using play equipment, physical devices, language interpreter, or other mechanisms of non-verbal communication, in an inpatient hospital, partial hospital or residential care setting, approximately 45 to 50 minutes face-to-face with the patient; with medical evaluation and management services	Procedure	CPT-4
90828	Individual psychotherapy, interactive, using play equipment, physical devices, language interpreter, or other mechanisms of non-verbal communication, in an inpatient hospital, partial hospital or residential care setting, approximately 75 to 80 minutes face-to-face with the patient;	Procedure	CPT-4
90829	Individual psychotherapy, interactive, using play equipment, physical devices, language interpreter, or other mechanisms of non-verbal communication, in an inpatient hospital, partial hospital or residential care setting, approximately 75 to 80 minutes face-to-face with the patient; with medical evaluation and management services	Procedure	CPT-4
90832	Psychotherapy, 30 minutes with patient	Procedure	CPT-4
90833	Psychotherapy, 30 minutes with patient when performed with an evaluation and management service (List separately in addition to the code for primary procedure)	Procedure	CPT-4
90834	Psychotherapy, 45 minutes with patient	Procedure	CPT-4

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Code	Description	Code Category	Code Type
90836	Psychotherapy, 45 minutes with patient when performed with an evaluation and management service (List separately in addition to the code for primary procedure)	Procedure	CPT-4
90837	Psychotherapy, 60 minutes with patient	Procedure	CPT-4
90838	Psychotherapy, 60 minutes with patient when performed with an evaluation and management service (List separately in addition to the code for primary procedure)	Procedure	CPT-4
90839	Psychotherapy for crisis; first 60 minutes	Procedure	CPT-4
90840	Psychotherapy for crisis; each additional 30 minutes (List separately in addition to code for primary service)	Procedure	CPT-4
90845	Psychoanalysis	Procedure	CPT-4
90853	Group psychotherapy (other than of a multiple-family group)	Procedure	CPT-4
90857	Interactive group psychotherapy	Procedure	CPT-4
94.31	Psychoanalysis	Procedure	ICD-9-CM
94.32	Hypnotherapy	Procedure	ICD-9-CM
94.33	Behavior therapy	Procedure	ICD-9-CM
94.35	Crisis intervention	Procedure	ICD-9-CM
94.36	Play psychotherapy	Procedure	ICD-9-CM
94.37	Exploratory verbal psychotherapy	Procedure	ICD-9-CM
94.38	Supportive verbal psychotherapy	Procedure	ICD-9-CM
94.39	Other individual psychotherapy	Procedure	ICD-9-CM
94.43	Psychodrama	Procedure	ICD-9-CM
94.44	Other group therapy	Procedure	ICD-9-CM
G22ZZZZ	Crisis Intervention	Procedure	ICD-10-PCS
GZ50ZZZ	Individual Psychotherapy, Interactive	Procedure	ICD-10-PCS
GZ51ZZZ	Individual Psychotherapy, Behavioral	Procedure	ICD-10-PCS
GZ52ZZZ	Individual Psychotherapy, Cognitive	Procedure	ICD-10-PCS
GZ53ZZZ	Individual Psychotherapy, Interpersonal	Procedure	ICD-10-PCS
GZ54ZZZ	Individual Psychotherapy, Psychoanalysis	Procedure	ICD-10-PCS
GZ55ZZZ	Individual Psychotherapy, Psychodynamic	Procedure	ICD-10-PCS
GZ56ZZZ	Individual Psychotherapy, Supportive	Procedure	ICD-10-PCS
GZ58ZZZ	Individual Psychotherapy, Cognitive-Behavioral	Procedure	ICD-10-PCS
GZC9ZZZ	Biofeedback	Procedure	ICD-10-PCS
GZFZZZZ	Hypnosis	Procedure	ICD-10-PCS

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Code	Description	Code Category	Code Type
GZHZZZ	Group Psychotherapy	Procedure	ICD-10-PCS
Psychotic Conditions			
290.8	Other specified senile psychotic conditions	Diagnosis	ICD-9-CM
290.9	Unspecified senile psychotic condition	Diagnosis	ICD-9-CM
297	Delusional disorders	Diagnosis	ICD-9-CM
297.0	Paranoid state, simple	Diagnosis	ICD-9-CM
297.1	Delusional disorder	Diagnosis	ICD-9-CM
297.2	Paraphrenia	Diagnosis	ICD-9-CM
297.3	Shared psychotic disorder	Diagnosis	ICD-9-CM
297.8	Other specified paranoid states	Diagnosis	ICD-9-CM
297.9	Unspecified paranoid state	Diagnosis	ICD-9-CM
298	Other nonorganic psychoses	Diagnosis	ICD-9-CM
298.0	Depressive type psychosis	Diagnosis	ICD-9-CM
298.1	Excitatory type psychosis	Diagnosis	ICD-9-CM
298.2	Reactive confusion	Diagnosis	ICD-9-CM
298.3	Acute paranoid reaction	Diagnosis	ICD-9-CM
298.4	Psychogenic paranoid psychosis	Diagnosis	ICD-9-CM
298.8	Other and unspecified reactive psychosis	Diagnosis	ICD-9-CM
298.9	Unspecified psychosis	Diagnosis	ICD-9-CM
F24	Shared psychotic disorder	Diagnosis	ICD-10-CM
F28	Other psychotic disorder not due to a substance or known physiological condition	Diagnosis	ICD-10-CM
F29	Unspecified psychosis not due to a substance or known physiological condition	Diagnosis	ICD-10-CM
F44.89	Other dissociative and conversion disorders	Diagnosis	ICD-10-CM
Schizophrenia			
295	Schizophrenic disorders	Diagnosis	ICD-9-CM
295.0	Simple type schizophrenia	Diagnosis	ICD-9-CM
295.00	Simple schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.01	Simple schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.02	Simple schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.03	Simple schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.04	Simple schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.05	Simple schizophrenia, in remission	Diagnosis	ICD-9-CM
295.1	Disorganized type schizophrenia	Diagnosis	ICD-9-CM
295.10	Disorganized schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.11	Disorganized schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.12	Disorganized schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.13	Disorganized schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.14	Disorganized schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.15	Disorganized schizophrenia, in remission	Diagnosis	ICD-9-CM
295.2	Catatonic type schizophrenia	Diagnosis	ICD-9-CM
295.20	Catatonic schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.21	Catatonic schizophrenia, subchronic condition	Diagnosis	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
295.22	Catatonic schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.23	Catatonic schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.24	Catatonic schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.25	Catatonic schizophrenia, in remission	Diagnosis	ICD-9-CM
295.3	Paranoid type schizophrenia	Diagnosis	ICD-9-CM
295.30	Paranoid schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.31	Paranoid schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.32	Paranoid schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.33	Paranoid schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.34	Paranoid schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.35	Paranoid schizophrenia, in remission	Diagnosis	ICD-9-CM
295.4	Schizophreniform disorder	Diagnosis	ICD-9-CM
295.40	Schizophreniform disorder, unspecified	Diagnosis	ICD-9-CM
295.41	Schizophreniform disorder, subchronic	Diagnosis	ICD-9-CM
295.42	Schizophreniform disorder, chronic	Diagnosis	ICD-9-CM
295.43	Schizophreniform disorder, subchronic with acute exacerbation	Diagnosis	ICD-9-CM
295.44	Schizophreniform disorder, chronic with acute exacerbation	Diagnosis	ICD-9-CM
295.45	Schizophreniform disorder, in remission	Diagnosis	ICD-9-CM
295.5	Latent schizophrenia	Diagnosis	ICD-9-CM
295.50	Latent schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.51	Latent schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.52	Latent schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.53	Latent schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.54	Latent schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.55	Latent schizophrenia, in remission	Diagnosis	ICD-9-CM
295.6	Schizophrenic disorders, residual type	Diagnosis	ICD-9-CM
295.60	Schizophrenic disorders, residual type, unspecified	Diagnosis	ICD-9-CM
295.61	Schizophrenic disorders, residual type, subchronic	Diagnosis	ICD-9-CM
295.62	Schizophrenic disorders, residual type, chronic	Diagnosis	ICD-9-CM
295.63	Schizophrenic disorders, residual type, subchronic with acute exacerbation	Diagnosis	ICD-9-CM
295.64	Schizophrenic disorders, residual type, chronic with acute exacerbation	Diagnosis	ICD-9-CM
295.65	Schizophrenic disorders, residual type, in remission	Diagnosis	ICD-9-CM
295.7	Schizoaffective disorder	Diagnosis	ICD-9-CM
295.70	Schizoaffective disorder, unspecified	Diagnosis	ICD-9-CM
295.71	Schizoaffective disorder, subchronic	Diagnosis	ICD-9-CM
295.72	Schizoaffective disorder, chronic	Diagnosis	ICD-9-CM
295.73	Schizoaffective disorder, subchronic with acute exacerbation	Diagnosis	ICD-9-CM
295.74	Schizoaffective disorder, chronic with acute exacerbation	Diagnosis	ICD-9-CM
295.75	Schizoaffective disorder, in remission	Diagnosis	ICD-9-CM
295.8	Other specified types of schizophrenia	Diagnosis	ICD-9-CM
295.80	Other specified types of schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.81	Other specified types of schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.82	Other specified types of schizophrenia, chronic condition	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
295.83	Other specified types of schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.84	Other specified types of schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.85	Other specified types of schizophrenia, in remission	Diagnosis	ICD-9-CM
295.9	Unspecified schizophrenia	Diagnosis	ICD-9-CM
295.90	Unspecified schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.91	Unspecified schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.92	Unspecified schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.93	Unspecified schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.94	Unspecified schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.95	Unspecified schizophrenia, in remission	Diagnosis	ICD-9-CM
F20.0	Paranoid schizophrenia	Diagnosis	ICD-10-CM
F20.1	Disorganized schizophrenia	Diagnosis	ICD-10-CM
F20.2	Catatonic schizophrenia	Diagnosis	ICD-10-CM
F20.3	Undifferentiated schizophrenia	Diagnosis	ICD-10-CM
F20.5	Residual schizophrenia	Diagnosis	ICD-10-CM
F20.81	Schizophreniform disorder	Diagnosis	ICD-10-CM
F20.89	Other schizophrenia	Diagnosis	ICD-10-CM
F20.9	Schizophrenia, unspecified	Diagnosis	ICD-10-CM
F25.0	Schizoaffective disorder, bipolar type	Diagnosis	ICD-10-CM
F25.1	Schizoaffective disorder, depressive type	Diagnosis	ICD-10-CM
F25.8	Other schizoaffective disorders	Diagnosis	ICD-10-CM
F25.9	Schizoaffective disorder, unspecified	Diagnosis	ICD-10-CM
Sleep Disorder			
307.4	Specific disorders of sleep of nonorganic origin	Diagnosis	ICD-9-CM
307.40	Nonorganic sleep disorder, unspecified	Diagnosis	ICD-9-CM
307.41	Transient disorder of initiating or maintaining sleep	Diagnosis	ICD-9-CM
307.42	Persistent disorder of initiating or maintaining sleep	Diagnosis	ICD-9-CM
307.43	Transient disorder of initiating or maintaining wakefulness	Diagnosis	ICD-9-CM
307.44	Persistent disorder of initiating or maintaining wakefulness	Diagnosis	ICD-9-CM
307.45	Circadian rhythm sleep disorder of nonorganic origin	Diagnosis	ICD-9-CM
307.46	Sleep arousal disorder	Diagnosis	ICD-9-CM
307.47	Other dysfunctions of sleep stages or arousal from sleep	Diagnosis	ICD-9-CM
307.48	Repetitive intrusions of sleep	Diagnosis	ICD-9-CM
307.49	Other specific disorder of sleep of nonorganic origin	Diagnosis	ICD-9-CM
327	Organic sleep disorders	Diagnosis	ICD-9-CM
327.0	Organic disorders of initiating and maintaining sleep [Organic insomnia]	Diagnosis	ICD-9-CM
327.00	Organic insomnia, unspecified	Diagnosis	ICD-9-CM
327.01	Insomnia due to medical condition classified elsewhere	Diagnosis	ICD-9-CM
327.02	Insomnia due to mental disorder	Diagnosis	ICD-9-CM
327.09	Other organic insomnia	Diagnosis	ICD-9-CM
327.1	Organic disorders of excessive somnolence [Organic hypersomnia]	Diagnosis	ICD-9-CM
327.10	Organic hypersomnia, unspecified	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
327.11	Idiopathic hypersomnia with long sleep time	Diagnosis	ICD-9-CM
327.12	Idiopathic hypersomnia without long sleep time	Diagnosis	ICD-9-CM
327.13	Recurrent hypersomnia	Diagnosis	ICD-9-CM
327.14	Hypersomnia due to medical condition classified elsewhere	Diagnosis	ICD-9-CM
327.15	Hypersomnia due to mental disorder	Diagnosis	ICD-9-CM
327.19	Other organic hypersomnia	Diagnosis	ICD-9-CM
327.2	Organic sleep apnea	Diagnosis	ICD-9-CM
327.20	Organic sleep apnea, unspecified	Diagnosis	ICD-9-CM
327.21	Primary central sleep apnea	Diagnosis	ICD-9-CM
327.23	Obstructive sleep apnea (adult) (pediatric)	Diagnosis	ICD-9-CM
327.24	Idiopathic sleep related nonobstructive alveolar hypoventilation	Diagnosis	ICD-9-CM
327.25	Congenital central alveolar hypoventilation syndrome	Diagnosis	ICD-9-CM
327.26	Sleep related hypoventilation/hypoxemia in conditions classifiable elsewhere	Diagnosis	ICD-9-CM
327.27	Central sleep apnea in conditions classified elsewhere	Diagnosis	ICD-9-CM
327.29	Other organic sleep apnea	Diagnosis	ICD-9-CM
327.3	Circadian rhythm sleep disorder	Diagnosis	ICD-9-CM
327.30	Circadian rhythm sleep disorder, unspecified	Diagnosis	ICD-9-CM
327.31	Circadian rhythm sleep disorder, delayed sleep phase type	Diagnosis	ICD-9-CM
327.32	Circadian rhythm sleep disorder, advanced sleep phase type	Diagnosis	ICD-9-CM
327.33	Circadian rhythm sleep disorder, irregular sleep-wake type	Diagnosis	ICD-9-CM
327.34	Circadian rhythm sleep disorder, free-running type	Diagnosis	ICD-9-CM
327.35	Circadian rhythm sleep disorder, jet lag type	Diagnosis	ICD-9-CM
327.36	Circadian rhythm sleep disorder, shift work type	Diagnosis	ICD-9-CM
327.37	Circadian rhythm sleep disorder in conditions classified elsewhere	Diagnosis	ICD-9-CM
327.39	Other circadian rhythm sleep disorder	Diagnosis	ICD-9-CM
327.4	Organic parasomnia	Diagnosis	ICD-9-CM
327.40	Organic parasomnia, unspecified	Diagnosis	ICD-9-CM
327.41	Confusional arousals	Diagnosis	ICD-9-CM
327.42	REM sleep behavior disorder	Diagnosis	ICD-9-CM
327.43	Recurrent isolated sleep paralysis	Diagnosis	ICD-9-CM
327.44	Parasomnia in conditions classified elsewhere	Diagnosis	ICD-9-CM
327.49	Other organic parasomnia	Diagnosis	ICD-9-CM
327.5	Organic sleep related movement disorders	Diagnosis	ICD-9-CM
327.51	Periodic limb movement disorder	Diagnosis	ICD-9-CM
327.52	Sleep related leg cramps	Diagnosis	ICD-9-CM
327.53	Sleep related bruxism	Diagnosis	ICD-9-CM
327.59	Other organic sleep related movement disorders	Diagnosis	ICD-9-CM
327.8	Other organic sleep disorders	Diagnosis	ICD-9-CM
347	Cataplexy and narcolepsy	Diagnosis	ICD-9-CM
347.0	Narcolepsy	Diagnosis	ICD-9-CM
347.00	Narcolepsy, without cataplexy	Diagnosis	ICD-9-CM
347.01	Narcolepsy, with cataplexy	Diagnosis	ICD-9-CM
347.1	Narcolepsy in conditions classified elsewhere	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
347.10	Narcolepsy in conditions classified elsewhere, without cataplexy	Diagnosis	ICD-9-CM
347.11	Narcolepsy in conditions classified elsewhere, with cataplexy	Diagnosis	ICD-9-CM
780.5	Sleep disturbances	Diagnosis	ICD-9-CM
780.50	Unspecified sleep disturbance	Diagnosis	ICD-9-CM
780.51	Insomnia with sleep apnea, unspecified	Diagnosis	ICD-9-CM
780.52	Insomnia, unspecified	Diagnosis	ICD-9-CM
780.53	Hypersomnia with sleep apnea, unspecified	Diagnosis	ICD-9-CM
780.54	Hypersomnia, unspecified	Diagnosis	ICD-9-CM
780.55	Disruption of 24 hour sleep wake cycle, unspecified	Diagnosis	ICD-9-CM
780.56	Dysfunctions associated with sleep stages or arousal from sleep	Diagnosis	ICD-9-CM
780.57	Unspecified sleep apnea	Diagnosis	ICD-9-CM
780.58	Sleep related movement disorder, unspecified	Diagnosis	ICD-9-CM
780.59	Other sleep disturbances	Diagnosis	ICD-9-CM
F51	Sleep disorders not due to a substance or known physiological condition	Diagnosis	ICD-10-CM
F51.0	Insomnia not due to a substance or known physiological condition	Diagnosis	ICD-10-CM
F51.01	Primary insomnia	Diagnosis	ICD-10-CM
F51.02	Adjustment insomnia	Diagnosis	ICD-10-CM
F51.03	Paradoxical insomnia	Diagnosis	ICD-10-CM
F51.04	Psychophysiologic insomnia	Diagnosis	ICD-10-CM
F51.05	Insomnia due to other mental disorder	Diagnosis	ICD-10-CM
F51.09	Other insomnia not due to a substance or known physiological condition	Diagnosis	ICD-10-CM
F51.1	Hypersomnia not due to a substance or known physiological condition	Diagnosis	ICD-10-CM
F51.11	Primary hypersomnia	Diagnosis	ICD-10-CM
F51.12	Insufficient sleep syndrome	Diagnosis	ICD-10-CM
F51.13	Hypersomnia due to other mental disorder	Diagnosis	ICD-10-CM
F51.19	Other hypersomnia not due to a substance or known physiological condition	Diagnosis	ICD-10-CM
F51.3	Sleepwalking [somnambulism]	Diagnosis	ICD-10-CM
F51.4	Sleep terrors [night terrors]	Diagnosis	ICD-10-CM
F51.5	Nightmare disorder	Diagnosis	ICD-10-CM
F51.8	Other sleep disorders not due to a substance or known physiological condition	Diagnosis	ICD-10-CM
F51.9	Sleep disorder not due to a substance or known physiological condition, unspecified	Diagnosis	ICD-10-CM
G47	Sleep disorders	Diagnosis	ICD-10-CM
G47.0	Insomnia	Diagnosis	ICD-10-CM
G47.00	Insomnia, unspecified	Diagnosis	ICD-10-CM
G47.01	Insomnia due to medical condition	Diagnosis	ICD-10-CM
G47.09	Other insomnia	Diagnosis	ICD-10-CM
G47.1	Hypersomnia	Diagnosis	ICD-10-CM
G47.10	Hypersomnia, unspecified	Diagnosis	ICD-10-CM
G47.11	Idiopathic hypersomnia with long sleep time	Diagnosis	ICD-10-CM
G47.12	Idiopathic hypersomnia without long sleep time	Diagnosis	ICD-10-CM
G47.13	Recurrent hypersomnia	Diagnosis	ICD-10-CM
G47.14	Hypersomnia due to medical condition	Diagnosis	ICD-10-CM
G47.19	Other hypersomnia	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
G47.2	Circadian rhythm sleep disorders	Diagnosis	ICD-10-CM
G47.20	Circadian rhythm sleep disorder, unspecified type	Diagnosis	ICD-10-CM
G47.21	Circadian rhythm sleep disorder, delayed sleep phase type	Diagnosis	ICD-10-CM
G47.22	Circadian rhythm sleep disorder, advanced sleep phase type	Diagnosis	ICD-10-CM
G47.23	Circadian rhythm sleep disorder, irregular sleep wake type	Diagnosis	ICD-10-CM
G47.24	Circadian rhythm sleep disorder, free running type	Diagnosis	ICD-10-CM
G47.25	Circadian rhythm sleep disorder, jet lag type	Diagnosis	ICD-10-CM
G47.26	Circadian rhythm sleep disorder, shift work type	Diagnosis	ICD-10-CM
G47.27	Circadian rhythm sleep disorder in conditions classified elsewhere	Diagnosis	ICD-10-CM
G47.29	Other circadian rhythm sleep disorder	Diagnosis	ICD-10-CM
G47.3	Sleep apnea	Diagnosis	ICD-10-CM
G47.30	Sleep apnea, unspecified	Diagnosis	ICD-10-CM
G47.31	Primary central sleep apnea	Diagnosis	ICD-10-CM
G47.33	Obstructive sleep apnea (adult) (pediatric)	Diagnosis	ICD-10-CM
G47.34	Idiopathic sleep related nonobstructive alveolar hypoventilation	Diagnosis	ICD-10-CM
G47.35	Congenital central alveolar hypoventilation syndrome	Diagnosis	ICD-10-CM
G47.36	Sleep related hypoventilation in conditions classified elsewhere	Diagnosis	ICD-10-CM
G47.37	Central sleep apnea in conditions classified elsewhere	Diagnosis	ICD-10-CM
G47.39	Other sleep apnea	Diagnosis	ICD-10-CM
G47.4	Narcolepsy and cataplexy	Diagnosis	ICD-10-CM
G47.41	Narcolepsy	Diagnosis	ICD-10-CM
G47.411	Narcolepsy with cataplexy	Diagnosis	ICD-10-CM
G47.419	Narcolepsy without cataplexy	Diagnosis	ICD-10-CM
G47.42	Narcolepsy in conditions classified elsewhere	Diagnosis	ICD-10-CM
G47.421	Narcolepsy in conditions classified elsewhere with cataplexy	Diagnosis	ICD-10-CM
G47.429	Narcolepsy in conditions classified elsewhere without cataplexy	Diagnosis	ICD-10-CM
G47.5	Parasomnia	Diagnosis	ICD-10-CM
G47.50	Parasomnia, unspecified	Diagnosis	ICD-10-CM
G47.51	Confusional arousals	Diagnosis	ICD-10-CM
G47.52	REM sleep behavior disorder	Diagnosis	ICD-10-CM
G47.53	Recurrent isolated sleep paralysis	Diagnosis	ICD-10-CM
G47.54	Parasomnia in conditions classified elsewhere	Diagnosis	ICD-10-CM
G47.59	Other parasomnia	Diagnosis	ICD-10-CM
G47.6	Sleep related movement disorders	Diagnosis	ICD-10-CM
G47.61	Periodic limb movement disorder	Diagnosis	ICD-10-CM
G47.62	Sleep related leg cramps	Diagnosis	ICD-10-CM
G47.63	Sleep related bruxism	Diagnosis	ICD-10-CM
G47.69	Other sleep related movement disorders	Diagnosis	ICD-10-CM
G47.8	Other sleep disorders	Diagnosis	ICD-10-CM
G47.9	Sleep disorder, unspecified	Diagnosis	ICD-10-CM
Substance Abuse			
291	Alcohol-induced mental disorders	Diagnosis	ICD-9-CM
291.0	Alcohol withdrawal delirium	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
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
292	Drug-induced mental disorders	Diagnosis	ICD-9-CM
292.0	Drug withdrawal	Diagnosis	ICD-9-CM
292.1	Drug-induced psychotic disorder	Diagnosis	ICD-9-CM
292.11	Drug-induced psychotic disorder with delusions	Diagnosis	ICD-9-CM
292.12	Drug-induced psychotic disorder with hallucinations	Diagnosis	ICD-9-CM
292.2	Pathological drug intoxication	Diagnosis	ICD-9-CM
292.8	Other specified drug-induced mental disorders	Diagnosis	ICD-9-CM
292.82	Drug-induced persisting dementia	Diagnosis	ICD-9-CM
292.83	Drug-induced persisting amnestic disorder	Diagnosis	ICD-9-CM
292.84	Drug-induced mood disorder	Diagnosis	ICD-9-CM
292.85	Drug induced sleep disorders	Diagnosis	ICD-9-CM
292.89	Other specified drug-induced mental disorder	Diagnosis	ICD-9-CM
292.9	Unspecified drug-induced mental disorder	Diagnosis	ICD-9-CM
303	Alcohol dependence syndrome	Diagnosis	ICD-9-CM
303.0	Acute alcoholic intoxication	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
303.9	Other and unspecified alcohol dependence	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
304	Drug dependence	Diagnosis	ICD-9-CM
304.0	Opioid type dependence	Diagnosis	ICD-9-CM
304.00	Opioid type dependence, unspecified	Diagnosis	ICD-9-CM
304.01	Opioid type dependence, continuous	Diagnosis	ICD-9-CM
304.02	Opioid type dependence, episodic	Diagnosis	ICD-9-CM
304.03	Opioid type dependence, in remission	Diagnosis	ICD-9-CM
304.1	Sedative, hypnotic or anxiolytic dependence	Diagnosis	ICD-9-CM
304.10	Sedative, hypnotic or anxiolytic dependence, unspecified	Diagnosis	ICD-9-CM
304.11	Sedative, hypnotic or anxiolytic dependence, continuous	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
304.12	Sedative, hypnotic or anxiolytic dependence, episodic	Diagnosis	ICD-9-CM
304.13	Sedative, hypnotic or anxiolytic dependence, in remission	Diagnosis	ICD-9-CM
304.2	Cocaine dependence	Diagnosis	ICD-9-CM
304.20	Cocaine dependence, unspecified	Diagnosis	ICD-9-CM
304.21	Cocaine dependence, continuous	Diagnosis	ICD-9-CM
304.22	Cocaine dependence, episodic	Diagnosis	ICD-9-CM
304.23	Cocaine dependence, in remission	Diagnosis	ICD-9-CM
304.3	Cannabis dependence	Diagnosis	ICD-9-CM
304.30	Cannabis dependence, unspecified	Diagnosis	ICD-9-CM
304.31	Cannabis dependence, continuous	Diagnosis	ICD-9-CM
304.32	Cannabis dependence, episodic	Diagnosis	ICD-9-CM
304.33	Cannabis dependence, in remission	Diagnosis	ICD-9-CM
304.4	Amphetamine and other psychostimulant dependence	Diagnosis	ICD-9-CM
304.40	Amphetamine and other psychostimulant dependence, unspecified	Diagnosis	ICD-9-CM
304.41	Amphetamine and other psychostimulant dependence, continuous	Diagnosis	ICD-9-CM
304.42	Amphetamine and other psychostimulant dependence, episodic	Diagnosis	ICD-9-CM
304.43	Amphetamine and other psychostimulant dependence, in remission	Diagnosis	ICD-9-CM
304.5	Hallucinogen dependence	Diagnosis	ICD-9-CM
304.50	Hallucinogen dependence, unspecified	Diagnosis	ICD-9-CM
304.51	Hallucinogen dependence, continuous	Diagnosis	ICD-9-CM
304.52	Hallucinogen dependence, episodic	Diagnosis	ICD-9-CM
304.53	Hallucinogen dependence, in remission	Diagnosis	ICD-9-CM
304.6	Other specified drug dependence	Diagnosis	ICD-9-CM
304.60	Other specified drug dependence, unspecified	Diagnosis	ICD-9-CM
304.61	Other specified drug dependence, continuous	Diagnosis	ICD-9-CM
304.62	Other specified drug dependence, episodic	Diagnosis	ICD-9-CM
304.63	Other specified drug dependence, in remission	Diagnosis	ICD-9-CM
304.7	Combinations of opioid type drug with any other drug dependence	Diagnosis	ICD-9-CM
304.70	Combinations of opioid type drug with any other drug dependence, unspecified	Diagnosis	ICD-9-CM
304.71	Combinations of opioid type drug with any other drug dependence, continuous	Diagnosis	ICD-9-CM
304.72	Combinations of opioid type drug with any other drug dependence, episodic	Diagnosis	ICD-9-CM
304.73	Combinations of opioid type drug with any other drug dependence, in remission	Diagnosis	ICD-9-CM
304.8	Combinations of drug dependence excluding opioid type drug	Diagnosis	ICD-9-CM
304.80	Combinations of drug dependence excluding opioid type drug, unspecified	Diagnosis	ICD-9-CM
304.81	Combinations of drug dependence excluding opioid type drug, continuous	Diagnosis	ICD-9-CM
304.82	Combinations of drug dependence excluding opioid type drug, episodic	Diagnosis	ICD-9-CM
304.83	Combinations of drug dependence excluding opioid type drug, in remission	Diagnosis	ICD-9-CM
304.9	Unspecified drug dependence	Diagnosis	ICD-9-CM
304.90	Unspecified drug dependence, unspecified	Diagnosis	ICD-9-CM
304.91	Unspecified drug dependence, continuous	Diagnosis	ICD-9-CM
304.92	Unspecified drug dependence, episodic	Diagnosis	ICD-9-CM
304.93	Unspecified drug dependence, in remission	Diagnosis	ICD-9-CM
305	Nondependent abuse of drugs	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
305.0	Nondependent alcohol abuse	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
305.03	Nondependent alcohol abuse, in remission	Diagnosis	ICD-9-CM
305.2	Nondependent cannabis abuse	Diagnosis	ICD-9-CM
305.20	Nondependent cannabis abuse, unspecified	Diagnosis	ICD-9-CM
305.21	Nondependent cannabis abuse, continuous	Diagnosis	ICD-9-CM
305.22	Nondependent cannabis abuse, episodic	Diagnosis	ICD-9-CM
305.23	Nondependent cannabis abuse, in remission	Diagnosis	ICD-9-CM
305.3	Nondependent hallucinogen abuse	Diagnosis	ICD-9-CM
305.30	Nondependent hallucinogen abuse, unspecified	Diagnosis	ICD-9-CM
305.31	Nondependent hallucinogen abuse, continuous	Diagnosis	ICD-9-CM
305.32	Nondependent hallucinogen abuse, episodic	Diagnosis	ICD-9-CM
305.33	Nondependent hallucinogen abuse, in remission	Diagnosis	ICD-9-CM
305.4	Nondependent sedative, hypnotic or anxiolytic abuse	Diagnosis	ICD-9-CM
305.40	Nondependent sedative, hypnotic or anxiolytic abuse, unspecified	Diagnosis	ICD-9-CM
305.41	Nondependent sedative hypnotic or anxiolytic abuse, continuous	Diagnosis	ICD-9-CM
305.42	Nondependent sedative, hypnotic or anxiolytic abuse, episodic	Diagnosis	ICD-9-CM
305.43	Nondependent sedative, hypnotic or anxiolytic abuse, in remission	Diagnosis	ICD-9-CM
305.5	Nondependent opioid abuse	Diagnosis	ICD-9-CM
305.50	Nondependent opioid abuse, unspecified	Diagnosis	ICD-9-CM
305.51	Nondependent opioid abuse, continuous	Diagnosis	ICD-9-CM
305.52	Nondependent opioid abuse, episodic	Diagnosis	ICD-9-CM
305.53	Nondependent opioid abuse, in remission	Diagnosis	ICD-9-CM
305.6	Nondependent cocaine abuse	Diagnosis	ICD-9-CM
305.60	Nondependent cocaine abuse, unspecified	Diagnosis	ICD-9-CM
305.61	Nondependent cocaine abuse, continuous	Diagnosis	ICD-9-CM
305.62	Nondependent cocaine abuse, episodic	Diagnosis	ICD-9-CM
305.63	Nondependent cocaine abuse, in remission	Diagnosis	ICD-9-CM
305.7	Nondependent amphetamine or related acting sympathomimetic abuse	Diagnosis	ICD-9-CM
305.70	Nondependent amphetamine or related acting sympathomimetic abuse, unspecified	Diagnosis	ICD-9-CM
305.71	Nondependent amphetamine or related acting sympathomimetic abuse, continuous	Diagnosis	ICD-9-CM
305.72	Nondependent amphetamine or related acting sympathomimetic abuse, episodic	Diagnosis	ICD-9-CM
305.73	Nondependent amphetamine or related acting sympathomimetic abuse, in remission	Diagnosis	ICD-9-CM
305.8	Nondependent antidepressant type abuse	Diagnosis	ICD-9-CM
305.80	Nondependent antidepressant type abuse, unspecified	Diagnosis	ICD-9-CM
305.81	Nondependent antidepressant type abuse, continuous	Diagnosis	ICD-9-CM
305.82	Nondependent antidepressant type abuse, episodic	Diagnosis	ICD-9-CM
305.83	Nondependent antidepressant type abuse, in remission	Diagnosis	ICD-9-CM
305.9	Other, mixed, or unspecified nondependent drug abuse	Diagnosis	ICD-9-CM
305.90	Other, mixed, or unspecified nondependent drug abuse, unspecified	Diagnosis	ICD-9-CM
305.91	Other, mixed, or unspecified nondependent drug abuse, continuous	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
305.92	Other, mixed, or unspecified nondependent drug abuse, episodic	Diagnosis	ICD-9-CM
305.93	Other, mixed, or unspecified nondependent drug abuse, in remission	Diagnosis	ICD-9-CM
357.5	Alcoholic polyneuropathy	Diagnosis	ICD-9-CM
425.5	Alcoholic cardiomyopathy	Diagnosis	ICD-9-CM
4320F	Patient counseled regarding psychosocial and pharmacologic treatment options for alcohol dependence (SUD)	Procedure	CPT-2
535.3	Alcoholic gastritis	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
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
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
F10.129	Alcohol abuse with intoxication, 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

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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 amnestic 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
F10.94	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 amnestic 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
F11.10	Opioid abuse, uncomplicated	Diagnosis	ICD-10-CM
F11.11	Opioid abuse, in remission	Diagnosis	ICD-10-CM
F11.120	Opioid abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.121	Opioid abuse with intoxication delirium	Diagnosis	ICD-10-CM
F11.122	Opioid abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.129	Opioid abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.14	Opioid abuse with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.150	Opioid abuse with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.151	Opioid abuse with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.159	Opioid abuse with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.181	Opioid abuse with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.182	Opioid abuse with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.188	Opioid abuse with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.19	Opioid abuse with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F11.20	Opioid dependence, uncomplicated	Diagnosis	ICD-10-CM
F11.21	Opioid dependence, in remission	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
F11.220	Opioid dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.221	Opioid dependence with intoxication delirium	Diagnosis	ICD-10-CM
F11.222	Opioid dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.229	Opioid dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.23	Opioid dependence with withdrawal	Diagnosis	ICD-10-CM
F11.24	Opioid dependence with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.250	Opioid dependence with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.251	Opioid dependence with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.259	Opioid dependence with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.281	Opioid dependence with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.282	Opioid dependence with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.288	Opioid dependence with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.29	Opioid dependence with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F11.90	Opioid use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F11.920	Opioid use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.921	Opioid use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F11.922	Opioid use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.929	Opioid use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.93	Opioid use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F11.94	Opioid use, unspecified with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.950	Opioid use, unspecified with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.951	Opioid use, unspecified with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.959	Opioid use, unspecified with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.981	Opioid use, unspecified with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.982	Opioid use, unspecified with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.988	Opioid use, unspecified with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.99	Opioid use, unspecified with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F12.10	Cannabis abuse, uncomplicated	Diagnosis	ICD-10-CM
F12.11	Cannabis abuse, in remission	Diagnosis	ICD-10-CM
F12.120	Cannabis abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F12.121	Cannabis abuse with intoxication delirium	Diagnosis	ICD-10-CM
F12.122	Cannabis abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F12.129	Cannabis abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F12.150	Cannabis abuse with psychotic disorder with delusions	Diagnosis	ICD-10-CM
F12.151	Cannabis abuse with psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F12.159	Cannabis abuse with psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F12.180	Cannabis abuse with cannabis-induced anxiety disorder	Diagnosis	ICD-10-CM
F12.188	Cannabis abuse with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.19	Cannabis abuse with unspecified cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.20	Cannabis dependence, uncomplicated	Diagnosis	ICD-10-CM
F12.21	Cannabis dependence, in remission	Diagnosis	ICD-10-CM
F12.220	Cannabis dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F12.221	Cannabis dependence with intoxication delirium	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
F12.222	Cannabis dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F12.229	Cannabis dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F12.23	Cannabis dependence with withdrawal	Diagnosis	ICD-10-CM
F12.250	Cannabis dependence with psychotic disorder with delusions	Diagnosis	ICD-10-CM
F12.251	Cannabis dependence with psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F12.259	Cannabis dependence with psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F12.280	Cannabis dependence with cannabis-induced anxiety disorder	Diagnosis	ICD-10-CM
F12.288	Cannabis dependence with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.29	Cannabis dependence with unspecified cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.90	Cannabis use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F12.920	Cannabis use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F12.921	Cannabis use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F12.922	Cannabis use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F12.929	Cannabis use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F12.93	Cannabis use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F12.950	Cannabis use, unspecified with psychotic disorder with delusions	Diagnosis	ICD-10-CM
F12.951	Cannabis use, unspecified with psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F12.959	Cannabis use, unspecified with psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F12.980	Cannabis use, unspecified with anxiety disorder	Diagnosis	ICD-10-CM
F12.988	Cannabis use, unspecified with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.99	Cannabis use, unspecified with unspecified cannabis-induced disorder	Diagnosis	ICD-10-CM
F13.10	Sedative, hypnotic or anxiolytic abuse, uncomplicated	Diagnosis	ICD-10-CM
F13.120	Sedative, hypnotic or anxiolytic abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F13.121	Sedative, hypnotic or anxiolytic abuse with intoxication delirium	Diagnosis	ICD-10-CM
F13.129	Sedative, hypnotic or anxiolytic abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F13.14	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced mood disorder	Diagnosis	ICD-10-CM
F13.150	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F13.151	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F13.159	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F13.180	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced anxiety disorder	Diagnosis	ICD-10-CM
F13.181	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced sexual dysfunction	Diagnosis	ICD-10-CM
F13.182	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced sleep disorder	Diagnosis	ICD-10-CM
F13.188	Sedative, hypnotic or anxiolytic abuse with other sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.19	Sedative, hypnotic or anxiolytic abuse with unspecified sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
F13.20	Sedative, hypnotic or anxiolytic dependence, uncomplicated	Diagnosis	ICD-10-CM
F13.21	Sedative, hypnotic or anxiolytic dependence, in remission	Diagnosis	ICD-10-CM
F13.220	Sedative, hypnotic or anxiolytic dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F13.221	Sedative, hypnotic or anxiolytic dependence with intoxication delirium	Diagnosis	ICD-10-CM
F13.229	Sedative, hypnotic or anxiolytic dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F13.230	Sedative, hypnotic or anxiolytic dependence with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F13.231	Sedative, hypnotic or anxiolytic dependence with withdrawal delirium	Diagnosis	ICD-10-CM
F13.232	Sedative, hypnotic or anxiolytic dependence with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F13.239	Sedative, hypnotic or anxiolytic dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM
F13.24	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced mood disorder	Diagnosis	ICD-10-CM
F13.250	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F13.251	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F13.259	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F13.26	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting amnesic disorder	Diagnosis	ICD-10-CM
F13.27	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting dementia	Diagnosis	ICD-10-CM
F13.280	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced anxiety disorder	Diagnosis	ICD-10-CM
F13.281	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sexual dysfunction	Diagnosis	ICD-10-CM
F13.282	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sleep disorder	Diagnosis	ICD-10-CM
F13.288	Sedative, hypnotic or anxiolytic dependence with other sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.29	Sedative, hypnotic or anxiolytic dependence with unspecified sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.90	Sedative, hypnotic, or anxiolytic use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F13.920	Sedative, hypnotic or anxiolytic use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F13.921	Sedative, hypnotic or anxiolytic use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F13.929	Sedative, hypnotic or anxiolytic use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F13.930	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F13.931	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal delirium	Diagnosis	ICD-10-CM
F13.932	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal with perceptual disturbances	Diagnosis	ICD-10-CM
F13.939	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal, unspecified	Diagnosis	ICD-10-CM
F13.94	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced mood disorder	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
F13.950	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F13.951	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F13.959	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F13.96	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced persisting amnesic disorder	Diagnosis	ICD-10-CM
F13.97	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced persisting dementia	Diagnosis	ICD-10-CM
F13.980	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced anxiety disorder	Diagnosis	ICD-10-CM
F13.981	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced sexual dysfunction	Diagnosis	ICD-10-CM
F13.982	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced sleep disorder	Diagnosis	ICD-10-CM
F13.988	Sedative, hypnotic or anxiolytic use, unspecified with other sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.99	Sedative, hypnotic or anxiolytic use, unspecified with unspecified sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F14.10	Cocaine abuse, uncomplicated	Diagnosis	ICD-10-CM
F14.11	Cocaine abuse, in remission	Diagnosis	ICD-10-CM
F14.120	Cocaine abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F14.121	Cocaine abuse with intoxication with delirium	Diagnosis	ICD-10-CM
F14.129	Cocaine abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F14.14	Cocaine abuse with cocaine-induced mood disorder	Diagnosis	ICD-10-CM
F14.150	Cocaine abuse with cocaine-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F14.151	Cocaine abuse with cocaine-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F14.159	Cocaine abuse with cocaine-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F14.180	Cocaine abuse with cocaine-induced anxiety disorder	Diagnosis	ICD-10-CM
F14.181	Cocaine abuse with cocaine-induced sexual dysfunction	Diagnosis	ICD-10-CM
F14.182	Cocaine abuse with cocaine-induced sleep disorder	Diagnosis	ICD-10-CM
F14.188	Cocaine abuse with other cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.19	Cocaine abuse with unspecified cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.20	Cocaine dependence, uncomplicated	Diagnosis	ICD-10-CM
F14.21	Cocaine dependence, in remission	Diagnosis	ICD-10-CM
F14.220	Cocaine dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F14.221	Cocaine dependence with intoxication delirium	Diagnosis	ICD-10-CM
F14.222	Cocaine dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F14.229	Cocaine dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F14.23	Cocaine dependence with withdrawal	Diagnosis	ICD-10-CM
F14.24	Cocaine dependence with cocaine-induced mood disorder	Diagnosis	ICD-10-CM
F14.250	Cocaine dependence with cocaine-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
F14.251	Cocaine dependence with cocaine-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F14.259	Cocaine dependence with cocaine-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F14.280	Cocaine dependence with cocaine-induced anxiety disorder	Diagnosis	ICD-10-CM
F14.281	Cocaine dependence with cocaine-induced sexual dysfunction	Diagnosis	ICD-10-CM
F14.282	Cocaine dependence with cocaine-induced sleep disorder	Diagnosis	ICD-10-CM
F14.288	Cocaine dependence with other cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.29	Cocaine dependence with unspecified cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.90	Cocaine use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F14.920	Cocaine use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F14.921	Cocaine use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F14.922	Cocaine use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F14.929	Cocaine use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F14.94	Cocaine use, unspecified with cocaine-induced mood disorder	Diagnosis	ICD-10-CM
F14.950	Cocaine use, unspecified with cocaine-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F14.951	Cocaine use, unspecified with cocaine-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F14.959	Cocaine use, unspecified with cocaine-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F14.980	Cocaine use, unspecified with cocaine-induced anxiety disorder	Diagnosis	ICD-10-CM
F14.981	Cocaine use, unspecified with cocaine-induced sexual dysfunction	Diagnosis	ICD-10-CM
F14.982	Cocaine use, unspecified with cocaine-induced sleep disorder	Diagnosis	ICD-10-CM
F14.988	Cocaine use, unspecified with other cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.99	Cocaine use, unspecified with unspecified cocaine-induced disorder	Diagnosis	ICD-10-CM
F15.10	Other stimulant abuse, uncomplicated	Diagnosis	ICD-10-CM
F15.11	Other stimulant abuse, in remission	Diagnosis	ICD-10-CM
F15.120	Other stimulant abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F15.121	Other stimulant abuse with intoxication delirium	Diagnosis	ICD-10-CM
F15.122	Other stimulant abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F15.129	Other stimulant abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F15.14	Other stimulant abuse with stimulant-induced mood disorder	Diagnosis	ICD-10-CM
F15.150	Other stimulant abuse with stimulant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F15.151	Other stimulant abuse with stimulant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F15.159	Other stimulant abuse with stimulant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F15.180	Other stimulant abuse with stimulant-induced anxiety disorder	Diagnosis	ICD-10-CM
F15.181	Other stimulant abuse with stimulant-induced sexual dysfunction	Diagnosis	ICD-10-CM
F15.182	Other stimulant abuse with stimulant-induced sleep disorder	Diagnosis	ICD-10-CM
F15.188	Other stimulant abuse with other stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.19	Other stimulant abuse with unspecified stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.20	Other stimulant dependence, uncomplicated	Diagnosis	ICD-10-CM
F15.21	Other stimulant dependence, in remission	Diagnosis	ICD-10-CM
F15.220	Other stimulant dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F15.221	Other stimulant dependence with intoxication delirium	Diagnosis	ICD-10-CM
F15.222	Other stimulant dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
F15.229	Other stimulant dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F15.23	Other stimulant dependence with withdrawal	Diagnosis	ICD-10-CM
F15.24	Other stimulant dependence with stimulant-induced mood disorder	Diagnosis	ICD-10-CM
F15.250	Other stimulant dependence with stimulant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F15.251	Other stimulant dependence with stimulant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F15.259	Other stimulant dependence with stimulant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F15.280	Other stimulant dependence with stimulant-induced anxiety disorder	Diagnosis	ICD-10-CM
F15.281	Other stimulant dependence with stimulant-induced sexual dysfunction	Diagnosis	ICD-10-CM
F15.282	Other stimulant dependence with stimulant-induced sleep disorder	Diagnosis	ICD-10-CM
F15.288	Other stimulant dependence with other stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.29	Other stimulant dependence with unspecified stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.90	Other stimulant use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F15.920	Other stimulant use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F15.921	Other stimulant use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F15.922	Other stimulant use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F15.929	Other stimulant use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F15.93	Other stimulant use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F15.94	Other stimulant use, unspecified with stimulant-induced mood disorder	Diagnosis	ICD-10-CM
F15.950	Other stimulant use, unspecified with stimulant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F15.951	Other stimulant use, unspecified with stimulant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F15.959	Other stimulant use, unspecified with stimulant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F15.980	Other stimulant use, unspecified with stimulant-induced anxiety disorder	Diagnosis	ICD-10-CM
F15.981	Other stimulant use, unspecified with stimulant-induced sexual dysfunction	Diagnosis	ICD-10-CM
F15.982	Other stimulant use, unspecified with stimulant-induced sleep disorder	Diagnosis	ICD-10-CM
F15.988	Other stimulant use, unspecified with other stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.99	Other stimulant use, unspecified with unspecified stimulant-induced disorder	Diagnosis	ICD-10-CM
F16.10	Hallucinogen abuse, uncomplicated	Diagnosis	ICD-10-CM
F16.11	Hallucinogen abuse, in remission	Diagnosis	ICD-10-CM
F16.120	Hallucinogen abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F16.121	Hallucinogen abuse with intoxication with delirium	Diagnosis	ICD-10-CM
F16.122	Hallucinogen abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F16.129	Hallucinogen abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F16.14	Hallucinogen abuse with hallucinogen-induced mood disorder	Diagnosis	ICD-10-CM
F16.150	Hallucinogen abuse with hallucinogen-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F16.151	Hallucinogen abuse with hallucinogen-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F16.159	Hallucinogen abuse with hallucinogen-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F16.180	Hallucinogen abuse with hallucinogen-induced anxiety disorder	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
F16.183	Hallucinogen abuse with hallucinogen persisting perception disorder (flashbacks)	Diagnosis	ICD-10-CM
F16.188	Hallucinogen abuse with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.19	Hallucinogen abuse with unspecified hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.20	Hallucinogen dependence, uncomplicated	Diagnosis	ICD-10-CM
F16.21	Hallucinogen dependence, in remission	Diagnosis	ICD-10-CM
F16.220	Hallucinogen dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F16.221	Hallucinogen dependence with intoxication with delirium	Diagnosis	ICD-10-CM
F16.229	Hallucinogen dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F16.24	Hallucinogen dependence with hallucinogen-induced mood disorder	Diagnosis	ICD-10-CM
F16.250	Hallucinogen dependence with hallucinogen-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F16.251	Hallucinogen dependence with hallucinogen-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F16.259	Hallucinogen dependence with hallucinogen-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F16.280	Hallucinogen dependence with hallucinogen-induced anxiety disorder	Diagnosis	ICD-10-CM
F16.283	Hallucinogen dependence with hallucinogen persisting perception disorder (flashbacks)	Diagnosis	ICD-10-CM
F16.288	Hallucinogen dependence with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.29	Hallucinogen dependence with unspecified hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.90	Hallucinogen use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F16.920	Hallucinogen use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F16.921	Hallucinogen use, unspecified with intoxication with delirium	Diagnosis	ICD-10-CM
F16.929	Hallucinogen use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F16.94	Hallucinogen use, unspecified with hallucinogen-induced mood disorder	Diagnosis	ICD-10-CM
F16.950	Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F16.951	Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F16.959	Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F16.980	Hallucinogen use, unspecified with hallucinogen-induced anxiety disorder	Diagnosis	ICD-10-CM
F16.983	Hallucinogen use, unspecified with hallucinogen persisting perception disorder (flashbacks)	Diagnosis	ICD-10-CM
F16.988	Hallucinogen use, unspecified with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.99	Hallucinogen use, unspecified with unspecified hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F17.203	Nicotine dependence unspecified, with withdrawal	Diagnosis	ICD-10-CM
F17.208	Nicotine dependence, unspecified, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.209	Nicotine dependence, unspecified, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.213	Nicotine dependence, cigarettes, with withdrawal	Diagnosis	ICD-10-CM
F17.218	Nicotine dependence, cigarettes, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.219	Nicotine dependence, cigarettes, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.223	Nicotine dependence, chewing tobacco, with withdrawal	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
F17.228	Nicotine dependence, chewing tobacco, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.229	Nicotine dependence, chewing tobacco, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.293	Nicotine dependence, other tobacco product, with withdrawal	Diagnosis	ICD-10-CM
F17.298	Nicotine dependence, other tobacco product, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.299	Nicotine dependence, other tobacco product, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
F18.10	Inhalant abuse, uncomplicated	Diagnosis	ICD-10-CM
F18.11	Inhalant abuse, in remission	Diagnosis	ICD-10-CM
F18.120	Inhalant abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F18.121	Inhalant abuse with intoxication delirium	Diagnosis	ICD-10-CM
F18.129	Inhalant abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F18.14	Inhalant abuse with inhalant-induced mood disorder	Diagnosis	ICD-10-CM
F18.150	Inhalant abuse with inhalant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F18.151	Inhalant abuse with inhalant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F18.159	Inhalant abuse with inhalant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F18.17	Inhalant abuse with inhalant-induced dementia	Diagnosis	ICD-10-CM
F18.180	Inhalant abuse with inhalant-induced anxiety disorder	Diagnosis	ICD-10-CM
F18.188	Inhalant abuse with other inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.19	Inhalant abuse with unspecified inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.20	Inhalant dependence, uncomplicated	Diagnosis	ICD-10-CM
F18.21	Inhalant dependence, in remission	Diagnosis	ICD-10-CM
F18.220	Inhalant dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F18.221	Inhalant dependence with intoxication delirium	Diagnosis	ICD-10-CM
F18.229	Inhalant dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F18.24	Inhalant dependence with inhalant-induced mood disorder	Diagnosis	ICD-10-CM
F18.250	Inhalant dependence with inhalant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F18.251	Inhalant dependence with inhalant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F18.259	Inhalant dependence with inhalant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F18.27	Inhalant dependence with inhalant-induced dementia	Diagnosis	ICD-10-CM
F18.280	Inhalant dependence with inhalant-induced anxiety disorder	Diagnosis	ICD-10-CM
F18.288	Inhalant dependence with other inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.29	Inhalant dependence with unspecified inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.90	Inhalant use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F18.920	Inhalant use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F18.921	Inhalant use, unspecified with intoxication with delirium	Diagnosis	ICD-10-CM
F18.929	Inhalant use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F18.94	Inhalant use, unspecified with inhalant-induced mood disorder	Diagnosis	ICD-10-CM
F18.950	Inhalant use, unspecified with inhalant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F18.951	Inhalant use, unspecified with inhalant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F18.959	Inhalant use, unspecified with inhalant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F18.97	Inhalant use, unspecified with inhalant-induced persisting dementia	Diagnosis	ICD-10-CM
F18.980	Inhalant use, unspecified with inhalant-induced anxiety disorder	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
F18.988	Inhalant use, unspecified with other inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.99	Inhalant use, unspecified with unspecified inhalant-induced disorder	Diagnosis	ICD-10-CM
F19.10	Other psychoactive substance abuse, uncomplicated	Diagnosis	ICD-10-CM
F19.11	Other psychoactive substance abuse, in remission	Diagnosis	ICD-10-CM
F19.120	Other psychoactive substance abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F19.121	Other psychoactive substance abuse with intoxication delirium	Diagnosis	ICD-10-CM
F19.122	Other psychoactive substance abuse with intoxication with perceptual disturbances	Diagnosis	ICD-10-CM
F19.129	Other psychoactive substance abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F19.14	Other psychoactive substance abuse with psychoactive substance-induced mood disorder	Diagnosis	ICD-10-CM
F19.150	Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F19.151	Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F19.159	Other psychoactive substance abuse with psychoactive substance-induced persisting amnesic disorder	Diagnosis	ICD-10-CM
F19.16	Other psychoactive substance abuse with psychoactive substance-induced persisting dementia	Diagnosis	ICD-10-CM
F19.17	Other psychoactive substance abuse with psychoactive substance-induced anxiety disorder	Diagnosis	ICD-10-CM
F19.180	Other psychoactive substance abuse with psychoactive substance-induced sexual dysfunction	Diagnosis	ICD-10-CM
F19.181	Other psychoactive substance abuse with psychoactive substance-induced sleep disorder	Diagnosis	ICD-10-CM
F19.182	Other psychoactive substance abuse with other psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.188	Other psychoactive substance abuse with unspecified psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.19	Other psychoactive substance dependence, uncomplicated	Diagnosis	ICD-10-CM
F19.20	Other psychoactive substance dependence, in remission	Diagnosis	ICD-10-CM
F19.21	Other psychoactive substance dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F19.220	Other psychoactive substance dependence with intoxication delirium	Diagnosis	ICD-10-CM
F19.221	Other psychoactive substance dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F19.222	Other psychoactive substance dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F19.229	Other psychoactive substance dependence with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F19.230	Other psychoactive substance dependence with withdrawal delirium	Diagnosis	ICD-10-CM
F19.231	Other psychoactive substance dependence with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F19.232	Other psychoactive substance dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM
F19.239	Other psychoactive substance dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
F19.24	Other psychoactive substance dependence with psychoactive substance-induced mood disorder	Diagnosis	ICD-10-CM
F19.250	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F19.251	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F19.259	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F19.26	Other psychoactive substance dependence with psychoactive substance-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F19.27	Other psychoactive substance dependence with psychoactive substance-induced persisting dementia	Diagnosis	ICD-10-CM
F19.280	Other psychoactive substance dependence with psychoactive substance-induced anxiety disorder	Diagnosis	ICD-10-CM
F19.281	Other psychoactive substance dependence with psychoactive substance-induced sexual dysfunction	Diagnosis	ICD-10-CM
F19.282	Other psychoactive substance dependence with psychoactive substance-induced sleep disorder	Diagnosis	ICD-10-CM
F19.288	Other psychoactive substance dependence with other psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.29	Other psychoactive substance dependence with unspecified psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.90	Other psychoactive substance use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F19.920	Other psychoactive substance use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F19.921	Other psychoactive substance use, unspecified with intoxication with delirium	Diagnosis	ICD-10-CM
F19.922	Other psychoactive substance use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F19.929	Other psychoactive substance use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F19.930	Other psychoactive substance use, unspecified with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F19.931	Other psychoactive substance use, unspecified with withdrawal delirium	Diagnosis	ICD-10-CM
F19.932	Other psychoactive substance use, unspecified with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F19.939	Other psychoactive substance use, unspecified with withdrawal, unspecified	Diagnosis	ICD-10-CM
F19.94	Other psychoactive substance use, unspecified with psychoactive substance-induced mood disorder	Diagnosis	ICD-10-CM
F19.950	Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F19.951	Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F19.959	Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F19.96	Other psychoactive substance use, unspecified with psychoactive substance-induced persisting amnestic disorder	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
F19.97	Other psychoactive substance use, unspecified with psychoactive substance-induced persisting dementia	Diagnosis	ICD-10-CM
F19.980	Other psychoactive substance use, unspecified with psychoactive substance-induced anxiety disorder	Diagnosis	ICD-10-CM
F19.981	Other psychoactive substance use, unspecified with psychoactive substance-induced sexual dysfunction	Diagnosis	ICD-10-CM
F19.982	Other psychoactive substance use, unspecified with psychoactive substance-induced sleep disorder	Diagnosis	ICD-10-CM
F19.988	Other psychoactive substance use, unspecified with other psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.99	Other psychoactive substance use, unspecified with unspecified psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F55.0	Abuse of antacids	Diagnosis	ICD-10-CM
F55.1	Abuse of herbal or folk remedies	Diagnosis	ICD-10-CM
F55.2	Abuse of laxatives	Diagnosis	ICD-10-CM
F55.3	Abuse of steroids or hormones	Diagnosis	ICD-10-CM
F55.4	Abuse of vitamins	Diagnosis	ICD-10-CM
F55.8	Abuse of other non-psychoactive substances	Diagnosis	ICD-10-CM
G62.1	Alcoholic polyneuropathy	Diagnosis	ICD-10-CM
H0005	Alcohol and/or drug services; group counseling by a clinician	Procedure	HCPCS
H0007	Alcohol and/or drug services; crisis intervention (outpatient)	Procedure	HCPCS
H0008	Alcohol and/or drug services; subacute detoxification (hospital inpatient)	Procedure	HCPCS
H0010	Alcohol and/or drug services; subacute detoxification (residential addiction program inpatient)	Procedure	HCPCS
H0011	Alcohol and/or drug services; acute detoxification (residential addiction program inpatient)	Procedure	HCPCS
H0012	Alcohol and/or drug services; subacute detoxification (residential addiction program outpatient)	Procedure	HCPCS
H0013	Alcohol and/or drug services; acute detoxification (residential addiction program outpatient)	Procedure	HCPCS
H0014	Alcohol and/or drug services; ambulatory detoxification	Procedure	HCPCS
H0015	Alcohol and/or drug services; intensive outpatient (treatment program that operates at least 3 hours/day and at least 3 days/week and is based on an individualized treatment plan), including assessment, counseling; crisis intervention, and activity therapies or education	Procedure	HCPCS
H0020	Alcohol and/or drug services; methadone administration and/or service (provision of the drug by a licensed program)	Procedure	HCPCS
H0022	Alcohol and/or drug intervention service (planned facilitation)	Procedure	HCPCS
H2035	Alcohol and/or other drug treatment program, per hour	Procedure	HCPCS
H2036	Alcohol and/or other drug treatment program, per diem	Procedure	HCPCS
HZ2ZZZZ	Detoxification Services for Substance Abuse Treatment	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
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

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
J0570	Buprenorphine implant, 74.2 mg	Procedure	HCPCS
J0571	Buprenorphine, oral, 1 mg	Procedure	HCPCS
J0572	Buprenorphine/naloxone, oral, less than or equal to 3 mg buprenorphine	Procedure	HCPCS
J0573	Buprenorphine/naloxone, oral, greater than 3 mg, but less than or equal to 6 mg buprenorphine	Procedure	HCPCS
J0574	Buprenorphine/naloxone, oral, greater than 6 mg, but less than or equal to 10 mg buprenorphine	Procedure	HCPCS
J0575	Buprenorphine/naloxone, oral, greater than 10 mg buprenorphine	Procedure	HCPCS
J0592	Injection, buprenorphine HCl, 0.1 mg	Procedure	HCPCS
J1230	Injection, methadone HCl, up to 10 mg	Procedure	HCPCS
J2212	Injection, methyl naltrexone, 0.1 mg	Procedure	HCPCS
J2315	Injection, naltrexone, depot form, 1 mg	Procedure	HCPCS
K29.2	Alcoholic gastritis	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
O35.5XX0	Maternal care for (suspected) damage to fetus by drugs, not applicable or unspecified	Diagnosis	ICD-10-CM
O35.5XX1	Maternal care for (suspected) damage to fetus by drugs, fetus 1	Diagnosis	ICD-10-CM
O35.5XX2	Maternal care for (suspected) damage to fetus by drugs, fetus 2	Diagnosis	ICD-10-CM
O35.5XX3	Maternal care for (suspected) damage to fetus by drugs, fetus 3	Diagnosis	ICD-10-CM
O35.5XX4	Maternal care for (suspected) damage to fetus by drugs, fetus 4	Diagnosis	ICD-10-CM
O35.5XX5	Maternal care for (suspected) damage to fetus by drugs, fetus 5	Diagnosis	ICD-10-CM
O35.5XX9	Maternal care for (suspected) damage to fetus by drugs, other fetus	Diagnosis	ICD-10-CM
O99.310	Alcohol use complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O99.311	Alcohol use complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99.312	Alcohol use complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99.313	Alcohol use complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99.314	Alcohol use complicating childbirth	Diagnosis	ICD-10-CM
O99.315	Alcohol use complicating the puerperium	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
O99.320	Drug use complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O99.321	Drug use complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99.322	Drug use complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99.323	Drug use complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99.324	Drug use complicating childbirth	Diagnosis	ICD-10-CM
O99.325	Drug use complicating the puerperium	Diagnosis	ICD-10-CM
Q9991	Injection, buprenorphine extended-release (Sublocade), less than or equal to 100 mg	Procedure	HCPCS
Q9992	Injection, buprenorphine extended-release (Sublocade), greater than 100 mg	Procedure	HCPCS
S0109	Methadone, oral, 5 mg	Procedure	HCPCS
T1006	Alcohol and/or substance abuse services, family/couple counseling	Procedure	HCPCS
T1007	Alcohol and/or substance abuse services, treatment plan development and/or modification	Procedure	HCPCS
T1008	Day treatment for individual alcohol and/or substance abuse services	Procedure	HCPCS
T1010	Meals for individuals receiving alcohol and/or substance abuse services (when meals not included in the program)	Procedure	HCPCS
T1012	Alcohol and/or substance abuse services, skills development	Procedure	HCPCS
T40.0X1D	Poisoning by opium, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.0X1S	Poisoning by opium, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.0X3D	Poisoning by opium, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.0X3S	Poisoning by opium, assault, sequela	Diagnosis	ICD-10-CM
T40.0X4D	Poisoning by opium, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.0X4S	Poisoning by opium, undetermined, sequela	Diagnosis	ICD-10-CM
T40.0X5A	Adverse effect of opium, initial encounter	Diagnosis	ICD-10-CM
T40.0X5D	Adverse effect of opium, subsequent encounter	Diagnosis	ICD-10-CM
T40.0X5S	Adverse effect of opium, sequela	Diagnosis	ICD-10-CM
T40.0X6A	Underdosing of opium, initial encounter	Diagnosis	ICD-10-CM
T40.0X6D	Underdosing of opium, subsequent encounter	Diagnosis	ICD-10-CM
T40.0X6S	Underdosing of opium, sequela	Diagnosis	ICD-10-CM
T40.1X1D	Poisoning by heroin, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.1X1S	Poisoning by heroin, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.1X3D	Poisoning by heroin, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.1X3S	Poisoning by heroin, assault, sequela	Diagnosis	ICD-10-CM
T40.1X4D	Poisoning by heroin, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.1X4S	Poisoning by heroin, undetermined, sequela	Diagnosis	ICD-10-CM
T40.1X5A	Adverse effect of heroin, initial encounter	Diagnosis	ICD-10-CM
T40.1X5D	Adverse effect of heroin, subsequent encounter	Diagnosis	ICD-10-CM
T40.1X5S	Adverse effect of heroin, sequela	Diagnosis	ICD-10-CM
T40.5X1A	Poisoning by cocaine, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.5X1D	Poisoning by cocaine, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.5X1S	Poisoning by cocaine, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.5X3A	Poisoning by cocaine, assault, initial encounter	Diagnosis	ICD-10-CM
T40.5X3D	Poisoning by cocaine, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.5X3S	Poisoning by cocaine, assault, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T40.5X4A	Poisoning by cocaine, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.5X4D	Poisoning by cocaine, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.5X4S	Poisoning by cocaine, undetermined, sequela	Diagnosis	ICD-10-CM
T40.5X5A	Adverse effect of cocaine, initial encounter	Diagnosis	ICD-10-CM
T40.5X5D	Adverse effect of cocaine, subsequent encounter	Diagnosis	ICD-10-CM
T40.5X5S	Adverse effect of cocaine, sequela	Diagnosis	ICD-10-CM
T40.5X6A	Underdosing of cocaine, initial encounter	Diagnosis	ICD-10-CM
T40.5X6D	Underdosing of cocaine, subsequent encounter	Diagnosis	ICD-10-CM
T40.5X6S	Underdosing of cocaine, sequela	Diagnosis	ICD-10-CM
T40.7X1D	Poisoning by cannabis (derivatives), accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.7X1S	Poisoning by cannabis (derivatives), accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.7X3D	Poisoning by cannabis (derivatives), assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.7X3S	Poisoning by cannabis (derivatives), assault, sequela	Diagnosis	ICD-10-CM
T40.7X4D	Poisoning by cannabis (derivatives), undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.7X4S	Poisoning by cannabis (derivatives), undetermined, sequela	Diagnosis	ICD-10-CM
T40.7X5A	Adverse effect of cannabis (derivatives), initial encounter	Diagnosis	ICD-10-CM
T40.7X5D	Adverse effect of cannabis (derivatives), subsequent encounter	Diagnosis	ICD-10-CM
T40.7X5S	Adverse effect of cannabis (derivatives), sequela	Diagnosis	ICD-10-CM
T40.7X6A	Underdosing of cannabis (derivatives), initial encounter	Diagnosis	ICD-10-CM
T40.7X6D	Underdosing of cannabis (derivatives), subsequent encounter	Diagnosis	ICD-10-CM
T40.7X6S	Underdosing of cannabis (derivatives), sequela	Diagnosis	ICD-10-CM
T40.8X1D	Poisoning by lysergide [LSD], accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.8X1S	Poisoning by lysergide [LSD], accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.8X3D	Poisoning by lysergide [LSD], assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.8X3S	Poisoning by lysergide [LSD], assault, sequela	Diagnosis	ICD-10-CM
T40.8X4D	Poisoning by lysergide [LSD], undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.8X4S	Poisoning by lysergide [LSD], undetermined, sequela	Diagnosis	ICD-10-CM
T40.8X5A	Adverse effect of lysergide [LSD], initial encounter	Diagnosis	ICD-10-CM
T40.8X5D	Adverse effect of lysergide [LSD], subsequent encounter	Diagnosis	ICD-10-CM
T40.8X5S	Adverse effect of lysergide [LSD], sequela	Diagnosis	ICD-10-CM
T40.901D	Poisoning by unspecified psychodysleptics [hallucinogens], accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.901S	Poisoning by unspecified psychodysleptics [hallucinogens], accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.903D	Poisoning by unspecified psychodysleptics [hallucinogens], assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.903S	Poisoning by unspecified psychodysleptics [hallucinogens], assault, sequela	Diagnosis	ICD-10-CM
T40.904D	Poisoning by unspecified psychodysleptics [hallucinogens], undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.904S	Poisoning by unspecified psychodysleptics [hallucinogens], undetermined, sequela	Diagnosis	ICD-10-CM
T40.905A	Adverse effect of unspecified psychodysleptics [hallucinogens], initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T40.905D	Adverse effect of unspecified psychodysleptics [hallucinogens], subsequent encounter	Diagnosis	ICD-10-CM
T40.905S	Adverse effect of unspecified psychodysleptics [hallucinogens], sequela	Diagnosis	ICD-10-CM
T40.906A	Underdosing of unspecified psychodysleptics [hallucinogens], initial encounter	Diagnosis	ICD-10-CM
T40.906D	Underdosing of unspecified psychodysleptics [hallucinogens], subsequent encounter	Diagnosis	ICD-10-CM
T40.906S	Underdosing of unspecified psychodysleptics [hallucinogens], sequela	Diagnosis	ICD-10-CM
T40.991D	Poisoning by other psychodysleptics [hallucinogens], accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.991S	Poisoning by other psychodysleptics [hallucinogens], accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.993D	Poisoning by other psychodysleptics [hallucinogens], assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.993S	Poisoning by other psychodysleptics [hallucinogens], assault, sequela	Diagnosis	ICD-10-CM
T40.994D	Poisoning by other psychodysleptics [hallucinogens], undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.994S	Poisoning by other psychodysleptics [hallucinogens], undetermined, sequela	Diagnosis	ICD-10-CM
T40.995A	Adverse effect of other psychodysleptics [hallucinogens], initial encounter	Diagnosis	ICD-10-CM
T40.995D	Adverse effect of other psychodysleptics [hallucinogens], subsequent encounter	Diagnosis	ICD-10-CM
T40.995S	Adverse effect of other psychodysleptics [hallucinogens], sequela	Diagnosis	ICD-10-CM
T40.996A	Underdosing of other psychodysleptics [hallucinogens], initial encounter	Diagnosis	ICD-10-CM
T40.996D	Underdosing of other psychodysleptics [hallucinogens], subsequent encounter	Diagnosis	ICD-10-CM
T40.996S	Underdosing of other psychodysleptics [hallucinogens], sequela	Diagnosis	ICD-10-CM
V65.42	Counseling on substance use and abuse	Diagnosis	ICD-9-CM
Suicidal Behavior			
881	Open wound of elbow, forearm, and wrist	Diagnosis	ICD-9-CM
960	Poisoning by antibiotics	Diagnosis	ICD-9-CM
960.0	Poisoning by penicillins	Diagnosis	ICD-9-CM
960.1	Poisoning by antifungal antibiotics	Diagnosis	ICD-9-CM
960.2	Poisoning by chloramphenicol group	Diagnosis	ICD-9-CM
960.3	Poisoning by erythromycin and other macrolides	Diagnosis	ICD-9-CM
960.4	Poisoning by tetracycline group	Diagnosis	ICD-9-CM
960.5	Poisoning of cephalosporin group	Diagnosis	ICD-9-CM
960.6	Poisoning of antimycobacterial antibiotics	Diagnosis	ICD-9-CM
960.7	Poisoning by antineoplastic antibiotics	Diagnosis	ICD-9-CM
960.8	Poisoning by other specified antibiotics	Diagnosis	ICD-9-CM
960.9	Poisoning by unspecified antibiotic	Diagnosis	ICD-9-CM
961	Poisoning by other anti-infectives	Diagnosis	ICD-9-CM
961.0	Poisoning by sulfonamides	Diagnosis	ICD-9-CM
961.1	Poisoning by arsenical anti-infectives	Diagnosis	ICD-9-CM
961.2	Poisoning by heavy metal anti-infectives	Diagnosis	ICD-9-CM
961.3	Poisoning by quinoline and hydroxyquinoline derivatives	Diagnosis	ICD-9-CM
961.4	Poisoning by antimalarials and drugs acting on other blood protozoa	Diagnosis	ICD-9-CM
961.5	Poisoning by other antiprotozoal drugs	Diagnosis	ICD-9-CM
961.6	Poisoning by anthelmintics	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
961.7	Poisoning by antiviral drugs	Diagnosis	ICD-9-CM
961.8	Poisoning by other antimycobacterial drugs	Diagnosis	ICD-9-CM
961.9	Poisoning by other and unspecified anti-infectives	Diagnosis	ICD-9-CM
962	Poisoning by hormones and synthetic substitutes	Diagnosis	ICD-9-CM
962.0	Poisoning by adrenal cortical steroids	Diagnosis	ICD-9-CM
962.1	Poisoning by androgens and anabolic congeners	Diagnosis	ICD-9-CM
962.2	Poisoning by ovarian hormones and synthetic substitutes	Diagnosis	ICD-9-CM
962.3	Poisoning by insulins and antidiabetic agents	Diagnosis	ICD-9-CM
962.4	Poisoning by anterior pituitary hormones	Diagnosis	ICD-9-CM
962.5	Poisoning by posterior pituitary hormones	Diagnosis	ICD-9-CM
962.6	Poisoning by parathyroid and parathyroid derivatives	Diagnosis	ICD-9-CM
962.7	Poisoning by thyroid and thyroid derivatives	Diagnosis	ICD-9-CM
962.8	Poisoning by antithyroid agents	Diagnosis	ICD-9-CM
962.9	Poisoning by other and unspecified hormones and synthetic substitutes	Diagnosis	ICD-9-CM
963	Poisoning by primarily systemic agents	Diagnosis	ICD-9-CM
963.0	Poisoning by antiallergic and antiemetic drugs	Diagnosis	ICD-9-CM
963.1	Poisoning by antineoplastic and immunosuppressive drugs	Diagnosis	ICD-9-CM
963.2	Poisoning by acidifying agents	Diagnosis	ICD-9-CM
963.3	Poisoning by alkalizing agents	Diagnosis	ICD-9-CM
963.4	Poisoning by enzymes, not elsewhere classified	Diagnosis	ICD-9-CM
963.5	Poisoning by vitamins, not elsewhere classified	Diagnosis	ICD-9-CM
963.8	Poisoning by other specified systemic agents	Diagnosis	ICD-9-CM
963.9	Poisoning by unspecified systemic agent	Diagnosis	ICD-9-CM
964	Poisoning by agents primarily affecting blood constituents	Diagnosis	ICD-9-CM
964.0	Poisoning by iron and its compounds	Diagnosis	ICD-9-CM
964.1	Poisoning by liver preparations and other antianemic agents	Diagnosis	ICD-9-CM
964.2	Poisoning by anticoagulants	Diagnosis	ICD-9-CM
964.3	Poisoning by vitamin K (phytonadione)	Diagnosis	ICD-9-CM
964.4	Poisoning by fibrinolysis-affecting drugs	Diagnosis	ICD-9-CM
964.5	Poisoning by anticoagulant antagonists and other coagulants	Diagnosis	ICD-9-CM
964.6	Poisoning by gamma globulin	Diagnosis	ICD-9-CM
964.7	Poisoning by natural blood and blood products	Diagnosis	ICD-9-CM
964.8	Poisoning by other specified agents affecting blood constituents	Diagnosis	ICD-9-CM
964.9	Poisoning by unspecified agent affecting blood constituents	Diagnosis	ICD-9-CM
965	Poisoning by analgesics, antipyretics, and antirheumatics	Diagnosis	ICD-9-CM
965.0	Poisoning by opiates and related narcotics	Diagnosis	ICD-9-CM
965.00	Poisoning by opium (alkaloids), unspecified	Diagnosis	ICD-9-CM
965.01	Poisoning by heroin	Diagnosis	ICD-9-CM
965.02	Poisoning by methadone	Diagnosis	ICD-9-CM
965.09	Poisoning by opiates and related narcotics, other	Diagnosis	ICD-9-CM
965.1	Poisoning by salicylates	Diagnosis	ICD-9-CM
965.4	Poisoning by aromatic analgesics, not elsewhere classified	Diagnosis	ICD-9-CM
965.5	Poisoning by pyrazole derivatives	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
965.6	Poisoning by antirheumatics (antiphlogistics)	Diagnosis	ICD-9-CM
965.61	Poisoning by propionic acid derivatives	Diagnosis	ICD-9-CM
965.69	Poisoning by other antirheumatics	Diagnosis	ICD-9-CM
965.7	Poisoning by other non-narcotic analgesics	Diagnosis	ICD-9-CM
965.8	Poisoning by other specified analgesics and antipyretics	Diagnosis	ICD-9-CM
965.9	Poisoning by unspecified analgesic and antipyretic	Diagnosis	ICD-9-CM
966	Poisoning by anticonvulsants and anti-Parkinsonism drugs	Diagnosis	ICD-9-CM
966.0	Poisoning by oxazolidine derivatives	Diagnosis	ICD-9-CM
966.1	Poisoning by hydantoin derivatives	Diagnosis	ICD-9-CM
966.2	Poisoning by succinimides	Diagnosis	ICD-9-CM
966.3	Poisoning by other and unspecified anticonvulsants	Diagnosis	ICD-9-CM
966.4	Poisoning by anti-Parkinsonism drugs	Diagnosis	ICD-9-CM
967	Poisoning by sedatives and hypnotics	Diagnosis	ICD-9-CM
967.0	Poisoning by barbiturates	Diagnosis	ICD-9-CM
967.1	Poisoning by chloral hydrate group	Diagnosis	ICD-9-CM
967.2	Poisoning by paraldehyde	Diagnosis	ICD-9-CM
967.3	Poisoning by bromine compounds	Diagnosis	ICD-9-CM
967.4	Poisoning by methaqualone compounds	Diagnosis	ICD-9-CM
967.5	Poisoning by glutethimide group	Diagnosis	ICD-9-CM
967.6	Poisoning by mixed sedatives, not elsewhere classified	Diagnosis	ICD-9-CM
967.8	Poisoning by other sedatives and hypnotics	Diagnosis	ICD-9-CM
967.9	Poisoning by unspecified sedative or hypnotic	Diagnosis	ICD-9-CM
968	Poisoning by other central nervous system depressants and anesthetics	Diagnosis	ICD-9-CM
968.0	Poisoning by central nervous system muscle-tone depressants	Diagnosis	ICD-9-CM
968.1	Poisoning by halothane	Diagnosis	ICD-9-CM
968.2	Poisoning by other gaseous anesthetics	Diagnosis	ICD-9-CM
968.3	Poisoning by intravenous anesthetics	Diagnosis	ICD-9-CM
968.4	Poisoning by other and unspecified general anesthetics	Diagnosis	ICD-9-CM
968.5	Poisoning by other central nervous system depressants and anesthetics, Surface (topical) and infiltration anesthetics	Diagnosis	ICD-9-CM
968.6	Poisoning by peripheral nerve- and plexus-blocking anesthetics	Diagnosis	ICD-9-CM
968.7	Poisoning by spinal anesthetics	Diagnosis	ICD-9-CM
968.9	Poisoning by other and unspecified local anesthetics	Diagnosis	ICD-9-CM
969	Poisoning by psychotropic agents	Diagnosis	ICD-9-CM
969.0	Poisoning by antidepressants	Diagnosis	ICD-9-CM
969.00	Poisoning by antidepressant, unspecified	Diagnosis	ICD-9-CM
969.01	Poisoning by monoamine oxidase inhibitors	Diagnosis	ICD-9-CM
969.02	Poisoning by selective serotonin and norepinephrine reuptake inhibitors	Diagnosis	ICD-9-CM
969.03	Poisoning by selective serotonin reuptake inhibitors	Diagnosis	ICD-9-CM
969.04	Poisoning by tetracyclic antidepressants	Diagnosis	ICD-9-CM
969.05	Poisoning by tricyclic antidepressants	Diagnosis	ICD-9-CM
969.09	Poisoning by other antidepressants	Diagnosis	ICD-9-CM
969.1	Poisoning by phenothiazine-based tranquilizers	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
969.2	Poisoning by butyrophenone-based tranquilizers	Diagnosis	ICD-9-CM
969.3	Poisoning by other antipsychotics, neuroleptics, and major tranquilizers	Diagnosis	ICD-9-CM
969.4	Poisoning by benzodiazepine-based tranquilizers	Diagnosis	ICD-9-CM
969.5	Poisoning by other tranquilizers	Diagnosis	ICD-9-CM
969.6	Poisoning by psychodysleptics (hallucinogens)	Diagnosis	ICD-9-CM
969.7	Poisoning by psychostimulants	Diagnosis	ICD-9-CM
969.70	Poisoning by psychostimulant, unspecified	Diagnosis	ICD-9-CM
969.71	Poisoning by caffeine	Diagnosis	ICD-9-CM
969.72	Poisoning by amphetamines	Diagnosis	ICD-9-CM
969.73	Poisoning by methylphenidate	Diagnosis	ICD-9-CM
969.79	Poisoning by other psychostimulants	Diagnosis	ICD-9-CM
969.8	Poisoning by other specified psychotropic agents	Diagnosis	ICD-9-CM
969.9	Poisoning by unspecified psychotropic agent	Diagnosis	ICD-9-CM
980	Toxic effect of alcohol	Diagnosis	ICD-9-CM
980.0	Toxic effect of ethyl alcohol	Diagnosis	ICD-9-CM
980.1	Toxic effect of methyl alcohol	Diagnosis	ICD-9-CM
980.2	Toxic effect of isopropyl alcohol	Diagnosis	ICD-9-CM
980.3	Toxic effect of fusel oil	Diagnosis	ICD-9-CM
980.8	Toxic effect of other specified alcohols	Diagnosis	ICD-9-CM
980.9	Toxic effect of unspecified alcohol	Diagnosis	ICD-9-CM
981	Toxic effect of petroleum products	Diagnosis	ICD-9-CM
982	Toxic effect of solvents other than petroleum-based	Diagnosis	ICD-9-CM
982.0	Toxic effect of benzene and homologues	Diagnosis	ICD-9-CM
982.1	Toxic effect of carbon tetrachloride	Diagnosis	ICD-9-CM
982.2	Toxic effect of carbon disulfide	Diagnosis	ICD-9-CM
982.3	Toxic effect of other chlorinated hydrocarbon solvents	Diagnosis	ICD-9-CM
982.4	Toxic effect of nitroglycol	Diagnosis	ICD-9-CM
982.8	Toxic effect of other nonpetroleum-based solvents	Diagnosis	ICD-9-CM
983	Toxic effect of corrosive aromatics, acids, and caustic alkalis	Diagnosis	ICD-9-CM
983.0	Toxic effect of corrosive aromatics	Diagnosis	ICD-9-CM
983.1	Toxic effect of acids	Diagnosis	ICD-9-CM
983.2	Toxic effect of caustic alkalis	Diagnosis	ICD-9-CM
983.9	Toxic effect of caustic, unspecified	Diagnosis	ICD-9-CM
984	Toxic effect of lead and its compounds (including fumes)	Diagnosis	ICD-9-CM
984.0	Toxic effect of inorganic lead compounds	Diagnosis	ICD-9-CM
984.1	Toxic effect of organic lead compounds	Diagnosis	ICD-9-CM
984.8	Toxic effect of other lead compounds	Diagnosis	ICD-9-CM
984.9	Toxic effect of unspecified lead compound	Diagnosis	ICD-9-CM
985	Toxic effect of other metals	Diagnosis	ICD-9-CM
985.0	Toxic effect of mercury and its compounds	Diagnosis	ICD-9-CM
985.1	Toxic effect of arsenic and its compounds	Diagnosis	ICD-9-CM
985.2	Toxic effect of manganese and its compounds	Diagnosis	ICD-9-CM
985.3	Toxic effect of beryllium and its compounds	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
985.4	Toxic effect of antimony and its compounds	Diagnosis	ICD-9-CM
985.5	Toxic effect of cadmium and its compounds	Diagnosis	ICD-9-CM
985.6	Toxic effect of chromium	Diagnosis	ICD-9-CM
985.8	Toxic effect of other specified metals	Diagnosis	ICD-9-CM
985.9	Toxic effect of unspecified metal	Diagnosis	ICD-9-CM
986	Toxic effect of carbon monoxide	Diagnosis	ICD-9-CM
987	Toxic effect of other gases, fumes, or vapors	Diagnosis	ICD-9-CM
987.0	Toxic effect of liquefied petroleum gases	Diagnosis	ICD-9-CM
987.1	Toxic effect of other hydrocarbon gas	Diagnosis	ICD-9-CM
987.2	Toxic effect of nitrogen oxides	Diagnosis	ICD-9-CM
987.3	Toxic effect of sulfur dioxide	Diagnosis	ICD-9-CM
987.4	Toxic effect of freon	Diagnosis	ICD-9-CM
987.5	Toxic effect of lacrimogenic gas	Diagnosis	ICD-9-CM
987.6	Toxic effect of chlorine gas	Diagnosis	ICD-9-CM
987.7	Toxic effect of hydrocyanic acid gas	Diagnosis	ICD-9-CM
987.8	Toxic effect of other specified gases, fumes, or vapors	Diagnosis	ICD-9-CM
987.9	Toxic effect of unspecified gas, fume, or vapor	Diagnosis	ICD-9-CM
988	Toxic effect of noxious substances eaten as food	Diagnosis	ICD-9-CM
988.0	Toxic effect of fish and shellfish	Diagnosis	ICD-9-CM
988.1	Toxic effect of mushrooms	Diagnosis	ICD-9-CM
988.2	Toxic effect of berries and other plants	Diagnosis	ICD-9-CM
988.8	Toxic effect of other specified noxious substances	Diagnosis	ICD-9-CM
988.9	Toxic effect of unspecified noxious substance	Diagnosis	ICD-9-CM
989	Toxic effect of other substances, chiefly nonmedicinal as to source	Diagnosis	ICD-9-CM
989.0	Toxic effect of hydrocyanic acid and cyanides	Diagnosis	ICD-9-CM
989.1	Toxic effect of strychnine and salts	Diagnosis	ICD-9-CM
989.2	Toxic effect of chlorinated hydrocarbons	Diagnosis	ICD-9-CM
989.3	Toxic effect of organophosphate and carbamate	Diagnosis	ICD-9-CM
989.4	Toxic effect of other pesticides, not elsewhere classified	Diagnosis	ICD-9-CM
989.5	Toxic effect of venom	Diagnosis	ICD-9-CM
989.6	Toxic effect of soaps and detergents	Diagnosis	ICD-9-CM
989.7	Toxic effect of aflatoxin and other mycotoxin (food contaminants)	Diagnosis	ICD-9-CM
989.8	Toxic effect of other substances, chiefly nonmedicinal as to source	Diagnosis	ICD-9-CM
989.81	Toxic effect of asbestos	Diagnosis	ICD-9-CM
989.82	Toxic effect of latex	Diagnosis	ICD-9-CM
989.83	Toxic effect of silicone	Diagnosis	ICD-9-CM
989.84	Toxic effect of tobacco	Diagnosis	ICD-9-CM
989.89	Toxic effect of other substances	Diagnosis	ICD-9-CM
989.9	Toxic effect of unspecified substance, chiefly nonmedicinal as to source	Diagnosis	ICD-9-CM
994.7	Asphyxiation and strangulation	Diagnosis	ICD-9-CM
M1A.10X0	Lead-induced chronic gout, unspecified site, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.10X1	Lead-induced chronic gout, unspecified site, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1110	Lead-induced chronic gout, right shoulder, without tophus (tophi)	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
M1A.1111	Lead-induced chronic gout, right shoulder, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1120	Lead-induced chronic gout, left shoulder, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1121	Lead-induced chronic gout, left shoulder, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1190	Lead-induced chronic gout, unspecified shoulder, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1191	Lead-induced chronic gout, unspecified shoulder, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1210	Lead-induced chronic gout, right elbow, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1211	Lead-induced chronic gout, right elbow, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1220	Lead-induced chronic gout, left elbow, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1221	Lead-induced chronic gout, left elbow, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1290	Lead-induced chronic gout, unspecified elbow, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1291	Lead-induced chronic gout, unspecified elbow, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1310	Lead-induced chronic gout, right wrist, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1311	Lead-induced chronic gout, right wrist, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1320	Lead-induced chronic gout, left wrist, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1321	Lead-induced chronic gout, left wrist, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1390	Lead-induced chronic gout, unspecified wrist, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1391	Lead-induced chronic gout, unspecified wrist, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1410	Lead-induced chronic gout, right hand, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1411	Lead-induced chronic gout, right hand, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1420	Lead-induced chronic gout, left hand, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1421	Lead-induced chronic gout, left hand, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1490	Lead-induced chronic gout, unspecified hand, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1491	Lead-induced chronic gout, unspecified hand, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1510	Lead-induced chronic gout, right hip, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1511	Lead-induced chronic gout, right hip, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1520	Lead-induced chronic gout, left hip, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1521	Lead-induced chronic gout, left hip, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1590	Lead-induced chronic gout, unspecified hip, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1591	Lead-induced chronic gout, unspecified hip, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1610	Lead-induced chronic gout, right knee, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1611	Lead-induced chronic gout, right knee, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1620	Lead-induced chronic gout, left knee, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1621	Lead-induced chronic gout, left knee, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1690	Lead-induced chronic gout, unspecified knee, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1691	Lead-induced chronic gout, unspecified knee, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1710	Lead-induced chronic gout, right ankle and foot, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1711	Lead-induced chronic gout, right ankle and foot, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1720	Lead-induced chronic gout, left ankle and foot, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1721	Lead-induced chronic gout, left ankle and foot, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1790	Lead-induced chronic gout, unspecified ankle and foot, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.1791	Lead-induced chronic gout, unspecified ankle and foot, with tophus (tophi)	Diagnosis	ICD-10-CM
M1A.18X0	Lead-induced chronic gout, vertebrae, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.18X1	Lead-induced chronic gout, vertebrae, with tophus (tophi)	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
M1A.19X0	Lead-induced chronic gout, multiple sites, without tophus (tophi)	Diagnosis	ICD-10-CM
M1A.19X1	Lead-induced chronic gout, multiple sites, with tophus (tophi)	Diagnosis	ICD-10-CM
T36.0X1A	Poisoning by penicillins, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T36.0X2A	Poisoning by penicillins, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.0X3A	Poisoning by penicillins, assault, initial encounter	Diagnosis	ICD-10-CM
T36.0X4A	Poisoning by penicillins, undetermined, initial encounter	Diagnosis	ICD-10-CM
T36.1X1A	Poisoning by cephalosporins and other beta-lactam antibiotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T36.1X2A	Poisoning by cephalosporins and other beta-lactam antibiotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.1X3A	Poisoning by cephalosporins and other beta-lactam antibiotics, assault, initial encounter	Diagnosis	ICD-10-CM
T36.1X4A	Poisoning by cephalosporins and other beta-lactam antibiotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T36.2X1A	Poisoning by chloramphenicol group, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T36.2X2A	Poisoning by chloramphenicol group, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.2X3A	Poisoning by chloramphenicol group, assault, initial encounter	Diagnosis	ICD-10-CM
T36.2X4A	Poisoning by chloramphenicol group, undetermined, initial encounter	Diagnosis	ICD-10-CM
T36.3X1A	Poisoning by macrolides, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T36.3X2A	Poisoning by macrolides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.3X3A	Poisoning by macrolides, assault, initial encounter	Diagnosis	ICD-10-CM
T36.3X4A	Poisoning by macrolides, undetermined, initial encounter	Diagnosis	ICD-10-CM
T36.4X1A	Poisoning by tetracyclines, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T36.4X2A	Poisoning by tetracyclines, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.4X3A	Poisoning by tetracyclines, assault, initial encounter	Diagnosis	ICD-10-CM
T36.4X4A	Poisoning by tetracyclines, undetermined, initial encounter	Diagnosis	ICD-10-CM
T36.5X1A	Poisoning by aminoglycosides, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T36.5X2A	Poisoning by aminoglycosides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.5X3A	Poisoning by aminoglycosides, assault, initial encounter	Diagnosis	ICD-10-CM
T36.5X4A	Poisoning by aminoglycosides, undetermined, initial encounter	Diagnosis	ICD-10-CM
T36.6X1A	Poisoning by rifampicins, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T36.6X2A	Poisoning by rifampicins, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.6X3A	Poisoning by rifampicins, assault, initial encounter	Diagnosis	ICD-10-CM
T36.6X4A	Poisoning by rifampicins, undetermined, initial encounter	Diagnosis	ICD-10-CM
T36.7X1A	Poisoning by antifungal antibiotics, systemically used, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T36.7X2A	Poisoning by antifungal antibiotics, systemically used, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.7X3A	Poisoning by antifungal antibiotics, systemically used, assault, initial encounter	Diagnosis	ICD-10-CM
T36.7X4A	Poisoning by antifungal antibiotics, systemically used, undetermined, initial encounter	Diagnosis	ICD-10-CM
T36.8X1A	Poisoning by other systemic antibiotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T36.8X2A	Poisoning by other systemic antibiotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T36.8X3A	Poisoning by other systemic antibiotics, assault, initial encounter	Diagnosis	ICD-10-CM
T36.8X4A	Poisoning by other systemic antibiotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T36.91XA	Poisoning by unspecified systemic antibiotic, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T36.92XA	Poisoning by unspecified systemic antibiotic, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T36.93XA	Poisoning by unspecified systemic antibiotic, assault, initial encounter	Diagnosis	ICD-10-CM
T36.94XA	Poisoning by unspecified systemic antibiotic, undetermined, initial encounter	Diagnosis	ICD-10-CM
T37.0X1A	Poisoning by sulfonamides, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T37.0X2A	Poisoning by sulfonamides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.0X3A	Poisoning by sulfonamides, assault, initial encounter	Diagnosis	ICD-10-CM
T37.0X4A	Poisoning by sulfonamides, undetermined, initial encounter	Diagnosis	ICD-10-CM
T37.1X1A	Poisoning by antimycobacterial drugs, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T37.1X2A	Poisoning by antimycobacterial drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.1X3A	Poisoning by antimycobacterial drugs, assault, initial encounter	Diagnosis	ICD-10-CM
T37.1X4A	Poisoning by antimycobacterial drugs, undetermined, initial encounter	Diagnosis	ICD-10-CM
T37.2X1A	Poisoning by antimalarials and drugs acting on other blood protozoa, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T37.2X2A	Poisoning by antimalarials and drugs acting on other blood protozoa, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.2X3A	Poisoning by antimalarials and drugs acting on other blood protozoa, assault, initial encounter	Diagnosis	ICD-10-CM
T37.2X4A	Poisoning by antimalarials and drugs acting on other blood protozoa, undetermined, initial encounter	Diagnosis	ICD-10-CM
T37.3X1A	Poisoning by other antiprotozoal drugs, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T37.3X2A	Poisoning by other antiprotozoal drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.3X3A	Poisoning by other antiprotozoal drugs, assault, initial encounter	Diagnosis	ICD-10-CM
T37.3X4A	Poisoning by other antiprotozoal drugs, undetermined, initial encounter	Diagnosis	ICD-10-CM
T37.4X1A	Poisoning by anthelmintics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T37.4X2A	Poisoning by anthelmintics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.4X3A	Poisoning by anthelmintics, assault, initial encounter	Diagnosis	ICD-10-CM
T37.4X4A	Poisoning by anthelmintics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T37.5X1A	Poisoning by antiviral drugs, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T37.5X2A	Poisoning by antiviral drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.5X3A	Poisoning by antiviral drugs, assault, initial encounter	Diagnosis	ICD-10-CM
T37.5X4A	Poisoning by antiviral drugs, undetermined, initial encounter	Diagnosis	ICD-10-CM
T37.8X1A	Poisoning by other specified systemic anti-infectives and antiparasitics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T37.8X2A	Poisoning by other specified systemic anti-infectives and antiparasitics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.8X3A	Poisoning by other specified systemic anti-infectives and antiparasitics, assault, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T37.8X4A	Poisoning by other specified systemic anti-infectives and antiparasitics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T37.91XA	Poisoning by unspecified systemic anti-infective and antiparasitics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T37.92XA	Poisoning by unspecified systemic anti-infective and antiparasitics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T37.93XA	Poisoning by unspecified systemic anti-infective and antiparasitics, assault, initial encounter	Diagnosis	ICD-10-CM
T37.94XA	Poisoning by unspecified systemic anti-infective and antiparasitics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T38.0X1A	Poisoning by glucocorticoids and synthetic analogues, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T38.0X2A	Poisoning by glucocorticoids and synthetic analogues, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.0X3A	Poisoning by glucocorticoids and synthetic analogues, assault, initial encounter	Diagnosis	ICD-10-CM
T38.0X4A	Poisoning by glucocorticoids and synthetic analogues, undetermined, initial encounter	Diagnosis	ICD-10-CM
T38.1X1A	Poisoning by thyroid hormones and substitutes, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T38.1X2A	Poisoning by thyroid hormones and substitutes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.1X3A	Poisoning by thyroid hormones and substitutes, assault, initial encounter	Diagnosis	ICD-10-CM
T38.1X4A	Poisoning by thyroid hormones and substitutes, undetermined, initial encounter	Diagnosis	ICD-10-CM
T38.2X1A	Poisoning by antithyroid drugs, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T38.2X2A	Poisoning by antithyroid drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.2X3A	Poisoning by antithyroid drugs, assault, initial encounter	Diagnosis	ICD-10-CM
T38.2X4A	Poisoning by antithyroid drugs, undetermined, initial encounter	Diagnosis	ICD-10-CM
T38.3X1A	Poisoning by insulin and oral hypoglycemic [antidiabetic] drugs, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T38.3X2A	Poisoning by insulin and oral hypoglycemic [antidiabetic] drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.3X3A	Poisoning by insulin and oral hypoglycemic [antidiabetic] drugs, assault, initial encounter	Diagnosis	ICD-10-CM
T38.3X4A	Poisoning by insulin and oral hypoglycemic [antidiabetic] drugs, undetermined, initial encounter	Diagnosis	ICD-10-CM
T38.4X1A	Poisoning by oral contraceptives, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T38.4X2A	Poisoning by oral contraceptives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.4X3A	Poisoning by oral contraceptives, assault, initial encounter	Diagnosis	ICD-10-CM
T38.4X4A	Poisoning by oral contraceptives, undetermined, initial encounter	Diagnosis	ICD-10-CM
T38.5X1A	Poisoning by other estrogens and progestogens, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T38.5X2A	Poisoning by other estrogens and progestogens, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T38.5X3A	Poisoning by other estrogens and progestogens, assault, initial encounter	Diagnosis	ICD-10-CM
T38.5X4A	Poisoning by other estrogens and progestogens, undetermined, initial encounter	Diagnosis	ICD-10-CM
T38.6X1A	Poisoning by antigonadotrophins, antiestrogens, antiandrogens, not elsewhere classified, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T38.6X2A	Poisoning by antigonadotrophins, antiestrogens, antiandrogens, not elsewhere classified, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.6X3A	Poisoning by antigonadotrophins, antiestrogens, antiandrogens, not elsewhere classified, assault, initial encounter	Diagnosis	ICD-10-CM
T38.6X4A	Poisoning by antigonadotrophins, antiestrogens, antiandrogens, not elsewhere classified, undetermined, initial encounter	Diagnosis	ICD-10-CM
T38.7X1A	Poisoning by androgens and anabolic congeners, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T38.7X2A	Poisoning by androgens and anabolic congeners, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.7X3A	Poisoning by androgens and anabolic congeners, assault, initial encounter	Diagnosis	ICD-10-CM
T38.7X4A	Poisoning by androgens and anabolic congeners, undetermined, initial encounter	Diagnosis	ICD-10-CM
T38.801A	Poisoning by unspecified hormones and synthetic substitutes, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T38.802A	Poisoning by unspecified hormones and synthetic substitutes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.803A	Poisoning by unspecified hormones and synthetic substitutes, assault, initial encounter	Diagnosis	ICD-10-CM
T38.804A	Poisoning by unspecified hormones and synthetic substitutes, undetermined, initial encounter	Diagnosis	ICD-10-CM
T38.811A	Poisoning by anterior pituitary [adenohypophyseal] hormones, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T38.812A	Poisoning by anterior pituitary [adenohypophyseal] hormones, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.813A	Poisoning by anterior pituitary [adenohypophyseal] hormones, assault, initial encounter	Diagnosis	ICD-10-CM
T38.814A	Poisoning by anterior pituitary [adenohypophyseal] hormones, undetermined, initial encounter	Diagnosis	ICD-10-CM
T38.891A	Poisoning by other hormones and synthetic substitutes, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T38.892A	Poisoning by other hormones and synthetic substitutes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.893A	Poisoning by other hormones and synthetic substitutes, assault, initial encounter	Diagnosis	ICD-10-CM
T38.894A	Poisoning by other hormones and synthetic substitutes, undetermined, initial encounter	Diagnosis	ICD-10-CM
T38.901A	Poisoning by unspecified hormone antagonists, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T38.902A	Poisoning by unspecified hormone antagonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T38.903A	Poisoning by unspecified hormone antagonists, assault, initial encounter	Diagnosis	ICD-10-CM
T38.904A	Poisoning by unspecified hormone antagonists, undetermined, initial encounter	Diagnosis	ICD-10-CM
T38.991A	Poisoning by other hormone antagonists, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T38.992A	Poisoning by other hormone antagonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T38.993A	Poisoning by other hormone antagonists, assault, initial encounter	Diagnosis	ICD-10-CM
T38.994A	Poisoning by other hormone antagonists, undetermined, initial encounter	Diagnosis	ICD-10-CM
T39.011A	Poisoning by aspirin, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T39.012A	Poisoning by aspirin, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.013A	Poisoning by aspirin, assault, initial encounter	Diagnosis	ICD-10-CM
T39.014A	Poisoning by aspirin, undetermined, initial encounter	Diagnosis	ICD-10-CM
T39.091A	Poisoning by salicylates, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T39.092A	Poisoning by salicylates, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.093A	Poisoning by salicylates, assault, initial encounter	Diagnosis	ICD-10-CM
T39.094A	Poisoning by salicylates, undetermined, initial encounter	Diagnosis	ICD-10-CM
T39.1X1A	Poisoning by 4-Aminophenol derivatives, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T39.1X2A	Poisoning by 4-Aminophenol derivatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.1X3A	Poisoning by 4-Aminophenol derivatives, assault, initial encounter	Diagnosis	ICD-10-CM
T39.1X4A	Poisoning by 4-Aminophenol derivatives, undetermined, initial encounter	Diagnosis	ICD-10-CM
T39.2X1A	Poisoning by pyrazolone derivatives, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T39.2X2A	Poisoning by pyrazolone derivatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.2X3A	Poisoning by pyrazolone derivatives, assault, initial encounter	Diagnosis	ICD-10-CM
T39.2X4A	Poisoning by pyrazolone derivatives, undetermined, initial encounter	Diagnosis	ICD-10-CM
T39.311A	Poisoning by propionic acid derivatives, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T39.312A	Poisoning by propionic acid derivatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.313A	Poisoning by propionic acid derivatives, assault, initial encounter	Diagnosis	ICD-10-CM
T39.314A	Poisoning by propionic acid derivatives, undetermined, initial encounter	Diagnosis	ICD-10-CM
T39.391A	Poisoning by other nonsteroidal anti-inflammatory drugs [NSAID], accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T39.392A	Poisoning by other nonsteroidal anti-inflammatory drugs [NSAID], intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.393A	Poisoning by other nonsteroidal anti-inflammatory drugs [NSAID], assault, initial encounter	Diagnosis	ICD-10-CM
T39.394A	Poisoning by other nonsteroidal anti-inflammatory drugs [NSAID], undetermined, initial encounter	Diagnosis	ICD-10-CM
T39.4X1A	Poisoning by antirheumatics, not elsewhere classified, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T39.4X2A	Poisoning by antirheumatics, not elsewhere classified, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.4X3A	Poisoning by antirheumatics, not elsewhere classified, assault, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T39.4X4A	Poisoning by antirheumatics, not elsewhere classified, undetermined, initial encounter	Diagnosis	ICD-10-CM
T39.8X1A	Poisoning by other nonopioid analgesics and antipyretics, not elsewhere classified, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T39.8X2A	Poisoning by other nonopioid analgesics and antipyretics, not elsewhere classified, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.8X3A	Poisoning by other nonopioid analgesics and antipyretics, not elsewhere classified, assault, initial encounter	Diagnosis	ICD-10-CM
T39.8X4A	Poisoning by other nonopioid analgesics and antipyretics, not elsewhere classified, undetermined, initial encounter	Diagnosis	ICD-10-CM
T39.91XA	Poisoning by unspecified nonopioid analgesic, antipyretic and antirheumatic, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T39.92XA	Poisoning by unspecified nonopioid analgesic, antipyretic and antirheumatic, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T39.93XA	Poisoning by unspecified nonopioid analgesic, antipyretic and antirheumatic, assault, initial encounter	Diagnosis	ICD-10-CM
T39.94XA	Poisoning by unspecified nonopioid analgesic, antipyretic and antirheumatic, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.0X1A	Poisoning by opium, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.0X2A	Poisoning by opium, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.0X3A	Poisoning by opium, assault, initial encounter	Diagnosis	ICD-10-CM
T40.0X4A	Poisoning by opium, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.1X1A	Poisoning by heroin, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.1X2A	Poisoning by heroin, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.1X3A	Poisoning by heroin, assault, initial encounter	Diagnosis	ICD-10-CM
T40.1X4A	Poisoning by heroin, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.2X1A	Poisoning by other opioids, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.2X2A	Poisoning by other opioids, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.2X3A	Poisoning by other opioids, assault, initial encounter	Diagnosis	ICD-10-CM
T40.2X4A	Poisoning by other opioids, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.3X1A	Poisoning by methadone, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.3X2A	Poisoning by methadone, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.3X3A	Poisoning by methadone, assault, initial encounter	Diagnosis	ICD-10-CM
T40.3X4A	Poisoning by methadone, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.4X1A	Poisoning by other synthetic narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.4X2A	Poisoning by other synthetic narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.4X3A	Poisoning by other synthetic narcotics, assault, initial encounter	Diagnosis	ICD-10-CM
T40.4X4A	Poisoning by other synthetic narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.601A	Poisoning by unspecified narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.602A	Poisoning by unspecified narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.603A	Poisoning by unspecified narcotics, assault, initial encounter	Diagnosis	ICD-10-CM
T40.604A	Poisoning by unspecified narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.691A	Poisoning by other narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T40.692A	Poisoning by other narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.693A	Poisoning by other narcotics, assault, initial encounter	Diagnosis	ICD-10-CM
T40.694A	Poisoning by other narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.7X1A	Poisoning by cannabis (derivatives), accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.7X2A	Poisoning by cannabis (derivatives), intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.7X3A	Poisoning by cannabis (derivatives), assault, initial encounter	Diagnosis	ICD-10-CM
T40.7X4A	Poisoning by cannabis (derivatives), undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.8X1A	Poisoning by lysergide [LSD], accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.8X2A	Poisoning by lysergide [LSD], intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.8X3A	Poisoning by lysergide [LSD], assault, initial encounter	Diagnosis	ICD-10-CM
T40.8X4A	Poisoning by lysergide [LSD], undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.901A	Poisoning by unspecified psychodysleptics [hallucinogens], accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.902A	Poisoning by unspecified psychodysleptics [hallucinogens], intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.903A	Poisoning by unspecified psychodysleptics [hallucinogens], assault, initial encounter	Diagnosis	ICD-10-CM
T40.904A	Poisoning by unspecified psychodysleptics [hallucinogens], undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.991A	Poisoning by other psychodysleptics [hallucinogens], accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.992A	Poisoning by other psychodysleptics [hallucinogens], intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.993A	Poisoning by other psychodysleptics [hallucinogens], assault, initial encounter	Diagnosis	ICD-10-CM
T40.994A	Poisoning by other psychodysleptics [hallucinogens], undetermined, initial encounter	Diagnosis	ICD-10-CM
T41.0X1A	Poisoning by inhaled anesthetics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T41.0X2A	Poisoning by inhaled anesthetics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.0X3A	Poisoning by inhaled anesthetics, assault, initial encounter	Diagnosis	ICD-10-CM
T41.0X4A	Poisoning by inhaled anesthetics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T41.1X1A	Poisoning by intravenous anesthetics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T41.1X2A	Poisoning by intravenous anesthetics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.1X3A	Poisoning by intravenous anesthetics, assault, initial encounter	Diagnosis	ICD-10-CM
T41.1X4A	Poisoning by intravenous anesthetics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T41.201A	Poisoning by unspecified general anesthetics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T41.202A	Poisoning by unspecified general anesthetics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.203A	Poisoning by unspecified general anesthetics, assault, initial encounter	Diagnosis	ICD-10-CM
T41.204A	Poisoning by unspecified general anesthetics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T41.291A	Poisoning by other general anesthetics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T41.292A	Poisoning by other general anesthetics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.293A	Poisoning by other general anesthetics, assault, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T41.294A	Poisoning by other general anesthetics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T41.3X1A	Poisoning by local anesthetics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T41.3X2A	Poisoning by local anesthetics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.3X3A	Poisoning by local anesthetics, assault, initial encounter	Diagnosis	ICD-10-CM
T41.3X4A	Poisoning by local anesthetics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T41.41XA	Poisoning by unspecified anesthetic, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T41.42XA	Poisoning by unspecified anesthetic, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T41.43XA	Poisoning by unspecified anesthetic, assault, initial encounter	Diagnosis	ICD-10-CM
T41.44XA	Poisoning by unspecified anesthetic, undetermined, initial encounter	Diagnosis	ICD-10-CM
T42.0X1A	Poisoning by hydantoin derivatives, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T42.0X2A	Poisoning by hydantoin derivatives, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.0X3A	Poisoning by hydantoin derivatives, assault, initial encounter	Diagnosis	ICD-10-CM
T42.0X4A	Poisoning by hydantoin derivatives, undetermined, initial encounter	Diagnosis	ICD-10-CM
T42.1X1A	Poisoning by iminostilbenes, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T42.1X2A	Poisoning by iminostilbenes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.1X3A	Poisoning by iminostilbenes, assault, initial encounter	Diagnosis	ICD-10-CM
T42.1X4A	Poisoning by iminostilbenes, undetermined, initial encounter	Diagnosis	ICD-10-CM
T42.2X1A	Poisoning by succinimides and oxazolidinediones, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T42.2X2A	Poisoning by succinimides and oxazolidinediones, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.2X3A	Poisoning by succinimides and oxazolidinediones, assault, initial encounter	Diagnosis	ICD-10-CM
T42.2X4A	Poisoning by succinimides and oxazolidinediones, undetermined, initial encounter	Diagnosis	ICD-10-CM
T42.3X1A	Poisoning by barbiturates, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T42.3X2A	Poisoning by barbiturates, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.3X3A	Poisoning by barbiturates, assault, initial encounter	Diagnosis	ICD-10-CM
T42.3X4A	Poisoning by barbiturates, undetermined, initial encounter	Diagnosis	ICD-10-CM
T42.4X1A	Poisoning by benzodiazepines, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T42.4X2A	Poisoning by benzodiazepines, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.4X3A	Poisoning by benzodiazepines, assault, initial encounter	Diagnosis	ICD-10-CM
T42.4X4A	Poisoning by benzodiazepines, undetermined, initial encounter	Diagnosis	ICD-10-CM
T42.5X1A	Poisoning by mixed antiepileptics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T42.5X2A	Poisoning by mixed antiepileptics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.5X3A	Poisoning by mixed antiepileptics, assault, initial encounter	Diagnosis	ICD-10-CM
T42.5X4A	Poisoning by mixed antiepileptics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T42.6X1A	Poisoning by other antiepileptic and sedative-hypnotic drugs, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T42.6X2A	Poisoning by other antiepileptic and sedative-hypnotic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.6X3A	Poisoning by other antiepileptic and sedative-hypnotic drugs, assault, initial encounter	Diagnosis	ICD-10-CM
T42.6X4A	Poisoning by other antiepileptic and sedative-hypnotic drugs, undetermined, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T42.71XA	Poisoning by unspecified antiepileptic and sedative-hypnotic drugs, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T42.72XA	Poisoning by unspecified antiepileptic and sedative-hypnotic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.73XA	Poisoning by unspecified antiepileptic and sedative-hypnotic drugs, assault, initial encounter	Diagnosis	ICD-10-CM
T42.74XA	Poisoning by unspecified antiepileptic and sedative-hypnotic drugs, undetermined, initial encounter	Diagnosis	ICD-10-CM
T42.8X1A	Poisoning by antiparkinsonism drugs and other central muscle-tone depressants, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T42.8X2A	Poisoning by antiparkinsonism drugs and other central muscle-tone depressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T42.8X3A	Poisoning by antiparkinsonism drugs and other central muscle-tone depressants, assault, initial encounter	Diagnosis	ICD-10-CM
T42.8X4A	Poisoning by antiparkinsonism drugs and other central muscle-tone depressants, undetermined, initial encounter	Diagnosis	ICD-10-CM
T43.011A	Poisoning by tricyclic antidepressants, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T43.012A	Poisoning by tricyclic antidepressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.013A	Poisoning by tricyclic antidepressants, assault, initial encounter	Diagnosis	ICD-10-CM
T43.014A	Poisoning by tricyclic antidepressants, undetermined, initial encounter	Diagnosis	ICD-10-CM
T43.021A	Poisoning by tetracyclic antidepressants, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T43.022A	Poisoning by tetracyclic antidepressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.023A	Poisoning by tetracyclic antidepressants, assault, initial encounter	Diagnosis	ICD-10-CM
T43.024A	Poisoning by tetracyclic antidepressants, undetermined, initial encounter	Diagnosis	ICD-10-CM
T43.1X1A	Poisoning by monoamine-oxidase-inhibitor antidepressants, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T43.1X2A	Poisoning by monoamine-oxidase-inhibitor antidepressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.1X3A	Poisoning by monoamine-oxidase-inhibitor antidepressants, assault, initial encounter	Diagnosis	ICD-10-CM
T43.1X4A	Poisoning by monoamine-oxidase-inhibitor antidepressants, undetermined, initial encounter	Diagnosis	ICD-10-CM
T43.201A	Poisoning by unspecified antidepressants, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T43.202A	Poisoning by unspecified antidepressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.203A	Poisoning by unspecified antidepressants, assault, initial encounter	Diagnosis	ICD-10-CM
T43.204A	Poisoning by unspecified antidepressants, undetermined, initial encounter	Diagnosis	ICD-10-CM
T43.211A	Poisoning by selective serotonin and norepinephrine reuptake inhibitors, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T43.212A	Poisoning by selective serotonin and norepinephrine reuptake inhibitors, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T43.213A	Poisoning by selective serotonin and norepinephrine reuptake inhibitors, assault, initial encounter	Diagnosis	ICD-10-CM
T43.214A	Poisoning by selective serotonin and norepinephrine reuptake inhibitors, undetermined, initial encounter	Diagnosis	ICD-10-CM
T43.221A	Poisoning by selective serotonin reuptake inhibitors, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T43.222A	Poisoning by selective serotonin reuptake inhibitors, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.223A	Poisoning by selective serotonin reuptake inhibitors, assault, initial encounter	Diagnosis	ICD-10-CM
T43.224A	Poisoning by selective serotonin reuptake inhibitors, undetermined, initial encounter	Diagnosis	ICD-10-CM
T43.291A	Poisoning by other antidepressants, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T43.292A	Poisoning by other antidepressants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.293A	Poisoning by other antidepressants, assault, initial encounter	Diagnosis	ICD-10-CM
T43.294A	Poisoning by other antidepressants, undetermined, initial encounter	Diagnosis	ICD-10-CM
T43.3X1A	Poisoning by phenothiazine antipsychotics and neuroleptics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T43.3X2A	Poisoning by phenothiazine antipsychotics and neuroleptics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.3X3A	Poisoning by phenothiazine antipsychotics and neuroleptics, assault, initial encounter	Diagnosis	ICD-10-CM
T43.3X4A	Poisoning by phenothiazine antipsychotics and neuroleptics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T43.4X1A	Poisoning by butyrophenone and thiothixene neuroleptics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T43.4X2A	Poisoning by butyrophenone and thiothixene neuroleptics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.4X3A	Poisoning by butyrophenone and thiothixene neuroleptics, assault, initial encounter	Diagnosis	ICD-10-CM
T43.4X4A	Poisoning by butyrophenone and thiothixene neuroleptics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T43.501A	Poisoning by unspecified antipsychotics and neuroleptics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T43.502A	Poisoning by unspecified antipsychotics and neuroleptics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.503A	Poisoning by unspecified antipsychotics and neuroleptics, assault, initial encounter	Diagnosis	ICD-10-CM
T43.504A	Poisoning by unspecified antipsychotics and neuroleptics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T43.591A	Poisoning by other antipsychotics and neuroleptics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T43.592A	Poisoning by other antipsychotics and neuroleptics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.593A	Poisoning by other antipsychotics and neuroleptics, assault, initial encounter	Diagnosis	ICD-10-CM
T43.594A	Poisoning by other antipsychotics and neuroleptics, undetermined, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T43.601A	Poisoning by unspecified psychostimulants, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T43.602A	Poisoning by unspecified psychostimulants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.603A	Poisoning by unspecified psychostimulants, assault, initial encounter	Diagnosis	ICD-10-CM
T43.604A	Poisoning by unspecified psychostimulants, undetermined, initial encounter	Diagnosis	ICD-10-CM
T43.611A	Poisoning by caffeine, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T43.612A	Poisoning by caffeine, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.613A	Poisoning by caffeine, assault, initial encounter	Diagnosis	ICD-10-CM
T43.614A	Poisoning by caffeine, undetermined, initial encounter	Diagnosis	ICD-10-CM
T43.621A	Poisoning by amphetamines, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T43.622A	Poisoning by amphetamines, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.623A	Poisoning by amphetamines, assault, initial encounter	Diagnosis	ICD-10-CM
T43.624A	Poisoning by amphetamines, undetermined, initial encounter	Diagnosis	ICD-10-CM
T43.631A	Poisoning by methylphenidate, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T43.632A	Poisoning by methylphenidate, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.633A	Poisoning by methylphenidate, assault, initial encounter	Diagnosis	ICD-10-CM
T43.634A	Poisoning by methylphenidate, undetermined, initial encounter	Diagnosis	ICD-10-CM
T43.691A	Poisoning by other psychostimulants, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T43.692A	Poisoning by other psychostimulants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.693A	Poisoning by other psychostimulants, assault, initial encounter	Diagnosis	ICD-10-CM
T43.694A	Poisoning by other psychostimulants, undetermined, initial encounter	Diagnosis	ICD-10-CM
T43.8X1A	Poisoning by other psychotropic drugs, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T43.8X2A	Poisoning by other psychotropic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.8X3A	Poisoning by other psychotropic drugs, assault, initial encounter	Diagnosis	ICD-10-CM
T43.8X4A	Poisoning by other psychotropic drugs, undetermined, initial encounter	Diagnosis	ICD-10-CM
T43.91XA	Poisoning by unspecified psychotropic drug, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T43.92XA	Poisoning by unspecified psychotropic drug, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T43.93XA	Poisoning by unspecified psychotropic drug, assault, initial encounter	Diagnosis	ICD-10-CM
T43.94XA	Poisoning by unspecified psychotropic drug, undetermined, initial encounter	Diagnosis	ICD-10-CM
T45.0X1A	Poisoning by antiallergic and antiemetic drugs, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T45.0X2A	Poisoning by antiallergic and antiemetic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.0X3A	Poisoning by antiallergic and antiemetic drugs, assault, initial encounter	Diagnosis	ICD-10-CM
T45.0X4A	Poisoning by antiallergic and antiemetic drugs, undetermined, initial encounter	Diagnosis	ICD-10-CM
T45.1X1A	Poisoning by antineoplastic and immunosuppressive drugs, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T45.1X2A	Poisoning by antineoplastic and immunosuppressive drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.1X3A	Poisoning by antineoplastic and immunosuppressive drugs, assault, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T45.1X4A	Poisoning by antineoplastic and immunosuppressive drugs, undetermined, initial encounter	Diagnosis	ICD-10-CM
T45.2X1A	Poisoning by vitamins, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T45.2X2A	Poisoning by vitamins, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.2X3A	Poisoning by vitamins, assault, initial encounter	Diagnosis	ICD-10-CM
T45.2X4A	Poisoning by vitamins, undetermined, initial encounter	Diagnosis	ICD-10-CM
T45.3X1A	Poisoning by enzymes, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T45.3X2A	Poisoning by enzymes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.3X3A	Poisoning by enzymes, assault, initial encounter	Diagnosis	ICD-10-CM
T45.3X4A	Poisoning by enzymes, undetermined, initial encounter	Diagnosis	ICD-10-CM
T45.4X1A	Poisoning by iron and its compounds, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T45.4X2A	Poisoning by iron and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.4X3A	Poisoning by iron and its compounds, assault, initial encounter	Diagnosis	ICD-10-CM
T45.4X4A	Poisoning by iron and its compounds, undetermined, initial encounter	Diagnosis	ICD-10-CM
T45.511A	Poisoning by anticoagulants, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T45.512A	Poisoning by anticoagulants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.513A	Poisoning by anticoagulants, assault, initial encounter	Diagnosis	ICD-10-CM
T45.514A	Poisoning by anticoagulants, undetermined, initial encounter	Diagnosis	ICD-10-CM
T45.521A	Poisoning by antithrombotic drugs, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T45.522A	Poisoning by antithrombotic drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.523A	Poisoning by antithrombotic drugs, assault, initial encounter	Diagnosis	ICD-10-CM
T45.524A	Poisoning by antithrombotic drugs, undetermined, initial encounter	Diagnosis	ICD-10-CM
T45.601A	Poisoning by unspecified fibrinolysis-affecting drugs, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T45.602A	Poisoning by unspecified fibrinolysis-affecting drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.603A	Poisoning by unspecified fibrinolysis-affecting drugs, assault, initial encounter	Diagnosis	ICD-10-CM
T45.604A	Poisoning by unspecified fibrinolysis-affecting drugs, undetermined, initial encounter	Diagnosis	ICD-10-CM
T45.611A	Poisoning by thrombolytic drug, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T45.612A	Poisoning by thrombolytic drug, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.613A	Poisoning by thrombolytic drug, assault, initial encounter	Diagnosis	ICD-10-CM
T45.614A	Poisoning by thrombolytic drug, undetermined, initial encounter	Diagnosis	ICD-10-CM
T45.621A	Poisoning by hemostatic drug, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T45.622A	Poisoning by hemostatic drug, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.623A	Poisoning by hemostatic drug, assault, initial encounter	Diagnosis	ICD-10-CM
T45.624A	Poisoning by hemostatic drug, undetermined, initial encounter	Diagnosis	ICD-10-CM
T45.691A	Poisoning by other fibrinolysis-affecting drugs, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T45.692A	Poisoning by other fibrinolysis-affecting drugs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.693A	Poisoning by other fibrinolysis-affecting drugs, assault, initial encounter	Diagnosis	ICD-10-CM
T45.694A	Poisoning by other fibrinolysis-affecting drugs, undetermined, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T45.7X1A	Poisoning by anticoagulant antagonists, vitamin K and other coagulants, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T45.7X2A	Poisoning by anticoagulant antagonists, vitamin K and other coagulants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.7X3A	Poisoning by anticoagulant antagonists, vitamin K and other coagulants, assault, initial encounter	Diagnosis	ICD-10-CM
T45.7X4A	Poisoning by anticoagulant antagonists, vitamin K and other coagulants, undetermined, initial encounter	Diagnosis	ICD-10-CM
T45.8X1A	Poisoning by other primarily systemic and hematological agents, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T45.8X2A	Poisoning by other primarily systemic and hematological agents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.8X3A	Poisoning by other primarily systemic and hematological agents, assault, initial encounter	Diagnosis	ICD-10-CM
T45.8X4A	Poisoning by other primarily systemic and hematological agents, undetermined, initial encounter	Diagnosis	ICD-10-CM
T45.91XA	Poisoning by unspecified primarily systemic and hematological agent, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T45.92XA	Poisoning by unspecified primarily systemic and hematological agent, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T45.93XA	Poisoning by unspecified primarily systemic and hematological agent, assault, initial encounter	Diagnosis	ICD-10-CM
T45.94XA	Poisoning by unspecified primarily systemic and hematological agent, undetermined, initial encounter	Diagnosis	ICD-10-CM
T50.0X1A	Poisoning by mineralocorticoids and their antagonists, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T50.0X2A	Poisoning by mineralocorticoids and their antagonists, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.0X3A	Poisoning by mineralocorticoids and their antagonists, assault, initial encounter	Diagnosis	ICD-10-CM
T50.0X4A	Poisoning by mineralocorticoids and their antagonists, undetermined, initial encounter	Diagnosis	ICD-10-CM
T50.Z11A	Poisoning by immunoglobulin, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T50.Z12A	Poisoning by immunoglobulin, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T50.Z13A	Poisoning by immunoglobulin, assault, initial encounter	Diagnosis	ICD-10-CM
T50.Z14A	Poisoning by immunoglobulin, undetermined, initial encounter	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
T51.1X1A	Toxic effect of methanol, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T51.1X2A	Toxic effect of methanol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.1X3A	Toxic effect of methanol, assault, initial encounter	Diagnosis	ICD-10-CM
T51.1X4A	Toxic effect of methanol, undetermined, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T51.2X1A	Toxic effect of 2-Propanol, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T51.2X3A	Toxic effect of 2-Propanol, assault, initial encounter	Diagnosis	ICD-10-CM
T51.2X4A	Toxic effect of 2-Propanol, undetermined, initial encounter	Diagnosis	ICD-10-CM
T51.3X1A	Toxic effect of fusel oil, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T51.3X2A	Toxic effect of fusel oil, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.3X3A	Toxic effect of fusel oil, assault, initial encounter	Diagnosis	ICD-10-CM
T51.3X4A	Toxic effect of fusel oil, undetermined, initial encounter	Diagnosis	ICD-10-CM
T51.8X1A	Toxic effect of other alcohols, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T51.8X2A	Toxic effect of other alcohols, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.8X3A	Toxic effect of other alcohols, assault, initial encounter	Diagnosis	ICD-10-CM
T51.8X4A	Toxic effect of other alcohols, undetermined, initial encounter	Diagnosis	ICD-10-CM
T51.91XA	Toxic effect of unspecified alcohol, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T51.92XA	Toxic effect of unspecified alcohol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.93XA	Toxic effect of unspecified alcohol, assault, initial encounter	Diagnosis	ICD-10-CM
T51.94XA	Toxic effect of unspecified alcohol, undetermined, initial encounter	Diagnosis	ICD-10-CM
T52.0X1A	Toxic effect of petroleum products, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T52.0X2A	Toxic effect of petroleum products, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.0X3A	Toxic effect of petroleum products, assault, initial encounter	Diagnosis	ICD-10-CM
T52.0X4A	Toxic effect of petroleum products, undetermined, initial encounter	Diagnosis	ICD-10-CM
T52.1X1A	Toxic effect of benzene, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T52.1X2A	Toxic effect of benzene, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.1X3A	Toxic effect of benzene, assault, initial encounter	Diagnosis	ICD-10-CM
T52.1X4A	Toxic effect of benzene, undetermined, initial encounter	Diagnosis	ICD-10-CM
T52.2X1A	Toxic effect of homologues of benzene, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T52.2X2A	Toxic effect of homologues of benzene, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.2X3A	Toxic effect of homologues of benzene, assault, initial encounter	Diagnosis	ICD-10-CM
T52.2X4A	Toxic effect of homologues of benzene, undetermined, initial encounter	Diagnosis	ICD-10-CM
T52.3X1A	Toxic effect of glycols, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T52.3X2A	Toxic effect of glycols, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.3X3A	Toxic effect of glycols, assault, initial encounter	Diagnosis	ICD-10-CM
T52.3X4A	Toxic effect of glycols, undetermined, initial encounter	Diagnosis	ICD-10-CM
T52.4X1A	Toxic effect of ketones, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T52.4X2A	Toxic effect of ketones, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.4X3A	Toxic effect of ketones, assault, initial encounter	Diagnosis	ICD-10-CM
T52.4X4A	Toxic effect of ketones, undetermined, initial encounter	Diagnosis	ICD-10-CM
T52.8X1A	Toxic effect of other organic solvents, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T52.8X2A	Toxic effect of other organic solvents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.8X3A	Toxic effect of other organic solvents, assault, initial encounter	Diagnosis	ICD-10-CM
T52.8X4A	Toxic effect of other organic solvents, undetermined, initial encounter	Diagnosis	ICD-10-CM
T52.91XA	Toxic effect of unspecified organic solvent, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T52.92XA	Toxic effect of unspecified organic solvent, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T52.93XA	Toxic effect of unspecified organic solvent, assault, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T52.94XA	Toxic effect of unspecified organic solvent, undetermined, initial encounter	Diagnosis	ICD-10-CM
T53.0X1A	Toxic effect of carbon tetrachloride, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T53.0X2A	Toxic effect of carbon tetrachloride, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.0X3A	Toxic effect of carbon tetrachloride, assault, initial encounter	Diagnosis	ICD-10-CM
T53.0X4A	Toxic effect of carbon tetrachloride, undetermined, initial encounter	Diagnosis	ICD-10-CM
T53.1X1A	Toxic effect of chloroform, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T53.1X2A	Toxic effect of chloroform, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.1X3A	Toxic effect of chloroform, assault, initial encounter	Diagnosis	ICD-10-CM
T53.1X4A	Toxic effect of chloroform, undetermined, initial encounter	Diagnosis	ICD-10-CM
T53.2X1A	Toxic effect of trichloroethylene, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T53.2X2A	Toxic effect of trichloroethylene, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.2X3A	Toxic effect of trichloroethylene, assault, initial encounter	Diagnosis	ICD-10-CM
T53.2X4A	Toxic effect of trichloroethylene, undetermined, initial encounter	Diagnosis	ICD-10-CM
T53.3X1A	Toxic effect of tetrachloroethylene, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T53.3X2A	Toxic effect of tetrachloroethylene, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.3X3A	Toxic effect of tetrachloroethylene, assault, initial encounter	Diagnosis	ICD-10-CM
T53.3X4A	Toxic effect of tetrachloroethylene, undetermined, initial encounter	Diagnosis	ICD-10-CM
T53.4X1A	Toxic effect of dichloromethane, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T53.4X2A	Toxic effect of dichloromethane, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.4X3A	Toxic effect of dichloromethane, assault, initial encounter	Diagnosis	ICD-10-CM
T53.4X4A	Toxic effect of dichloromethane, undetermined, initial encounter	Diagnosis	ICD-10-CM
T53.5X1A	Toxic effect of chlorofluorocarbons, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T53.5X2A	Toxic effect of chlorofluorocarbons, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.5X3A	Toxic effect of chlorofluorocarbons, assault, initial encounter	Diagnosis	ICD-10-CM
T53.5X4A	Toxic effect of chlorofluorocarbons, undetermined, initial encounter	Diagnosis	ICD-10-CM
T53.6X1A	Toxic effect of other halogen derivatives of aliphatic hydrocarbons, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T53.6X2A	Toxic effect of other halogen derivatives of aliphatic hydrocarbons, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.6X3A	Toxic effect of other halogen derivatives of aliphatic hydrocarbons, assault, initial encounter	Diagnosis	ICD-10-CM
T53.6X4A	Toxic effect of other halogen derivatives of aliphatic hydrocarbons, undetermined, initial encounter	Diagnosis	ICD-10-CM
T53.7X1A	Toxic effect of other halogen derivatives of aromatic hydrocarbons, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T53.7X2A	Toxic effect of other halogen derivatives of aromatic hydrocarbons, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.7X3A	Toxic effect of other halogen derivatives of aromatic hydrocarbons, assault, initial encounter	Diagnosis	ICD-10-CM
T53.7X4A	Toxic effect of other halogen derivatives of aromatic hydrocarbons, undetermined, initial encounter	Diagnosis	ICD-10-CM
T53.91XA	Toxic effect of unspecified halogen derivatives of aliphatic and aromatic hydrocarbons, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T53.92XA	Toxic effect of unspecified halogen derivatives of aliphatic and aromatic hydrocarbons, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T53.93XA	Toxic effect of unspecified halogen derivatives of aliphatic and aromatic hydrocarbons, assault, initial encounter	Diagnosis	ICD-10-CM
T53.94XA	Toxic effect of unspecified halogen derivatives of aliphatic and aromatic hydrocarbons, undetermined, initial encounter	Diagnosis	ICD-10-CM
T54.0X1A	Toxic effect of phenol and phenol homologues, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T54.0X2A	Toxic effect of phenol and phenol homologues, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T54.0X3A	Toxic effect of phenol and phenol homologues, assault, initial encounter	Diagnosis	ICD-10-CM
T54.0X4A	Toxic effect of phenol and phenol homologues, undetermined, initial encounter	Diagnosis	ICD-10-CM
T54.1X1A	Toxic effect of other corrosive organic compounds, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T54.1X2A	Toxic effect of other corrosive organic compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T54.1X3A	Toxic effect of other corrosive organic compounds, assault, initial encounter	Diagnosis	ICD-10-CM
T54.1X4A	Toxic effect of other corrosive organic compounds, undetermined, initial encounter	Diagnosis	ICD-10-CM
T54.2X1A	Toxic effect of corrosive acids and acid-like substances, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T54.2X2A	Toxic effect of corrosive acids and acid-like substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T54.2X3A	Toxic effect of corrosive acids and acid-like substances, assault, initial encounter	Diagnosis	ICD-10-CM
T54.2X4A	Toxic effect of corrosive acids and acid-like substances, undetermined, initial encounter	Diagnosis	ICD-10-CM
T54.3X1A	Toxic effect of corrosive alkalis and alkali-like substances, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T54.3X2A	Toxic effect of corrosive alkalis and alkali-like substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T54.3X3A	Toxic effect of corrosive alkalis and alkali-like substances, assault, initial encounter	Diagnosis	ICD-10-CM
T54.3X4A	Toxic effect of corrosive alkalis and alkali-like substances, undetermined, initial encounter	Diagnosis	ICD-10-CM
T54.91XA	Toxic effect of unspecified corrosive substance, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T54.92XA	Toxic effect of unspecified corrosive substance, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T54.93XA	Toxic effect of unspecified corrosive substance, assault, initial encounter	Diagnosis	ICD-10-CM
T54.94XA	Toxic effect of unspecified corrosive substance, undetermined, initial encounter	Diagnosis	ICD-10-CM
T55.0X1A	Toxic effect of soaps, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T55.0X2A	Toxic effect of soaps, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T55.0X3A	Toxic effect of soaps, assault, initial encounter	Diagnosis	ICD-10-CM
T55.0X4A	Toxic effect of soaps, undetermined, initial encounter	Diagnosis	ICD-10-CM
T55.1X1A	Toxic effect of detergents, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T55.1X2A	Toxic effect of detergents, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T55.1X3A	Toxic effect of detergents, assault, initial encounter	Diagnosis	ICD-10-CM
T55.1X4A	Toxic effect of detergents, undetermined, initial encounter	Diagnosis	ICD-10-CM
T56.0X1A	Toxic effect of lead and its compounds, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T56.0X2A	Toxic effect of lead and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.0X3A	Toxic effect of lead and its compounds, assault, initial encounter	Diagnosis	ICD-10-CM
T56.0X4A	Toxic effect of lead and its compounds, undetermined, initial encounter	Diagnosis	ICD-10-CM
T56.1X1A	Toxic effect of mercury and its compounds, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T56.1X2A	Toxic effect of mercury and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.1X3A	Toxic effect of mercury and its compounds, assault, initial encounter	Diagnosis	ICD-10-CM
T56.1X4A	Toxic effect of mercury and its compounds, undetermined, initial encounter	Diagnosis	ICD-10-CM
T56.2X1A	Toxic effect of chromium and its compounds, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T56.2X2A	Toxic effect of chromium and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.2X3A	Toxic effect of chromium and its compounds, assault, initial encounter	Diagnosis	ICD-10-CM
T56.2X4A	Toxic effect of chromium and its compounds, undetermined, initial encounter	Diagnosis	ICD-10-CM
T56.3X1A	Toxic effect of cadmium and its compounds, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T56.3X2A	Toxic effect of cadmium and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.3X3A	Toxic effect of cadmium and its compounds, assault, initial encounter	Diagnosis	ICD-10-CM
T56.3X4A	Toxic effect of cadmium and its compounds, undetermined, initial encounter	Diagnosis	ICD-10-CM
T56.4X1A	Toxic effect of copper and its compounds, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T56.4X2A	Toxic effect of copper and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.4X3A	Toxic effect of copper and its compounds, assault, initial encounter	Diagnosis	ICD-10-CM
T56.4X4A	Toxic effect of copper and its compounds, undetermined, initial encounter	Diagnosis	ICD-10-CM
T56.5X1A	Toxic effect of zinc and its compounds, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T56.5X2A	Toxic effect of zinc and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.5X3A	Toxic effect of zinc and its compounds, assault, initial encounter	Diagnosis	ICD-10-CM
T56.5X4A	Toxic effect of zinc and its compounds, undetermined, initial encounter	Diagnosis	ICD-10-CM
T56.6X1A	Toxic effect of tin and its compounds, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T56.6X2A	Toxic effect of tin and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.6X3A	Toxic effect of tin and its compounds, assault, initial encounter	Diagnosis	ICD-10-CM
T56.6X4A	Toxic effect of tin and its compounds, undetermined, initial encounter	Diagnosis	ICD-10-CM
T56.7X1A	Toxic effect of beryllium and its compounds, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T56.7X2A	Toxic effect of beryllium and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.7X3A	Toxic effect of beryllium and its compounds, assault, initial encounter	Diagnosis	ICD-10-CM
T56.7X4A	Toxic effect of beryllium and its compounds, undetermined, initial encounter	Diagnosis	ICD-10-CM
T56.811A	Toxic effect of thallium, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T56.812A	Toxic effect of thallium, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.813A	Toxic effect of thallium, assault, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T56.814A	Toxic effect of thallium, undetermined, initial encounter	Diagnosis	ICD-10-CM
T56.891A	Toxic effect of other metals, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T56.892A	Toxic effect of other metals, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.893A	Toxic effect of other metals, assault, initial encounter	Diagnosis	ICD-10-CM
T56.894A	Toxic effect of other metals, undetermined, initial encounter	Diagnosis	ICD-10-CM
T56.91XA	Toxic effect of unspecified metal, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T56.92XA	Toxic effect of unspecified metal, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T56.93XA	Toxic effect of unspecified metal, assault, initial encounter	Diagnosis	ICD-10-CM
T56.94XA	Toxic effect of unspecified metal, undetermined, initial encounter	Diagnosis	ICD-10-CM
T57.0X1A	Toxic effect of arsenic and its compounds, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T57.0X2A	Toxic effect of arsenic and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T57.0X3A	Toxic effect of arsenic and its compounds, assault, initial encounter	Diagnosis	ICD-10-CM
T57.0X4A	Toxic effect of arsenic and its compounds, undetermined, initial encounter	Diagnosis	ICD-10-CM
T57.1X1A	Toxic effect of phosphorus and its compounds, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T57.1X2A	Toxic effect of phosphorus and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T57.1X3A	Toxic effect of phosphorus and its compounds, assault, initial encounter	Diagnosis	ICD-10-CM
T57.1X4A	Toxic effect of phosphorus and its compounds, undetermined, initial encounter	Diagnosis	ICD-10-CM
T57.2X1A	Toxic effect of manganese and its compounds, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T57.2X2A	Toxic effect of manganese and its compounds, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T57.2X3A	Toxic effect of manganese and its compounds, assault, initial encounter	Diagnosis	ICD-10-CM
T57.2X4A	Toxic effect of manganese and its compounds, undetermined, initial encounter	Diagnosis	ICD-10-CM
T57.3X1A	Toxic effect of hydrogen cyanide, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T57.3X2A	Toxic effect of hydrogen cyanide, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T57.3X3A	Toxic effect of hydrogen cyanide, assault, initial encounter	Diagnosis	ICD-10-CM
T57.3X4A	Toxic effect of hydrogen cyanide, undetermined, initial encounter	Diagnosis	ICD-10-CM
T57.8X1A	Toxic effect of other specified inorganic substances, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T57.8X2A	Toxic effect of other specified inorganic substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T57.8X3A	Toxic effect of other specified inorganic substances, assault, initial encounter	Diagnosis	ICD-10-CM
T57.8X4A	Toxic effect of other specified inorganic substances, undetermined, initial encounter	Diagnosis	ICD-10-CM
T57.91XA	Toxic effect of unspecified inorganic substance, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T57.92XA	Toxic effect of unspecified inorganic substance, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T57.93XA	Toxic effect of unspecified inorganic substance, assault, initial encounter	Diagnosis	ICD-10-CM
T57.94XA	Toxic effect of unspecified inorganic substance, undetermined, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T58.01XA	Toxic effect of carbon monoxide from motor vehicle exhaust, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T58.02XA	Toxic effect of carbon monoxide from motor vehicle exhaust, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T58.03XA	Toxic effect of carbon monoxide from motor vehicle exhaust, assault, initial encounter	Diagnosis	ICD-10-CM
T58.04XA	Toxic effect of carbon monoxide from motor vehicle exhaust, undetermined, initial encounter	Diagnosis	ICD-10-CM
T58.11XA	Toxic effect of carbon monoxide from utility gas, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T58.12XA	Toxic effect of carbon monoxide from utility gas, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T58.13XA	Toxic effect of carbon monoxide from utility gas, assault, initial encounter	Diagnosis	ICD-10-CM
T58.14XA	Toxic effect of carbon monoxide from utility gas, undetermined, initial encounter	Diagnosis	ICD-10-CM
T58.2X1A	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T58.2X2A	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T58.2X3A	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, assault, initial encounter	Diagnosis	ICD-10-CM
T58.2X4A	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, undetermined, initial encounter	Diagnosis	ICD-10-CM
T58.8X1A	Toxic effect of carbon monoxide from other source, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T58.8X2A	Toxic effect of carbon monoxide from other source, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T58.8X3A	Toxic effect of carbon monoxide from other source, assault, initial encounter	Diagnosis	ICD-10-CM
T58.8X4A	Toxic effect of carbon monoxide from other source, undetermined, initial encounter	Diagnosis	ICD-10-CM
T58.91XA	Toxic effect of carbon monoxide from unspecified source, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T58.92XA	Toxic effect of carbon monoxide from unspecified source, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T58.93XA	Toxic effect of carbon monoxide from unspecified source, assault, initial encounter	Diagnosis	ICD-10-CM
T58.94XA	Toxic effect of carbon monoxide from unspecified source, undetermined, initial encounter	Diagnosis	ICD-10-CM
T59.0X1A	Toxic effect of nitrogen oxides, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T59.0X2A	Toxic effect of nitrogen oxides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.0X3A	Toxic effect of nitrogen oxides, assault, initial encounter	Diagnosis	ICD-10-CM
T59.0X4A	Toxic effect of nitrogen oxides, undetermined, initial encounter	Diagnosis	ICD-10-CM
T59.1X1A	Toxic effect of sulfur dioxide, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T59.1X2A	Toxic effect of sulfur dioxide, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.1X3A	Toxic effect of sulfur dioxide, assault, initial encounter	Diagnosis	ICD-10-CM
T59.1X4A	Toxic effect of sulfur dioxide, undetermined, initial encounter	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
T59.2X1A	Toxic effect of formaldehyde, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T59.2X2A	Toxic effect of formaldehyde, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.2X3A	Toxic effect of formaldehyde, assault, initial encounter	Diagnosis	ICD-10-CM
T59.2X4A	Toxic effect of formaldehyde, undetermined, initial encounter	Diagnosis	ICD-10-CM
T59.3X1A	Toxic effect of lacrimogenic gas, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T59.3X2A	Toxic effect of lacrimogenic gas, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.3X3A	Toxic effect of lacrimogenic gas, assault, initial encounter	Diagnosis	ICD-10-CM
T59.3X4A	Toxic effect of lacrimogenic gas, undetermined, initial encounter	Diagnosis	ICD-10-CM
T59.4X1A	Toxic effect of chlorine gas, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T59.4X2A	Toxic effect of chlorine gas, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.4X3A	Toxic effect of chlorine gas, assault, initial encounter	Diagnosis	ICD-10-CM
T59.4X4A	Toxic effect of chlorine gas, undetermined, initial encounter	Diagnosis	ICD-10-CM
T59.5X1A	Toxic effect of fluorine gas and hydrogen fluoride, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T59.5X2A	Toxic effect of fluorine gas and hydrogen fluoride, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.5X3A	Toxic effect of fluorine gas and hydrogen fluoride, assault, initial encounter	Diagnosis	ICD-10-CM
T59.5X4A	Toxic effect of fluorine gas and hydrogen fluoride, undetermined, initial encounter	Diagnosis	ICD-10-CM
T59.6X1A	Toxic effect of hydrogen sulfide, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T59.6X2A	Toxic effect of hydrogen sulfide, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.6X3A	Toxic effect of hydrogen sulfide, assault, initial encounter	Diagnosis	ICD-10-CM
T59.6X4A	Toxic effect of hydrogen sulfide, undetermined, initial encounter	Diagnosis	ICD-10-CM
T59.7X1A	Toxic effect of carbon dioxide, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T59.7X2A	Toxic effect of carbon dioxide, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.7X3A	Toxic effect of carbon dioxide, assault, initial encounter	Diagnosis	ICD-10-CM
T59.7X4A	Toxic effect of carbon dioxide, undetermined, initial encounter	Diagnosis	ICD-10-CM
T59.811A	Toxic effect of smoke, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T59.812A	Toxic effect of smoke, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.813A	Toxic effect of smoke, assault, initial encounter	Diagnosis	ICD-10-CM
T59.814A	Toxic effect of smoke, undetermined, initial encounter	Diagnosis	ICD-10-CM
T59.891A	Toxic effect of other specified gases, fumes and vapors, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T59.892A	Toxic effect of other specified gases, fumes and vapors, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.893A	Toxic effect of other specified gases, fumes and vapors, assault, initial encounter	Diagnosis	ICD-10-CM
T59.894A	Toxic effect of other specified gases, fumes and vapors, undetermined, initial encounter	Diagnosis	ICD-10-CM
T59.91XA	Toxic effect of unspecified gases, fumes and vapors, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T59.92XA	Toxic effect of unspecified gases, fumes and vapors, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T59.93XA	Toxic effect of unspecified gases, fumes and vapors, assault, initial encounter	Diagnosis	ICD-10-CM
T59.94XA	Toxic effect of unspecified gases, fumes and vapors, undetermined, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T60.0X1A	Toxic effect of organophosphate and carbamate insecticides, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T60.0X2A	Toxic effect of organophosphate and carbamate insecticides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.0X3A	Toxic effect of organophosphate and carbamate insecticides, assault, initial encounter	Diagnosis	ICD-10-CM
T60.0X4A	Toxic effect of organophosphate and carbamate insecticides, undetermined, initial encounter	Diagnosis	ICD-10-CM
T60.1X1A	Toxic effect of halogenated insecticides, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T60.1X2A	Toxic effect of halogenated insecticides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.1X3A	Toxic effect of halogenated insecticides, assault, initial encounter	Diagnosis	ICD-10-CM
T60.1X4A	Toxic effect of halogenated insecticides, undetermined, initial encounter	Diagnosis	ICD-10-CM
T60.2X1A	Toxic effect of other insecticides, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T60.2X2A	Toxic effect of other insecticides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.2X3A	Toxic effect of other insecticides, assault, initial encounter	Diagnosis	ICD-10-CM
T60.2X4A	Toxic effect of other insecticides, undetermined, initial encounter	Diagnosis	ICD-10-CM
T60.3X1A	Toxic effect of herbicides and fungicides, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T60.3X2A	Toxic effect of herbicides and fungicides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.3X3A	Toxic effect of herbicides and fungicides, assault, initial encounter	Diagnosis	ICD-10-CM
T60.3X4A	Toxic effect of herbicides and fungicides, undetermined, initial encounter	Diagnosis	ICD-10-CM
T60.4X1A	Toxic effect of rodenticides, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T60.4X2A	Toxic effect of rodenticides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.4X3A	Toxic effect of rodenticides, assault, initial encounter	Diagnosis	ICD-10-CM
T60.4X4A	Toxic effect of rodenticides, undetermined, initial encounter	Diagnosis	ICD-10-CM
T60.8X1A	Toxic effect of other pesticides, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T60.8X2A	Toxic effect of other pesticides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.8X3A	Toxic effect of other pesticides, assault, initial encounter	Diagnosis	ICD-10-CM
T60.8X4A	Toxic effect of other pesticides, undetermined, initial encounter	Diagnosis	ICD-10-CM
T60.91XA	Toxic effect of unspecified pesticide, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T60.92XA	Toxic effect of unspecified pesticide, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T60.93XA	Toxic effect of unspecified pesticide, assault, initial encounter	Diagnosis	ICD-10-CM
T60.94XA	Toxic effect of unspecified pesticide, undetermined, initial encounter	Diagnosis	ICD-10-CM
T61.01XA	Ciguatera fish poisoning, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T61.02XA	Ciguatera fish poisoning, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T61.03XA	Ciguatera fish poisoning, assault, initial encounter	Diagnosis	ICD-10-CM
T61.04XA	Ciguatera fish poisoning, undetermined, initial encounter	Diagnosis	ICD-10-CM
T61.11XA	Scombroid fish poisoning, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T61.12XA	Scombroid fish poisoning, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T61.13XA	Scombroid fish poisoning, assault, initial encounter	Diagnosis	ICD-10-CM
T61.14XA	Scombroid fish poisoning, undetermined, initial encounter	Diagnosis	ICD-10-CM
T61.771A	Other fish poisoning, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T61.772A	Other fish poisoning, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T61.773A	Other fish poisoning, assault, initial encounter	Diagnosis	ICD-10-CM
T61.774A	Other fish poisoning, undetermined, initial encounter	Diagnosis	ICD-10-CM
T61.781A	Other shellfish poisoning, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T61.782A	Other shellfish poisoning, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T61.783A	Other shellfish poisoning, assault, initial encounter	Diagnosis	ICD-10-CM
T61.784A	Other shellfish poisoning, undetermined, initial encounter	Diagnosis	ICD-10-CM
T61.8X1A	Toxic effect of other seafood, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T61.8X2A	Toxic effect of other seafood, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T61.8X3A	Toxic effect of other seafood, assault, initial encounter	Diagnosis	ICD-10-CM
T61.8X4A	Toxic effect of other seafood, undetermined, initial encounter	Diagnosis	ICD-10-CM
T61.91XA	Toxic effect of unspecified seafood, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T61.92XA	Toxic effect of unspecified seafood, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T61.93XA	Toxic effect of unspecified seafood, assault, initial encounter	Diagnosis	ICD-10-CM
T61.94XA	Toxic effect of unspecified seafood, undetermined, initial encounter	Diagnosis	ICD-10-CM
T62.0X1A	Toxic effect of ingested mushrooms, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T62.0X2A	Toxic effect of ingested mushrooms, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T62.0X3A	Toxic effect of ingested mushrooms, assault, initial encounter	Diagnosis	ICD-10-CM
T62.0X4A	Toxic effect of ingested mushrooms, undetermined, initial encounter	Diagnosis	ICD-10-CM
T62.1X1A	Toxic effect of ingested berries, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T62.1X2A	Toxic effect of ingested berries, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T62.1X3A	Toxic effect of ingested berries, assault, initial encounter	Diagnosis	ICD-10-CM
T62.1X4A	Toxic effect of ingested berries, undetermined, initial encounter	Diagnosis	ICD-10-CM
T62.2X1A	Toxic effect of other ingested (parts of) plant(s), accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T62.2X2A	Toxic effect of other ingested (parts of) plant(s), intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T62.2X3A	Toxic effect of other ingested (parts of) plant(s), assault, initial encounter	Diagnosis	ICD-10-CM
T62.2X4A	Toxic effect of other ingested (parts of) plant(s), undetermined, initial encounter	Diagnosis	ICD-10-CM
T62.8X1A	Toxic effect of other specified noxious substances eaten as food, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T62.8X2A	Toxic effect of other specified noxious substances eaten as food, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T62.8X3A	Toxic effect of other specified noxious substances eaten as food, assault, initial encounter	Diagnosis	ICD-10-CM
T62.8X4A	Toxic effect of other specified noxious substances eaten as food, undetermined, initial encounter	Diagnosis	ICD-10-CM
T62.91XA	Toxic effect of unspecified noxious substance eaten as food, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T62.92XA	Toxic effect of unspecified noxious substance eaten as food, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T62.93XA	Toxic effect of unspecified noxious substance eaten as food, assault, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T62.94XA	Toxic effect of unspecified noxious substance eaten as food, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.001A	Toxic effect of unspecified snake venom, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.002A	Toxic effect of unspecified snake venom, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.003A	Toxic effect of unspecified snake venom, assault, initial encounter	Diagnosis	ICD-10-CM
T63.004A	Toxic effect of unspecified snake venom, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.011A	Toxic effect of rattlesnake venom, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.012A	Toxic effect of rattlesnake venom, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.013A	Toxic effect of rattlesnake venom, assault, initial encounter	Diagnosis	ICD-10-CM
T63.014A	Toxic effect of rattlesnake venom, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.021A	Toxic effect of coral snake venom, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.022A	Toxic effect of coral snake venom, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.023A	Toxic effect of coral snake venom, assault, initial encounter	Diagnosis	ICD-10-CM
T63.024A	Toxic effect of coral snake venom, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.031A	Toxic effect of taipan venom, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.032A	Toxic effect of taipan venom, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.033A	Toxic effect of taipan venom, assault, initial encounter	Diagnosis	ICD-10-CM
T63.034A	Toxic effect of taipan venom, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.041A	Toxic effect of cobra venom, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.042A	Toxic effect of cobra venom, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.043A	Toxic effect of cobra venom, assault, initial encounter	Diagnosis	ICD-10-CM
T63.044A	Toxic effect of cobra venom, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.061A	Toxic effect of venom of other North and South American snake, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.062A	Toxic effect of venom of other North and South American snake, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.063A	Toxic effect of venom of other North and South American snake, assault, initial encounter	Diagnosis	ICD-10-CM
T63.064A	Toxic effect of venom of other North and South American snake, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.071A	Toxic effect of venom of other Australian snake, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.072A	Toxic effect of venom of other Australian snake, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.073A	Toxic effect of venom of other Australian snake, assault, initial encounter	Diagnosis	ICD-10-CM
T63.074A	Toxic effect of venom of other Australian snake, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.081A	Toxic effect of venom of other African and Asian snake, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.082A	Toxic effect of venom of other African and Asian snake, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.083A	Toxic effect of venom of other African and Asian snake, assault, initial encounter	Diagnosis	ICD-10-CM
T63.084A	Toxic effect of venom of other African and Asian snake, undetermined, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T63.091A	Toxic effect of venom of other snake, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.092A	Toxic effect of venom of other snake, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.093A	Toxic effect of venom of other snake, assault, initial encounter	Diagnosis	ICD-10-CM
T63.094A	Toxic effect of venom of other snake, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.111A	Toxic effect of venom of gila monster, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.112A	Toxic effect of venom of gila monster, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.113A	Toxic effect of venom of gila monster, assault, initial encounter	Diagnosis	ICD-10-CM
T63.114A	Toxic effect of venom of gila monster, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.121A	Toxic effect of venom of other venomous lizard, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.122A	Toxic effect of venom of other venomous lizard, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.123A	Toxic effect of venom of other venomous lizard, assault, initial encounter	Diagnosis	ICD-10-CM
T63.124A	Toxic effect of venom of other venomous lizard, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.191A	Toxic effect of venom of other reptiles, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.192A	Toxic effect of venom of other reptiles, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.193A	Toxic effect of venom of other reptiles, assault, initial encounter	Diagnosis	ICD-10-CM
T63.194A	Toxic effect of venom of other reptiles, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.2X1A	Toxic effect of venom of scorpion, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.2X2A	Toxic effect of venom of scorpion, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.2X3A	Toxic effect of venom of scorpion, assault, initial encounter	Diagnosis	ICD-10-CM
T63.2X4A	Toxic effect of venom of scorpion, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.301A	Toxic effect of unspecified spider venom, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.302A	Toxic effect of unspecified spider venom, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.303A	Toxic effect of unspecified spider venom, assault, initial encounter	Diagnosis	ICD-10-CM
T63.304A	Toxic effect of unspecified spider venom, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.311A	Toxic effect of venom of black widow spider, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.312A	Toxic effect of venom of black widow spider, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.313A	Toxic effect of venom of black widow spider, assault, initial encounter	Diagnosis	ICD-10-CM
T63.314A	Toxic effect of venom of black widow spider, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.321A	Toxic effect of venom of tarantula, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.322A	Toxic effect of venom of tarantula, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.323A	Toxic effect of venom of tarantula, assault, initial encounter	Diagnosis	ICD-10-CM
T63.324A	Toxic effect of venom of tarantula, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.331A	Toxic effect of venom of brown recluse spider, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.332A	Toxic effect of venom of brown recluse spider, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.333A	Toxic effect of venom of brown recluse spider, assault, initial encounter	Diagnosis	ICD-10-CM
T63.334A	Toxic effect of venom of brown recluse spider, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.391A	Toxic effect of venom of other spider, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T63.392A	Toxic effect of venom of other spider, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.393A	Toxic effect of venom of other spider, assault, initial encounter	Diagnosis	ICD-10-CM
T63.394A	Toxic effect of venom of other spider, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.411A	Toxic effect of venom of centipedes and venomous millipedes, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.412A	Toxic effect of venom of centipedes and venomous millipedes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.413A	Toxic effect of venom of centipedes and venomous millipedes, assault, initial encounter	Diagnosis	ICD-10-CM
T63.414A	Toxic effect of venom of centipedes and venomous millipedes, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.421A	Toxic effect of venom of ants, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.422A	Toxic effect of venom of ants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.423A	Toxic effect of venom of ants, assault, initial encounter	Diagnosis	ICD-10-CM
T63.424A	Toxic effect of venom of ants, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.431A	Toxic effect of venom of caterpillars, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.432A	Toxic effect of venom of caterpillars, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.433A	Toxic effect of venom of caterpillars, assault, initial encounter	Diagnosis	ICD-10-CM
T63.434A	Toxic effect of venom of caterpillars, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.441A	Toxic effect of venom of bees, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.442A	Toxic effect of venom of bees, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.443A	Toxic effect of venom of bees, assault, initial encounter	Diagnosis	ICD-10-CM
T63.444A	Toxic effect of venom of bees, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.451A	Toxic effect of venom of hornets, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.452A	Toxic effect of venom of hornets, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.453A	Toxic effect of venom of hornets, assault, initial encounter	Diagnosis	ICD-10-CM
T63.454A	Toxic effect of venom of hornets, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.461A	Toxic effect of venom of wasps, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.462A	Toxic effect of venom of wasps, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.463A	Toxic effect of venom of wasps, assault, initial encounter	Diagnosis	ICD-10-CM
T63.464A	Toxic effect of venom of wasps, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.481A	Toxic effect of venom of other arthropod, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.482A	Toxic effect of venom of other arthropod, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.483A	Toxic effect of venom of other arthropod, assault, initial encounter	Diagnosis	ICD-10-CM
T63.484A	Toxic effect of venom of other arthropod, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.511A	Toxic effect of contact with stingray, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.512A	Toxic effect of contact with stingray, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.513A	Toxic effect of contact with stingray, assault, initial encounter	Diagnosis	ICD-10-CM
T63.514A	Toxic effect of contact with stingray, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.591A	Toxic effect of contact with other venomous fish, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T63.592A	Toxic effect of contact with other venomous fish, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.593A	Toxic effect of contact with other venomous fish, assault, initial encounter	Diagnosis	ICD-10-CM
T63.594A	Toxic effect of contact with other venomous fish, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.611A	Toxic effect of contact with Portuguese Man-o-war, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.612A	Toxic effect of contact with Portuguese Man-o-war, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.613A	Toxic effect of contact with Portuguese Man-o-war, assault, initial encounter	Diagnosis	ICD-10-CM
T63.614A	Toxic effect of contact with Portuguese Man-o-war, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.621A	Toxic effect of contact with other jellyfish, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.622A	Toxic effect of contact with other jellyfish, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.623A	Toxic effect of contact with other jellyfish, assault, initial encounter	Diagnosis	ICD-10-CM
T63.624A	Toxic effect of contact with other jellyfish, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.631A	Toxic effect of contact with sea anemone, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.632A	Toxic effect of contact with sea anemone, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.633A	Toxic effect of contact with sea anemone, assault, initial encounter	Diagnosis	ICD-10-CM
T63.634A	Toxic effect of contact with sea anemone, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.691A	Toxic effect of contact with other venomous marine animals, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.692A	Toxic effect of contact with other venomous marine animals, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.693A	Toxic effect of contact with other venomous marine animals, assault, initial encounter	Diagnosis	ICD-10-CM
T63.694A	Toxic effect of contact with other venomous marine animals, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.711A	Toxic effect of contact with venomous marine plant, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.712A	Toxic effect of contact with venomous marine plant, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.713A	Toxic effect of contact with venomous marine plant, assault, initial encounter	Diagnosis	ICD-10-CM
T63.714A	Toxic effect of contact with venomous marine plant, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.791A	Toxic effect of contact with other venomous plant, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.792A	Toxic effect of contact with other venomous plant, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.793A	Toxic effect of contact with other venomous plant, assault, initial encounter	Diagnosis	ICD-10-CM
T63.794A	Toxic effect of contact with other venomous plant, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.811A	Toxic effect of contact with venomous frog, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.812A	Toxic effect of contact with venomous frog, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T63.813A	Toxic effect of contact with venomous frog, assault, initial encounter	Diagnosis	ICD-10-CM
T63.814A	Toxic effect of contact with venomous frog, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.821A	Toxic effect of contact with venomous toad, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.822A	Toxic effect of contact with venomous toad, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.823A	Toxic effect of contact with venomous toad, assault, initial encounter	Diagnosis	ICD-10-CM
T63.824A	Toxic effect of contact with venomous toad, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.831A	Toxic effect of contact with other venomous amphibian, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.832A	Toxic effect of contact with other venomous amphibian, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.833A	Toxic effect of contact with other venomous amphibian, assault, initial encounter	Diagnosis	ICD-10-CM
T63.834A	Toxic effect of contact with other venomous amphibian, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.891A	Toxic effect of contact with other venomous animals, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.892A	Toxic effect of contact with other venomous animals, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.893A	Toxic effect of contact with other venomous animals, assault, initial encounter	Diagnosis	ICD-10-CM
T63.894A	Toxic effect of contact with other venomous animals, undetermined, initial encounter	Diagnosis	ICD-10-CM
T63.91XA	Toxic effect of contact with unspecified venomous animal, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T63.92XA	Toxic effect of contact with unspecified venomous animal, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T63.93XA	Toxic effect of contact with unspecified venomous animal, assault, initial encounter	Diagnosis	ICD-10-CM
T63.94XA	Toxic effect of contact with unspecified venomous animal, undetermined, initial encounter	Diagnosis	ICD-10-CM
T64.01XA	Toxic effect of aflatoxin, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T64.02XA	Toxic effect of aflatoxin, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T64.03XA	Toxic effect of aflatoxin, assault, initial encounter	Diagnosis	ICD-10-CM
T64.04XA	Toxic effect of aflatoxin, undetermined, initial encounter	Diagnosis	ICD-10-CM
T64.81XA	Toxic effect of other mycotoxin food contaminants, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T64.82XA	Toxic effect of other mycotoxin food contaminants, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T64.83XA	Toxic effect of other mycotoxin food contaminants, assault, initial encounter	Diagnosis	ICD-10-CM
T64.84XA	Toxic effect of other mycotoxin food contaminants, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65.0X1A	Toxic effect of cyanides, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.0X2A	Toxic effect of cyanides, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.0X3A	Toxic effect of cyanides, assault, initial encounter	Diagnosis	ICD-10-CM
T65.0X4A	Toxic effect of cyanides, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65.1X1A	Toxic effect of strychnine and its salts, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.1X2A	Toxic effect of strychnine and its salts, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T65.1X3A	Toxic effect of strychnine and its salts, assault, initial encounter	Diagnosis	ICD-10-CM
T65.1X4A	Toxic effect of strychnine and its salts, undetermined, initial encounter	Diagnosis	ICD-10-CM
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
T65.3X1A	Toxic effect of nitroderivatives and aminoderivatives of benzene and its homologues, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.3X2A	Toxic effect of nitroderivatives and aminoderivatives of benzene and its homologues, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.3X3A	Toxic effect of nitroderivatives and aminoderivatives of benzene and its homologues, assault, initial encounter	Diagnosis	ICD-10-CM
T65.3X4A	Toxic effect of nitroderivatives and aminoderivatives of benzene and its homologues, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65.4X1A	Toxic effect of carbon disulfide, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.4X2A	Toxic effect of carbon disulfide, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.4X3A	Toxic effect of carbon disulfide, assault, initial encounter	Diagnosis	ICD-10-CM
T65.4X4A	Toxic effect of carbon disulfide, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65.5X1A	Toxic effect of nitroglycerin and other nitric acids and esters, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.5X2A	Toxic effect of nitroglycerin and other nitric acids and esters, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.5X3A	Toxic effect of nitroglycerin and other nitric acids and esters, assault, initial encounter	Diagnosis	ICD-10-CM
T65.5X4A	Toxic effect of nitroglycerin and other nitric acids and esters, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65.6X1A	Toxic effect of paints and dyes, not elsewhere classified, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.6X2A	Toxic effect of paints and dyes, not elsewhere classified, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.6X3A	Toxic effect of paints and dyes, not elsewhere classified, assault, initial encounter	Diagnosis	ICD-10-CM
T65.6X4A	Toxic effect of paints and dyes, not elsewhere classified, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65.811A	Toxic effect of latex, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T65.812A	Toxic effect of latex, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.813A	Toxic effect of latex, assault, initial encounter	Diagnosis	ICD-10-CM
T65.814A	Toxic effect of latex, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65.821A	Toxic effect of harmful algae and algae toxins, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.822A	Toxic effect of harmful algae and algae toxins, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.823A	Toxic effect of harmful algae and algae toxins, assault, initial encounter	Diagnosis	ICD-10-CM
T65.824A	Toxic effect of harmful algae and algae toxins, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65.831A	Toxic effect of fiberglass, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.832A	Toxic effect of fiberglass, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.833A	Toxic effect of fiberglass, assault, initial encounter	Diagnosis	ICD-10-CM
T65.834A	Toxic effect of fiberglass, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65.891A	Toxic effect of other specified substances, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.892A	Toxic effect of other specified substances, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.893A	Toxic effect of other specified substances, assault, initial encounter	Diagnosis	ICD-10-CM
T65.894A	Toxic effect of other specified substances, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65.91XA	Toxic effect of unspecified substance, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.92XA	Toxic effect of unspecified substance, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.93XA	Toxic effect of unspecified substance, assault, initial encounter	Diagnosis	ICD-10-CM
T65.94XA	Toxic effect of unspecified substance, undetermined, initial encounter	Diagnosis	ICD-10-CM
T71.111A	Asphyxiation due to smothering under pillow, accidental, initial encounter	Diagnosis	ICD-10-CM
T71.112A	Asphyxiation due to smothering under pillow, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.113A	Asphyxiation due to smothering under pillow, assault, initial encounter	Diagnosis	ICD-10-CM
T71.114A	Asphyxiation due to smothering under pillow, undetermined, initial encounter	Diagnosis	ICD-10-CM
T71.121A	Asphyxiation due to plastic bag, accidental, initial encounter	Diagnosis	ICD-10-CM
T71.122A	Asphyxiation due to plastic bag, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.123A	Asphyxiation due to plastic bag, assault, initial encounter	Diagnosis	ICD-10-CM
T71.124A	Asphyxiation due to plastic bag, undetermined, initial encounter	Diagnosis	ICD-10-CM
T71.131A	Asphyxiation due to being trapped in bed linens, accidental, initial encounter	Diagnosis	ICD-10-CM
T71.132A	Asphyxiation due to being trapped in bed linens, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.133A	Asphyxiation due to being trapped in bed linens, assault, initial encounter	Diagnosis	ICD-10-CM
T71.134A	Asphyxiation due to being trapped in bed linens, undetermined, initial encounter	Diagnosis	ICD-10-CM
T71.141A	Asphyxiation due to smothering under another person's body (in bed), accidental, initial encounter	Diagnosis	ICD-10-CM
T71.143A	Asphyxiation due to smothering under another person's body (in bed), assault, initial encounter	Diagnosis	ICD-10-CM
T71.144A	Asphyxiation due to smothering under another person's body (in bed), undetermined, initial encounter	Diagnosis	ICD-10-CM
T71.151A	Asphyxiation due to smothering in furniture, accidental, initial encounter	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
T71.152A	Asphyxiation due to smothering in furniture, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.153A	Asphyxiation due to smothering in furniture, assault, initial encounter	Diagnosis	ICD-10-CM
T71.154A	Asphyxiation due to smothering in furniture, undetermined, initial encounter	Diagnosis	ICD-10-CM
T71.161A	Asphyxiation due to hanging, accidental, initial encounter	Diagnosis	ICD-10-CM
T71.162A	Asphyxiation due to hanging, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.163A	Asphyxiation due to hanging, assault, initial encounter	Diagnosis	ICD-10-CM
T71.164A	Asphyxiation due to hanging, undetermined, initial encounter	Diagnosis	ICD-10-CM
T71.191A	Asphyxiation due to mechanical threat to breathing due to other causes, accidental, initial encounter	Diagnosis	ICD-10-CM
T71.192A	Asphyxiation due to mechanical threat to breathing due to other causes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.193A	Asphyxiation due to mechanical threat to breathing due to other causes, assault, initial encounter	Diagnosis	ICD-10-CM
T71.194A	Asphyxiation due to mechanical threat to breathing due to other causes, undetermined, initial encounter	Diagnosis	ICD-10-CM
T71.20XA	Asphyxiation due to systemic oxygen deficiency due to low oxygen content in ambient air due to unspecified cause, initial encounter	Diagnosis	ICD-10-CM
T71.21XA	Asphyxiation due to cave-in or falling earth, initial encounter	Diagnosis	ICD-10-CM
T71.221A	Asphyxiation due to being trapped in a car trunk, accidental, initial encounter	Diagnosis	ICD-10-CM
T71.222A	Asphyxiation due to being trapped in a car trunk, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.223A	Asphyxiation due to being trapped in a car trunk, assault, initial encounter	Diagnosis	ICD-10-CM
T71.224A	Asphyxiation due to being trapped in a car trunk, undetermined, initial encounter	Diagnosis	ICD-10-CM
T71.231A	Asphyxiation due to being trapped in a (discarded) refrigerator, accidental, initial encounter	Diagnosis	ICD-10-CM
T71.232A	Asphyxiation due to being trapped in a (discarded) refrigerator, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T71.233A	Asphyxiation due to being trapped in a (discarded) refrigerator, assault, initial encounter	Diagnosis	ICD-10-CM
T71.234A	Asphyxiation due to being trapped in a (discarded) refrigerator, undetermined, initial encounter	Diagnosis	ICD-10-CM
T71.29XA	Asphyxiation due to being trapped in other low oxygen environment, initial encounter	Diagnosis	ICD-10-CM
T71.9XXA	Asphyxiation due to unspecified cause, initial encounter	Diagnosis	ICD-10-CM
T78.1XXA	Other adverse food reactions, not elsewhere classified, initial encounter	Diagnosis	ICD-10-CM
Transcranial Magnetic Stimulation			
90867	Therapeutic repetitive transcranial magnetic stimulation (TMS) treatment; initial, including cortical mapping, motor threshold determination, delivery and management	Procedure	CPT-4
90868	Therapeutic repetitive transcranial magnetic stimulation (TMS) treatment; subsequent delivery and management, per session	Procedure	CPT-4
90869	Therapeutic repetitive transcranial magnetic stimulation (TMS) treatment; subsequent motor threshold re-determination with delivery and management	Procedure	CPT-4

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
Vagus Nerve Stimulation			
61885	Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to a single electrode array	Procedure	CPT-4
61886	Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to 2 or more electrode arrays	Procedure	CPT-4
61888	Revision or removal of cranial neurostimulator pulse generator or receiver	Procedure	CPT-4
64553	Percutaneous implantation of neurostimulator electrode array; cranial nerve	Procedure	CPT-4
64568	Open implantation of cranial nerve (eg, vagus nerve) neurostimulator electrode array and pulse generator	Procedure	CPT-4
64569	Revision or replacement of cranial nerve (eg, vagus nerve) neurostimulator electrode array, including connection to existing pulse generator	Procedure	CPT-4
64570	Removal of cranial nerve (eg, vagus nerve) neurostimulator electrode array and pulse generator	Procedure	CPT-4
64585	Revision or removal of peripheral neurostimulator electrode array	Procedure	CPT-4
95970	Electronic analysis of implanted neurostimulator pulse generator/transmitter (eg, contact group[s], interleaving, amplitude, pulse width, frequency [Hz], on/off cycling, burst, magnet mode, dose lockout, patient selectable parameters, responsive neurostimulation, detection algorithms, closed loop parameters, and passive parameters) by physician or other qualified health care professional; with brain, cranial nerve, spinal cord, peripheral nerve, or sacral nerve, neurostimulator pulse generator/transmitter, without programming	Procedure	CPT-4
95971	Electronic analysis of implanted neurostimulator pulse generator/transmitter (eg, contact group[s], interleaving, amplitude, pulse width, frequency [Hz], on/off cycling, burst, magnet mode, dose lockout, patient selectable parameters, responsive neurostimulation, detection algorithms, closed loop parameters, and passive parameters) by physician or other qualified health care professional; with simple spinal cord or peripheral nerve (eg, sacral nerve) neurostimulator pulse generator/transmitter programming by physician or other qualified health care professional	Procedure	CPT-4
95974	Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude, pulse duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); complex cranial nerve neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming, with or without nerve interface testing, first hour	Procedure	CPT-4
95975	Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude, pulse duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); complex cranial nerve neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming, each additional 30 minutes after first hour (List separately in addition to code for primary procedure)	Procedure	CPT-4
L8679	Implantable neurostimulator, pulse generator, any type	Procedure	HCPCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
L8680	Implantable neurostimulator electrode, each Patient programmer (external) for use with implantable programmable	Procedure	HCPCS
L8681	neurostimulator pulse generator, replacement only	Procedure	HCPCS
L8682	Implantable neurostimulator radiofrequency receiver Radiofrequency transmitter (external) for use with implantable neurostimulator	Procedure	HCPCS
L8683	radiofrequency receiver Implantable neurostimulator pulse generator, single array, rechargeable, includes	Procedure	HCPCS
L8685	extension Implantable neurostimulator pulse generator, single array, nonrechargeable, includes	Procedure	HCPCS
L8686	extension Implantable neurostimulator pulse generator, dual array, rechargeable, includes	Procedure	HCPCS
L8687	extension Implantable neurostimulator pulse generator, dual array, nonrechargeable, includes	Procedure	HCPCS
L8688	extension External recharging system for battery (internal) for use with implantable	Procedure	HCPCS
L8689	neurostimulator, replacement only	Procedure	HCPCS
Obesity			
278.0	Overweight and obesity	Diagnosis	ICD-9-CM
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
E66.01	Morbid (severe) obesity due to excess calories	Diagnosis	ICD-10-CM
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

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Code	Description	Code Category	Code Type
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
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] 50.0-59.9, 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
Weight Reduction Surgeries and Procedures			
00HE0MZ	Insertion of Neurostimulator Lead into Cranial Nerve, Open Approach	Procedure	ICD-10-PCS
00HE3MZ	Insertion of Neurostimulator Lead into Cranial Nerve, Percutaneous Approach	Procedure	ICD-10-PCS
00HE4MZ	Insertion of Neurostimulator Lead into Cranial Nerve, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
02.93	Implantation or replacement of intracranial neurostimulator lead(s)	Procedure	ICD-9-CM
	Vagus nerve blocking therapy (morbid obesity); laparoscopic implantation of neurostimulator electrode array, anterior and posterior vagal trunks adjacent to esophagogastric junction (EGJ), with implantation of pulse generator, includes programming	Procedure	CPT-3
0312T		Procedure	ICD-9-CM
04.92	Implantation or replacement of peripheral neurostimulator lead(s)	Procedure	ICD-10-
0D16079	Bypass Stomach to Duodenum with Autologous Tissue Substitute, Open Approach	Procedure	PCS
			ICD-10-
0D1607A	Bypass Stomach to Jejunum with Autologous Tissue Substitute, Open Approach	Procedure	PCS
			ICD-10-
0D1607B	Bypass Stomach to Ileum with Autologous Tissue Substitute, Open Approach	Procedure	PCS
			ICD-10-
0D160J9	Bypass Stomach to Duodenum with Synthetic Substitute, Open Approach	Procedure	PCS
			ICD-10-
0D160JA	Bypass Stomach to Jejunum with Synthetic Substitute, Open Approach	Procedure	PCS
			ICD-10-
0D160JB	Bypass Stomach to Ileum with Synthetic Substitute, Open Approach	Procedure	PCS
	Bypass Stomach to Duodenum with Nonautologous Tissue Substitute, Open Approach		ICD-10-
0D160K9		Procedure	PCS
			ICD-10-
0D160KA	Bypass Stomach to Jejunum with Nonautologous Tissue Substitute, Open Approach	Procedure	PCS
			ICD-10-
0D160KB	Bypass Stomach to Ileum with Nonautologous Tissue Substitute, Open Approach	Procedure	PCS
			ICD-10-
0D160Z9	Bypass Stomach to Duodenum, Open Approach	Procedure	PCS
			ICD-10-
0D160ZA	Bypass Stomach to Jejunum, Open Approach	Procedure	PCS
			ICD-10-
0D160ZB	Bypass Stomach to Ileum, Open Approach	Procedure	PCS
	Bypass Stomach to Duodenum with Autologous Tissue Substitute, Percutaneous		ICD-10-
0D16479	Endoscopic Approach	Procedure	PCS
	Bypass Stomach to Jejunum with Autologous Tissue Substitute, Percutaneous		ICD-10-
0D1647A	Endoscopic Approach	Procedure	PCS
	Bypass Stomach to Ileum with Autologous Tissue Substitute, Percutaneous		ICD-10-
0D1647B	Endoscopic Approach	Procedure	PCS
	Bypass Stomach to Duodenum with Synthetic Substitute, Percutaneous Endoscopic		ICD-10-
0D164J9	Approach	Procedure	PCS
	Bypass Stomach to Jejunum with Synthetic Substitute, Percutaneous Endoscopic		ICD-10-
0D164JA	Approach	Procedure	PCS
	Bypass Stomach to Ileum with Synthetic Substitute, Percutaneous Endoscopic		ICD-10-
0D164JB	Approach	Procedure	PCS

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Code	Description	Code Category	Code Type
0D164K9	Bypass Stomach to Duodenum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164KA	Bypass Stomach to Jejunum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164KB	Bypass Stomach to Ileum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164Z9	Bypass Stomach to Duodenum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164ZA	Bypass Stomach to Jejunum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164ZB	Bypass Stomach to Ileum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D16879	Bypass Stomach to Duodenum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1687A	Bypass Stomach to Jejunum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1687B	Bypass Stomach to Ileum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168J9	Bypass Stomach to Duodenum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168JA	Bypass Stomach to Jejunum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168JB	Bypass Stomach to Ileum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168K9	Bypass Stomach to Duodenum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168KA	Bypass Stomach to Jejunum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168KB	Bypass Stomach to Ileum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168Z9	Bypass Stomach to Duodenum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168ZA	Bypass Stomach to Jejunum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168ZB	Bypass Stomach to Ileum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0DB60Z3	Excision of Stomach, Open Approach, Vertical	Procedure	ICD-10-PCS
0DB60ZZ	Excision of Stomach, Open Approach	Procedure	ICD-10-PCS
0DB63Z3	Excision of Stomach, Percutaneous Approach, Vertical	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
0DB63ZZ	Excision of Stomach, Percutaneous Approach	Procedure	ICD-10-PCS
0DB64Z3	Excision of Stomach, Percutaneous Endoscopic Approach, Vertical	Procedure	ICD-10-PCS
0DB64ZZ	Excision of Stomach, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DB67Z3	Excision of Stomach, Via Natural or Artificial Opening, Vertical	Procedure	ICD-10-PCS
0DB67ZZ	Excision of Stomach, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0DB68Z3	Excision of Stomach, Via Natural or Artificial Opening Endoscopic, Vertical	Procedure	ICD-10-PCS
0DB68ZZ	Excision of Stomach, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0DH60MZ	Insertion of Stimulator Lead into Stomach, Open Approach	Procedure	ICD-10-PCS
0DH63DZ	Insertion of Intraluminal Device into Stomach, Percutaneous Approach	Procedure	ICD-10-PCS
0DH63MZ	Insertion of Stimulator Lead into Stomach, Percutaneous Approach	Procedure	ICD-10-PCS
0DH64MZ	Insertion of Stimulator Lead into Stomach, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DH64YZ	Insertion of Other Device into Stomach, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DH67DZ	Insertion of Intraluminal Device into Stomach, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0DH68DZ	Insertion of Intraluminal Device into Stomach, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0DL60CZ	Occlusion of Stomach with Extraluminal Device, Open Approach	Procedure	ICD-10-PCS
0DL60DZ	Occlusion of Stomach with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
0DL60ZZ	Occlusion of Stomach, Open Approach	Procedure	ICD-10-PCS
0DL63CZ	Occlusion of Stomach with Extraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0DL63DZ	Occlusion of Stomach with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0DL63ZZ	Occlusion of Stomach, Percutaneous Approach	Procedure	ICD-10-PCS
0DL64CZ	Occlusion of Stomach with Extraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

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Code	Description	Code Category	Code Type
0DL64DZ	Occlusion of Stomach with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DL64ZZ	Occlusion of Stomach, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DL67DZ	Occlusion of Stomach with Intraluminal Device, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0DL68DZ	Occlusion of Stomach with Intraluminal Device, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0DV60CZ	Restriction of Stomach with Extraluminal Device, Open Approach	Procedure	ICD-10-PCS
0DV60DZ	Restriction of Stomach with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
0DV60ZZ	Restriction of Stomach, Open Approach	Procedure	ICD-10-PCS
0DV63CZ	Restriction of Stomach with Extraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0DV63DZ	Restriction of Stomach with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0DV63ZZ	Restriction of Stomach, Percutaneous Approach	Procedure	ICD-10-PCS
0DV64CZ	Restriction of Stomach with Extraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DV64DZ	Restriction of Stomach with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DV64ZZ	Restriction of Stomach, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DV67DZ	Restriction of Stomach with Intraluminal Device, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0DV67ZZ	Restriction of Stomach, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0DV68DZ	Restriction of Stomach with Intraluminal Device, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0DV68ZZ	Restriction of Stomach, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
43.0	Gastrotomy	Procedure	ICD-9-CM
43.41	Endoscopic excision or destruction of lesion or tissue of stomach	Procedure	ICD-9-CM
43.42	Local excision of other lesion or tissue of stomach	Procedure	ICD-9-CM
43.6	Partial gastrectomy with anastomosis to duodenum	Procedure	ICD-9-CM
43.7	Partial gastrectomy with anastomosis to jejunum	Procedure	ICD-9-CM
43.81	Partial gastrectomy with jejunal transposition	Procedure	ICD-9-CM
43.82	Laparoscopic vertical (sleeve) gastrectomy	Procedure	ICD-9-CM
43.89	Open and other partial gastrectomy	Procedure	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
43246	Esophagogastroduodenoscopy, flexible, transoral; with directed placement of percutaneous gastrostomy tube	Procedure	CPT-4
43631	Gastrectomy, partial, distal; with gastroduodenostomy	Procedure	CPT-4
43632	Gastrectomy, partial, distal; with gastrojejunostomy	Procedure	CPT-4
43633	Gastrectomy, partial, distal; with Roux-en-Y reconstruction	Procedure	CPT-4
43634	Gastrectomy, partial, distal; with formation of intestinal pouch	Procedure	CPT-4
43644	Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and Roux-en-Y gastroenterostomy (roux limb 150 cm or less)	Procedure	CPT-4
43645	Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and small intestine reconstruction to limit absorption	Procedure	CPT-4
43647	Laparoscopy, surgical; implantation or replacement of gastric neurostimulator electrodes, antrum	Procedure	CPT-4
43770	Laparoscopy, surgical, gastric restrictive procedure; placement of adjustable gastric restrictive device (eg, gastric band and subcutaneous port components)	Procedure	CPT-4
43775	Laparoscopy, surgical, gastric restrictive procedure; longitudinal gastrectomy (ie, sleeve gastrectomy)	Procedure	CPT-4
43842	Gastric restrictive procedure, without gastric bypass, for morbid obesity; vertical-banded gastroplasty	Procedure	CPT-4
43843	Gastric restrictive procedure, without gastric bypass, for morbid obesity; other than vertical-banded gastroplasty	Procedure	CPT-4
43845	Gastric restrictive procedure with partial gastrectomy, pylorus-preserving duodenoileostomy and ileoileostomy (50 to 100 cm common channel) to limit absorption (biliopancreatic diversion with duodenal switch)	Procedure	CPT-4
43846	Gastric restrictive procedure, with gastric bypass for morbid obesity; with short limb (150 cm or less) Roux-en-Y gastroenterostomy	Procedure	CPT-4
43847	Gastric restrictive procedure, with gastric bypass for morbid obesity; with small intestine reconstruction to limit absorption	Procedure	CPT-4
43881	Implantation or replacement of gastric neurostimulator electrodes, antrum, open	Procedure	CPT-4
44.31	High gastric bypass	Procedure	ICD-9-CM
44.38	Laparoscopic gastroenterostomy	Procedure	ICD-9-CM
44.39	Other gastroenterostomy without gastrectomy	Procedure	ICD-9-CM
44.68	Laparoscopic gastroplasty	Procedure	ICD-9-CM
44.69	Other repair of stomach	Procedure	ICD-9-CM
44.93	Insertion of gastric bubble (balloon)	Procedure	ICD-9-CM
44.95	Laparoscopic gastric restrictive procedure	Procedure	ICD-9-CM
44.99	Other operations on stomach	Procedure	ICD-9-CM
45.51	Isolation of segment of small intestine	Procedure	ICD-9-CM
52.7	Radical pancreaticoduodenectomy	Procedure	ICD-9-CM
Lifestyle Intervention			

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
0359T	Behavior identification assessment, by the physician or other qualified health care professional, face-to-face with patient and caregiver(s), includes administration of standardized and non-standardized tests, detailed behavioral history, patient observation and caregiver interview, interpretation of test results, discussion of findings and recommendations with the primary guardian(s)/caregiver(s), and preparation of report	Procedure	CPT-3
0360T	Observational behavioral follow-up assessment, includes physician or other qualified health care professional direction with interpretation and report, administered by one technician; first 30 minutes of technician time, face-to-face with the patient	Procedure	CPT-3
0361T	Observational behavioral follow-up assessment, includes physician or other qualified health care professional direction with interpretation and report, administered by one technician; each additional 30 minutes of technician time, face-to-face with the patient (List separately in addition to code for primary service)	Procedure	CPT-3
0362T	Behavior identification supporting assessment, each 15 minutes of technicians' time face-to-face with a patient, requiring the following components: administration by the physician or other qualified health care professional who is on site; with the assistance of two or more technicians; for a patient who exhibits destructive behavior; completion in an environment that is customized to the patient's behavior.	Procedure	CPT-3
0363T	Exposure behavioral follow-up assessment, includes physician or other qualified health care professional direction with interpretation and report, administered by physician or other qualified health care professional with the assistance of one or more technicians; each additional 30 minutes of technician(s) time, face-to-face with the patient (List separately in addition to code for primary procedure)	Procedure	CPT-3
0364T	Adaptive behavior treatment by protocol, administered by technician, face-to-face with one patient; first 30 minutes of technician time	Procedure	CPT-3
0365T	Adaptive behavior treatment by protocol, administered by technician, face-to-face with one patient; each additional 30 minutes of technician time (List separately in addition to code for primary procedure)	Procedure	CPT-3
0366T	Group adaptive behavior treatment by protocol, administered by technician, face-to-face with two or more patients; first 30 minutes of technician time	Procedure	CPT-3
0367T	Group adaptive behavior treatment by protocol, administered by technician, face-to-face with two or more patients; each additional 30 minutes of technician time (List separately in addition to code for primary procedure)	Procedure	CPT-3
0368T	Adaptive behavior treatment with protocol modification administered by physician or other qualified health care professional with one patient; first 30 minutes of patient face-to-face time	Procedure	CPT-3
0369T	Adaptive behavior treatment with protocol modification administered by physician or other qualified health care professional with one patient; each additional 30 minutes of patient face-to-face time (List separately in addition to code for primary procedure)	Procedure	CPT-3
0370T	Family adaptive behavior treatment guidance, administered by physician or other qualified health care professional (without the patient present)	Procedure	CPT-3

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
0371T	Multiple-family group adaptive behavior treatment guidance, administered by physician or other qualified health care professional (without the patient present)	Procedure	CPT-3
0372T	Adaptive behavior treatment social skills group, administered by physician or other qualified health care professional face-to-face with multiple patients	Procedure	CPT-3
0373T	Adaptive behavior treatment with protocol modification, each 15 minutes of technicians' time face-to-face with a patient, requiring the following components: administration by the physician or other qualified health care professional who is on site; with the assistance of two or more technicians; for a patient who exhibits destructive behavior; completion in an environment that is customized to the patient's behavior.	Procedure	CPT-3
0374T	Exposure adaptive behavior treatment with protocol modification requiring two or more technicians for severe maladaptive behavior(s); each additional 30 minutes of technicians' time face-to-face with patient (List separately in addition to code for primary procedure)	Procedure	CPT-3
0403T	Preventive behavior change, intensive program of prevention of diabetes using a standardized diabetes prevention program curriculum, provided to individuals in a group setting, minimum 60 minutes, per day	Procedure	CPT-3
0488T	Preventive behavior change, online/electronic structured intensive program for prevention of diabetes using a standardized diabetes prevention program curriculum, provided to an individual, per 30 days	Procedure	CPT-3
90804	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an office or outpatient facility, approximately 20 to 30 minutes face-to-face with the patient;	Procedure	CPT-4
90805	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an office or outpatient facility, approximately 20 to 30 minutes face-to-face with the patient; with medical evaluation and management services	Procedure	CPT-4
90806	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an office or outpatient facility, approximately 45 to 50 minutes face-to-face with the patient;	Procedure	CPT-4
90807	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an office or outpatient facility, approximately 45 to 50 minutes face-to-face with the patient; with medical evaluation and management services	Procedure	CPT-4
90808	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an office or outpatient facility, approximately 75 to 80 minutes face-to-face with the patient;	Procedure	CPT-4
90809	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an office or outpatient facility, approximately 75 to 80 minutes face-to-face with the patient; with medical evaluation and management services	Procedure	CPT-4
90816	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an inpatient hospital, partial hospital or residential care setting, approximately 20 to 30 minutes face-to-face with the patient;	Procedure	CPT-4

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
90817	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an inpatient hospital, partial hospital or residential care setting, approximately 20 to 30 minutes face-to-face with the patient; with medical evaluation and management services	Procedure	CPT-4
90818	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an inpatient hospital, partial hospital or residential care setting, approximately 45 to 50 minutes face-to-face with the patient;	Procedure	CPT-4
90819	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an inpatient hospital, partial hospital or residential care setting, approximately 45 to 50 minutes face-to-face with the patient; with medical evaluation and management services	Procedure	CPT-4
90821	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an inpatient hospital, partial hospital or residential care setting, approximately 75 to 80 minutes face-to-face with the patient;	Procedure	CPT-4
90822	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an inpatient hospital, partial hospital or residential care setting, approximately 75 to 80 minutes face-to-face with the patient; with medical evaluation and management services	Procedure	CPT-4
90875	Individual psychophysiological therapy incorporating biofeedback training by any modality (face-to-face with the patient), with psychotherapy (eg, insight oriented, behavior modifying or supportive psychotherapy); 30 minutes	Procedure	CPT-4
90876	Individual psychophysiological therapy incorporating biofeedback training by any modality (face-to-face with the patient), with psychotherapy (eg, insight oriented, behavior modifying or supportive psychotherapy); 45 minutes	Procedure	CPT-4
92524	Behavioral and qualitative analysis of voice and resonance	Procedure	CPT-4
96115	Neurobehavioral status exam (clinical assessment of thinking, reasoning and judgment, eg, acquired knowledge, attention, memory, visual spatial abilities, language functions, planning) with interpretation and report, per hour	Procedure	CPT-4
96116	Neurobehavioral status exam (clinical assessment of thinking, reasoning and judgment, [eg, acquired knowledge, attention, language, memory, planning and problem solving, and visual spatial abilities]), by physician or other qualified health care professional, both face-to-face time with the patient and time interpreting test results and preparing the report; first hour	Procedure	CPT-4
96121	Neurobehavioral status exam (clinical assessment of thinking, reasoning and judgment, [eg, acquired knowledge, attention, language, memory, planning and problem solving, and visual spatial abilities]), by physician or other qualified health care professional, both face-to-face time with the patient and time interpreting test results and preparing the report; each additional hour (List separately in addition to code for primary procedure)	Procedure	CPT-4
96127	Brief emotional/behavioral assessment (eg, depression inventory, attention-deficit/hyperactivity disorder [ADHD] scale), with scoring and documentation, per standardized instrument	Procedure	CPT-4

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
96150	Health and behavior assessment (eg, health-focused clinical interview, behavioral observations, psychophysiological monitoring, health-oriented questionnaires), each 15 minutes face-to-face with the patient; initial assessment	Procedure	CPT-4
96151	Health and behavior assessment (eg, health-focused clinical interview, behavioral observations, psychophysiological monitoring, health-oriented questionnaires), each 15 minutes face-to-face with the patient; re-assessment	Procedure	CPT-4
96152	Health and behavior intervention, each 15 minutes, face-to-face; individual	Procedure	CPT-4
96153	Health and behavior intervention, each 15 minutes, face-to-face; group (2 or more patients)	Procedure	CPT-4
96154	Health and behavior intervention, each 15 minutes, face-to-face; family (with the patient present)	Procedure	CPT-4
96155	Health and behavior intervention, each 15 minutes, face-to-face; family (without the patient present)	Procedure	CPT-4
96156	Health behavior assessment, or re-assessment (ie, health-focused clinical interview, behavioral observations, clinical decision making)	Procedure	CPT-4
96158	Health behavior intervention, individual, face-to-face; initial 30 minutes	Procedure	CPT-4
96159	Health behavior intervention, individual, face-to-face; each additional 15 minutes (List separately in addition to code for primary service)	Procedure	CPT-4
96161	Administration of caregiver-focused health risk assessment instrument (eg, depression inventory) for the benefit of the patient, with scoring and documentation, per standardized instrument	Procedure	CPT-4
96164	Health behavior intervention, group (2 or more patients), face-to-face; initial 30 minutes	Procedure	CPT-4
96165	Health behavior intervention, group (2 or more patients), face-to-face; each additional 15 minutes (List separately in addition to code for primary service)	Procedure	CPT-4
96167	Health behavior intervention, family (with the patient present), face-to-face; initial 30 minutes	Procedure	CPT-4
96168	Health behavior intervention, family (with the patient present), face-to-face; each additional 15 minutes (List separately in addition to code for primary service)	Procedure	CPT-4
96170	Health behavior intervention, family (without the patient present), face-to-face; initial 30 minutes	Procedure	CPT-4
96171	Health behavior intervention, family (without the patient present), face-to-face; each additional 15 minutes (List separately in addition to code for primary service)	Procedure	CPT-4
97151	Behavior identification assessment, administered by a physician or other qualified health care professional, each 15 minutes of the physician's or other qualified health care professional's time face-to-face with patient and/or guardian(s)/caregiver(s) administering assessments and discussing findings and recommendations, and non-face-to-face analyzing past data, scoring/interpreting the assessment, and preparing the report/treatment plan	Procedure	CPT-4
97152	Behavior identification-supporting assessment, administered by one technician under the direction of a physician or other qualified health care professional, face-to-face with the patient, each 15 minutes	Procedure	CPT-4

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
97153	Adaptive behavior treatment by protocol, administered by technician under the direction of a physician or other qualified health care professional, face-to-face with one patient, each 15 minutes	Procedure	CPT-4
97154	Group adaptive behavior treatment by protocol, administered by technician under the direction of a physician or other qualified health care professional, face-to-face with two or more patients, each 15 minutes	Procedure	CPT-4
97155	Adaptive behavior treatment with protocol modification, administered by physician or other qualified health care professional, which may include simultaneous direction of technician, face-to-face with one patient, each 15 minutes	Procedure	CPT-4
97156	Family adaptive behavior treatment guidance, administered by physician or other qualified health care professional (with or without the patient present), face-to-face with guardian(s)/caregiver(s), each 15 minutes	Procedure	CPT-4
97157	Multiple-family group adaptive behavior treatment guidance, administered by physician or other qualified health care professional (without the patient present), face-to-face with multiple sets of guardians/caregivers, each 15 minutes	Procedure	CPT-4
97158	Group adaptive behavior treatment with protocol modification, administered by physician or other qualified health care professional, face-to-face with multiple patients, each 15 minutes	Procedure	CPT-4
97802	Medical nutrition therapy; initial assessment and intervention, individual, face-to-face with the patient, each 15 minutes	Procedure	CPT-4
97803	Medical nutrition therapy; re-assessment and intervention, individual, face-to-face with the patient, each 15 minutes	Procedure	CPT-4
97804	Medical nutrition therapy; group (2 or more individual(s)), each 30 minutes	Procedure	CPT-4
99381	Initial comprehensive preventive medicine evaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, new patient; infant (age younger than 1 year)	Procedure	CPT-4
99382	Initial comprehensive preventive medicine evaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, new patient; early childhood (age 1 through 4 years)	Procedure	CPT-4
99383	Initial comprehensive preventive medicine evaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, new patient; late childhood (age 5 through 11 years)	Procedure	CPT-4
99384	Initial comprehensive preventive medicine evaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, new patient; adolescent (age 12 through 17 years)	Procedure	CPT-4

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
99385	Initial comprehensive preventive medicine evaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, new patient; 18-39 years	Procedure	CPT-4
99386	Initial comprehensive preventive medicine evaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, new patient; 40-64 years	Procedure	CPT-4
99387	Initial comprehensive preventive medicine evaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, new patient; 65 years and older	Procedure	CPT-4
99391	Periodic comprehensive preventive medicine reevaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, established patient; infant (age younger than 1 year)	Procedure	CPT-4
99392	Periodic comprehensive preventive medicine reevaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, established patient; early childhood (age 1 through 4 years)	Procedure	CPT-4
99393	Periodic comprehensive preventive medicine reevaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, established patient; late childhood (age 5 through 11 years)	Procedure	CPT-4
99394	Periodic comprehensive preventive medicine reevaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, established patient; adolescent (age 12 through 17 years)	Procedure	CPT-4
99395	Periodic comprehensive preventive medicine reevaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, established patient; 18-39 years	Procedure	CPT-4
99396	Periodic comprehensive preventive medicine reevaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, established patient; 40-64 years	Procedure	CPT-4

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
99397	Periodic comprehensive preventive medicine reevaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, established patient; 65 years and older	Procedure	CPT-4
99401	Preventive medicine counseling and/or risk factor reduction intervention(s) provided to an individual (separate procedure); approximately 15 minutes	Procedure	CPT-4
99402	Preventive medicine counseling and/or risk factor reduction intervention(s) provided to an individual (separate procedure); approximately 30 minutes	Procedure	CPT-4
99403	Preventive medicine counseling and/or risk factor reduction intervention(s) provided to an individual (separate procedure); approximately 45 minutes	Procedure	CPT-4
99404	Preventive medicine counseling and/or risk factor reduction intervention(s) provided to an individual (separate procedure); approximately 60 minutes	Procedure	CPT-4
99411	Preventive medicine counseling and/or risk factor reduction intervention(s) provided to individuals in a group setting (separate procedure); approximately 30 minutes	Procedure	CPT-4
99412	Preventive medicine counseling and/or risk factor reduction intervention(s) provided to individuals in a group setting (separate procedure); approximately 60 minutes	Procedure	CPT-4
99483	Assessment of and care planning for a patient with cognitive impairment, requiring an independent historian, in the office or other outpatient, home or domiciliary or rest home, with all of the following required elements: Cognition-focused evaluation including a pertinent history and examination, Medical decision making of moderate or high complexity, Functional assessment (eg, basic and instrumental activities of daily living), including decision-making capacity, Use of standardized instruments for staging of dementia (eg, functional assessment staging test [FAST], clinical dementia rating [Procedure	CPT-4
99484	Care management services for behavioral health conditions, at least 20 minutes of clinical staff time, directed by a physician or other qualified health care professional, per calendar month, with the following required elements: initial assessment or follow-up monitoring, including the use of applicable validated rating scales, behavioral health care planning in relation to behavioral/psychiatric health problems, including revision for patients who are not progressing or whose status changes, facilitating and coordinating treatment such as psychotherapy, pharmacotherapy, counseling and/or psy	Procedure	CPT-4
99492	Initial psychiatric collaborative care management, first 70 minutes in the first calendar month of behavioral health care manager activities, in consultation with a psychiatric consultant, and directed by the treating physician or other qualified health care professional, with the following required elements: outreach to and engagement in treatment of a patient directed by the treating physician or other qualified health care professional, initial assessment of the patient, including administration of validated rating scales, with the development of an individualized treatment plan, review by	Procedure	CPT-4

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
99493	Subsequent psychiatric collaborative care management, first 60 minutes in a subsequent month of behavioral health care manager activities, in consultation with a psychiatric consultant, and directed by the treating physician or other qualified health care professional, with the following required elements: tracking patient follow-up and progress using the registry, with appropriate documentation, participation in weekly caseload consultation with the psychiatric consultant, ongoing collaboration with and coordination of the patient's mental health care with the treating physician or other qual	Procedure	CPT-4
99494	Initial or subsequent psychiatric collaborative care management, each additional 30 minutes in a calendar month of behavioral health care manager activities, in consultation with a psychiatric consultant, and directed by the treating physician or other qualified health care professional (List separately in addition to code for primary procedure)	Procedure	CPT-4
G0270	Medical nutrition therapy; reassessment and subsequent intervention(s) following second referral in same year for change in diagnosis, medical condition or treatment regimen (including additional hours needed for renal disease), individual, face-to-face with the patient, each 15 minutes	Procedure	HCPCS
G0271	Medical nutrition therapy, reassessment and subsequent intervention(s) following second referral in same year for change in diagnosis, medical condition, or treatment regimen (including additional hours needed for renal disease), group (two or more individuals), each 30 minutes	Procedure	HCPCS
G0444	Annual depression screening, 5 to 15 minutes	Procedure	HCPCS
G0446	Annual, face-to-face intensive behavioral therapy for cardiovascular disease, individual, 15 minutes	Procedure	HCPCS
G0447	Face-to-face behavioral counseling for obesity, 15 minutes	Procedure	HCPCS
G0473	Face-to-face behavioral counseling for obesity, group (2-10), 30 minutes	Procedure	HCPCS
G0502	Initial psychiatric collaborative care management, first 70 minutes in the first calendar month of behavioral health care manager activities, in consultation with a psychiatric consultant, and directed by the treating physician or other qualified health care professional, with the following required elements: outreach to and engagement in treatment of a patient directed by the treating physician or other qualified health care professional; initial assessment of the patient, including administration of validated rating scales, with the development of an individualized treatment plan; review by	Procedure	HCPCS
G0503	Subsequent psychiatric collaborative care management, first 60 minutes in a subsequent month of behavioral health care manager activities, in consultation with a psychiatric consultant, and directed by the treating physician or other qualified health care professional, with the following required elements: tracking patient follow-up and progress using the registry, with appropriate documentation; participation in weekly caseload consultation with the psychiatric consultant; ongoing collaboration with and coordination of the patient's mental health care with the treating physician or other qual	Procedure	HCPCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
G0504	Initial or subsequent psychiatric collaborative care management, each additional 30 minutes in a calendar month of behavioral health care manager activities, in consultation with a psychiatric consultant, and directed by the treating physician or other qualified health care professional (list separately in addition to code for primary procedure); (use G0504 in conjunction with G0502, G0503)	Procedure	HCPCS
G0507	Care management services for behavioral health conditions, at least 20 minutes of clinical staff time, directed by a physician or other qualified health care professional, per calendar month, with the following required elements: initial assessment or follow-up monitoring, including the use of applicable validated rating scales; behavioral health care planning in relation to behavioral/psychiatric health problems, including revision for patients who are not progressing or whose status changes; facilitating and coordinating treatment such as psychotherapy, pharmacotherapy, counseling and/or psy	Procedure	HCPCS
G0511	Rural health clinic or federally qualified health center (RHC or FQHC) only, general care management, 20 minutes or more of clinical staff time for chronic care management services or behavioral health integration services directed by an RHC or FQHC practitioner (physician, NP, PA, or CNM), per calendar month	Procedure	HCPCS
G0512	Rural health clinic or federally qualified health center (RHC/FQHC) only, psychiatric collaborative care model (psychiatric COCM), 60 minutes or more of clinical staff time for psychiatric COCM services directed by an RHC or FQHC practitioner (physician, NP, PA, or CNM) and including services furnished by a behavioral health care manager and consultation with a psychiatric consultant, per calendar month	Procedure	HCPCS
H0002	Behavioral health screening to determine eligibility for admission to treatment program	Procedure	HCPCS
H0004	Behavioral health counseling and therapy, per 15 minutes	Procedure	HCPCS
H0017	Behavioral health; residential (hospital residential treatment program), without room and board, per diem	Procedure	HCPCS
H0018	Behavioral health; short-term residential (nonhospital residential treatment program), without room and board, per diem	Procedure	HCPCS
H0019	Behavioral health; long-term residential (nonmedical, nonacute care in a residential treatment program where stay is typically longer than 30 days), without room and board, per diem	Procedure	HCPCS
H0023	Behavioral health outreach service (planned approach to reach a targeted population)	Procedure	HCPCS
H0024	Behavioral health prevention information dissemination service (one-way direct or nondirect contact with service audiences to affect knowledge and attitude)	Procedure	HCPCS
H0025	Behavioral health prevention education service (delivery of services with target population to affect knowledge, attitude and/or behavior)	Procedure	HCPCS
H0030	Behavioral health hotline service	Procedure	HCPCS
H1011	Family assessment by licensed behavioral health professional for state defined purposes	Procedure	HCPCS
H2012	Behavioral health day treatment, per hour	Procedure	HCPCS
H2019	Therapeutic behavioral services, per 15 minutes	Procedure	HCPCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
H2020	Therapeutic behavioral services, per diem	Procedure	HCPCS
S3005	Performance measurement, evaluation of patient self assessment, depression	Procedure	HCPCS
S9449	Weight management classes, nonphysician provider, per session	Procedure	HCPCS
S9452	Nutrition classes, nonphysician provider, per session	Procedure	HCPCS
S9470	Nutritional counseling, dietitian visit	Procedure	HCPCS
T1040	Medicaid certified community behavioral health clinic services, per diem	Procedure	HCPCS
T1041	Medicaid certified community behavioral health clinic services, per month	Procedure	HCPCS
T2048	Behavioral health; long-term care residential (nonacute care in a residential treatment program where stay is typically longer than 30 days), with room and board, per diem	Procedure	HCPCS
Cardiovascular Disease			
00.40	Procedure on single vessel	Procedure	ICD-9-CM
00.41	Procedure on two vessels	Procedure	ICD-9-CM
00.42	Procedure on three vessels	Procedure	ICD-9-CM
00.43	Procedure on four or more vessels	Procedure	ICD-9-CM
00.44	Procedure on vessel bifurcation	Procedure	ICD-9-CM
00.45	Insertion of one vascular stent	Procedure	ICD-9-CM
00.46	Insertion of two vascular stents	Procedure	ICD-9-CM
00.47	Insertion of three vascular stents	Procedure	ICD-9-CM
00.48	Insertion of four or more vascular stents	Procedure	ICD-9-CM
00.66	Percutaneous transluminal coronary angioplasty [PTCA]	Procedure	ICD-9-CM
0210083	Bypass Coronary Artery, One Artery from Coronary Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
0210088	Bypass Coronary Artery, One Artery from Right Internal Mammary with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
0210089	Bypass Coronary Artery, One Artery from Left Internal Mammary with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021008C	Bypass Coronary Artery, One Artery from Thoracic Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021008F	Bypass Coronary Artery, One Artery from Abdominal Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021008W	Bypass Coronary Artery, One Artery from Aorta with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
0210093	Bypass Coronary Artery, One Artery from Coronary Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
0210098	Bypass Coronary Artery, One Artery from Right Internal Mammary with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
0210099	Bypass Coronary Artery, One Artery from Left Internal Mammary with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021009C	Bypass Coronary Artery, One Artery from Thoracic Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021009F	Bypass Coronary Artery, One Artery from Abdominal Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
021009W	Bypass Coronary Artery, One Artery from Aorta with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
02100A3	Bypass Coronary Artery, One Artery from Coronary Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02100A8	Bypass Coronary Artery, One Artery from Right Internal Mammary with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02100A9	Bypass Coronary Artery, One Artery from Left Internal Mammary with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02100AC	Bypass Coronary Artery, One Artery from Thoracic Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02100AF	Bypass Coronary Artery, One Artery from Abdominal Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02100AW	Bypass Coronary Artery, One Artery from Aorta with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02100J3	Bypass Coronary Artery, One Artery from Coronary Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02100J8	Bypass Coronary Artery, One Artery from Right Internal Mammary with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02100J9	Bypass Coronary Artery, One Artery from Left Internal Mammary with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02100JC	Bypass Coronary Artery, One Artery from Thoracic Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02100JF	Bypass Coronary Artery, One Artery from Abdominal Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02100JW	Bypass Coronary Artery, One Artery from Aorta with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02100K3	Bypass Coronary Artery, One Artery from Coronary Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02100K8	Bypass Coronary Artery, One Artery from Right Internal Mammary with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02100K9	Bypass Coronary Artery, One Artery from Left Internal Mammary with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02100KC	Bypass Coronary Artery, One Artery from Thoracic Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02100KF	Bypass Coronary Artery, One Artery from Abdominal Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02100KW	Bypass Coronary Artery, One Artery from Aorta with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02100Z3	Bypass Coronary Artery, One Artery from Coronary Artery, Open Approach	Procedure	ICD-10-PCS
02100Z8	Bypass Coronary Artery, One Artery from Right Internal Mammary, Open Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
02100Z9	Bypass Coronary Artery, One Artery from Left Internal Mammary, Open Approach	Procedure	ICD-10-PCS
02100ZC	Bypass Coronary Artery, One Artery from Thoracic Artery, Open Approach	Procedure	ICD-10-PCS
02100ZF	Bypass Coronary Artery, One Artery from Abdominal Artery, Open Approach	Procedure	ICD-10-PCS
0210483	Bypass Coronary Artery, One Artery from Coronary Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0210488	Bypass Coronary Artery, One Artery from Right Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0210489	Bypass Coronary Artery, One Artery from Left Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021048C	Bypass Coronary Artery, One Artery from Thoracic Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021048F	Bypass Coronary Artery, One Artery from Abdominal Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021048W	Bypass Coronary Artery, One Artery from Aorta with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0210493	Bypass Coronary Artery, One Artery from Coronary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0210498	Bypass Coronary Artery, One Artery from Right Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0210499	Bypass Coronary Artery, One Artery from Left Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021049C	Bypass Coronary Artery, One Artery from Thoracic Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021049F	Bypass Coronary Artery, One Artery from Abdominal Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021049W	Bypass Coronary Artery, One Artery from Aorta with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104A3	Bypass Coronary Artery, One Artery from Coronary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104A8	Bypass Coronary Artery, One Artery from Right Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104A9	Bypass Coronary Artery, One Artery from Left Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104AC	Bypass Coronary Artery, One Artery from Thoracic Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104AF	Bypass Coronary Artery, One Artery from Abdominal Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104AW	Bypass Coronary Artery, One Artery from Aorta with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
02104J3	Bypass Coronary Artery, One Artery from Coronary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104J8	Bypass Coronary Artery, One Artery from Right Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104J9	Bypass Coronary Artery, One Artery from Left Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104JC	Bypass Coronary Artery, One Artery from Thoracic Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104JF	Bypass Coronary Artery, One Artery from Abdominal Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104JW	Bypass Coronary Artery, One Artery from Aorta with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104K3	Bypass Coronary Artery, One Artery from Coronary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104K8	Bypass Coronary Artery, One Artery from Right Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104K9	Bypass Coronary Artery, One Artery from Left Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104KC	Bypass Coronary Artery, One Artery from Thoracic Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104KF	Bypass Coronary Artery, One Artery from Abdominal Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104KW	Bypass Coronary Artery, One Artery from Aorta with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104Z3	Bypass Coronary Artery, One Artery from Coronary Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104Z8	Bypass Coronary Artery, One Artery from Right Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104Z9	Bypass Coronary Artery, One Artery from Left Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104ZC	Bypass Coronary Artery, One Artery from Thoracic Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104ZF	Bypass Coronary Artery, One Artery from Abdominal Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0211083	Bypass Coronary Artery, Two Arteries from Coronary Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
0211088	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
0211089	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021108C	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
021108F	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021108W	Bypass Coronary Artery, Two Arteries from Aorta with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
0211093	Bypass Coronary Artery, Two Arteries from Coronary Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
0211098	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
0211099	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021109C	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021109F	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021109W	Bypass Coronary Artery, Two Arteries from Aorta with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
02110A3	Bypass Coronary Artery, Two Arteries from Coronary Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02110A8	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02110A9	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02110AC	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02110AF	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02110AW	Bypass Coronary Artery, Two Arteries from Aorta with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02110J3	Bypass Coronary Artery, Two Arteries from Coronary Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02110J8	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02110J9	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02110JC	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02110JF	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02110JW	Bypass Coronary Artery, Two Arteries from Aorta with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02110K3	Bypass Coronary Artery, Two Arteries from Coronary Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
02110K8	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02110K9	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02110KC	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02110KF	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02110KW	Bypass Coronary Artery, Two Arteries from Aorta with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02110Z3	Bypass Coronary Artery, Two Arteries from Coronary Artery, Open Approach	Procedure	ICD-10-PCS
02110Z8	Bypass Coronary Artery, Two Arteries from Right Internal Mammary, Open Approach	Procedure	ICD-10-PCS
02110Z9	Bypass Coronary Artery, Two Arteries from Left Internal Mammary, Open Approach	Procedure	ICD-10-PCS
02110ZC	Bypass Coronary Artery, Two Arteries from Thoracic Artery, Open Approach	Procedure	ICD-10-PCS
02110ZF	Bypass Coronary Artery, Two Arteries from Abdominal Artery, Open Approach	Procedure	ICD-10-PCS
0211483	Bypass Coronary Artery, Two Arteries from Coronary Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0211488	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0211489	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021148C	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021148F	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021148W	Bypass Coronary Artery, Two Arteries from Aorta with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0211493	Bypass Coronary Artery, Two Arteries from Coronary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0211498	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0211499	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021149C	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021149F	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
021149W	Bypass Coronary Artery, Two Arteries from Aorta with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114A3	Bypass Coronary Artery, Two Arteries from Coronary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114A8	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114A9	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114AC	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114AF	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114AW	Bypass Coronary Artery, Two Arteries from Aorta with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114J3	Bypass Coronary Artery, Two Arteries from Coronary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114J8	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114J9	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114JC	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114JF	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114JW	Bypass Coronary Artery, Two Arteries from Aorta with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114K3	Bypass Coronary Artery, Two Arteries from Coronary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114K8	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114K9	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114KC	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114KF	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114KW	Bypass Coronary Artery, Two Arteries from Aorta with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114Z3	Bypass Coronary Artery, Two Arteries from Coronary Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114Z8	Bypass Coronary Artery, Two Arteries from Right Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

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Code	Description	Code Category	Code Type
02114Z9	Bypass Coronary Artery, Two Arteries from Left Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114ZC	Bypass Coronary Artery, Two Arteries from Thoracic Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114ZF	Bypass Coronary Artery, Two Arteries from Abdominal Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0212083	Bypass Coronary Artery, Three Arteries from Coronary Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
0212088	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
0212089	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021208C	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021208F	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021208W	Bypass Coronary Artery, Three Arteries from Aorta with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
0212093	Bypass Coronary Artery, Three Arteries from Coronary Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
0212098	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
0212099	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021209C	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021209F	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021209W	Bypass Coronary Artery, Three Arteries from Aorta with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
02120A3	Bypass Coronary Artery, Three Arteries from Coronary Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02120A8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02120A9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02120AC	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02120AF	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02120AW	Bypass Coronary Artery, Three Arteries from Aorta with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
02120J3	Bypass Coronary Artery, Three Arteries from Coronary Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02120J8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02120J9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02120JC	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02120JF	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02120JW	Bypass Coronary Artery, Three Arteries from Aorta with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02120K3	Bypass Coronary Artery, Three Arteries from Coronary Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02120K8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02120K9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02120KC	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02120KF	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02120KW	Bypass Coronary Artery, Three Arteries from Aorta with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02120Z3	Bypass Coronary Artery, Three Arteries from Coronary Artery, Open Approach	Procedure	ICD-10-PCS
02120Z8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary, Open Approach	Procedure	ICD-10-PCS
02120Z9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary, Open Approach	Procedure	ICD-10-PCS
02120ZC	Bypass Coronary Artery, Three Arteries from Thoracic Artery, Open Approach	Procedure	ICD-10-PCS
02120ZF	Bypass Coronary Artery, Three Arteries from Abdominal Artery, Open Approach	Procedure	ICD-10-PCS
0212483	Bypass Coronary Artery, Three Arteries from Coronary Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0212488	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0212489	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021248C	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
021248F	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021248W	Bypass Coronary Artery, Three Arteries from Aorta with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0212493	Bypass Coronary Artery, Three Arteries from Coronary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0212498	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0212499	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021249C	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021249F	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021249W	Bypass Coronary Artery, Three Arteries from Aorta with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124A3	Bypass Coronary Artery, Three Arteries from Coronary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124A8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124A9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124AC	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124AF	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124AW	Bypass Coronary Artery, Three Arteries from Aorta with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124J3	Bypass Coronary Artery, Three Arteries from Coronary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124J8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124J9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124JC	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124JF	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124JW	Bypass Coronary Artery, Three Arteries from Aorta with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124K3	Bypass Coronary Artery, Three Arteries from Coronary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
02124K8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124K9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124KC	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124KF	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124KW	Bypass Coronary Artery, Three Arteries from Aorta with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124Z3	Bypass Coronary Artery, Three Arteries from Coronary Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124Z8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124Z9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124ZC	Bypass Coronary Artery, Three Arteries from Thoracic Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124ZF	Bypass Coronary Artery, Three Arteries from Abdominal Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0213083	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
0213088	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
0213089	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021308C	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021308F	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021308W	Bypass Coronary Artery, Four or More Arteries from Aorta with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
0213093	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
0213098	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
0213099	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021309C	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021309F	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
021309W	Bypass Coronary Artery, Four or More Arteries from Aorta with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
02130A3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02130A8	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02130A9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02130AC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02130AF	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02130AW	Bypass Coronary Artery, Four or More Arteries from Aorta with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02130J3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02130J8	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02130J9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02130JC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02130JF	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02130JW	Bypass Coronary Artery, Four or More Arteries from Aorta with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02130K3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02130K8	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02130K9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02130KC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02130KF	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02130KW	Bypass Coronary Artery, Four or More Arteries from Aorta with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02130Z3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery, Open Approach	Procedure	ICD-10-PCS
02130Z8	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary, Open Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
02130Z9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary, Open Approach	Procedure	ICD-10-PCS
02130ZC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery, Open Approach	Procedure	ICD-10-PCS
02130ZF	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery, Open Approach	Procedure	ICD-10-PCS
0213483	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0213488	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0213489	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021348C	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021348F	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021348W	Bypass Coronary Artery, Four or More Arteries from Aorta with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0213493	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0213498	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0213499	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021349C	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021349F	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021349W	Bypass Coronary Artery, Four or More Arteries from Aorta with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134A3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134A8	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134A9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134AC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134AF	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134AW	Bypass Coronary Artery, Four or More Arteries from Aorta with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
02134J3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134J8	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134J9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134JC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134JF	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134JW	Bypass Coronary Artery, Four or More Arteries from Aorta with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134K3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134K8	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134K9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134KC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134KF	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134KW	Bypass Coronary Artery, Four or More Arteries from Aorta with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134Z3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134Z8	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134Z9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134ZC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134ZF	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021K0Z8	Bypass Right Ventricle to Right Internal Mammary, Open Approach	Procedure	ICD-10-PCS
021K0Z9	Bypass Right Ventricle to Left Internal Mammary, Open Approach	Procedure	ICD-10-PCS
021K0ZC	Bypass Right Ventricle to Thoracic Artery, Open Approach	Procedure	ICD-10-PCS
021K0ZF	Bypass Right Ventricle to Abdominal Artery, Open Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
021K0ZW	Bypass Right Ventricle to Aorta, Open Approach	Procedure	ICD-10-PCS
021K4Z8	Bypass Right Ventricle to Right Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021K4Z9	Bypass Right Ventricle to Left Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021K4ZC	Bypass Right Ventricle to Thoracic Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021K4ZF	Bypass Right Ventricle to Abdominal Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021K4ZW	Bypass Right Ventricle to Aorta, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L08P	Bypass Left Ventricle to Pulmonary Trunk with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021L08Q	Bypass Left Ventricle to Right Pulmonary Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021L08R	Bypass Left Ventricle to Left Pulmonary Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021L09P	Bypass Left Ventricle to Pulmonary Trunk with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021L09Q	Bypass Left Ventricle to Right Pulmonary Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021L09R	Bypass Left Ventricle to Left Pulmonary Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021L0AP	Bypass Left Ventricle to Pulmonary Trunk with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
021L0AQ	Bypass Left Ventricle to Right Pulmonary Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
021L0AR	Bypass Left Ventricle to Left Pulmonary Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
021L0JP	Bypass Left Ventricle to Pulmonary Trunk with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
021L0JQ	Bypass Left Ventricle to Right Pulmonary Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
021L0JR	Bypass Left Ventricle to Left Pulmonary Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
021L0KP	Bypass Left Ventricle to Pulmonary Trunk with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
021L0KQ	Bypass Left Ventricle to Right Pulmonary Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
021L0KR	Bypass Left Ventricle to Left Pulmonary Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
021L0Z8	Bypass Left Ventricle to Right Internal Mammary, Open Approach	Procedure	ICD-10-PCS
021L0Z9	Bypass Left Ventricle to Left Internal Mammary, Open Approach	Procedure	ICD-10-PCS
021L0ZC	Bypass Left Ventricle to Thoracic Artery, Open Approach	Procedure	ICD-10-PCS
021L0ZF	Bypass Left Ventricle to Abdominal Artery, Open Approach	Procedure	ICD-10-PCS
021L0ZP	Bypass Left Ventricle to Pulmonary Trunk, Open Approach	Procedure	ICD-10-PCS
021L0ZQ	Bypass Left Ventricle to Right Pulmonary Artery, Open Approach	Procedure	ICD-10-PCS
021L0ZR	Bypass Left Ventricle to Left Pulmonary Artery, Open Approach	Procedure	ICD-10-PCS
021L48P	Bypass Left Ventricle to Pulmonary Trunk with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L48Q	Bypass Left Ventricle to Right Pulmonary Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L48R	Bypass Left Ventricle to Left Pulmonary Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L49P	Bypass Left Ventricle to Pulmonary Trunk with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L49Q	Bypass Left Ventricle to Right Pulmonary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L49R	Bypass Left Ventricle to Left Pulmonary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4AP	Bypass Left Ventricle to Pulmonary Trunk with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4AQ	Bypass Left Ventricle to Right Pulmonary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4AR	Bypass Left Ventricle to Left Pulmonary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4JP	Bypass Left Ventricle to Pulmonary Trunk with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4JQ	Bypass Left Ventricle to Right Pulmonary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4JR	Bypass Left Ventricle to Left Pulmonary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4KP	Bypass Left Ventricle to Pulmonary Trunk with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4KQ	Bypass Left Ventricle to Right Pulmonary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
021L4KR	Bypass Left Ventricle to Left Pulmonary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4Z8	Bypass Left Ventricle to Right Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4Z9	Bypass Left Ventricle to Left Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4ZC	Bypass Left Ventricle to Thoracic Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4ZF	Bypass Left Ventricle to Abdominal Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4ZP	Bypass Left Ventricle to Pulmonary Trunk, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4ZQ	Bypass Left Ventricle to Right Pulmonary Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4ZR	Bypass Left Ventricle to Left Pulmonary Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0270046	Dilation of Coronary Artery, One Artery, Bifurcation, with Drug-eluting Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
027004Z	Dilation of Coronary Artery, One Artery with Drug-eluting Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
0270056	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027005Z	Dilation of Coronary Artery, One Artery with Two Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
0270066	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027006Z	Dilation of Coronary Artery, One Artery with Three Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
0270076	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027007Z	Dilation of Coronary Artery, One Artery with Four or More Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02700D6	Dilation of Coronary Artery, One Artery, Bifurcation, with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02700DZ	Dilation of Coronary Artery, One Artery with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02700E6	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02700EZ	Dilation of Coronary Artery, One Artery with Two Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02700F6	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
02700FZ	Dilation of Coronary Artery, One Artery with Three Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02700G6	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02700GZ	Dilation of Coronary Artery, One Artery with Four or More Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02700T6	Dilation of Coronary Artery, One Artery, Bifurcation, with Radioactive Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02700TZ	Dilation of Coronary Artery, One Artery with Radioactive Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02700Z6	Dilation of Coronary Artery, One Artery, Bifurcation, Open Approach	Procedure	ICD-10-PCS
02700ZZ	Dilation of Coronary Artery, One Artery, Open Approach	Procedure	ICD-10-PCS
0270346	Dilation of Coronary Artery, One Artery, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
027034Z	Dilation of Coronary Artery, One Artery with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0270356	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027035Z	Dilation of Coronary Artery, One Artery with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
0270366	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027036Z	Dilation of Coronary Artery, One Artery with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
0270376	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027037Z	Dilation of Coronary Artery, One Artery with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02703D6	Dilation of Coronary Artery, One Artery, Bifurcation, with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02703DZ	Dilation of Coronary Artery, One Artery with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02703E6	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02703EZ	Dilation of Coronary Artery, One Artery with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02703F6	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02703FZ	Dilation of Coronary Artery, One Artery with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
02703G6	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02703GZ	Dilation of Coronary Artery, One Artery with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02703T6	Dilation of Coronary Artery, One Artery, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02703TZ	Dilation of Coronary Artery, One Artery with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0270446	Dilation of Coronary Artery, One Artery, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027044Z	Dilation of Coronary Artery, One Artery with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0270456	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027045Z	Dilation of Coronary Artery, One Artery with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0270466	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027046Z	Dilation of Coronary Artery, One Artery with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0270476	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027047Z	Dilation of Coronary Artery, One Artery with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704D6	Dilation of Coronary Artery, One Artery, Bifurcation, with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704DZ	Dilation of Coronary Artery, One Artery with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704E6	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704EZ	Dilation of Coronary Artery, One Artery with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704F6	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704FZ	Dilation of Coronary Artery, One Artery with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704G6	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704GZ	Dilation of Coronary Artery, One Artery with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704T6	Dilation of Coronary Artery, One Artery, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
02704TZ	Dilation of Coronary Artery, One Artery with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0271046	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
027104Z	Dilation of Coronary Artery, Two Arteries with Drug-eluting Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
0271056	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027105Z	Dilation of Coronary Artery, Two Arteries with Two Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
0271066	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027106Z	Dilation of Coronary Artery, Two Arteries with Three Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
0271076	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027107Z	Dilation of Coronary Artery, Two Arteries with Four or More Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02710D6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02710DZ	Dilation of Coronary Artery, Two Arteries with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02710E6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02710EZ	Dilation of Coronary Artery, Two Arteries with Two Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02710F6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Three Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02710FZ	Dilation of Coronary Artery, Two Arteries with Three Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02710G6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02710GZ	Dilation of Coronary Artery, Two Arteries with Four or More Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02710T6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Radioactive Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02710TZ	Dilation of Coronary Artery, Two Arteries with Radioactive Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02710Z6	Dilation of Coronary Artery, Two Arteries, Bifurcation, Open Approach	Procedure	ICD-10-PCS
02710ZZ	Dilation of Coronary Artery, Two Arteries, Open Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
0271346	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
027134Z	Dilation of Coronary Artery, Two Arteries with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0271356	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027135Z	Dilation of Coronary Artery, Two Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
0271366	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027136Z	Dilation of Coronary Artery, Two Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
0271376	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027137Z	Dilation of Coronary Artery, Two Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713D6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02713DZ	Dilation of Coronary Artery, Two Arteries with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02713E6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713EZ	Dilation of Coronary Artery, Two Arteries with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713F6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713FZ	Dilation of Coronary Artery, Two Arteries with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713G6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713GZ	Dilation of Coronary Artery, Two Arteries with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713T6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02713TZ	Dilation of Coronary Artery, Two Arteries with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0271446	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027144Z	Dilation of Coronary Artery, Two Arteries with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0271456	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
027145Z	Dilation of Coronary Artery, Two Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0271466	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027146Z	Dilation of Coronary Artery, Two Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0271476	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027147Z	Dilation of Coronary Artery, Two Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714D6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714DZ	Dilation of Coronary Artery, Two Arteries with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714E6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714EZ	Dilation of Coronary Artery, Two Arteries with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714F6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714FZ	Dilation of Coronary Artery, Two Arteries with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714G6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714GZ	Dilation of Coronary Artery, Two Arteries with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714T6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714TZ	Dilation of Coronary Artery, Two Arteries with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0272046	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
027204Z	Dilation of Coronary Artery, Three Arteries with Drug-eluting Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
0272056	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027205Z	Dilation of Coronary Artery, Three Arteries with Two Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
0272066	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027206Z	Dilation of Coronary Artery, Three Arteries with Three Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
0272076	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027207Z	Dilation of Coronary Artery, Three Arteries with Four or More Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02720D6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02720DZ	Dilation of Coronary Artery, Three Arteries with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02720E6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02720EZ	Dilation of Coronary Artery, Three Arteries with Two Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02720F6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02720FZ	Dilation of Coronary Artery, Three Arteries with Three Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02720G6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02720GZ	Dilation of Coronary Artery, Three Arteries with Four or More Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02720T6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Radioactive Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02720TZ	Dilation of Coronary Artery, Three Arteries with Radioactive Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02720Z6	Dilation of Coronary Artery, Three Arteries, Bifurcation, Open Approach	Procedure	ICD-10-PCS
02720ZZ	Dilation of Coronary Artery, Three Arteries, Open Approach	Procedure	ICD-10-PCS
0272346	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
027234Z	Dilation of Coronary Artery, Three Arteries with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0272356	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027235Z	Dilation of Coronary Artery, Three Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
0272366	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027236Z	Dilation of Coronary Artery, Three Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
0272376	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
027237Z	Dilation of Coronary Artery, Three Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723D6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02723DZ	Dilation of Coronary Artery, Three Arteries with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02723E6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723EZ	Dilation of Coronary Artery, Three Arteries with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723F6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723FZ	Dilation of Coronary Artery, Three Arteries with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723G6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723GZ	Dilation of Coronary Artery, Three Arteries with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723T6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02723TZ	Dilation of Coronary Artery, Three Arteries with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0272446	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027244Z	Dilation of Coronary Artery, Three Arteries with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0272456	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027245Z	Dilation of Coronary Artery, Three Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0272466	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027246Z	Dilation of Coronary Artery, Three Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0272476	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027247Z	Dilation of Coronary Artery, Three Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724D6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724DZ	Dilation of Coronary Artery, Three Arteries with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
02724E6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724EZ	Dilation of Coronary Artery, Three Arteries with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724F6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724FZ	Dilation of Coronary Artery, Three Arteries with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724G6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724GZ	Dilation of Coronary Artery, Three Arteries with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724T6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724TZ	Dilation of Coronary Artery, Three Arteries with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0273046	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
027304Z	Dilation of Coronary Artery, Four or More Arteries with Drug-eluting Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
0273056	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027305Z	Dilation of Coronary Artery, Four or More Arteries with Two Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
0273066	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027306Z	Dilation of Coronary Artery, Four or More Arteries with Three Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
0273076	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027307Z	Dilation of Coronary Artery, Four or More Arteries with Four or More Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02730D6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02730DZ	Dilation of Coronary Artery, Four or More Arteries with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02730E6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02730EZ	Dilation of Coronary Artery, Four or More Arteries with Two Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02730F6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
02730FZ	Dilation of Coronary Artery, Four or More Arteries with Three Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02730G6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02730GZ	Dilation of Coronary Artery, Four or More Arteries with Four or More Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02730T6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Radioactive Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02730TZ	Dilation of Coronary Artery, Four or More Arteries with Radioactive Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02730Z6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, Open Approach	Procedure	ICD-10-PCS
02730ZZ	Dilation of Coronary Artery, Four or More Arteries, Open Approach	Procedure	ICD-10-PCS
0273346	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
027334Z	Dilation of Coronary Artery, Four or More Arteries with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0273356	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027335Z	Dilation of Coronary Artery, Four or More Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
0273366	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027336Z	Dilation of Coronary Artery, Four or More Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
0273376	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027337Z	Dilation of Coronary Artery, Four or More Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02733D6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02733DZ	Dilation of Coronary Artery, Four or More Arteries with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02733E6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02733EZ	Dilation of Coronary Artery, Four or More Arteries with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02733F6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02733FZ	Dilation of Coronary Artery, Four or More Arteries with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
02733G6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02733GZ	Dilation of Coronary Artery, Four or More Arteries with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02733T6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02733TZ	Dilation of Coronary Artery, Four or More Arteries with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0273446	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027344Z	Dilation of Coronary Artery, Four or More Arteries with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0273456	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027345Z	Dilation of Coronary Artery, Four or More Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0273466	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027346Z	Dilation of Coronary Artery, Four or More Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0273476	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027347Z	Dilation of Coronary Artery, Four or More Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734D6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734DZ	Dilation of Coronary Artery, Four or More Arteries with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734E6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734EZ	Dilation of Coronary Artery, Four or More Arteries with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734F6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734FZ	Dilation of Coronary Artery, Four or More Arteries with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734G6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734GZ	Dilation of Coronary Artery, Four or More Arteries with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734T6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
02734TZ	Dilation of Coronary Artery, Four or More Arteries with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02C00Z6	Extirpation of Matter from Coronary Artery, One Artery, Bifurcation, Open Approach	Procedure	ICD-10-PCS
02C00ZZ	Extirpation of Matter from Coronary Artery, One Artery, Open Approach	Procedure	ICD-10-PCS
02C03Z6	Extirpation of Matter from Coronary Artery, One Artery, Bifurcation, Percutaneous Approach	Procedure	ICD-10-PCS
02C03ZZ	Extirpation of Matter from Coronary Artery, One Artery, Percutaneous Approach	Procedure	ICD-10-PCS
02C04Z6	Extirpation of Matter from Coronary Artery, One Artery, Bifurcation, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02C04ZZ	Extirpation of Matter from Coronary Artery, One Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02C10Z6	Extirpation of Matter from Coronary Artery, Two Arteries, Bifurcation, Open Approach	Procedure	ICD-10-PCS
02C10ZZ	Extirpation of Matter from Coronary Artery, Two Arteries, Open Approach	Procedure	ICD-10-PCS
02C13Z6	Extirpation of Matter from Coronary Artery, Two Arteries, Bifurcation, Percutaneous Approach	Procedure	ICD-10-PCS
02C13ZZ	Extirpation of Matter from Coronary Artery, Two Arteries, Percutaneous Approach	Procedure	ICD-10-PCS
02C14Z6	Extirpation of Matter from Coronary Artery, Two Arteries, Bifurcation, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02C14ZZ	Extirpation of Matter from Coronary Artery, Two Arteries, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02C20Z6	Extirpation of Matter from Coronary Artery, Three Arteries, Bifurcation, Open Approach	Procedure	ICD-10-PCS
02C20ZZ	Extirpation of Matter from Coronary Artery, Three Arteries, Open Approach	Procedure	ICD-10-PCS
02C23Z6	Extirpation of Matter from Coronary Artery, Three Arteries, Bifurcation, Percutaneous Approach	Procedure	ICD-10-PCS
02C23ZZ	Extirpation of Matter from Coronary Artery, Three Arteries, Percutaneous Approach	Procedure	ICD-10-PCS
02C24Z6	Extirpation of Matter from Coronary Artery, Three Arteries, Bifurcation, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02C24ZZ	Extirpation of Matter from Coronary Artery, Three Arteries, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02C30Z6	Extirpation of Matter from Coronary Artery, Four or More Arteries, Bifurcation, Open Approach	Procedure	ICD-10-PCS
02C30ZZ	Extirpation of Matter from Coronary Artery, Four or More Arteries, Open Approach	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
02C33Z6	Extirpation of Matter from Coronary Artery, Four or More Arteries, Bifurcation, Percutaneous Approach	Procedure	ICD-10-PCS
02C33ZZ	Extirpation of Matter from Coronary Artery, Four or More Arteries, Percutaneous Approach	Procedure	ICD-10-PCS
02C34Z6	Extirpation of Matter from Coronary Artery, Four or More Arteries, Bifurcation, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02C34ZZ	Extirpation of Matter from Coronary Artery, Four or More Arteries, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
17.55	Transluminal coronary atherectomy	Procedure	ICD-9-CM
33510	Coronary artery bypass, vein only; single coronary venous graft	Procedure	CPT-4
33511	Coronary artery bypass, vein only; 2 coronary venous grafts	Procedure	CPT-4
33512	Coronary artery bypass, vein only; 3 coronary venous grafts	Procedure	CPT-4
33513	Coronary artery bypass, vein only; 4 coronary venous grafts	Procedure	CPT-4
33514	Coronary artery bypass, vein only; 5 coronary venous grafts	Procedure	CPT-4
33516	Coronary artery bypass, vein only; 6 or more coronary venous grafts	Procedure	CPT-4
33517	Coronary artery bypass, using venous graft(s) and arterial graft(s); single vein graft (List separately in addition to code for primary procedure)	Procedure	CPT-4
33518	Coronary artery bypass, using venous graft(s) and arterial graft(s); 2 venous grafts (List separately in addition to code for primary procedure)	Procedure	CPT-4
33519	Coronary artery bypass, using venous graft(s) and arterial graft(s); 3 venous grafts (List separately in addition to code for primary procedure)	Procedure	CPT-4
33520	Coronary Artery Bypass, Nonautogenous Graft (eg, Synthetic Or Cadaver); Single	Procedure	CPT-4
33521	Coronary artery bypass, using venous graft(s) and arterial graft(s); 4 venous grafts (List separately in addition to code for primary procedure)	Procedure	CPT-4
33522	Coronary artery bypass, using venous graft(s) and arterial graft(s); 5 venous grafts (List separately in addition to code for primary procedure)	Procedure	CPT-4
33523	Coronary artery bypass, using venous graft(s) and arterial graft(s); 6 or more venous grafts (List separately in addition to code for primary procedure)	Procedure	CPT-4
33525	Coronary Artery Bypass, Nonautogenous Graft (eg, Synthetic Or Cadaver); Two Coronary Grafts	Procedure	CPT-4
33528	Coronary Artery Bypass, Nonautogenous Graft (eg, Synthetic Or Cadaver); Three Or More Coronary Grafts	Procedure	CPT-4
33530	Reoperation, coronary artery bypass procedure or valve procedure, more than 1 month after original operation (List separately in addition to code for primary procedure)	Procedure	CPT-4
33533	Coronary artery bypass, using arterial graft(s); single arterial graft	Procedure	CPT-4
33534	Coronary artery bypass, using arterial graft(s); 2 coronary arterial grafts	Procedure	CPT-4
33535	Coronary artery bypass, using arterial graft(s); 3 coronary arterial grafts	Procedure	CPT-4
33536	Coronary artery bypass, using arterial graft(s); 4 or more coronary arterial grafts	Procedure	CPT-4
33560	Myocardial Operation Combined With Coronary Bypass Procedure	Procedure	CPT-4
33570	CORONARY ANGIOPLASTY W/BYPASS	Procedure	CPT-4

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
33572	Coronary endarterectomy, open, any method, of left anterior descending, circumflex, or right coronary artery performed in conjunction with coronary artery bypass graft procedure, each vessel (List separately in addition to primary procedure)	Procedure	CPT-4
33575	CORON ANGIOPLSTY W/BYPASS; COMBO W/VASCULARIZAT	Procedure	CPT-4
35454	Transluminal balloon angioplasty, open; iliac	Procedure	CPT-4
35456	Transluminal balloon angioplasty, open; femoral-popliteal	Procedure	CPT-4
35458	Transluminal balloon angioplasty, open; brachiocephalic trunk or branches, each vessel	Procedure	CPT-4
35459	Transluminal balloon angioplasty, open; tibioperoneal trunk and branches	Procedure	CPT-4
35470	Transluminal balloon angioplasty, percutaneous; tibioperoneal trunk or branches, each vessel	Procedure	CPT-4
35473	Transluminal balloon angioplasty, percutaneous; iliac	Procedure	CPT-4
35474	Transluminal balloon angioplasty, percutaneous; femoral-popliteal	Procedure	CPT-4
35475	Transluminal balloon angioplasty, percutaneous; brachiocephalic trunk or branches, each vessel	Procedure	CPT-4
35600	Harvest of upper extremity artery, 1 segment, for coronary artery bypass procedure (List separately in addition to code for primary procedure)	Procedure	CPT-4
35879	Revision, lower extremity arterial bypass, without thrombectomy, open; with vein patch angioplasty	Procedure	CPT-4
36.03	Open chest coronary artery angioplasty	Procedure	ICD-9-CM
36.04	Intracoronary artery thrombolytic infusion	Procedure	ICD-9-CM
36.06	Insertion of non-drug-eluting coronary artery stent(s)	Procedure	ICD-9-CM
36.07	Insertion of drug-eluting coronary artery stent(s)	Procedure	ICD-9-CM
36.09	Other removal of coronary artery obstruction	Procedure	ICD-9-CM
36.10	Aortocoronary bypass for heart revascularization, not otherwise specified	Procedure	ICD-9-CM
36.11	(Aorto)coronary bypass of one coronary artery	Procedure	ICD-9-CM
36.12	(Aorto)coronary bypass of two coronary arteries	Procedure	ICD-9-CM
36.13	(Aorto)coronary bypass of three coronary arteries	Procedure	ICD-9-CM
36.14	(Aorto)coronary bypass of four or more coronary arteries	Procedure	ICD-9-CM
36.15	Single internal mammary-coronary artery bypass	Procedure	ICD-9-CM
36.16	Double internal mammary-coronary artery bypass	Procedure	ICD-9-CM
36.17	Abdominal-coronary artery bypass	Procedure	ICD-9-CM
36.19	Other bypass anastomosis for heart revascularization	Procedure	ICD-9-CM
36.2	Heart revascularization by arterial implant	Procedure	ICD-9-CM
37215	Transcatheter placement of intravascular stent(s), cervical carotid artery, open or percutaneous, including angioplasty, when performed, and radiological supervision and interpretation; with distal embolic protection	Procedure	CPT-4
37216	Transcatheter placement of intravascular stent(s), cervical carotid artery, open or percutaneous, including angioplasty, when performed, and radiological supervision and interpretation; without distal embolic protection	Procedure	CPT-4

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
37217	Transcatheter placement of intravascular stent(s), intrathoracic common carotid artery or innominate artery by retrograde treatment, open ipsilateral cervical carotid artery exposure, including angioplasty, when performed, and radiological supervision and interpretation	Procedure	CPT-4
37218	Transcatheter placement of intravascular stent(s), intrathoracic common carotid artery or innominate artery, open or percutaneous antegrade approach, including angioplasty, when performed, and radiological supervision and interpretation	Procedure	CPT-4
37220	Revascularization, endovascular, open or percutaneous, iliac artery, unilateral, initial vessel; with transluminal angioplasty	Procedure	CPT-4
37221	Revascularization, endovascular, open or percutaneous, iliac artery, unilateral, initial vessel; with transluminal stent placement(s), includes angioplasty within the same vessel, when performed	Procedure	CPT-4
37222	Revascularization, endovascular, open or percutaneous, iliac artery, each additional ipsilateral iliac vessel; with transluminal angioplasty (List separately in addition to code for primary procedure)	Procedure	CPT-4
37223	Revascularization, endovascular, open or percutaneous, iliac artery, each additional ipsilateral iliac vessel; with transluminal stent placement(s), includes angioplasty within the same vessel, when performed (List separately in addition to code for primary procedure)	Procedure	CPT-4
37224	Revascularization, endovascular, open or percutaneous, femoral, popliteal artery(s), unilateral; with transluminal angioplasty	Procedure	CPT-4
37225	Revascularization, endovascular, open or percutaneous, femoral, popliteal artery(s), unilateral; with atherectomy, includes angioplasty within the same vessel, when performed	Procedure	CPT-4
37226	Revascularization, endovascular, open or percutaneous, femoral, popliteal artery(s), unilateral; with transluminal stent placement(s), includes angioplasty within the same vessel, when performed	Procedure	CPT-4
37227	Revascularization, endovascular, open or percutaneous, femoral, popliteal artery(s), unilateral; with transluminal stent placement(s) and atherectomy, includes angioplasty within the same vessel, when performed	Procedure	CPT-4
37228	Revascularization, endovascular, open or percutaneous, tibial, peroneal artery, unilateral, initial vessel; with transluminal angioplasty	Procedure	CPT-4
37229	Revascularization, endovascular, open or percutaneous, tibial, peroneal artery, unilateral, initial vessel; with atherectomy, includes angioplasty within the same vessel, when performed	Procedure	CPT-4
37230	Revascularization, endovascular, open or percutaneous, tibial, peroneal artery, unilateral, initial vessel; with transluminal stent placement(s), includes angioplasty within the same vessel, when performed	Procedure	CPT-4
37231	Revascularization, endovascular, open or percutaneous, tibial, peroneal artery, unilateral, initial vessel; with transluminal stent placement(s) and atherectomy, includes angioplasty within the same vessel, when performed	Procedure	CPT-4

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
37232	Revascularization, endovascular, open or percutaneous, tibial/peroneal artery, unilateral, each additional vessel; with transluminal angioplasty (List separately in addition to code for primary procedure)	Procedure	CPT-4
37233	Revascularization, endovascular, open or percutaneous, tibial/peroneal artery, unilateral, each additional vessel; with atherectomy, includes angioplasty within the same vessel, when performed (List separately in addition to code for primary procedure)	Procedure	CPT-4
37234	Revascularization, endovascular, open or percutaneous, tibial/peroneal artery, unilateral, each additional vessel; with transluminal stent placement(s), includes angioplasty within the same vessel, when performed (List separately in addition to code for primary procedure)	Procedure	CPT-4
37235	Revascularization, endovascular, open or percutaneous, tibial/peroneal artery, unilateral, each additional vessel; with transluminal stent placement(s) and atherectomy, includes angioplasty within the same vessel, when performed (List separately in addition to code for primary procedure)	Procedure	CPT-4
37236	Transcatheter placement of an intravascular stent(s) (except lower extremity artery(s) for occlusive disease, cervical carotid, extracranial vertebral or intrathoracic carotid, intracranial, or coronary), open or percutaneous, including radiological supervision and interpretation and including all angioplasty within the same vessel, when performed; initial artery	Procedure	CPT-4
37237	Transcatheter placement of an intravascular stent(s) (except lower extremity artery(s) for occlusive disease, cervical carotid, extracranial vertebral or intrathoracic carotid, intracranial, or coronary), open or percutaneous, including radiological supervision and interpretation and including all angioplasty within the same vessel, when performed; each additional artery (List separately in addition to code for primary procedure)	Procedure	CPT-4 ICD-10-
3E07017	Introduction of Other Thrombolytic into Coronary Artery, Open Approach	Procedure	PCS ICD-10-
3E070PZ	Introduction of Platelet Inhibitor into Coronary Artery, Open Approach	Procedure	PCS ICD-10-
3E07317	Introduction of Other Thrombolytic into Coronary Artery, Percutaneous Approach	Procedure	PCS ICD-10-
3E073PZ	Introduction of Platelet Inhibitor into Coronary Artery, Percutaneous Approach	Procedure	PCS
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

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
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
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
411.1	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
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
414.01	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
414.3	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
415.11	Iatrogenic pulmonary embolism and infarction	Diagnosis	ICD-9-CM
427.1	Paroxysmal ventricular tachycardia	Diagnosis	ICD-9-CM
427.5	Cardiac arrest	Diagnosis	ICD-9-CM
429.79	Other certain sequelae of myocardial infarction, not elsewhere classified	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
430	Subarachnoid hemorrhage	Diagnosis	ICD-9-CM
431	Intracerebral hemorrhage	Diagnosis	ICD-9-CM
432.0	Nontraumatic extradural hemorrhage	Diagnosis	ICD-9-CM
432.1	Subdural hemorrhage	Diagnosis	ICD-9-CM
432.9	Unspecified intracranial hemorrhage	Diagnosis	ICD-9-CM
433.00	Occlusion and stenosis of basilar artery without mention of cerebral infarction	Diagnosis	ICD-9-CM
433.01	Occlusion and stenosis of basilar artery with cerebral infarction	Diagnosis	ICD-9-CM
433.10	Occlusion and stenosis of carotid artery without mention of cerebral infarction	Diagnosis	ICD-9-CM
433.11	Occlusion and stenosis of carotid artery with cerebral infarction	Diagnosis	ICD-9-CM
433.20	Occlusion and stenosis of vertebral artery without mention of cerebral infarction	Diagnosis	ICD-9-CM
433.21	Occlusion and stenosis of vertebral artery with cerebral infarction	Diagnosis	ICD-9-CM
433.30	Occlusion and stenosis of multiple and bilateral precerebral arteries without mention of cerebral infarction	Diagnosis	ICD-9-CM
433.31	Occlusion and stenosis of multiple and bilateral precerebral arteries with cerebral infarction	Diagnosis	ICD-9-CM
433.80	Occlusion and stenosis of other specified precerebral artery without mention of cerebral infarction	Diagnosis	ICD-9-CM
433.81	Occlusion and stenosis of other specified precerebral artery with cerebral infarction	Diagnosis	ICD-9-CM
433.90	Occlusion and stenosis of unspecified precerebral artery without mention of 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
435.1	Vertebral artery syndrome	Diagnosis	ICD-9-CM
435.2	Subclavian steal 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
437.0	Cerebral atherosclerosis	Diagnosis	ICD-9-CM
437.1	Other generalized ischemic cerebrovascular disease	Diagnosis	ICD-9-CM
437.2	Hypertensive encephalopathy	Diagnosis	ICD-9-CM
437.3	Cerebral aneurysm, nonruptured	Diagnosis	ICD-9-CM
437.4	Cerebral arteritis	Diagnosis	ICD-9-CM
437.5	Moyamoya disease	Diagnosis	ICD-9-CM
437.8	Other ill-defined cerebrovascular disease	Diagnosis	ICD-9-CM
437.9	Unspecified cerebrovascular disease	Diagnosis	ICD-9-CM
438.0	Cognitive deficits due to cerebrovascular disease	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
438.10	Unspecified speech and language deficit due to cerebrovascular disease	Diagnosis	ICD-9-CM
438.11	Aphasia due to cerebrovascular disease	Diagnosis	ICD-9-CM
438.12	Dysphasia due to cerebrovascular disease	Diagnosis	ICD-9-CM
438.13	Late effects of cerebrovascular disease, speech and language deficits, dysarthria Late effects of cerebrovascular disease, speech and language deficits, fluency	Diagnosis	ICD-9-CM
438.14	disorder	Diagnosis	ICD-9-CM
438.19	Other speech and language deficits due to cerebrovascular disease	Diagnosis	ICD-9-CM
438.20	Hemiplegia affecting unspecified side due to cerebrovascular disease	Diagnosis	ICD-9-CM
438.21	Hemiplegia affecting dominant side due to cerebrovascular disease	Diagnosis	ICD-9-CM
438.22	Hemiplegia affecting nondominant side due to cerebrovascular disease	Diagnosis	ICD-9-CM
438.30	Monoplegia of upper limb affecting unspecified side due to cerebrovascular disease	Diagnosis	ICD-9-CM
438.31	Monoplegia of upper limb affecting dominant side due to cerebrovascular disease Monoplegia of upper limb affecting nondominant side due to cerebrovascular	Diagnosis	ICD-9-CM
438.32	disease	Diagnosis	ICD-9-CM
438.40	Monoplegia of lower limb affecting unspecified side due to cerebrovascular disease	Diagnosis	ICD-9-CM
438.41	Monoplegia of lower limb affecting dominant side due to cerebrovascular disease	Diagnosis	ICD-9-CM
438.42	Monoplegia of lower limb affecting nondominant side due to cerebrovascular disease	Diagnosis	ICD-9-CM
438.50	Other paralytic syndrome affecting unspecified side due to cerebrovascular disease	Diagnosis	ICD-9-CM
438.51	Other paralytic syndrome affecting dominant side due to cerebrovascular disease	Diagnosis	ICD-9-CM
438.52	Other paralytic syndrome affecting nondominant side due to cerebrovascular disease	Diagnosis	ICD-9-CM
438.6	Alteration of sensations as late effect of cerebrovascular disease	Diagnosis	ICD-9-CM
438.7	Disturbance of vision as late effect of cerebrovascular disease	Diagnosis	ICD-9-CM
438.81	Apraxia due to cerebrovascular disease	Diagnosis	ICD-9-CM
438.82	Dysphagia due to cerebrovascular disease	Diagnosis	ICD-9-CM
438.83	Facial weakness as late effect of cerebrovascular disease	Diagnosis	ICD-9-CM
438.84	Ataxia as late effect of cerebrovascular disease	Diagnosis	ICD-9-CM
438.85	Vertigo as late effect of cerebrovascular disease	Diagnosis	ICD-9-CM
438.89	Other late effects of cerebrovascular disease	Diagnosis	ICD-9-CM
438.9	Unspecified late effects of cerebrovascular disease due to cerebrovascular disease	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
440.30	Atherosclerosis of unspecified bypass graft of extremities	Diagnosis	ICD-9-CM
440.31	Atherosclerosis of autologous vein bypass graft of extremities	Diagnosis	ICD-9-CM
440.32	Atherosclerosis of nonautologous biological bypass graft of extremities	Diagnosis	ICD-9-CM
440.4	Chronic total occlusion of artery of the extremities	Diagnosis	ICD-9-CM
443.81	Peripheral angiopathy in diseases classified elsewhere	Diagnosis	ICD-9-CM
443.89	Other peripheral vascular disease	Diagnosis	ICD-9-CM
443.9	Unspecified peripheral vascular disease	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
444.01	Saddle embolus of abdominal aorta	Diagnosis	ICD-9-CM
444.09	Other arterial embolism and thrombosis of abdominal aorta	Diagnosis	ICD-9-CM
444.1	Embolism and thrombosis of thoracic aorta	Diagnosis	ICD-9-CM
444.21	Embolism and thrombosis of arteries of upper extremity	Diagnosis	ICD-9-CM
444.22	Embolism and thrombosis of arteries of lower extremity	Diagnosis	ICD-9-CM
444.81	Embolism and thrombosis of iliac artery	Diagnosis	ICD-9-CM
444.89	Embolism and thrombosis of other specified artery	Diagnosis	ICD-9-CM
444.9	Embolism and thrombosis of unspecified artery	Diagnosis	ICD-9-CM
445.01	Atheroembolism of upper extremity	Diagnosis	ICD-9-CM
445.02	Atheroembolism of lower extremity	Diagnosis	ICD-9-CM
445.81	Atheroembolism of kidney	Diagnosis	ICD-9-CM
445.89	Atheroembolism of other site	Diagnosis	ICD-9-CM
61630	Balloon angioplasty, intracranial (eg, atherosclerotic stenosis), percutaneous	Diagnosis	ICD-10-CM
61630	Balloon angioplasty, intracranial (eg, atherosclerotic stenosis), percutaneous	Procedure	CPT-4
61635	Transcatheter placement of intravascular stent(s), intracranial (eg, atherosclerotic stenosis), including balloon angioplasty, if performed	Diagnosis	ICD-10-CM
61635	Transcatheter placement of intravascular stent(s), intracranial (eg, atherosclerotic stenosis), including balloon angioplasty, if performed	Procedure	CPT-4
75962	Transluminal balloon angioplasty, peripheral artery other than renal, or other visceral artery, iliac or lower extremity, radiological supervision and interpretation	Procedure	CPT-4
75963	Percutaneous Transluminal Angioplasty, Any Method, Peripheral Artery; Complete Procedure	Procedure	CPT-4
75964	Transluminal balloon angioplasty, each additional peripheral artery other than renal or other visceral artery, iliac or lower extremity, radiological supervision and interpretation (List separately in addition to code for primary procedure)	Procedure	CPT-4
75965	Percutaneous Transluminal Angioplasty, Any Method, Each Additional Peripheral Artery; Complete Procedure	Procedure	CPT-4
92.27	Implantation or insertion of radioactive elements	Procedure	ICD-9-CM
92920	Percutaneous transluminal coronary angioplasty; single major coronary artery or branch	Procedure	CPT-4
92921	Percutaneous transluminal coronary angioplasty; each additional branch of a major coronary artery (List separately in addition to code for primary procedure)	Procedure	CPT-4
92924	Percutaneous transluminal coronary atherectomy, with coronary angioplasty when performed; single major coronary artery or branch	Procedure	CPT-4
92925	Percutaneous transluminal coronary atherectomy, with coronary angioplasty when performed; each additional branch of a major coronary artery (List separately in addition to code for primary procedure)	Procedure	CPT-4
92928	Percutaneous transcatheter placement of intracoronary stent(s), with coronary angioplasty when performed; single major coronary artery or branch	Procedure	CPT-4
92929	Percutaneous transcatheter placement of intracoronary stent(s), with coronary angioplasty when performed; each additional branch of a major coronary artery (List separately in addition to code for primary procedure)	Procedure	CPT-4

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
92933	Percutaneous transluminal coronary atherectomy, with intracoronary stent, with coronary angioplasty when performed; single major coronary artery or branch	Procedure	CPT-4
92934	Percutaneous transluminal coronary atherectomy, with intracoronary stent, with coronary angioplasty when performed; each additional branch of a major coronary artery (List separately in addition to code for primary procedure)	Procedure	CPT-4
92937	Percutaneous transluminal revascularization of or through coronary artery bypass graft (internal mammary, free arterial, venous), any combination of intracoronary stent, atherectomy and angioplasty, including distal protection when performed; single vessel	Procedure	CPT-4
92938	Percutaneous transluminal revascularization of or through coronary artery bypass graft (internal mammary, free arterial, venous), any combination of intracoronary stent, atherectomy and angioplasty, including distal protection when performed; each additional branch subtended by the bypass graft (List separately in addition to code for primary procedure)	Procedure	CPT-4
92941	Percutaneous transluminal revascularization of acute total/subtotal occlusion during acute myocardial infarction, coronary artery or coronary artery bypass graft, any combination of intracoronary stent, atherectomy and angioplasty, including aspiration thrombectomy when performed, single vessel	Procedure	CPT-4
92943	Percutaneous transluminal revascularization of chronic total occlusion, coronary artery, coronary artery branch, or coronary artery bypass graft, any combination of intracoronary stent, atherectomy and angioplasty; single vessel	Procedure	CPT-4
92944	Percutaneous transluminal revascularization of chronic total occlusion, coronary artery, coronary artery branch, or coronary artery bypass graft, any combination of intracoronary stent, atherectomy and angioplasty; each additional coronary artery, coronary artery branch, or bypass graft (List separately in addition to code for primary procedure)	Procedure	CPT-4
92973	Percutaneous transluminal coronary thrombectomy mechanical (List separately in addition to code for primary procedure)	Procedure	CPT-4
92974	Transcatheter placement of radiation delivery device for subsequent coronary intravascular brachytherapy (List separately in addition to code for primary procedure)	Procedure	CPT-4
92977	Thrombolysis, coronary; by intravenous infusion	Procedure	CPT-4
92980	Transcatheter placement of an intracoronary stent(s), percutaneous, with or without other therapeutic intervention, any method; single vessel	Procedure	CPT-4
92981	Transcatheter placement of an intracoronary stent(s), percutaneous, with or without other therapeutic intervention, any method; each additional vessel (List separately in addition to code for primary procedure)	Procedure	CPT-4
92982	Percutaneous transluminal coronary balloon angioplasty; single vessel	Procedure	CPT-4
92984	Percutaneous transluminal coronary balloon angioplasty; each additional vessel (List separately in addition to code for primary procedure)	Procedure	CPT-4
92995	Percutaneous transluminal coronary atherectomy, by mechanical or other method, with or without balloon angioplasty; single vessel	Procedure	CPT-4

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Code	Description	Code Category	Code Type
92996	Percutaneous transluminal coronary atherectomy, by mechanical or other method, with or without balloon angioplasty; each additional vessel (List separately in addition to code for primary procedure)	Procedure	CPT-4
93455	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with catheter placement(s) in bypass graft(s) (internal mammary, free arterial, venous grafts) including intraprocedural injection(s) for bypass graft angiography	Procedure	CPT-4
93457	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with catheter placement(s) in bypass graft(s) (internal mammary, free arterial, venous grafts) including intraprocedural injection(s) for bypass graft angiography and right heart catheterization	Procedure	CPT-4
93459	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed, catheter placement(s) in bypass graft(s) (internal mammary, free arterial, venous grafts) with bypass graft angiography	Procedure	CPT-4
93461	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with right and left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed, catheter placement(s) in bypass graft(s) (internal mammary, free arterial, venous grafts) with bypass graft angiography	Procedure	CPT-4
996.71	Other complications due to heart valve prosthesis	Diagnosis	ICD-9-CM
996.72	Other complications due to other cardiac device, implant, and graft	Diagnosis	ICD-9-CM
997.2	Peripheral vascular complications	Diagnosis	ICD-9-CM
997.79	Vascular complications of other vessels	Diagnosis	ICD-9-CM
B2020ZZ	Plain Radiography of Single Coronary Artery Bypass Graft using High Osmolar Contrast	Procedure	ICD-10-PCS
B2021ZZ	Plain Radiography of Single Coronary Artery Bypass Graft using Low Osmolar Contrast	Procedure	ICD-10-PCS
B202YZZ	Plain Radiography of Single Coronary Artery Bypass Graft using Other Contrast	Procedure	ICD-10-PCS
B2030ZZ	Plain Radiography of Multiple Coronary Artery Bypass Grafts using High Osmolar Contrast	Procedure	ICD-10-PCS
B2031ZZ	Plain Radiography of Multiple Coronary Artery Bypass Grafts using Low Osmolar Contrast	Procedure	ICD-10-PCS
B203YZZ	Plain Radiography of Multiple Coronary Artery Bypass Grafts using Other Contrast	Procedure	ICD-10-PCS
B2070ZZ	Plain Radiography of Right Internal Mammary Bypass Graft using High Osmolar Contrast	Procedure	ICD-10-PCS

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Code	Description	Code Category	Code Type
B2071ZZ	Plain Radiography of Right Internal Mammary Bypass Graft using Low Osmolar Contrast	Procedure	ICD-10-PCS
B207YZZ	Plain Radiography of Right Internal Mammary Bypass Graft using Other Contrast	Procedure	ICD-10-PCS
B2080ZZ	Plain Radiography of Left Internal Mammary Bypass Graft using High Osmolar Contrast	Procedure	ICD-10-PCS
B2081ZZ	Plain Radiography of Left Internal Mammary Bypass Graft using Low Osmolar Contrast	Procedure	ICD-10-PCS
B208YZZ	Plain Radiography of Left Internal Mammary Bypass Graft using Other Contrast	Procedure	ICD-10-PCS
B20F0ZZ	Plain Radiography of Other Bypass Graft using High Osmolar Contrast	Procedure	ICD-10-PCS
B20F1ZZ	Plain Radiography of Other Bypass Graft using Low Osmolar Contrast	Procedure	ICD-10-PCS
B20FYZZ	Plain Radiography of Other Bypass Graft using Other Contrast	Procedure	ICD-10-PCS
B212010	Fluoroscopy of Single Coronary Artery Bypass Graft using High Osmolar Contrast, Laser Intraoperative	Procedure	ICD-10-PCS
B2120ZZ	Fluoroscopy of Single Coronary Artery Bypass Graft using High Osmolar Contrast	Procedure	ICD-10-PCS
B212110	Fluoroscopy of Single Coronary Artery Bypass Graft using Low Osmolar Contrast, Laser Intraoperative	Procedure	ICD-10-PCS
B2121ZZ	Fluoroscopy of Single Coronary Artery Bypass Graft using Low Osmolar Contrast	Procedure	ICD-10-PCS
B212Y10	Fluoroscopy of Single Coronary Artery Bypass Graft using Other Contrast, Laser Intraoperative	Procedure	ICD-10-PCS
B212YZZ	Fluoroscopy of Single Coronary Artery Bypass Graft using Other Contrast	Procedure	ICD-10-PCS
B213010	Fluoroscopy of Multiple Coronary Artery Bypass Grafts using High Osmolar Contrast, Laser Intraoperative	Procedure	ICD-10-PCS
B2130ZZ	Fluoroscopy of Multiple Coronary Artery Bypass Grafts using High Osmolar Contrast	Procedure	ICD-10-PCS
B213110	Fluoroscopy of Multiple Coronary Artery Bypass Grafts using Low Osmolar Contrast, Laser Intraoperative	Procedure	ICD-10-PCS
B2131ZZ	Fluoroscopy of Multiple Coronary Artery Bypass Grafts using Low Osmolar Contrast	Procedure	ICD-10-PCS
B213Y10	Fluoroscopy of Multiple Coronary Artery Bypass Grafts using Other Contrast, Laser Intraoperative	Procedure	ICD-10-PCS
B213YZZ	Fluoroscopy of Multiple Coronary Artery Bypass Grafts using Other Contrast	Procedure	ICD-10-PCS
B2170ZZ	Fluoroscopy of Right Internal Mammary Bypass Graft using High Osmolar Contrast	Procedure	ICD-10-PCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
B2171ZZ	Fluoroscopy of Right Internal Mammary Bypass Graft using Low Osmolar Contrast	Procedure	ICD-10-PCS
B217YZZ	Fluoroscopy of Right Internal Mammary Bypass Graft using Other Contrast	Procedure	ICD-10-PCS
B2180ZZ	Fluoroscopy of Left Internal Mammary Bypass Graft using High Osmolar Contrast	Procedure	ICD-10-PCS
B2181ZZ	Fluoroscopy of Left Internal Mammary Bypass Graft using Low Osmolar Contrast	Procedure	ICD-10-PCS
B218YZZ	Fluoroscopy of Left Internal Mammary Bypass Graft using Other Contrast	Procedure	ICD-10-PCS
B21F0ZZ	Fluoroscopy of Other Bypass Graft using High Osmolar Contrast	Procedure	ICD-10-PCS
B21F1ZZ	Fluoroscopy of Other Bypass Graft using Low Osmolar Contrast	Procedure	ICD-10-PCS
B21FYZZ	Fluoroscopy of Other Bypass Graft using Other Contrast	Procedure	ICD-10-PCS
C1034	Catheter, coronary angioplasty, surpass superfusion catheter, long 30 surpass superfusion catheter	Procedure	HCPCS
C1100	Guide wire, percutaneous transluminal coronary angioplasty, medtronic ave gt1 guide wire, medtronic ave gt2 fusion guide wire, interventional technologies trackwire, interventional technologies trackwire support, interventional technologies trackwire extra support	Procedure	HCPCS
C1101	Catheter, percutaneous transluminal coronary angioplasty guide, medtronic ave 5f, 6f, 7f, 8f, 9f zuma guide catheter, medtronic ave z2 5f, 6f, 7f, 8f, 9f zuma guide catheter, medtronic ave vector guide catheter, medtronic ave vector x guide catheter. note: only the medtronic ave z2 zuma guide catheters are effective october 1, 2000. the medtronic ave zuma guide catheters were effective august 1, 2000.	Procedure	HCPCS
C1366	Guide wire, percutaneous transluminal coronary angioplasty, hi-torque iron man, hi-torque balance middleweight, hi-torque all star, hi-torque balance heavyweight, hi-torque balance trek	Procedure	HCPCS
C1367	Guide wire, percutaneous transluminal coronary angioplasty, hi-torque cross it, hi-torque cross-it 100xt, hi-torque cross-it 200xt, hi-torque cross-it 300xt, hi-torque wiggle	Procedure	HCPCS
C1500	Atherectomy system, peripheral, rotablator rotational angioplasty system with rotalink exchangeable catheter, advancer, and guide wire	Procedure	HCPCS
C1725	Catheter, transluminal angioplasty, nonlaser (may include guidance, infusion/perfusion capability)	Procedure	HCPCS
C1885	Catheter, transluminal angioplasty, laser	Procedure	HCPCS
C1930	Catheter, percutaneous transluminal coronary angioplasty, coyote dilatation catheter 20mm/30mm/40mm	Procedure	HCPCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C1933	Catheter, opti-plast centurion 5.5f pta catheter (shaft length 50 cm to 120 cm), opti-plast xl 5.5f pta catheter (shaft length 75 cm to 120 cm), opti-plast pta catheter (5.5 fr), tru trac 5fr percutaneous transluminal angioplasty balloon dilatation catheter, optiplast xt 5 fr percutaneous transluminal angioplasty catheter (various sizes)	Procedure	HCPCS
C1948	Catheter, pursuit balloon angioplasty catheter, cook accent balloon angioplasty catheter	Procedure	HCPCS
C1981	Catheter, coronary angioplasty balloon, adante, bonnie, bonnie 15mm, bonnie monorail 30mm or 40mm, bonnie sliding rail, bypass speedy, chubby, chubby sliding rail, coyote 20mm, coyote 9/15/25mm, maxxum, nc ranger, nc ranger 9mm, ranger 20mm, long ranger 30mm or 40mm, nc ranger 16/18mm, nc ranger 22/25/30mm, nc big ranger, quantum ranger, quantum ranger 1/4 sizes, quantum ranger 9/16/18mm, quantum ranger 22/30mm, quantum ranger 25mm, ranger lp 20/30/40, viva/long viva, ace - 1cm, ace - 2cm, ace graft, long ace, pivot cobra (10, 14, 18, 30, 40mm in lengths) note: only the bonnie monorail 30mm or	Procedure	HCPCS
C2605	Catheter, spectranetics extreme laser catheter, spectranetics extreme 0.9mm coronary angioplasty catheter (model 110-001)	Procedure	HCPCS
C2623	Catheter, transluminal angioplasty, drug-coated, nonlaser	Procedure	HCPCS
C3551	Guide wire, percutaneous transluminal coronary angioplasty, choice, luge, patriot, pt graphix intermediate, trooper, mailman 182/300 cm, glidewire gold guidewire, platinum plus guidewire, platinum plus guidewire with glidex hydrophilic coating, jagwire single-use high performance guide wire, merit medical systems extender guidewire, merit medical systems tomcat ptca guidewire, platinum plus guidewire (0.014 and 0.018 in diameters)	Procedure	HCPCS
C8526	Optiplast xt 5f percutaneous transluminal angioplasty catheter (various sizes)	Procedure	HCPCS
C9600	Percutaneous transcatheter placement of drug eluting intracoronary stent(s), with coronary angioplasty when performed; single major coronary artery or branch	Procedure	HCPCS
C9601	Percutaneous transcatheter placement of drug-eluting intracoronary stent(s), with coronary angioplasty when performed; each additional branch of a major coronary artery (list separately in addition to code for primary procedure)	Procedure	HCPCS
C9602	Percutaneous transluminal coronary atherectomy, with drug eluting intracoronary stent, with coronary angioplasty when performed; single major coronary artery or branch	Procedure	HCPCS
C9603	Percutaneous transluminal coronary atherectomy, with drug-eluting intracoronary stent, with coronary angioplasty when performed; each additional branch of a major coronary artery (list separately in addition to code for primary procedure)	Procedure	HCPCS
C9604	Percutaneous transluminal revascularization of or through coronary artery bypass graft (internal mammary, free arterial, venous), any combination of drug-eluting intracoronary stent, atherectomy and angioplasty, including distal protection when performed; single vessel	Procedure	HCPCS

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C9605	Percutaneous transluminal revascularization of or through coronary artery bypass graft (internal mammary, free arterial, venous), any combination of drug-eluting intracoronary stent, atherectomy and angioplasty, including distal protection when performed; each additional branch subtended by the bypass graft (list separately in addition to code for primary procedure)	Procedure	HCPCS
C9606	Percutaneous transluminal revascularization of acute total/subtotal occlusion during acute myocardial infarction, coronary artery or coronary artery bypass graft, any combination of drug-eluting intracoronary stent, atherectomy and angioplasty, including aspiration thrombectomy when performed, single vessel	Procedure	HCPCS
C9607	Percutaneous transluminal revascularization of chronic total occlusion, coronary artery, coronary artery branch, or coronary artery bypass graft, any combination of drug-eluting intracoronary stent, atherectomy and angioplasty; single vessel	Procedure	HCPCS
C9608	Percutaneous transluminal revascularization of chronic total occlusion, coronary artery, coronary artery branch, or coronary artery bypass graft, any combination of drug-eluting intracoronary stent, atherectomy and angioplasty; each additional coronary artery, coronary artery branch, or bypass graft (list separately in addition to code for primary procedure)	Procedure	HCPCS
D3450	root amputation - per root	Procedure	HCPCS
G0290	Transcatheter placement of a drug eluting intracoronary stent(s), percutaneous, with or without other therapeutic intervention, any method; single vessel	Procedure	HCPCS
G0291	Transcatheter placement of a drug eluting intracoronary stent(s), percutaneous, with or without other therapeutic intervention, any method; each additional vessel	Procedure	HCPCS
G45	Transient cerebral ischemic attacks and related syndromes	Diagnosis	ICD-10-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
G45.8	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
G9639	Major amputation or open surgical bypass not required within 48 hours of the index endovascular lower extremity revascularization procedure	Procedure	HCPCS
G9641	Major amputation or open surgical bypass required within 48 hours of the index endovascular lower extremity revascularization procedure	Procedure	HCPCS
I20	Angina pectoris	Diagnosis	ICD-10-CM
I20.0	Unstable angina	Diagnosis	ICD-10-CM
I20.1	Angina pectoris with documented spasm	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	Acute myocardial infarction	Diagnosis	ICD-10-CM
I21.0	ST elevation (STEMI) myocardial infarction of anterior wall	Diagnosis	ICD-10-CM
I21.01	ST elevation (STEMI) myocardial infarction involving left main coronary artery	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
I21.1	ST elevation (STEMI) myocardial infarction of inferior 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
I21.2	ST elevation (STEMI) myocardial infarction of other sites	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
I21.9	Acute myocardial infarction, unspecified	Diagnosis	ICD-10-CM
I21.A	Other type of 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	Subsequent ST elevation (STEMI) and non-ST elevation (NSTEMI) myocardial infarction	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
I23.7	Postinfarction angina	Diagnosis	ICD-10-CM
I24	Other acute ischemic heart diseases	Diagnosis	ICD-10-CM
I24.0	Acute coronary thrombosis not resulting in myocardial infarction	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
I25.11	Atherosclerotic heart disease of native coronary artery with 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
I25.118	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
I25.6	Silent myocardial ischemia	Diagnosis	ICD-10-CM
I25.7	Atherosclerosis of coronary artery bypass graft(s) and coronary artery of transplanted heart with angina pectoris	Diagnosis	ICD-10-CM
I25.70	Atherosclerosis of coronary artery bypass graft(s), unspecified, with angina pectoris	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
I25.708	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
I25.71	Atherosclerosis of autologous vein coronary artery bypass graft(s) with 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
I25.718	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
I25.72	Atherosclerosis of autologous artery coronary artery bypass graft(s) with 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
I25.728	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
I25.73	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with 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
I25.738	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
I25.75	Atherosclerosis of native coronary artery of transplanted heart with angina pectoris	Diagnosis	ICD-10-CM
I25.750	Atherosclerosis of native coronary artery of transplanted heart with unstable angina	Diagnosis	ICD-10-CM
I25.751	Atherosclerosis of native coronary artery of transplanted heart with angina pectoris with documented spasm	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
I25.76	Atherosclerosis of bypass graft of coronary artery of transplanted heart with 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
I25.768	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
I25.79	Atherosclerosis of other coronary artery bypass graft(s) with 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
I25.798	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
I25.83	Coronary atherosclerosis due to lipid rich plaque	Diagnosis	ICD-10-CM
I25.84	Coronary atherosclerosis due to calcified coronary lesion	Diagnosis	ICD-10-CM
I46.2	Cardiac arrest due to underlying cardiac condition	Diagnosis	ICD-10-CM
I46.8	Cardiac arrest due to other underlying condition	Diagnosis	ICD-10-CM
I46.9	Cardiac arrest, cause unspecified	Diagnosis	ICD-10-CM
I47.0	Re-entry ventricular arrhythmia	Diagnosis	ICD-10-CM
I47.2	Ventricular tachycardia	Diagnosis	ICD-10-CM
I60	Nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I60.0	Nontraumatic subarachnoid hemorrhage from carotid siphon and bifurcation	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
I60.1	Nontraumatic subarachnoid hemorrhage from middle cerebral artery	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
I60.3	Nontraumatic subarachnoid hemorrhage from posterior communicating artery	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I60.30	Nontraumatic subarachnoid hemorrhage from unspecified posterior communicating artery	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
I60.5	Nontraumatic subarachnoid hemorrhage from vertebral 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
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	Nontraumatic intracerebral hemorrhage	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	Other and unspecified nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I62.0	Nontraumatic subdural hemorrhage	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
I62.03	Nontraumatic chronic subdural hemorrhage	Diagnosis	ICD-10-CM
I62.1	Nontraumatic extradural hemorrhage	Diagnosis	ICD-10-CM
I62.9	Nontraumatic intracranial hemorrhage, unspecified	Diagnosis	ICD-10-CM
I63	Cerebral infarction	Diagnosis	ICD-10-CM
I63.0	Cerebral infarction due to thrombosis of precerebral arteries	Diagnosis	ICD-10-CM
I63.00	Cerebral infarction due to thrombosis of unspecified precerebral artery	Diagnosis	ICD-10-CM
I63.01	Cerebral infarction due to thrombosis of vertebral 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
I63.03	Cerebral infarction due to thrombosis of carotid 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

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
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
I63.1	Cerebral infarction due to embolism of precerebral arteries	Diagnosis	ICD-10-CM
I63.10	Cerebral infarction due to embolism of unspecified precerebral artery	Diagnosis	ICD-10-CM
I63.11	Cerebral infarction due to embolism of vertebral 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
I63.13	Cerebral infarction due to embolism of carotid 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
I63.2	Cerebral infarction due to unspecified occlusion or stenosis of precerebral arteries	Diagnosis	ICD-10-CM
I63.20	Cerebral infarction due to unspecified occlusion or stenosis of unspecified precerebral arteries	Diagnosis	ICD-10-CM
I63.21	Cerebral infarction due to unspecified occlusion or stenosis of vertebral 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
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
I63.23	Cerebral infarction due to unspecified occlusion or stenosis of carotid arteries	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
I63.3	Cerebral infarction due to thrombosis of cerebral arteries	Diagnosis	ICD-10-CM
I63.30	Cerebral infarction due to thrombosis of unspecified cerebral artery	Diagnosis	ICD-10-CM
I63.31	Cerebral infarction due to thrombosis of middle 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

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
I63.319	Cerebral infarction due to thrombosis of unspecified middle cerebral artery	Diagnosis	ICD-10-CM
I63.32	Cerebral infarction due to thrombosis of anterior 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
I63.33	Cerebral infarction due to thrombosis of posterior 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
I63.34	Cerebral infarction due to thrombosis of cerebellar 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
I63.4	Cerebral infarction due to embolism of cerebral arteries	Diagnosis	ICD-10-CM
I63.40	Cerebral infarction due to embolism of unspecified cerebral artery	Diagnosis	ICD-10-CM
I63.41	Cerebral infarction due to embolism of middle 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
I63.42	Cerebral infarction due to embolism of anterior 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
I63.43	Cerebral infarction due to embolism of posterior 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
I63.44	Cerebral infarction due to embolism of cerebellar 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
I63.5	Cerebral infarction due to unspecified occlusion or stenosis of cerebral arteries	Diagnosis	ICD-10-CM
I63.50	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebral artery	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I63.51	Cerebral infarction due to unspecified occlusion or stenosis of middle 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
I63.52	Cerebral infarction due to unspecified occlusion or stenosis of anterior cerebral artery	Diagnosis	ICD-10-CM
I63.521	Cerebral infarction due to unspecified occlusion or stenosis of right anterior cerebral artery	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
I63.53	Cerebral infarction due to unspecified occlusion or stenosis of posterior 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
I63.54	Cerebral infarction due to unspecified occlusion or stenosis of cerebellar 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 artery	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

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I63.9	Cerebral infarction, unspecified	Diagnosis	ICD-10-CM
I65	Occlusion and stenosis of precerebral arteries, not resulting in cerebral infarction	Diagnosis	ICD-10-CM
I65.0	Occlusion and stenosis of vertebral artery	Diagnosis	ICD-10-CM
I65.01	Occlusion and stenosis of right vertebral artery	Diagnosis	ICD-10-CM
I65.02	Occlusion and stenosis of left vertebral artery	Diagnosis	ICD-10-CM
I65.03	Occlusion and stenosis of bilateral vertebral arteries	Diagnosis	ICD-10-CM
I65.09	Occlusion and stenosis of unspecified vertebral artery	Diagnosis	ICD-10-CM
I65.1	Occlusion and stenosis of basilar artery	Diagnosis	ICD-10-CM
I65.2	Occlusion and stenosis of carotid artery	Diagnosis	ICD-10-CM
I65.21	Occlusion and stenosis of right carotid artery	Diagnosis	ICD-10-CM
I65.22	Occlusion and stenosis of left carotid artery	Diagnosis	ICD-10-CM
I65.23	Occlusion and stenosis of bilateral carotid arteries	Diagnosis	ICD-10-CM
I65.29	Occlusion and stenosis of unspecified carotid artery	Diagnosis	ICD-10-CM
I65.8	Occlusion and stenosis of other precerebral arteries	Diagnosis	ICD-10-CM
I65.9	Occlusion and stenosis of unspecified precerebral artery	Diagnosis	ICD-10-CM
I66	Occlusion and stenosis of cerebral arteries, not resulting in cerebral infarction	Diagnosis	ICD-10-CM
I66.0	Occlusion and stenosis of middle cerebral artery	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
I66.1	Occlusion and stenosis of anterior 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
I66.2	Occlusion and stenosis of posterior 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
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	Other cerebrovascular diseases	Diagnosis	ICD-10-CM
I67.0	Dissection of cerebral arteries, nonruptured	Diagnosis	ICD-10-CM
I67.1	Cerebral aneurysm, nonruptured	Diagnosis	ICD-10-CM
I67.2	Cerebral atherosclerosis	Diagnosis	ICD-10-CM
I67.3	Progressive vascular leukoencephalopathy	Diagnosis	ICD-10-CM
I67.4	Hypertensive encephalopathy	Diagnosis	ICD-10-CM
I67.5	Moyamoya disease	Diagnosis	ICD-10-CM
I67.7	Cerebral arteritis, not elsewhere classified	Diagnosis	ICD-10-CM
I67.8	Other specified cerebrovascular diseases	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
I67.81	Acute cerebrovascular insufficiency	Diagnosis	ICD-10-CM
I67.82	Cerebral ischemia	Diagnosis	ICD-10-CM
I67.83	Posterior reversible encephalopathy syndrome	Diagnosis	ICD-10-CM
I67.84	Cerebral vasospasm and vasoconstriction	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
I67.85	Hereditary cerebrovascular diseases	Diagnosis	ICD-10-CM
I67.850	Cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy	Diagnosis	ICD-10-CM
I67.858	Other hereditary cerebrovascular disease	Diagnosis	ICD-10-CM
I67.89	Other cerebrovascular disease	Diagnosis	ICD-10-CM
I67.9	Cerebrovascular disease, unspecified	Diagnosis	ICD-10-CM
I68	Cerebrovascular disorders in diseases classified elsewhere	Diagnosis	ICD-10-CM
I68.0	Cerebral amyloid angiopathy	Diagnosis	ICD-10-CM
I68.2	Cerebral arteritis in other diseases classified elsewhere	Diagnosis	ICD-10-CM
I68.8	Other cerebrovascular disorders in diseases classified elsewhere	Diagnosis	ICD-10-CM
I69	Sequelae of cerebrovascular disease	Diagnosis	ICD-10-CM
I69.0	Sequelae of nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.00	Unspecified sequelae of nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.01	Cognitive deficits following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.010	Attention and concentration deficit following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.011	Memory deficit following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.012	Visuospatial deficit and spatial neglect following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.013	Psychomotor deficit following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.014	Frontal lobe and executive function deficit following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.015	Cognitive social or emotional deficit following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.018	Other symptoms and signs involving cognitive functions following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.019	Unspecified symptoms and signs involving cognitive functions following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.02	Speech and language deficits following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.020	Aphasia following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.021	Dysphasia following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.022	Dysarthria following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.023	Fluency disorder following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.028	Other speech and language deficits following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.03	Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I69.031	Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting right dominant side	Diagnosis	ICD-10-CM
I69.032	Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting left dominant side	Diagnosis	ICD-10-CM
I69.033	Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting right non-dominant side	Diagnosis	ICD-10-CM
I69.034	Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting left non-dominant side	Diagnosis	ICD-10-CM
I69.039	Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting unspecified side	Diagnosis	ICD-10-CM
I69.04	Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.041	Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting right dominant side	Diagnosis	ICD-10-CM
I69.042	Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting left dominant side	Diagnosis	ICD-10-CM
I69.043	Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting right non-dominant side	Diagnosis	ICD-10-CM
I69.044	Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting left non-dominant side	Diagnosis	ICD-10-CM
I69.049	Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting unspecified side	Diagnosis	ICD-10-CM
I69.05	Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.051	Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting right dominant side	Diagnosis	ICD-10-CM
I69.052	Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting left dominant side	Diagnosis	ICD-10-CM
I69.053	Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting right non-dominant side	Diagnosis	ICD-10-CM
I69.054	Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting left non-dominant side	Diagnosis	ICD-10-CM
I69.059	Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting unspecified side	Diagnosis	ICD-10-CM
I69.06	Other paralytic syndrome following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.061	Other paralytic syndrome following nontraumatic subarachnoid hemorrhage affecting right dominant side	Diagnosis	ICD-10-CM
I69.062	Other paralytic syndrome following nontraumatic subarachnoid hemorrhage affecting left dominant side	Diagnosis	ICD-10-CM
I69.063	Other paralytic syndrome following nontraumatic subarachnoid hemorrhage affecting right non-dominant side	Diagnosis	ICD-10-CM
I69.064	Other paralytic syndrome following nontraumatic subarachnoid hemorrhage affecting left non-dominant side	Diagnosis	ICD-10-CM
I69.065	Other paralytic syndrome following nontraumatic subarachnoid hemorrhage, bilateral	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I69.069	Other paralytic syndrome following nontraumatic subarachnoid hemorrhage affecting unspecified side	Diagnosis	ICD-10-CM
I69.09	Other sequelae of nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.090	Apraxia following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.091	Dysphagia following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.092	Facial weakness following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.093	Ataxia following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.098	Other sequelae following nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I69.1	Sequelae of nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.10	Unspecified sequelae of nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.11	Cognitive deficits following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.110	Attention and concentration deficit following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.111	Memory deficit following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.112	Visuospatial deficit and spatial neglect following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.113	Psychomotor deficit following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.114	Frontal lobe and executive function deficit following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.115	Cognitive social or emotional deficit following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.118	Other symptoms and signs involving cognitive functions following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.119	Unspecified symptoms and signs involving cognitive functions following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.12	Speech and language deficits following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.120	Aphasia following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.121	Dysphasia following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.122	Dysarthria following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.123	Fluency disorder following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.128	Other speech and language deficits following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.13	Monoplegia of upper limb following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.131	Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting right dominant side	Diagnosis	ICD-10-CM
I69.132	Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting left dominant side	Diagnosis	ICD-10-CM
I69.133	Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting right non-dominant side	Diagnosis	ICD-10-CM
I69.134	Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting left non-dominant side	Diagnosis	ICD-10-CM
I69.139	Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting unspecified side	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
I69.14	Monoplegia of lower limb following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.141	Monoplegia of lower limb following nontraumatic intracerebral hemorrhage affecting right dominant side	Diagnosis	ICD-10-CM
I69.142	Monoplegia of lower limb following nontraumatic intracerebral hemorrhage affecting left dominant side	Diagnosis	ICD-10-CM
I69.143	Monoplegia of lower limb following nontraumatic intracerebral hemorrhage affecting right non-dominant side	Diagnosis	ICD-10-CM
I69.144	Monoplegia of lower limb following nontraumatic intracerebral hemorrhage affecting left non-dominant side	Diagnosis	ICD-10-CM
I69.149	Monoplegia of lower limb following nontraumatic intracerebral hemorrhage affecting unspecified side	Diagnosis	ICD-10-CM
I69.15	Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.151	Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting right dominant side	Diagnosis	ICD-10-CM
I69.152	Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting left dominant side	Diagnosis	ICD-10-CM
I69.153	Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting right non-dominant side	Diagnosis	ICD-10-CM
I69.154	Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting left non-dominant side	Diagnosis	ICD-10-CM
I69.159	Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting unspecified side	Diagnosis	ICD-10-CM
I69.16	Other paralytic syndrome following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.161	Other paralytic syndrome following nontraumatic intracerebral hemorrhage affecting right dominant side	Diagnosis	ICD-10-CM
I69.162	Other paralytic syndrome following nontraumatic intracerebral hemorrhage affecting left dominant side	Diagnosis	ICD-10-CM
I69.163	Other paralytic syndrome following nontraumatic intracerebral hemorrhage affecting right non-dominant side	Diagnosis	ICD-10-CM
I69.164	Other paralytic syndrome following nontraumatic intracerebral hemorrhage affecting left non-dominant side	Diagnosis	ICD-10-CM
I69.165	Other paralytic syndrome following nontraumatic intracerebral hemorrhage, bilateral	Diagnosis	ICD-10-CM
I69.169	Other paralytic syndrome following nontraumatic intracerebral hemorrhage affecting unspecified side	Diagnosis	ICD-10-CM
I69.19	Other sequelae of nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.190	Apraxia following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.191	Dysphagia following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.192	Facial weakness following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.193	Ataxia following nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.198	Other sequelae of nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I69.2	Sequelae of other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.20	Unspecified sequelae of other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
I69.21	Cognitive deficits following other nontraumatic intracranial hemorrhage Attention and concentration deficit following other nontraumatic intracranial	Diagnosis	ICD-10-CM
I69.210	hemorrhage	Diagnosis	ICD-10-CM
I69.211	Memory deficit following other nontraumatic intracranial hemorrhage Visuospatial deficit and spatial neglect following other nontraumatic intracranial	Diagnosis	ICD-10-CM
I69.212	hemorrhage	Diagnosis	ICD-10-CM
I69.213	Psychomotor deficit following other nontraumatic intracranial hemorrhage Frontal lobe and executive function deficit following other nontraumatic intracranial	Diagnosis	ICD-10-CM
I69.214	hemorrhage Cognitive social or emotional deficit following other nontraumatic intracranial	Diagnosis	ICD-10-CM
I69.215	hemorrhage Other symptoms and signs involving cognitive functions following other nontraumatic	Diagnosis	ICD-10-CM
I69.218	intracranial hemorrhage Unspecified symptoms and signs involving cognitive functions following other	Diagnosis	ICD-10-CM
I69.219	nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.22	Speech and language deficits following other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.220	Aphasia following other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.221	Dysphasia following other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.222	Dysarthria following other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.223	Fluency disorder following other nontraumatic intracranial hemorrhage Other speech and language deficits following other nontraumatic intracranial	Diagnosis	ICD-10-CM
I69.228	hemorrhage	Diagnosis	ICD-10-CM
I69.23	Monoplegia of upper limb following other nontraumatic intracranial hemorrhage Monoplegia of upper limb following other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.231	affecting right dominant side Monoplegia of upper limb following other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.232	affecting left dominant side Monoplegia of upper limb following other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.233	affecting right non-dominant side Monoplegia of upper limb following other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.234	affecting left non-dominant side Monoplegia of upper limb following other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.239	affecting unspecified side	Diagnosis	ICD-10-CM
I69.24	Monoplegia of lower limb following other nontraumatic intracranial hemorrhage Monoplegia of lower limb following other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.241	affecting right dominant side Monoplegia of lower limb following other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.242	affecting left dominant side Monoplegia of lower limb following other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.243	affecting right non-dominant side Monoplegia of lower limb following other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.244	affecting left non-dominant side	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I69.249	Monoplegia of lower limb following other nontraumatic intracranial hemorrhage affecting unspecified side	Diagnosis	ICD-10-CM
I69.25	Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.251	Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting right dominant side	Diagnosis	ICD-10-CM
I69.252	Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting left dominant side	Diagnosis	ICD-10-CM
I69.253	Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting right non-dominant side	Diagnosis	ICD-10-CM
I69.254	Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting left non-dominant side	Diagnosis	ICD-10-CM
I69.259	Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting unspecified side	Diagnosis	ICD-10-CM
I69.26	Other paralytic syndrome following other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.261	Other paralytic syndrome following other nontraumatic intracranial hemorrhage affecting right dominant side	Diagnosis	ICD-10-CM
I69.262	Other paralytic syndrome following other nontraumatic intracranial hemorrhage affecting left dominant side	Diagnosis	ICD-10-CM
I69.263	Other paralytic syndrome following other nontraumatic intracranial hemorrhage affecting right non-dominant side	Diagnosis	ICD-10-CM
I69.264	Other paralytic syndrome following other nontraumatic intracranial hemorrhage affecting left non-dominant side	Diagnosis	ICD-10-CM
I69.265	Other paralytic syndrome following other nontraumatic intracranial hemorrhage, bilateral	Diagnosis	ICD-10-CM
I69.269	Other paralytic syndrome following other nontraumatic intracranial hemorrhage affecting unspecified side	Diagnosis	ICD-10-CM
I69.29	Other sequelae of other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.290	Apraxia following other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.291	Dysphagia following other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.292	Facial weakness following other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.293	Ataxia following other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.298	Other sequelae of other nontraumatic intracranial hemorrhage	Diagnosis	ICD-10-CM
I69.8	Sequelae of other cerebrovascular diseases	Diagnosis	ICD-10-CM
I69.80	Unspecified sequelae of other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.81	Cognitive deficits following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.810	Attention and concentration deficit following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.811	Memory deficit following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.812	Visuospatial deficit and spatial neglect following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.813	Psychomotor deficit following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.814	Frontal lobe and executive function deficit following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.815	Cognitive social or emotional deficit following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.818	Other symptoms and signs involving cognitive functions following other cerebrovascular disease	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I69.819	Unspecified symptoms and signs involving cognitive functions following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.82	Speech and language deficits following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.820	Aphasia following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.821	Dysphasia following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.822	Dysarthria following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.823	Fluency disorder following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.828	Other speech and language deficits following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.83	Monoplegia of upper limb following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.831	Monoplegia of upper limb following other cerebrovascular disease affecting right dominant side	Diagnosis	ICD-10-CM
I69.832	Monoplegia of upper limb following other cerebrovascular disease affecting left dominant side	Diagnosis	ICD-10-CM
I69.833	Monoplegia of upper limb following other cerebrovascular disease affecting right non-dominant side	Diagnosis	ICD-10-CM
I69.834	Monoplegia of upper limb following other cerebrovascular disease affecting left non-dominant side	Diagnosis	ICD-10-CM
I69.839	Monoplegia of upper limb following other cerebrovascular disease affecting unspecified side	Diagnosis	ICD-10-CM
I69.84	Monoplegia of lower limb following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.841	Monoplegia of lower limb following other cerebrovascular disease affecting right dominant side	Diagnosis	ICD-10-CM
I69.842	Monoplegia of lower limb following other cerebrovascular disease affecting left dominant side	Diagnosis	ICD-10-CM
I69.843	Monoplegia of lower limb following other cerebrovascular disease affecting right non-dominant side	Diagnosis	ICD-10-CM
I69.844	Monoplegia of lower limb following other cerebrovascular disease affecting left non-dominant side	Diagnosis	ICD-10-CM
I69.849	Monoplegia of lower limb following other cerebrovascular disease affecting unspecified side	Diagnosis	ICD-10-CM
I69.85	Hemiplegia and hemiparesis following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.851	Hemiplegia and hemiparesis following other cerebrovascular disease affecting right dominant side	Diagnosis	ICD-10-CM
I69.852	Hemiplegia and hemiparesis following other cerebrovascular disease affecting left dominant side	Diagnosis	ICD-10-CM
I69.853	Hemiplegia and hemiparesis following other cerebrovascular disease affecting right non-dominant side	Diagnosis	ICD-10-CM
I69.854	Hemiplegia and hemiparesis following other cerebrovascular disease affecting left non-dominant side	Diagnosis	ICD-10-CM
I69.859	Hemiplegia and hemiparesis following other cerebrovascular disease affecting unspecified side	Diagnosis	ICD-10-CM
I69.86	Other paralytic syndrome following other cerebrovascular disease	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I69.861	Other paralytic syndrome following other cerebrovascular disease affecting right dominant side	Diagnosis	ICD-10-CM
I69.862	Other paralytic syndrome following other cerebrovascular disease affecting left dominant side	Diagnosis	ICD-10-CM
I69.863	Other paralytic syndrome following other cerebrovascular disease affecting right non-dominant side	Diagnosis	ICD-10-CM
I69.864	Other paralytic syndrome following other cerebrovascular disease affecting left non-dominant side	Diagnosis	ICD-10-CM
I69.865	Other paralytic syndrome following other cerebrovascular disease, bilateral	Diagnosis	ICD-10-CM
I69.869	Other paralytic syndrome following other cerebrovascular disease affecting unspecified side	Diagnosis	ICD-10-CM
I69.89	Other sequelae of other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.890	Apraxia following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.891	Dysphagia following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.892	Facial weakness following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.893	Ataxia following other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.898	Other sequelae of other cerebrovascular disease	Diagnosis	ICD-10-CM
I69.9	Sequelae of unspecified cerebrovascular diseases	Diagnosis	ICD-10-CM
I69.90	Unspecified sequelae of unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.91	Cognitive deficits following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.910	Attention and concentration deficit following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.911	Memory deficit following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.912	Visuospatial deficit and spatial neglect following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.913	Psychomotor deficit following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.914	Frontal lobe and executive function deficit following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.915	Cognitive social or emotional deficit following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.918	Other symptoms and signs involving cognitive functions following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.919	Unspecified symptoms and signs involving cognitive functions following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.92	Speech and language deficits following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.920	Aphasia following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.921	Dysphasia following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.922	Dysarthria following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.923	Fluency disorder following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.928	Other speech and language deficits following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.93	Monoplegia of upper limb following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.931	Monoplegia of upper limb following unspecified cerebrovascular disease affecting right dominant side	Diagnosis	ICD-10-CM
I69.932	Monoplegia of upper limb following unspecified cerebrovascular disease affecting left dominant side	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I69.933	Monoplegia of upper limb following unspecified cerebrovascular disease affecting right non-dominant side	Diagnosis	ICD-10-CM
I69.934	Monoplegia of upper limb following unspecified cerebrovascular disease affecting left non-dominant side	Diagnosis	ICD-10-CM
I69.939	Monoplegia of upper limb following unspecified cerebrovascular disease affecting unspecified side	Diagnosis	ICD-10-CM
I69.94	Monoplegia of lower limb following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.941	Monoplegia of lower limb following unspecified cerebrovascular disease affecting right dominant side	Diagnosis	ICD-10-CM
I69.942	Monoplegia of lower limb following unspecified cerebrovascular disease affecting left dominant side	Diagnosis	ICD-10-CM
I69.943	Monoplegia of lower limb following unspecified cerebrovascular disease affecting right non-dominant side	Diagnosis	ICD-10-CM
I69.944	Monoplegia of lower limb following unspecified cerebrovascular disease affecting left non-dominant side	Diagnosis	ICD-10-CM
I69.949	Monoplegia of lower limb following unspecified cerebrovascular disease affecting unspecified side	Diagnosis	ICD-10-CM
I69.95	Hemiplegia and hemiparesis following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.951	Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting right dominant side	Diagnosis	ICD-10-CM
I69.952	Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting left dominant side	Diagnosis	ICD-10-CM
I69.953	Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting right non-dominant side	Diagnosis	ICD-10-CM
I69.954	Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting left non-dominant side	Diagnosis	ICD-10-CM
I69.959	Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting unspecified side	Diagnosis	ICD-10-CM
I69.96	Other paralytic syndrome following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.961	Other paralytic syndrome following unspecified cerebrovascular disease affecting right dominant side	Diagnosis	ICD-10-CM
I69.962	Other paralytic syndrome following unspecified cerebrovascular disease affecting left dominant side	Diagnosis	ICD-10-CM
I69.963	Other paralytic syndrome following unspecified cerebrovascular disease affecting right non-dominant side	Diagnosis	ICD-10-CM
I69.964	Other paralytic syndrome following unspecified cerebrovascular disease affecting left non-dominant side	Diagnosis	ICD-10-CM
I69.965	Other paralytic syndrome following unspecified cerebrovascular disease, bilateral	Diagnosis	ICD-10-CM
I69.969	Other paralytic syndrome following unspecified cerebrovascular disease affecting unspecified side	Diagnosis	ICD-10-CM
I69.99	Other sequelae of unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.990	Apraxia following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.991	Dysphagia following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
I69.992	Facial weakness following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.993	Ataxia following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I69.998	Other sequelae following unspecified cerebrovascular disease	Diagnosis	ICD-10-CM
I70.2	Atherosclerosis of native arteries of the extremities	Diagnosis	ICD-10-CM
I70.20	Unspecified atherosclerosis of native arteries of extremities	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
I70.21	Atherosclerosis of native arteries of extremities with intermittent claudication	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
I70.22	Atherosclerosis of native arteries of extremities with rest pain	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
I70.23	Atherosclerosis of native arteries of right leg with ulceration	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
I70.24	Atherosclerosis of native arteries of left leg with ulceration	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

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
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
I70.26	Atherosclerosis of native arteries of extremities with gangrene	Diagnosis	ICD-10-CM
I70.261	Atherosclerosis of native arteries of extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.262	Atherosclerosis of native arteries of extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.263	Atherosclerosis of native arteries of extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM
I70.268	Atherosclerosis of native arteries of extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.269	Atherosclerosis of native arteries of extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I70.29	Other atherosclerosis of native arteries of extremities	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
I70.3	Atherosclerosis of unspecified type of bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.30	Unspecified atherosclerosis of unspecified type of bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.301	Unspecified atherosclerosis of unspecified type of bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM
I70.302	Unspecified atherosclerosis of unspecified type of bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.303	Unspecified atherosclerosis of unspecified type of bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.308	Unspecified atherosclerosis of unspecified type of bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.309	Unspecified atherosclerosis of unspecified type of bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.31	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with intermittent claudication	Diagnosis	ICD-10-CM
I70.311	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with intermittent claudication, right leg	Diagnosis	ICD-10-CM
I70.312	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with intermittent claudication, left leg	Diagnosis	ICD-10-CM
I70.313	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with intermittent claudication, bilateral legs	Diagnosis	ICD-10-CM
I70.318	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with intermittent claudication, other extremity	Diagnosis	ICD-10-CM
I70.319	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with intermittent claudication, unspecified extremity	Diagnosis	ICD-10-CM
I70.32	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain	Diagnosis	ICD-10-CM
I70.321	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain, right leg	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I70.322	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain, left leg	Diagnosis	ICD-10-CM
I70.323	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain, bilateral legs	Diagnosis	ICD-10-CM
I70.328	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain, other extremity	Diagnosis	ICD-10-CM
I70.329	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain, unspecified extremity	Diagnosis	ICD-10-CM
I70.33	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration	Diagnosis	ICD-10-CM
I70.331	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.332	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.333	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.334	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.335	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.338	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.339	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.34	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration	Diagnosis	ICD-10-CM
I70.341	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.342	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.343	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.344	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.345	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.348	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.349	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.35	Atherosclerosis of unspecified type of bypass graft(s) of other extremity with ulceration	Diagnosis	ICD-10-CM
I70.36	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I70.361	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.362	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.363	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM
I70.368	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.369	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I70.39	Other atherosclerosis of unspecified type of bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.391	Other atherosclerosis of unspecified type of bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM
I70.392	Other atherosclerosis of unspecified type of bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.393	Other atherosclerosis of unspecified type of bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.398	Other atherosclerosis of unspecified type of bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.399	Other atherosclerosis of unspecified type of bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.4	Atherosclerosis of autologous vein bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.40	Unspecified atherosclerosis of autologous vein bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.401	Unspecified atherosclerosis of autologous vein bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM
I70.402	Unspecified atherosclerosis of autologous vein bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.403	Unspecified atherosclerosis of autologous vein bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.408	Unspecified atherosclerosis of autologous vein bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.409	Unspecified atherosclerosis of autologous vein bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.41	Atherosclerosis of autologous vein bypass graft(s) of the extremities with intermittent claudication	Diagnosis	ICD-10-CM
I70.411	Atherosclerosis of autologous vein bypass graft(s) of the extremities with intermittent claudication, right leg	Diagnosis	ICD-10-CM
I70.412	Atherosclerosis of autologous vein bypass graft(s) of the extremities with intermittent claudication, left leg	Diagnosis	ICD-10-CM
I70.413	Atherosclerosis of autologous vein bypass graft(s) of the extremities with intermittent claudication, bilateral legs	Diagnosis	ICD-10-CM
I70.418	Atherosclerosis of autologous vein bypass graft(s) of the extremities with intermittent claudication, other extremity	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I70.419	Atherosclerosis of autologous vein bypass graft(s) of the extremities with intermittent claudication, unspecified extremity	Diagnosis	ICD-10-CM
I70.42	Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain	Diagnosis	ICD-10-CM
I70.421	Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain, right leg	Diagnosis	ICD-10-CM
I70.422	Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain, left leg	Diagnosis	ICD-10-CM
I70.423	Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain, bilateral legs	Diagnosis	ICD-10-CM
I70.428	Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain, other extremity	Diagnosis	ICD-10-CM
I70.429	Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain, unspecified extremity	Diagnosis	ICD-10-CM
I70.43	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration	Diagnosis	ICD-10-CM
I70.431	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.432	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.433	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.434	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.435	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.438	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.439	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.44	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration	Diagnosis	ICD-10-CM
I70.441	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.442	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.443	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.444	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.445	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.448	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.449	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of unspecified site	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
I70.45	Atherosclerosis of autologous vein bypass graft(s) of other extremity with ulceration	Diagnosis	ICD-10-CM
I70.46	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene	Diagnosis	ICD-10-CM
I70.461	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.462	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.463	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM
I70.468	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.469	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I70.49	Other atherosclerosis of autologous vein bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.491	Other atherosclerosis of autologous vein bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM
I70.492	Other atherosclerosis of autologous vein bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.493	Other atherosclerosis of autologous vein bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.498	Other atherosclerosis of autologous vein bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.499	Other atherosclerosis of autologous vein bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.5	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.50	Unspecified atherosclerosis of nonautologous biological bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.501	Unspecified atherosclerosis of nonautologous biological bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM
I70.502	Unspecified atherosclerosis of nonautologous biological bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.503	Unspecified atherosclerosis of nonautologous biological bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.508	Unspecified atherosclerosis of nonautologous biological bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.509	Unspecified atherosclerosis of nonautologous biological bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.51	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with intermittent claudication	Diagnosis	ICD-10-CM
I70.511	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with intermittent claudication, right leg	Diagnosis	ICD-10-CM
I70.512	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with intermittent claudication, left leg	Diagnosis	ICD-10-CM
I70.513	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with intermittent claudication, bilateral legs	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I70.518	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with intermittent claudication, other extremity	Diagnosis	ICD-10-CM
I70.519	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with intermittent claudication, unspecified extremity	Diagnosis	ICD-10-CM
I70.52	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain	Diagnosis	ICD-10-CM
I70.521	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, right leg	Diagnosis	ICD-10-CM
I70.522	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, left leg	Diagnosis	ICD-10-CM
I70.523	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, bilateral legs	Diagnosis	ICD-10-CM
I70.528	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, other extremity	Diagnosis	ICD-10-CM
I70.529	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, unspecified extremity	Diagnosis	ICD-10-CM
I70.53	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration	Diagnosis	ICD-10-CM
I70.531	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.532	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.533	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.534	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.535	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.538	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.539	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.54	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration	Diagnosis	ICD-10-CM
I70.541	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.542	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.543	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.544	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I70.545	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.548	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.549	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.55	Atherosclerosis of nonautologous biological bypass graft(s) of other extremity with ulceration	Diagnosis	ICD-10-CM
I70.56	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene	Diagnosis	ICD-10-CM
I70.561	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.562	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.563	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM
I70.568	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.569	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I70.59	Other atherosclerosis of nonautologous biological bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.591	Other atherosclerosis of nonautologous biological bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM
I70.592	Other atherosclerosis of nonautologous biological bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.593	Other atherosclerosis of nonautologous biological bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.598	Other atherosclerosis of nonautologous biological bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.599	Other atherosclerosis of nonautologous biological bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.6	Atherosclerosis of nonbiological bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.60	Unspecified atherosclerosis of nonbiological bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.601	Unspecified atherosclerosis of nonbiological bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM
I70.602	Unspecified atherosclerosis of nonbiological bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.603	Unspecified atherosclerosis of nonbiological bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.608	Unspecified atherosclerosis of nonbiological bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.609	Unspecified atherosclerosis of nonbiological bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I70.61	Atherosclerosis of nonbiological bypass graft(s) of the extremities with intermittent claudication	Diagnosis	ICD-10-CM
I70.611	Atherosclerosis of nonbiological bypass graft(s) of the extremities with intermittent claudication, right leg	Diagnosis	ICD-10-CM
I70.612	Atherosclerosis of nonbiological bypass graft(s) of the extremities with intermittent claudication, left leg	Diagnosis	ICD-10-CM
I70.613	Atherosclerosis of nonbiological bypass graft(s) of the extremities with intermittent claudication, bilateral legs	Diagnosis	ICD-10-CM
I70.618	Atherosclerosis of nonbiological bypass graft(s) of the extremities with intermittent claudication, other extremity	Diagnosis	ICD-10-CM
I70.619	Atherosclerosis of nonbiological bypass graft(s) of the extremities with intermittent claudication, unspecified extremity	Diagnosis	ICD-10-CM
I70.62	Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain	Diagnosis	ICD-10-CM
I70.621	Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, right leg	Diagnosis	ICD-10-CM
I70.622	Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, left leg	Diagnosis	ICD-10-CM
I70.623	Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, bilateral legs	Diagnosis	ICD-10-CM
I70.628	Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, other extremity	Diagnosis	ICD-10-CM
I70.629	Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, unspecified extremity	Diagnosis	ICD-10-CM
I70.63	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration	Diagnosis	ICD-10-CM
I70.631	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.632	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.633	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.634	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.635	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.638	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.639	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.64	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration	Diagnosis	ICD-10-CM
I70.641	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.642	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of calf	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I70.643	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.644	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.645	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.648	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.649	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.65	Atherosclerosis of nonbiological bypass graft(s) of other extremity with ulceration	Diagnosis	ICD-10-CM
I70.66	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene	Diagnosis	ICD-10-CM
I70.661	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.662	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.663	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM
I70.668	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.669	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I70.69	Other atherosclerosis of nonbiological bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.691	Other atherosclerosis of nonbiological bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM
I70.692	Other atherosclerosis of nonbiological bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.693	Other atherosclerosis of nonbiological bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.698	Other atherosclerosis of nonbiological bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.699	Other atherosclerosis of nonbiological bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.7	Atherosclerosis of other type of bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.70	Unspecified atherosclerosis of other type of bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.701	Unspecified atherosclerosis of other type of bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM
I70.702	Unspecified atherosclerosis of other type of bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.703	Unspecified atherosclerosis of other type of bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.708	Unspecified atherosclerosis of other type of bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.709	Unspecified atherosclerosis of other type of bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I70.71	Atherosclerosis of other type of bypass graft(s) of the extremities with intermittent claudication	Diagnosis	ICD-10-CM
I70.711	Atherosclerosis of other type of bypass graft(s) of the extremities with intermittent claudication, right leg	Diagnosis	ICD-10-CM
I70.712	Atherosclerosis of other type of bypass graft(s) of the extremities with intermittent claudication, left leg	Diagnosis	ICD-10-CM
I70.713	Atherosclerosis of other type of bypass graft(s) of the extremities with intermittent claudication, bilateral legs	Diagnosis	ICD-10-CM
I70.718	Atherosclerosis of other type of bypass graft(s) of the extremities with intermittent claudication, other extremity	Diagnosis	ICD-10-CM
I70.719	Atherosclerosis of other type of bypass graft(s) of the extremities with intermittent claudication, unspecified extremity	Diagnosis	ICD-10-CM
I70.72	Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain	Diagnosis	ICD-10-CM
I70.721	Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain, right leg	Diagnosis	ICD-10-CM
I70.722	Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain, left leg	Diagnosis	ICD-10-CM
I70.723	Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain, bilateral legs	Diagnosis	ICD-10-CM
I70.728	Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain, other extremity	Diagnosis	ICD-10-CM
I70.729	Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain, unspecified extremity	Diagnosis	ICD-10-CM
I70.73	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration	Diagnosis	ICD-10-CM
I70.731	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.732	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.733	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.734	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.735	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.738	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.739	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.74	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration	Diagnosis	ICD-10-CM
I70.741	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.742	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.743	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.744	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I70.745	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.748	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.749	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.75	Atherosclerosis of other type of bypass graft(s) of other extremity with ulceration	Diagnosis	ICD-10-CM
I70.76	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene	Diagnosis	ICD-10-CM
I70.761	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.762	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.763	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM
I70.768	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.769	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I70.79	Other atherosclerosis of other type of bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.791	Other atherosclerosis of other type of bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM
I70.792	Other atherosclerosis of other type of bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.793	Other atherosclerosis of other type of bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.798	Other atherosclerosis of other type of bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.799	Other atherosclerosis of other type of bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.92	Chronic total occlusion of artery of the extremities	Diagnosis	ICD-10-CM
I73	Other peripheral vascular diseases	Diagnosis	ICD-10-CM
I73.8	Other specified peripheral vascular diseases	Diagnosis	ICD-10-CM
I73.89	Other specified peripheral vascular diseases	Diagnosis	ICD-10-CM
I73.9	Peripheral vascular disease, unspecified	Diagnosis	ICD-10-CM
I74	Arterial embolism and thrombosis	Diagnosis	ICD-10-CM
I74.0	Embolism and thrombosis of abdominal aorta	Diagnosis	ICD-10-CM
I74.01	Saddle embolus of abdominal aorta	Diagnosis	ICD-10-CM
I74.09	Other arterial embolism and thrombosis of abdominal aorta	Diagnosis	ICD-10-CM
I74.1	Embolism and thrombosis of other and unspecified parts of aorta	Diagnosis	ICD-10-CM
I74.10	Embolism and thrombosis of unspecified parts of aorta	Diagnosis	ICD-10-CM
I74.11	Embolism and thrombosis of thoracic aorta	Diagnosis	ICD-10-CM
I74.19	Embolism and thrombosis of other parts of aorta	Diagnosis	ICD-10-CM
I74.2	Embolism and thrombosis of arteries of the upper extremities	Diagnosis	ICD-10-CM
I74.3	Embolism and thrombosis of arteries of the lower extremities	Diagnosis	ICD-10-CM
I74.4	Embolism and thrombosis of arteries of extremities, unspecified	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
I74.5	Embolism and thrombosis of iliac artery	Diagnosis	ICD-10-CM
I74.8	Embolism and thrombosis of other arteries	Diagnosis	ICD-10-CM
I74.9	Embolism and thrombosis of unspecified artery	Diagnosis	ICD-10-CM
I75	Atheroembolism	Diagnosis	ICD-10-CM
I75.0	Atheroembolism of extremities	Diagnosis	ICD-10-CM
I75.01	Atheroembolism of upper extremity	Diagnosis	ICD-10-CM
I75.011	Atheroembolism of right upper extremity	Diagnosis	ICD-10-CM
I75.012	Atheroembolism of left upper extremity	Diagnosis	ICD-10-CM
I75.013	Atheroembolism of bilateral upper extremities	Diagnosis	ICD-10-CM
I75.019	Atheroembolism of unspecified upper extremity	Diagnosis	ICD-10-CM
I75.02	Atheroembolism of lower extremity	Diagnosis	ICD-10-CM
I75.021	Atheroembolism of right lower extremity	Diagnosis	ICD-10-CM
I75.022	Atheroembolism of left lower extremity	Diagnosis	ICD-10-CM
I75.023	Atheroembolism of bilateral lower extremities	Diagnosis	ICD-10-CM
I75.029	Atheroembolism of unspecified lower extremity	Diagnosis	ICD-10-CM
I75.8	Atheroembolism of other sites	Diagnosis	ICD-10-CM
I75.81	Atheroembolism of kidney	Diagnosis	ICD-10-CM
I75.89	Atheroembolism of other site	Diagnosis	ICD-10-CM
M62.2	Nontraumatic ischemic infarction of muscle	Diagnosis	ICD-10-CM
M62.20	Nontraumatic ischemic infarction of muscle, unspecified site	Diagnosis	ICD-10-CM
M62.21	Nontraumatic ischemic infarction of muscle, shoulder	Diagnosis	ICD-10-CM
M62.211	Nontraumatic ischemic infarction of muscle, right shoulder	Diagnosis	ICD-10-CM
M62.212	Nontraumatic ischemic infarction of muscle, left shoulder	Diagnosis	ICD-10-CM
M62.219	Nontraumatic ischemic infarction of muscle, unspecified shoulder	Diagnosis	ICD-10-CM
M62.22	Nontraumatic ischemic infarction of muscle, upper arm	Diagnosis	ICD-10-CM
M62.221	Nontraumatic ischemic infarction of muscle, right upper arm	Diagnosis	ICD-10-CM
M62.222	Nontraumatic ischemic infarction of muscle, left upper arm	Diagnosis	ICD-10-CM
M62.229	Nontraumatic ischemic infarction of muscle, unspecified upper arm	Diagnosis	ICD-10-CM
M62.23	Nontraumatic ischemic infarction of muscle, forearm	Diagnosis	ICD-10-CM
M62.231	Nontraumatic ischemic infarction of muscle, right forearm	Diagnosis	ICD-10-CM
M62.232	Nontraumatic ischemic infarction of muscle, left forearm	Diagnosis	ICD-10-CM
M62.239	Nontraumatic ischemic infarction of muscle, unspecified forearm	Diagnosis	ICD-10-CM
M62.24	Nontraumatic ischemic infarction of muscle, hand	Diagnosis	ICD-10-CM
M62.241	Nontraumatic ischemic infarction of muscle, right hand	Diagnosis	ICD-10-CM
M62.242	Nontraumatic ischemic infarction of muscle, left hand	Diagnosis	ICD-10-CM
M62.249	Nontraumatic ischemic infarction of muscle, unspecified hand	Diagnosis	ICD-10-CM
M62.25	Nontraumatic ischemic infarction of muscle, thigh	Diagnosis	ICD-10-CM
M62.251	Nontraumatic ischemic infarction of muscle, right thigh	Diagnosis	ICD-10-CM
M62.252	Nontraumatic ischemic infarction of muscle, left thigh	Diagnosis	ICD-10-CM
M62.259	Nontraumatic ischemic infarction of muscle, unspecified thigh	Diagnosis	ICD-10-CM
M62.26	Nontraumatic ischemic infarction of muscle, lower leg	Diagnosis	ICD-10-CM
M62.261	Nontraumatic ischemic infarction of muscle, right lower leg	Diagnosis	ICD-10-CM
M62.262	Nontraumatic ischemic infarction of muscle, left lower leg	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
M62.269	Nontraumatic ischemic infarction of muscle, unspecified lower leg	Diagnosis	ICD-10-CM
M62.27	Nontraumatic ischemic infarction of muscle, ankle and foot	Diagnosis	ICD-10-CM
M62.271	Nontraumatic ischemic infarction of muscle, right ankle and foot	Diagnosis	ICD-10-CM
M62.272	Nontraumatic ischemic infarction of muscle, left ankle and foot	Diagnosis	ICD-10-CM
M62.279	Nontraumatic ischemic infarction of muscle, unspecified ankle and foot	Diagnosis	ICD-10-CM
M62.28	Nontraumatic ischemic infarction of muscle, other site	Diagnosis	ICD-10-CM
Q28.0	Arteriovenous malformation of precerebral vessels	Diagnosis	ICD-10-CM
Q28.2	Arteriovenous malformation of cerebral vessels	Diagnosis	ICD-10-CM
S2205	Minimally invasive direct coronary artery bypass surgery involving mini-thoracotomy or mini-sternotomy surgery, performed under direct vision; using arterial graft(s), single coronary arterial graft	Procedure	HCPCS
S2206	Minimally invasive direct coronary artery bypass surgery involving mini-thoracotomy or mini-sternotomy surgery, performed under direct vision; using arterial graft(s), 2 coronary arterial grafts	Procedure	HCPCS
S2207	Minimally invasive direct coronary artery bypass surgery involving mini-thoracotomy or mini-sternotomy surgery, performed under direct vision; using venous graft only, single coronary venous graft	Procedure	HCPCS
S2208	Minimally invasive direct coronary artery bypass surgery involving mini-thoracotomy or mini-sternotomy surgery, performed under direct vision; using single arterial and venous graft(s), single venous graft	Procedure	HCPCS
S2209	Minimally invasive direct coronary artery bypass surgery involving mini-thoracotomy or mini-sternotomy surgery, performed under direct vision; using 2 arterial grafts and single venous graft	Procedure	HCPCS
T81.718A	Complication of other artery following a procedure, not elsewhere classified, initial encounter	Diagnosis	ICD-10-CM
T82.817A	Embolism due to cardiac prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
V45.81	Postprocedural aortocoronary bypass status	Diagnosis	ICD-9-CM
V45.82	Postprocedural percutaneous transluminal coronary angioplasty status	Diagnosis	ICD-9-CM
X2C0361	Extirpation of Matter from Coronary Artery, One Artery using Orbital Atherectomy Technology, Percutaneous Approach, New Technology Group 1	Procedure	ICD-10-PCS
X2C1361	Extirpation of Matter from Coronary Artery, Two Arteries using Orbital Atherectomy Technology, Percutaneous Approach, New Technology Group 1	Procedure	ICD-10-PCS
X2C2361	Extirpation of Matter from Coronary Artery, Three Arteries using Orbital Atherectomy Technology, Percutaneous Approach, New Technology Group 1	Procedure	ICD-10-PCS
X2C3361	Extirpation of Matter from Coronary Artery, Four or More Arteries using Orbital Atherectomy Technology, Percutaneous Approach, New Technology Group 1	Procedure	ICD-10-PCS
Z95.1	Presence of aortocoronary bypass graft	Diagnosis	ICD-10-CM
Z95.5	Presence of coronary angioplasty implant and graft	Diagnosis	ICD-10-CM
Cognitive Impairment			
290.0	Senile dementia, uncomplicated	Diagnosis	ICD-9-CM
290.10	Presenile dementia, uncomplicated	Diagnosis	ICD-9-CM
290.11	Presenile dementia with delirium	Diagnosis	ICD-9-CM
290.12	Presenile dementia with delusional features	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
290.13	Presenile dementia with depressive features	Diagnosis	ICD-9-CM
290.20	Senile dementia with delusional features	Diagnosis	ICD-9-CM
290.21	Senile dementia with depressive features	Diagnosis	ICD-9-CM
290.3	Senile dementia with delirium	Diagnosis	ICD-9-CM
290.40	Vascular dementia, uncomplicated	Diagnosis	ICD-9-CM
290.41	Vascular dementia, with delirium	Diagnosis	ICD-9-CM
290.42	Vascular dementia, with delusions	Diagnosis	ICD-9-CM
290.43	Vascular dementia, with depressed mood	Diagnosis	ICD-9-CM
294.0	Amnestic disorder in conditions classified elsewhere	Diagnosis	ICD-9-CM
294.10	Dementia in conditions classified elsewhere without behavioral disturbance	Diagnosis	ICD-9-CM
294.11	Dementia in conditions classified elsewhere with behavioral disturbance	Diagnosis	ICD-9-CM
294.20	Dementia, unspecified, without behavioral disturbance	Diagnosis	ICD-9-CM
294.21	Dementia, unspecified, with behavioral disturbance	Diagnosis	ICD-9-CM
294.8	Other persistent mental disorders due to conditions classified elsewhere	Diagnosis	ICD-9-CM
331.0	Alzheimer's disease	Diagnosis	ICD-9-CM
331.11	Pick's disease	Diagnosis	ICD-9-CM
331.19	Other frontotemporal dementia	Diagnosis	ICD-9-CM
331.2	Senile degeneration of brain	Diagnosis	ICD-9-CM
331.7	Cerebral degeneration in diseases classified elsewhere	Diagnosis	ICD-9-CM
797	Senility without mention of psychosis	Diagnosis	ICD-9-CM
F01.50	Vascular dementia, unspecified severity, without behavioral disturbance, psychotic disturbance, mood disturbance, and anxiety	Diagnosis	ICD-10-CM
F01.51	Vascular dementia, unspecified severity, with behavioral disturbance	Diagnosis	ICD-10-CM
F02.80	Dementia in other diseases classified elsewhere, unspecified severity, without behavioral disturbance, psychotic disturbance, mood disturbance, and anxiety	Diagnosis	ICD-10-CM
F02.81	Dementia in other diseases classified elsewhere, unspecified severity, with behavioral disturbance	Diagnosis	ICD-10-CM
F03.90	Unspecified dementia, unspecified severity, without behavioral disturbance, psychotic disturbance, mood disturbance, and anxiety	Diagnosis	ICD-10-CM
F03.91	Unspecified dementia, unspecified severity, with behavioral disturbance	Diagnosis	ICD-10-CM
F04	Amnestic disorder due to known physiological condition	Diagnosis	ICD-10-CM
F05	Delirium due to known physiological condition	Diagnosis	ICD-10-CM
F06.1	Catatonic disorder due to known physiological condition	Diagnosis	ICD-10-CM
F06.8	Other specified mental disorders due to known physiological condition	Diagnosis	ICD-10-CM
G13.8	Systemic atrophy primarily affecting central nervous system in other diseases classified elsewhere	Diagnosis	ICD-10-CM
G30.0	Alzheimer's disease with early onset	Diagnosis	ICD-10-CM
G30.1	Alzheimer's disease with late onset	Diagnosis	ICD-10-CM
G30.8	Other Alzheimer's disease	Diagnosis	ICD-10-CM
G30.9	Alzheimer's disease, unspecified	Diagnosis	ICD-10-CM
G31.01	Pick's disease	Diagnosis	ICD-10-CM
G31.09	Other frontotemporal neurocognitive disorder	Diagnosis	ICD-10-CM
G31.1	Senile degeneration of brain, not elsewhere classified	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
G31.2	Degeneration of nervous system due to alcohol	Diagnosis	ICD-10-CM
G94	Other disorders of brain in diseases classified elsewhere	Diagnosis	ICD-10-CM
R41.81	Age-related cognitive decline	Diagnosis	ICD-10-CM
R54	Age-related physical debility	Diagnosis	ICD-10-CM
Traumatic Brain Injury			
310	Specific nonpsychotic mental disorders due to brain damage	Diagnosis	ICD-9-CM
310.0	Frontal lobe syndrome	Diagnosis	ICD-9-CM
310.1	Personality change due to conditions classified elsewhere	Diagnosis	ICD-9-CM
310.2	Postconcussion syndrome	Diagnosis	ICD-9-CM
310.8	Other specified nonpsychotic mental disorder following organic brain damage	Diagnosis	ICD-9-CM
310.81	Pseudobulbar affect	Diagnosis	ICD-9-CM
310.89	Other specified nonpsychotic mental disorders following organic brain damage	Diagnosis	ICD-9-CM
907	Late effects of injuries to the nervous system	Diagnosis	ICD-9-CM
907.0	Late effect of intracranial injury without mention of skull fracture	Diagnosis	ICD-9-CM
907.1	Late effect of injury to cranial nerve	Diagnosis	ICD-9-CM
F07.0	Personality change due to known physiological condition	Diagnosis	ICD-10-CM
F07.81	Postconcussional syndrome	Diagnosis	ICD-10-CM
F07.89	Other personality and behavioral disorders due to known physiological condition	Diagnosis	ICD-10-CM
F48.2	Pseudobulbar affect	Diagnosis	ICD-10-CM
S04.011S	Injury of optic nerve, right eye, sequela	Diagnosis	ICD-10-CM
S04.012S	Injury of optic nerve, left eye, sequela	Diagnosis	ICD-10-CM
S04.019S	Injury of optic nerve, unspecified eye, sequela	Diagnosis	ICD-10-CM
S04.02XS	Injury of optic chiasm, sequela	Diagnosis	ICD-10-CM
S04.031S	Injury of optic tract and pathways, right side, sequela	Diagnosis	ICD-10-CM
S04.032S	Injury of optic tract and pathways, left side, sequela	Diagnosis	ICD-10-CM
S04.039S	Injury of optic tract and pathways, unspecified side, sequela	Diagnosis	ICD-10-CM
S04.041S	Injury of visual cortex, right side, sequela	Diagnosis	ICD-10-CM
S04.042S	Injury of visual cortex, left side, sequela	Diagnosis	ICD-10-CM
S04.049S	Injury of visual cortex, unspecified side, sequela	Diagnosis	ICD-10-CM
S04.10XS	Injury of oculomotor nerve, unspecified side, sequela	Diagnosis	ICD-10-CM
S04.11XS	Injury of oculomotor nerve, right side, sequela	Diagnosis	ICD-10-CM
S04.12XS	Injury of oculomotor nerve, left side, sequela	Diagnosis	ICD-10-CM
S04.20XS	Injury of trochlear nerve, unspecified side, sequela	Diagnosis	ICD-10-CM
S04.21XS	Injury of trochlear nerve, right side, sequela	Diagnosis	ICD-10-CM
S04.22XS	Injury of trochlear nerve, left side, sequela	Diagnosis	ICD-10-CM
S04.30XS	Injury of trigeminal nerve, unspecified side, sequela	Diagnosis	ICD-10-CM
S04.31XS	Injury of trigeminal nerve, right side, sequela	Diagnosis	ICD-10-CM
S04.32XS	Injury of trigeminal nerve, left side, sequela	Diagnosis	ICD-10-CM
S04.40XS	Injury of abducent nerve, unspecified side, sequela	Diagnosis	ICD-10-CM
S04.41XS	Injury of abducent nerve, right side, sequela	Diagnosis	ICD-10-CM
S04.42XS	Injury of abducent nerve, left side, sequela	Diagnosis	ICD-10-CM
S04.50XS	Injury of facial nerve, unspecified side, sequela	Diagnosis	ICD-10-CM
S04.51XS	Injury of facial nerve, right side, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
S04.52XS	Injury of facial nerve, left side, sequela	Diagnosis	ICD-10-CM
S04.60XS	Injury of acoustic nerve, unspecified side, sequela	Diagnosis	ICD-10-CM
S04.61XS	Injury of acoustic nerve, right side, sequela	Diagnosis	ICD-10-CM
S04.62XS	Injury of acoustic nerve, left side, sequela	Diagnosis	ICD-10-CM
S04.70XS	Injury of accessory nerve, unspecified side, sequela	Diagnosis	ICD-10-CM
S04.71XS	Injury of accessory nerve, right side, sequela	Diagnosis	ICD-10-CM
S04.72XS	Injury of accessory nerve, left side, sequela	Diagnosis	ICD-10-CM
S04.811S	Injury of olfactory [1st] nerve, right side, sequela	Diagnosis	ICD-10-CM
S04.812S	Injury of olfactory [1st] nerve, left side, sequela	Diagnosis	ICD-10-CM
S04.819S	Injury of olfactory [1st] nerve, unspecified side, sequela	Diagnosis	ICD-10-CM
S04.891S	Injury of other cranial nerves, right side, sequela	Diagnosis	ICD-10-CM
S04.892S	Injury of other cranial nerves, left side, sequela	Diagnosis	ICD-10-CM
S04.899S	Injury of other cranial nerves, unspecified side, sequela	Diagnosis	ICD-10-CM
S04.9XXS	Injury of unspecified cranial nerve, sequela	Diagnosis	ICD-10-CM
S06.0X0S	Concussion without loss of consciousness, sequela	Diagnosis	ICD-10-CM
S06.0X1S	Concussion with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.0X2S	Concussion with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.0X3S	Concussion with loss of consciousness of 1 hour to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.0X4S	Concussion with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.0X5S	Concussion with loss of consciousness greater than 24 hours with return to pre-existing conscious level, sequela	Diagnosis	ICD-10-CM
S06.0X6S	Concussion with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.0X7S	Concussion with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.0X8S	Concussion with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.0X9S	Concussion with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM
S06.0XAS	Concussion with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.1X0S	Traumatic cerebral edema without loss of consciousness, sequela	Diagnosis	ICD-10-CM
S06.1X1S	Traumatic cerebral edema with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.1X2S	Traumatic cerebral edema with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.1X3S	Traumatic cerebral edema with loss of consciousness of 1 hour to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.1X4S	Traumatic cerebral edema with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.1X5S	Traumatic cerebral edema with loss of consciousness greater than 24 hours with return to pre-existing conscious level, sequela	Diagnosis	ICD-10-CM
S06.1X6S	Traumatic cerebral edema with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.1X7S	Traumatic cerebral edema with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
S06.1X8S	Traumatic cerebral edema with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.1X9S	Traumatic cerebral edema with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM
S06.1XAS	Traumatic cerebral edema with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.2X0S	Diffuse traumatic brain injury without loss of consciousness, sequela	Diagnosis	ICD-10-CM
S06.2X1S	Diffuse traumatic brain injury with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.2X2S	Diffuse traumatic brain injury with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.2X3S	Diffuse traumatic brain injury with loss of consciousness of 1 hour to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.2X4S	Diffuse traumatic brain injury with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.2X5S	Diffuse traumatic brain injury with loss of consciousness greater than 24 hours with return to pre-existing conscious levels, sequela	Diagnosis	ICD-10-CM
S06.2X6S	Diffuse traumatic brain injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.2X7S	Diffuse traumatic brain injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.2X8S	Diffuse traumatic brain injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.2X9S	Diffuse traumatic brain injury with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM
S06.2XAS	Diffuse traumatic brain injury with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.300S	Unspecified focal traumatic brain injury without loss of consciousness, sequela	Diagnosis	ICD-10-CM
S06.301S	Unspecified focal traumatic brain injury with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.302S	Unspecified focal traumatic brain injury with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.303S	Unspecified focal traumatic brain injury with loss of consciousness of 1 hour to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.304S	Unspecified focal traumatic brain injury with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.305S	Unspecified focal traumatic brain injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, sequela	Diagnosis	ICD-10-CM
S06.306S	Unspecified focal traumatic brain injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.307S	Unspecified focal traumatic brain injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.308S	Unspecified focal traumatic brain injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
S06.309S	Unspecified focal traumatic brain injury with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM
S06.30AS	Unspecified focal traumatic brain injury with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.310S	Contusion and laceration of right cerebrum without loss of consciousness, sequela	Diagnosis	ICD-10-CM
S06.311S	Contusion and laceration of right cerebrum with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.312S	Contusion and laceration of right cerebrum with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.313S	Contusion and laceration of right cerebrum with loss of consciousness of 1 hour to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.314S	Contusion and laceration of right cerebrum with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.315S	Contusion and laceration of right cerebrum with loss of consciousness greater than 24 hours with return to pre-existing conscious level, sequela	Diagnosis	ICD-10-CM
S06.316S	Contusion and laceration of right cerebrum with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.317S	Contusion and laceration of right cerebrum with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.318S	Contusion and laceration of right cerebrum with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.319S	Contusion and laceration of right cerebrum with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM
S06.31AS	Contusion and laceration of right cerebrum with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.320S	Contusion and laceration of left cerebrum without loss of consciousness, sequela	Diagnosis	ICD-10-CM
S06.321S	Contusion and laceration of left cerebrum with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.322S	Contusion and laceration of left cerebrum with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.323S	Contusion and laceration of left cerebrum with loss of consciousness of 1 hour to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.324S	Contusion and laceration of left cerebrum with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.325S	Contusion and laceration of left cerebrum with loss of consciousness greater than 24 hours with return to pre-existing conscious level, sequela	Diagnosis	ICD-10-CM
S06.326S	Contusion and laceration of left cerebrum with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.327S	Contusion and laceration of left cerebrum with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
S06.328S	Contusion and laceration of left cerebrum with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.329S	Contusion and laceration of left cerebrum with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM
S06.32AS	Contusion and laceration of left cerebrum with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.330S	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, sequela	Diagnosis	ICD-10-CM
S06.331S	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.332S	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.333S	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 1 hour to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.334S	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.335S	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, sequela	Diagnosis	ICD-10-CM
S06.336S	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.337S	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.338S	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.339S	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM
S06.33AS	Contusion and laceration of cerebrum, unspecified, with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.340S	Traumatic hemorrhage of right cerebrum without loss of consciousness, sequela	Diagnosis	ICD-10-CM
S06.341S	Traumatic hemorrhage of right cerebrum with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.342S	Traumatic hemorrhage of right cerebrum with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.343S	Traumatic hemorrhage of right cerebrum with loss of consciousness of 1 hours to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.344S	Traumatic hemorrhage of right cerebrum with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.345S	Traumatic hemorrhage of right cerebrum with loss of consciousness greater than 24 hours with return to pre-existing conscious level, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
S06.346S	Traumatic hemorrhage of right cerebrum with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.347S	Traumatic hemorrhage of right cerebrum with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.348S	Traumatic hemorrhage of right cerebrum with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.349S	Traumatic hemorrhage of right cerebrum with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM
S06.34AS	Traumatic hemorrhage of right cerebrum with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.350S	Traumatic hemorrhage of left cerebrum without loss of consciousness, sequela	Diagnosis	ICD-10-CM
S06.351S	Traumatic hemorrhage of left cerebrum with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.352S	Traumatic hemorrhage of left cerebrum with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.353S	Traumatic hemorrhage of left cerebrum with loss of consciousness of 1 hours to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.354S	Traumatic hemorrhage of left cerebrum with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.355S	Traumatic hemorrhage of left cerebrum with loss of consciousness greater than 24 hours with return to pre-existing conscious level, sequela	Diagnosis	ICD-10-CM
S06.356S	Traumatic hemorrhage of left cerebrum with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.357S	Traumatic hemorrhage of left cerebrum with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.358S	Traumatic hemorrhage of left cerebrum with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.359S	Traumatic hemorrhage of left cerebrum with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM
S06.35AS	Traumatic hemorrhage of left cerebrum with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.360S	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, sequela	Diagnosis	ICD-10-CM
S06.361S	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.362S	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.363S	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 1 hours to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.364S	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.365S	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
S06.366S	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.367S	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.368S	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.369S	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM
S06.36AS	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.370S	Contusion, laceration, and hemorrhage of cerebellum without loss of consciousness, sequela	Diagnosis	ICD-10-CM
S06.371S	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.372S	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.373S	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 1 hour to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.374S	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.375S	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness greater than 24 hours with return to pre-existing conscious level, sequela	Diagnosis	ICD-10-CM
S06.376S	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.377S	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.378S	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.379S	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM
S06.37AS	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.380S	Contusion, laceration, and hemorrhage of brainstem without loss of consciousness, sequela	Diagnosis	ICD-10-CM
S06.381S	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.382S	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
S06.383S	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 1 hour to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.384S	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.385S	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness greater than 24 hours with return to pre-existing conscious level, sequela	Diagnosis	ICD-10-CM
S06.386S	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.387S	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.388S	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.389S	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM
S06.38AS	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.4X0S	Epidural hemorrhage without loss of consciousness, sequela	Diagnosis	ICD-10-CM
S06.4X1S	Epidural hemorrhage with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.4X2S	Epidural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.4X3S	Epidural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.4X4S	Epidural hemorrhage with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.4X5S	Epidural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, sequela	Diagnosis	ICD-10-CM
S06.4X6S	Epidural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.4X7S	Epidural hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.4X8S	Epidural hemorrhage with loss of consciousness of any duration with death due to other causes prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.4X9S	Epidural hemorrhage with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM
S06.4XAS	Epidural hemorrhage with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.5X0S	Traumatic subdural hemorrhage without loss of consciousness, sequela	Diagnosis	ICD-10-CM
S06.5X1S	Traumatic subdural hemorrhage with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.5X2S	Traumatic subdural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.5X3S	Traumatic subdural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
S06.5X4S	Traumatic subdural hemorrhage with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.5X5S	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, sequela	Diagnosis	ICD-10-CM
S06.5X6S	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.5X7S	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to brain injury before regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.5X8S	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to other cause before regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.5X9S	Traumatic subdural hemorrhage with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM
S06.5XAS	Traumatic subdural hemorrhage with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.6X0S	Traumatic subarachnoid hemorrhage without loss of consciousness, sequela	Diagnosis	ICD-10-CM
S06.6X1S	Traumatic subarachnoid hemorrhage with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.6X2S	Traumatic subarachnoid hemorrhage with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.6X3S	Traumatic subarachnoid hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.6X4S	Traumatic subarachnoid hemorrhage with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.6X5S	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, sequela	Diagnosis	ICD-10-CM
S06.6X6S	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.6X7S	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.6X8S	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.6X9S	Traumatic subarachnoid hemorrhage with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM
S06.6XAS	Traumatic subarachnoid hemorrhage with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.810S	Injury of right internal carotid artery, intracranial portion, not elsewhere classified without loss of consciousness, sequela	Diagnosis	ICD-10-CM
S06.811S	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.812S	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.813S	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 1 hour to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
S06.814S	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.815S	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness greater than 24 hours with return to pre-existing conscious level, sequela	Diagnosis	ICD-10-CM
S06.816S	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.817S	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.818S	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.819S	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM
S06.81AS	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.820S	Injury of left internal carotid artery, intracranial portion, not elsewhere classified without loss of consciousness, sequela	Diagnosis	ICD-10-CM
S06.821S	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.822S	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.823S	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 1 hour to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.824S	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.825S	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness greater than 24 hours with return to pre-existing conscious level, sequela	Diagnosis	ICD-10-CM
S06.826S	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.827S	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.828S	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.829S	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
S06.82AS	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.890S	Other specified intracranial injury without loss of consciousness, sequela	Diagnosis	ICD-10-CM
S06.891S	Other specified intracranial injury with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.892S	Other specified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.893S	Other specified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.894S	Other specified intracranial injury with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.895S	Other specified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, sequela	Diagnosis	ICD-10-CM
S06.896S	Other specified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.897S	Other specified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.898S	Other specified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.899S	Other specified intracranial injury with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM
S06.89AS	Other specified intracranial injury with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.8A0S	Primary blast injury of brain, not elsewhere classified without loss of consciousness, sequela	Diagnosis	ICD-10-CM
S06.8A1S	Primary blast injury of brain, not elsewhere classified with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.8A2S	Primary blast injury of brain, not elsewhere classified with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.8A3S	Primary blast injury of brain, not elsewhere classified with loss of consciousness of 1 hour to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.8A4S	Primary blast injury of brain, not elsewhere classified with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.8A5S	Primary blast injury of brain, not elsewhere classified with loss of consciousness greater than 24 hours with return to pre-existing conscious level, sequela	Diagnosis	ICD-10-CM
S06.8A6S	Primary blast injury of brain, not elsewhere classified with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.8A9S	Primary blast injury of brain, not elsewhere classified with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM
S06.8AAS	Primary blast injury of brain, not elsewhere classified with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.9X0S	Unspecified intracranial injury without loss of consciousness, sequela	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
S06.9X1S	Unspecified intracranial injury with loss of consciousness of 30 minutes or less, sequela	Diagnosis	ICD-10-CM
S06.9X2S	Unspecified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.9X3S	Unspecified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, sequela	Diagnosis	ICD-10-CM
S06.9X4S	Unspecified intracranial injury with loss of consciousness of 6 hours to 24 hours, sequela	Diagnosis	ICD-10-CM
S06.9X5S	Unspecified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, sequela	Diagnosis	ICD-10-CM
S06.9X6S	Unspecified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, sequela	Diagnosis	ICD-10-CM
S06.9X7S	Unspecified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.9X8S	Unspecified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, sequela	Diagnosis	ICD-10-CM
S06.9X9S	Unspecified intracranial injury with loss of consciousness of unspecified duration, sequela	Diagnosis	ICD-10-CM
S06.9XAS	Unspecified intracranial injury with loss of consciousness status unknown, sequela	Diagnosis	ICD-10-CM
S06.A0XS	Traumatic brain compression without herniation, sequela	Diagnosis	ICD-10-CM
S06.A1XS	Traumatic brain compression with herniation, sequela	Diagnosis	ICD-10-CM
Migraine			
339	Other headache syndromes	Diagnosis	ICD-9-CM
339.0	Cluster headaches and other trigeminal autonomic cephalgias	Diagnosis	ICD-9-CM
339.00	Cluster headache syndrome, unspecified	Diagnosis	ICD-9-CM
339.01	Episodic cluster headache	Diagnosis	ICD-9-CM
339.02	Chronic cluster headache	Diagnosis	ICD-9-CM
339.03	Episodic paroxysmal hemicrania	Diagnosis	ICD-9-CM
339.04	Chronic paroxysmal hemicrania	Diagnosis	ICD-9-CM
339.05	Short lasting unilateral neuralgiform headache with conjunctival injection and tearing	Diagnosis	ICD-9-CM
339.09	Other trigeminal autonomic cephalgias	Diagnosis	ICD-9-CM
339.1	Tension type headache	Diagnosis	ICD-9-CM
339.10	Tension type headache, unspecified	Diagnosis	ICD-9-CM
339.11	Episodic tension type headache	Diagnosis	ICD-9-CM
339.12	Chronic tension type headache	Diagnosis	ICD-9-CM
339.2	Post-traumatic headache	Diagnosis	ICD-9-CM
339.20	Post-traumatic headache, unspecified	Diagnosis	ICD-9-CM
339.21	Acute post-traumatic headache	Diagnosis	ICD-9-CM
339.22	Chronic post-traumatic headache	Diagnosis	ICD-9-CM
339.3	Drug induced headache, not elsewhere classified	Diagnosis	ICD-9-CM
339.4	Complicated headache syndromes	Diagnosis	ICD-9-CM
339.41	Hemicrania continua	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
339.42	New daily persistent headache	Diagnosis	ICD-9-CM
339.43	Primary thunderclap headache	Diagnosis	ICD-9-CM
339.44	Other complicated headache syndrome	Diagnosis	ICD-9-CM
339.8	Other specified headache syndromes	Diagnosis	ICD-9-CM
339.81	Hypnic headache	Diagnosis	ICD-9-CM
339.82	Headache associated with sexual activity	Diagnosis	ICD-9-CM
339.83	Primary cough headache	Diagnosis	ICD-9-CM
339.84	Primary exertional headache	Diagnosis	ICD-9-CM
339.85	Primary stabbing headache	Diagnosis	ICD-9-CM
339.89	Other specified headache syndromes	Diagnosis	ICD-9-CM
346	Migraine	Diagnosis	ICD-9-CM
346.0	Migraine with aura	Diagnosis	ICD-9-CM
346.00	Migraine with aura, without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.01	Migraine with aura, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM
346.02	Migraine with aura, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM
346.03	Migraine with aura, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM
346.1	Migraine without aura	Diagnosis	ICD-9-CM
346.10	Migraine without aura, without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.11	Migraine without aura, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM
346.12	Migraine without aura, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM
346.13	Migraine without aura, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM
346.2	Variants of migraine, not elsewhere classified	Diagnosis	ICD-9-CM
346.20	Variants of migraine, not elsewhere classified, without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.21	Variants of migraine, not elsewhere classified, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM
346.22	Variants of migraine, not elsewhere classified, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM
346.23	Variants of migraine, not elsewhere classified, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM
346.3	Hemiplegic migraine	Diagnosis	ICD-9-CM
346.30	Hemiplegic migraine, without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.31	Hemiplegic migraine, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM
346.32	Hemiplegic migraine, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
346.33	Hemiplegic migraine, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM
346.4	Menstrual migraine	Diagnosis	ICD-9-CM
346.40	Menstrual migraine, without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.41	Menstrual migraine, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM
346.42	Menstrual migraine, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM
346.43	Menstrual migraine, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM
346.5	Persistent migraine aura without cerebral infarction	Diagnosis	ICD-9-CM
346.50	Persistent migraine aura without cerebral infarction, without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.51	Persistent migraine aura without cerebral infarction, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM
346.52	Persistent migraine aura without cerebral infarction, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM
346.53	Persistent migraine aura without cerebral infarction, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM
346.6	Persistent migraine aura with cerebral infarction	Diagnosis	ICD-9-CM
346.60	Persistent migraine aura with cerebral infarction, without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.61	Persistent migraine aura with cerebral infarction, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM
346.62	Persistent migraine aura with cerebral infarction, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM
346.63	Persistent migraine aura with cerebral infarction, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM
346.7	Chronic migraine without aura	Diagnosis	ICD-9-CM
346.70	Chronic migraine without aura, without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.71	Chronic migraine without aura, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM
346.72	Chronic migraine without aura, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM
346.73	Chronic migraine without aura, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM
346.8	Other forms of migraine	Diagnosis	ICD-9-CM
346.80	Other forms of migraine, without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.81	Other forms of migraine, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM
346.82	Other forms of migraine, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
346.83	Other forms of migraine, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM
346.9	Migraine, unspecified	Diagnosis	ICD-9-CM
346.90	Migraine, unspecified without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.91	Migraine, unspecified, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM
346.92	Migraine, unspecified, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM
346.93	Migraine, unspecified, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM
G43.001	Migraine without aura, not intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.009	Migraine without aura, not intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.011	Migraine without aura, intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.019	Migraine without aura, intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.101	Migraine with aura, not intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.109	Migraine with aura, not intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.111	Migraine with aura, intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.119	Migraine with aura, intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.401	Hemiplegic migraine, not intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.409	Hemiplegic migraine, not intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.411	Hemiplegic migraine, intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.419	Hemiplegic migraine, intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.501	Persistent migraine aura without cerebral infarction, not intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.509	Persistent migraine aura without cerebral infarction, not intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.511	Persistent migraine aura without cerebral infarction, intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.519	Persistent migraine aura without cerebral infarction, intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.601	Persistent migraine aura with cerebral infarction, not intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.609	Persistent migraine aura with cerebral infarction, not intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.611	Persistent migraine aura with cerebral infarction, intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.619	Persistent migraine aura with cerebral infarction, intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.701	Chronic migraine without aura, not intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.709	Chronic migraine without aura, not intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.711	Chronic migraine without aura, intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.719	Chronic migraine without aura, intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.801	Other migraine, not intractable, with status migrainosus	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
G43.809	Other migraine, not intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.811	Other migraine, intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.819	Other migraine, intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.821	Menstrual migraine, not intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.829	Menstrual migraine, not intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.831	Menstrual migraine, intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.839	Menstrual migraine, intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.901	Migraine, unspecified, not intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.909	Migraine, unspecified, not intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.911	Migraine, unspecified, intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.919	Migraine, unspecified, intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.A0	Cyclical vomiting, in migraine, not intractable	Diagnosis	ICD-10-CM
G43.A1	Cyclical vomiting, in migraine, intractable	Diagnosis	ICD-10-CM
G43.B0	Ophthalmoplegic migraine, not intractable	Diagnosis	ICD-10-CM
G43.B1	Ophthalmoplegic migraine, intractable	Diagnosis	ICD-10-CM
G43.C0	Periodic headache syndromes in child or adult, not intractable	Diagnosis	ICD-10-CM
G43.C1	Periodic headache syndromes in child or adult, intractable	Diagnosis	ICD-10-CM
G43.D0	Abdominal migraine, not intractable	Diagnosis	ICD-10-CM
G43.D1	Abdominal migraine, intractable	Diagnosis	ICD-10-CM
G44.001	Cluster headache syndrome, unspecified, intractable	Diagnosis	ICD-10-CM
G44.009	Cluster headache syndrome, unspecified, not intractable	Diagnosis	ICD-10-CM
G44.011	Episodic cluster headache, intractable	Diagnosis	ICD-10-CM
G44.019	Episodic cluster headache, not intractable	Diagnosis	ICD-10-CM
G44.021	Chronic cluster headache, intractable	Diagnosis	ICD-10-CM
G44.029	Chronic cluster headache, not intractable	Diagnosis	ICD-10-CM
G44.031	Episodic paroxysmal hemicrania, intractable	Diagnosis	ICD-10-CM
G44.039	Episodic paroxysmal hemicrania, not intractable	Diagnosis	ICD-10-CM
G44.041	Chronic paroxysmal hemicrania, intractable	Diagnosis	ICD-10-CM
G44.049	Chronic paroxysmal hemicrania, not intractable	Diagnosis	ICD-10-CM
G44.051	Short lasting unilateral neuralgiform headache with conjunctival injection and tearing (SUNCT), intractable	Diagnosis	ICD-10-CM
G44.059	Short lasting unilateral neuralgiform headache with conjunctival injection and tearing (SUNCT), not intractable	Diagnosis	ICD-10-CM
G44.091	Other trigeminal autonomic cephalgias (TAC), intractable	Diagnosis	ICD-10-CM
G44.099	Other trigeminal autonomic cephalgias (TAC), not intractable	Diagnosis	ICD-10-CM
G44.1	Vascular headache, not elsewhere classified	Diagnosis	ICD-10-CM
G44.201	Tension-type headache, unspecified, intractable	Diagnosis	ICD-10-CM
G44.209	Tension-type headache, unspecified, not intractable	Diagnosis	ICD-10-CM
G44.211	Episodic tension-type headache, intractable	Diagnosis	ICD-10-CM
G44.219	Episodic tension-type headache, not intractable	Diagnosis	ICD-10-CM
G44.221	Chronic tension-type headache, intractable	Diagnosis	ICD-10-CM
G44.229	Chronic tension-type headache, not intractable	Diagnosis	ICD-10-CM
G44.301	Post-traumatic headache, unspecified, intractable	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
G44.309	Post-traumatic headache, unspecified, not intractable	Diagnosis	ICD-10-CM
G44.311	Acute post-traumatic headache, intractable	Diagnosis	ICD-10-CM
G44.319	Acute post-traumatic headache, not intractable	Diagnosis	ICD-10-CM
G44.321	Chronic post-traumatic headache, intractable	Diagnosis	ICD-10-CM
G44.329	Chronic post-traumatic headache, not intractable	Diagnosis	ICD-10-CM
G44.40	Drug-induced headache, not elsewhere classified, not intractable	Diagnosis	ICD-10-CM
G44.41	Drug-induced headache, not elsewhere classified, intractable	Diagnosis	ICD-10-CM
G44.51	Hemicrania continua	Diagnosis	ICD-10-CM
G44.52	New daily persistent headache (NDPH)	Diagnosis	ICD-10-CM
G44.53	Primary thunderclap headache	Diagnosis	ICD-10-CM
G44.59	Other complicated headache syndrome	Diagnosis	ICD-10-CM
G44.81	Hypnic headache	Diagnosis	ICD-10-CM
G44.82	Headache associated with sexual activity	Diagnosis	ICD-10-CM
G44.83	Primary cough headache	Diagnosis	ICD-10-CM
G44.84	Primary exertional headache	Diagnosis	ICD-10-CM
G44.85	Primary stabbing headache	Diagnosis	ICD-10-CM
G44.86	Cervicogenic headache	Diagnosis	ICD-10-CM
G44.89	Other headache syndrome	Diagnosis	ICD-10-CM
Epilepsy			
345	Epilepsy and recurrent seizures	Diagnosis	ICD-9-CM
345.0	Generalized nonconvulsive epilepsy	Diagnosis	ICD-9-CM
345.00	Generalized nonconvulsive epilepsy without mention of intractable epilepsy	Diagnosis	ICD-9-CM
345.01	Generalized nonconvulsive epilepsy with intractable epilepsy	Diagnosis	ICD-9-CM
345.1	Generalized convulsive epilepsy	Diagnosis	ICD-9-CM
345.10	Generalized convulsive epilepsy without mention of intractable epilepsy	Diagnosis	ICD-9-CM
345.11	Generalized convulsive epilepsy with intractable epilepsy	Diagnosis	ICD-9-CM
345.2	Epileptic petit mal status	Diagnosis	ICD-9-CM
345.3	Epileptic grand mal status	Diagnosis	ICD-9-CM
345.4	Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures	Diagnosis	ICD-9-CM
345.40	Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, without mention of intractable epilepsy	Diagnosis	ICD-9-CM
345.41	Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, with intractable epilepsy	Diagnosis	ICD-9-CM
345.5	Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures	Diagnosis	ICD-9-CM
345.50	Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, without mention of intractable epilepsy	Diagnosis	ICD-9-CM
345.51	Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, with intractable epilepsy	Diagnosis	ICD-9-CM
345.6	Infantile spasms	Diagnosis	ICD-9-CM
345.60	Infantile spasms without mention of intractable epilepsy	Diagnosis	ICD-9-CM
345.61	Infantile spasms with intractable epilepsy	Diagnosis	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
345.7	Epilepsia partialis continua	Diagnosis	ICD-9-CM
345.70	Epilepsia partialis continua without mention of intractable epilepsy	Diagnosis	ICD-9-CM
345.71	Epilepsia partialis continua with intractable epilepsy	Diagnosis	ICD-9-CM
345.8	Other forms of epilepsy and recurrent seizures	Diagnosis	ICD-9-CM
345.80	Other forms of epilepsy and recurrent seizures, without mention of intractable epilepsy	Diagnosis	ICD-9-CM
345.81	Other forms of epilepsy and recurrent seizures, with intractable epilepsy	Diagnosis	ICD-9-CM
345.9	Unspecified epilepsy	Diagnosis	ICD-9-CM
345.90	Unspecified epilepsy without mention of intractable epilepsy	Diagnosis	ICD-9-CM
345.91	Unspecified epilepsy with intractable epilepsy	Diagnosis	ICD-9-CM
G40.001	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.009	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.011	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.019	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.101	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.109	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.111	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.119	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.201	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.209	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.211	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.219	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.301	Generalized idiopathic epilepsy and epileptic syndromes, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.309	Generalized idiopathic epilepsy and epileptic syndromes, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.311	Generalized idiopathic epilepsy and epileptic syndromes, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.319	Generalized idiopathic epilepsy and epileptic syndromes, intractable, without status epilepticus	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
G40.401	Other generalized epilepsy and epileptic syndromes, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.409	Other generalized epilepsy and epileptic syndromes, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.411	Other generalized epilepsy and epileptic syndromes, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.419	Other generalized epilepsy and epileptic syndromes, intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.42	Cyclin-Dependent Kinase-Like 5 Deficiency Disorder	Diagnosis	ICD-10-CM
G40.501	Epileptic seizures related to external causes, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.509	Epileptic seizures related to external causes, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.801	Other epilepsy, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.802	Other epilepsy, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.803	Other epilepsy, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.804	Other epilepsy, intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.811	Lennox-Gastaut syndrome, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.812	Lennox-Gastaut syndrome, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.813	Lennox-Gastaut syndrome, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.814	Lennox-Gastaut syndrome, intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.821	Epileptic spasms, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.822	Epileptic spasms, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.823	Epileptic spasms, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.824	Epileptic spasms, intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.833	Dravet syndrome, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.834	Dravet syndrome, intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.89	Other seizures	Diagnosis	ICD-10-CM
G40.901	Epilepsy, unspecified, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.909	Epilepsy, unspecified, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.911	Epilepsy, unspecified, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.919	Epilepsy, unspecified, intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.A01	Absence epileptic syndrome, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.A09	Absence epileptic syndrome, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.A11	Absence epileptic syndrome, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.A19	Absence epileptic syndrome, intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.B01	Juvenile myoclonic epilepsy, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.B09	Juvenile myoclonic epilepsy, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.B11	Juvenile myoclonic epilepsy, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.B19	Juvenile myoclonic epilepsy, intractable, without status epilepticus	Diagnosis	ICD-10-CM
Chronic Pain			
338.2	Chronic pain	Diagnosis	ICD-9-CM
338.21	Chronic pain due to trauma	Diagnosis	ICD-9-CM
338.22	Chronic post-thoracotomy pain	Diagnosis	ICD-9-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
338.28	Other chronic postoperative pain	Diagnosis	ICD-9-CM
338.29	Other chronic pain	Diagnosis	ICD-9-CM
338.3	Neoplasm related pain (acute) (chronic)	Diagnosis	ICD-9-CM
338.4	Chronic pain syndrome	Diagnosis	ICD-9-CM
729.1	Unspecified myalgia and myositis	Diagnosis	ICD-9-CM
729.2	Unspecified neuralgia, neuritis, and radiculitis	Diagnosis	ICD-9-CM
780.7	Malaise and fatigue	Diagnosis	ICD-9-CM
780.71	Chronic fatigue syndrome	Diagnosis	ICD-9-CM
G89.21	Chronic pain due to trauma	Diagnosis	ICD-10-CM
G89.22	Chronic post-thoracotomy pain	Diagnosis	ICD-10-CM
G89.28	Other chronic postprocedural pain	Diagnosis	ICD-10-CM
G89.29	Other chronic pain	Diagnosis	ICD-10-CM
G89.3	Neoplasm related pain (acute) (chronic)	Diagnosis	ICD-10-CM
G89.4	Chronic pain syndrome	Diagnosis	ICD-10-CM
M54.10	Radiculopathy, site unspecified	Diagnosis	ICD-10-CM
M54.11	Radiculopathy, occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M54.12	Radiculopathy, cervical region	Diagnosis	ICD-10-CM
M54.13	Radiculopathy, cervicothoracic region	Diagnosis	ICD-10-CM
M54.14	Radiculopathy, thoracic region	Diagnosis	ICD-10-CM
M54.15	Radiculopathy, thoracolumbar region	Diagnosis	ICD-10-CM
M54.16	Radiculopathy, lumbar region	Diagnosis	ICD-10-CM
M54.17	Radiculopathy, lumbosacral region	Diagnosis	ICD-10-CM
M54.18	Radiculopathy, sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
M60.80	Other myositis, unspecified site	Diagnosis	ICD-10-CM
M60.811	Other myositis, right shoulder	Diagnosis	ICD-10-CM
M60.812	Other myositis, left shoulder	Diagnosis	ICD-10-CM
M60.819	Other myositis, unspecified shoulder	Diagnosis	ICD-10-CM
M60.821	Other myositis, right upper arm	Diagnosis	ICD-10-CM
M60.822	Other myositis, left upper arm	Diagnosis	ICD-10-CM
M60.829	Other myositis, unspecified upper arm	Diagnosis	ICD-10-CM
M60.831	Other myositis, right forearm	Diagnosis	ICD-10-CM
M60.832	Other myositis, left forearm	Diagnosis	ICD-10-CM
M60.839	Other myositis, unspecified forearm	Diagnosis	ICD-10-CM
M60.841	Other myositis, right hand	Diagnosis	ICD-10-CM
M60.842	Other myositis, left hand	Diagnosis	ICD-10-CM
M60.849	Other myositis, unspecified hand	Diagnosis	ICD-10-CM
M60.851	Other myositis, right thigh	Diagnosis	ICD-10-CM
M60.852	Other myositis, left thigh	Diagnosis	ICD-10-CM
M60.859	Other myositis, unspecified thigh	Diagnosis	ICD-10-CM
M60.861	Other myositis, right lower leg	Diagnosis	ICD-10-CM
M60.862	Other myositis, left lower leg	Diagnosis	ICD-10-CM
M60.869	Other myositis, unspecified lower leg	Diagnosis	ICD-10-CM
M60.871	Other myositis, right ankle and foot	Diagnosis	ICD-10-CM

Appendix BF. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding Used to Define Covariates in this Request

Code	Description	Code	
		Category	Code Type
M60.872	Other myositis, left ankle and foot	Diagnosis	ICD-10-CM
M60.879	Other myositis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M60.88	Other myositis, other site	Diagnosis	ICD-10-CM
M60.89	Other myositis, multiple sites	Diagnosis	ICD-10-CM
M60.9	Myositis, unspecified	Diagnosis	ICD-10-CM
M79.1	Myalgia	Diagnosis	ICD-10-CM
M79.10	Myalgia, unspecified site	Diagnosis	ICD-10-CM
M79.11	Myalgia of mastication muscle	Diagnosis	ICD-10-CM
M79.12	Myalgia of auxiliary muscles, head and neck	Diagnosis	ICD-10-CM
M79.18	Myalgia, other site	Diagnosis	ICD-10-CM
M79.2	Neuralgia and neuritis, unspecified	Diagnosis	ICD-10-CM
M79.7	Fibromyalgia	Diagnosis	ICD-10-CM
R53.82	Chronic fatigue, unspecified	Diagnosis	ICD-10-CM
Antidepressants			
4064F	Antidepressant pharmacotherapy prescribed (MDD, MDD ADOL)	Procedure	CPT-2
80332	Antidepressants, serotonergic class; 1 or 2	Procedure	CPT-4
80333	Antidepressants, serotonergic class; 3-5	Procedure	CPT-4
80334	Antidepressants, serotonergic class; 6 or more	Procedure	CPT-4
80335	Antidepressants, tricyclic and other cyclicals; 1 or 2	Procedure	CPT-4
80336	Antidepressants, tricyclic and other cyclicals; 3-5	Procedure	CPT-4
80337	Antidepressants, tricyclic and other cyclicals; 6 or more	Procedure	CPT-4
80338	Antidepressants, not otherwise specified	Procedure	CPT-4
G8126	Patient with a diagnosis of major depression documented as being treated with antidepressant medication during the entire 84 day (12 week) acute treatment phase	Procedure	HCPCS
G9194	Patient with a diagnosis of major depression documented as being treated with antidepressant medication during the entire 180 day (6 month) continuation treatment phase	Procedure	HCPCS

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
Psychiatric drug dispensings	
5-hydroxy-L-tryptophan (oxitriptan)	5hydroxytryptophan(oxitriptan)
5-hydroxytryptophan (5-HTP)	5-HTP
5-hydroxytryptophan (5-HTP)	5-hydroxytryptophan (5-HTP)
5-hydroxytryptophan (5-HTP)	Natrol 5-HTP
5-hydroxytryptophan (5-HTP)/vit B6/ascorbic acid	5-hydroxytryptophan(5HTP)-B6-C
5-hydroxytryptophan/tyrosine/glutamin/phenylal/B6/C/chr omium	Appe-Curb
AMITRIPTYLINE HCL	EnovaRx-Amitriptyline
alprazolam	Alprazolam Intensol
alprazolam	Xanax
alprazolam	Xanax XR
alprazolam	alprazolam
amitriptyline HCl	amitriptyline
amitriptyline HCl/chlordiazepoxide	amitriptyline-chlordiazepoxide
amobarbital sodium	Amytal
amoxapine	amoxapine
aripiprazole	Abilify
aripiprazole	Abilify Asimtufii
aripiprazole	Abilify Discmelt
aripiprazole	Abilify Maintena
aripiprazole	Abilify MyCite
aripiprazole	Abilify MyCite Maintenance Kit
aripiprazole	Abilify MyCite Starter Kit
aripiprazole	aripiprazole
aripiprazole lauroxil	Aristada
aripiprazole lauroxil, submicronized	Aristada Initio
asenapine	Secuado
asenapine maleate	Saphris
asenapine maleate	Saphris (black cherry)
asenapine maleate	asenapine maleate
atomoxetine HCl	Strattera
atomoxetine HCl	atomoxetine
brexanolone	Zulresso
brexpiprazole	Rexulti
bromelains/melatonin/herbal complex no.233	MidNite PM
bupropion HBr	Aplenzin
bupropion HCl	Buproban
bupropion HCl	Forfivo XL
bupropion HCl	Wellbutrin
bupropion HCl	Wellbutrin SR
bupropion HCl	Wellbutrin XL
bupropion HCl	Zyban
bupropion HCl	bupropion HCl
bupropion HCl	bupropion HCl (smoking deter)
bupirone HCl	bupirone
butabarbital sodium	Butisol

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
calcium carb,hydroxide/soy isoflavone/black cohosh/melatonin	Estroven Nighttime (cal-meltn)
calcium phosphate, tribasic/melatonin	Alka-Seltzer PM (melatonin)
calcium phosphate/melatonin	calcium-melatonin
carbamazepine	Carbatrol
carbamazepine	Epitol
carbamazepine	Equetro
carbamazepine	Tegretol
carbamazepine	Tegretol XR
carbamazepine	carbamazepine
cariprazine HCl	Vraylar
chlordiazepoxide HCl	chlordiazepoxide HCl
chlordiazepoxide/clidinium bromide	Librax (with clidinium)
chlordiazepoxide/clidinium bromide	chlordiazepoxide-clidinium
chlorpromazine HCl	chlorpromazine
citalopram hydrobromide	Celexa
citalopram hydrobromide	citalopram
clomipramine HCl	Anafranil
clomipramine HCl	clomipramine
clonazepam	Klonopin
clonazepam	clonazepam
clorazepate dipotassium	Tranxene T-Tab
clorazepate dipotassium	clorazepate dipotassium
clozapine	Clozaril
clozapine	FazaClo
clozapine	Versacloz
clozapine	clozapine
daridorexant HCl	Quviviq
desipramine HCl	Norpramin
desipramine HCl	desipramine
desvenlafaxine	Khedezla
desvenlafaxine	desvenlafaxine
desvenlafaxine fumarate	desvenlafaxine fumarate
desvenlafaxine succinate	Pristiq
desvenlafaxine succinate	desvenlafaxine succinate
dexmedetomidine HCl	Igalmi
dexmedetomidine HCl	Precedex
dexmedetomidine HCl	dexmedetomidine
dexmedetomidine HCl in 0.9 % sodium chloride	Precedex in 0.9 % sodium chlor
dexmedetomidine HCl in 0.9 % sodium chloride	dexmedetomidine in 0.9 % NaCl
dexmedetomidine in 5 % dextrose in water	dexmedetomidine in dextrose 5%
dexmethylphenidate HCl	Focalin
dexmethylphenidate HCl	Focalin XR
dexmethylphenidate HCl	dexmethylphenidate
dextroamphetamine sulf-saccharate/amphetamine sulf-aspartate	Adderall
dextroamphetamine sulf-saccharate/amphetamine sulf-aspartate	Adderall XR

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
dextroamphetamine sulf-saccharate/amphetamine sulf-aspartate	Mydayis
dextroamphetamine sulf-saccharate/amphetamine sulf-aspartate	dextroamphetamine-amphetamine
dextroamphetamine sulfate	Dexedrine
dextroamphetamine sulfate	Dexedrine Spansule
dextroamphetamine sulfate	ProCentra
dextroamphetamine sulfate	Zenzedi
dextroamphetamine sulfate	dextroamphetamine sulfate
dextromethorphan HBr/bupropion HCl	Auvelity
diazepam	Diastat
diazepam	Diastat AcuDial
diazepam	Diazepam Intensol
diazepam	Valium
diazepam	Valtoco
diazepam	diazepam
divalproex sodium	Depakote
divalproex sodium	Depakote ER
divalproex sodium	Depakote Sprinkles
divalproex sodium	divalproex
doxepin HCl	Prudoxin
doxepin HCl	Silenor
doxepin HCl	Zonalon
doxepin HCl	doxepin
droperidol	droperidol
duloxetine HCl	Cymbalta
duloxetine HCl	Drizalma Sprinkle
duloxetine HCl	Irenka
duloxetine HCl	duloxetine
escitalopram oxalate	Lexapro
escitalopram oxalate	escitalopram oxalate
esketamine HCl	Spravato
estazolam	estazolam
eszopiclone	Lunesta
eszopiclone	eszopiclone
ethyl alcohol/herbal drugs	Lydia Pinkham Herbal
fluoxetine HCl	Prozac
fluoxetine HCl	Prozac Weekly
fluoxetine HCl	Sarafem
fluoxetine HCl	fluoxetine
fluphenazine HCl	fluphenazine HCl
fluphenazine decanoate	fluphenazine decanoate
flurazepam HCl	flurazepam
fluvoxamine maleate	Luvox CR
fluvoxamine maleate	fluvoxamine
guanfacine HCl	Intuniv ER
guanfacine HCl	Tenex
guanfacine HCl	guanfacine

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
haloperidol	haloperidol
haloperidol decanoate	Haldol Decanoate
haloperidol decanoate	haloperidol decanoate
haloperidol lactate	Haldol
haloperidol lactate	haloperidol lactate
hydroxyzine HCl	hydroxyzine HCl
hydroxyzine pamoate	Vistaril
hydroxyzine pamoate	hydroxyzine pamoate
iloperidone	Fanapt
imipramine HCl	Tofranil
imipramine HCl	imipramine HCl
imipramine pamoate	Tofranil-PM
imipramine pamoate	imipramine pamoate
isocarboxazid	Marplan
lamotrigine	Lamictal
lamotrigine	Lamictal ODT
lamotrigine	Lamictal ODT Starter (Blue)
lamotrigine	Lamictal ODT Starter (Green)
lamotrigine	Lamictal ODT Starter (Orange)
lamotrigine	Lamictal Starter (Blue) Kit
lamotrigine	Lamictal Starter (Green) Kit
lamotrigine	Lamictal Starter (Orange) Kit
lamotrigine	Lamictal XR
lamotrigine	Lamictal XR Starter (Blue)
lamotrigine	Lamictal XR Starter (Green)
lamotrigine	Lamictal XR Starter (Orange)
lamotrigine	Subvenite
lamotrigine	Subvenite Starter (Blue) Kit
lamotrigine	Subvenite Starter (Green) Kit
lamotrigine	Subvenite Starter (Orange) Kit
lamotrigine	lamotrigine
lemborexant	Dayvigo
levomilnacipran HCl	Fetzima
lisdexamfetamine dimesylate	Vyvanse
lisdexamfetamine dimesylate	lisdexamfetamine
lithium carbonate	Lithobid
lithium carbonate	lithium carbonate
lithium citrate	lithium citrate
lorazepam	Ativan
lorazepam	Lorazepam Intensol
lorazepam	Loreev XR
lorazepam	lorazepam
lorazepam in 0.9 % sodium chloride	lorazepam in 0.9% sod chloride
lorazepam in 5 % dextrose and water	lorazepam in dextrose 5 %
loxapine	Adasuve
loxapine succinate	loxapine succinate
lumateperone tosylate	Caplyta
lurasidone HCl	Latuda

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
lurasidone HCl	lurasidone
maprotiline HCl	maprotiline
melatonin	Children's Sleep (melatonin)
melatonin	Kids Melatonin
melatonin	Meladox
melatonin	Melatin
melatonin	MelatoninMax
melatonin	VitaJoy Melatonin
melatonin	melatonin
melatonin/5-HTP/valerian/folic acid/dietary combination 28	Hypnosom
melatonin/5-Hydroxytryptophan/tryptophan/B6/magnesium oxide	Somnicin
melatonin/5-hydroxytryptophan/theanine/lemon balm leaf xt	Relax Night Calm
melatonin/GABA/5-HTP/theanine/magnesium citrate,oxide/herbs	Sopordren
melatonin/GABA/tryptophan/valerian root/hops/lemon balm	Sleep Optimizer
melatonin/ascorbic acid/vitamin D3/zinc citrate/elderberry	Kids Sleep Immune Health
melatonin/ascorbic acid/vitamin D3/zinc citrate/elderberry	Sleep Immune Health
melatonin/chamomile flower	melatonin-chamomile flower
melatonin/gamma-aminobutyric acid/herbal complex no.183	Sintralyne-PM
melatonin/gamma-aminobutyric acid/valerian	Medi-Doze
melatonin/genistein/herbal complex no.233	Midnite for Menopause
melatonin/herbal complex no.184	Sleep Caps
melatonin/herbal complex no.184	melatonin-herbal complex #184
melatonin/herbal complex no.233	MidNite
melatonin/lemon balm leaf extract	melatonin-lemon balm leaf extr
melatonin/mag carbonate,glycinate/pot bic/GABA/glycine/lemon	Soothing Night
melatonin/magnesium citrate	SlowMag Mg Calm-Sleep
melatonin/passion flower/lemon balm	Unisom Simple Slumbers
melatonin/pyridoxal phosphate	Melatonin-B6 (pyridoxal phos)
melatonin/pyridoxal phosphate	melatonin-pyridoxal phos (B6)
melatonin/pyridoxine	Melatonin (with B6)
melatonin/pyridoxine	melatonin-pyridoxine (vit B6)
melatonin/pyridoxine HCl (vit B6)	Melatonex
melatonin/pyridoxine HCl (vit B6)	melatonin-pyridoxine HCl (B6)
melatonin/theanine	melatonin-theanine
melatonin/theanine/lemon balm/chamomile flower/lavender	Kids Sleep Calm
melatonin/theanine/lemon balm/chamomile flower/lavender	Sleep Calm
melatonin/tryptophan	Restone

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
melatonin/tryptophan	Wrestone
melatonin/tryptophan/valerian/chamomile/niacin/inositol/B6	Toprophan
meprobamate	meprobamate
methamphetamine HCl	Desoxyn
methamphetamine HCl	methamphetamine
methylphenidate	Cotempla XR-ODT
methylphenidate	Daytrana
methylphenidate	methylphenidate
methylphenidate HCl	Adhansia XR
methylphenidate HCl	Aptensio XR
methylphenidate HCl	Concerta
methylphenidate HCl	Jornay PM
methylphenidate HCl	Metadate CD
methylphenidate HCl	Metadate ER
methylphenidate HCl	Methylin
methylphenidate HCl	QuilliChew ER
methylphenidate HCl	Quillivant XR
methylphenidate HCl	Relexxii
methylphenidate HCl	Ritalin
methylphenidate HCl	Ritalin LA
methylphenidate HCl	Ritalin SR
methylphenidate HCl	methylphenidate HCl
midazolam HCl	midazolam
midazolam HCl in 0.9 % sodium chloride	midazolam in 0.9 % sodium chloride
midazolam HCl in 0.9 % sodium chloride/PF	midazolam (PF) in 0.9 % NaCl
midazolam HCl in 5 % dextrose and water/PF	midazolam in dextrose 5 % (PF)
midazolam HCl in dextrose 5% in water	midazolam in dextrose 5 %
midazolam HCl/PF	midazolam (PF)
milnacipran HCl	Savella
mirtazapine	Remeron
mirtazapine	Remeron SolTab
mirtazapine	mirtazapine
molindone HCl	molindone
naltrexone HCl/bupropion HCl	Contrave
nefazodone HCl	nefazodone
nortriptyline HCl	Pamelor
nortriptyline HCl	nortriptyline
olanzapine	Zyprexa
olanzapine	Zyprexa Zydis
olanzapine	olanzapine
olanzapine pamoate	Zyprexa Relprevv
olanzapine/fluoxetine HCl	Symbyax
olanzapine/fluoxetine HCl	olanzapine-fluoxetine
olanzapine/samidorphan malate	Lybalvi
oxazepam	oxazepam
oxcarbazepine	Oxtellar XR
oxcarbazepine	Trileptal

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
oxcarbazepine	oxcarbazepine
paliperidone	Invega
paliperidone	paliperidone
paliperidone palmitate	Invega Hafyera
paliperidone palmitate	Invega Sustenna
paliperidone palmitate	Invega Trinza
paroxetine HCl	Paxil
paroxetine HCl	Paxil CR
paroxetine HCl	paroxetine HCl
paroxetine mesylate	Brisdelle
paroxetine mesylate	Pexeva
paroxetine mesylate	paroxetine mesylate(menop.sym)
pentobarbital sodium	Nembutal Sodium
pentobarbital sodium	pentobarbital sodium
perphenazine	perphenazine
perphenazine/amitriptyline HCl	perphenazine-amitriptyline
phenelzine sulfate	Nardil
phenelzine sulfate	phenelzine
phenobarbital	phenobarbital
phenobarbital sodium	Sezaby
phenobarbital sodium	phenobarbital sodium
phenobarbital sodium in 0.9 % sodium chloride	phenobarbital in 0.9 % sod chl
phenobarbital/hyoscyamine sulf/atropine sulf/scopolamine Hb	B-Donna
phenobarbital/hyoscyamine sulf/atropine sulf/scopolamine Hb	Belladonna-Phenobarbital
phenobarbital/hyoscyamine sulf/atropine sulf/scopolamine Hb	Donnatal
phenobarbital/hyoscyamine sulf/atropine sulf/scopolamine Hb	Me-PB-Hyos
phenobarbital/hyoscyamine sulf/atropine sulf/scopolamine Hb	Phenohydro
phenobarbital/hyoscyamine sulf/atropine sulf/scopolamine Hb	phenobarb-hyoscy-atropine-scop
pimavanserin tartrate	Nuplazid
pimozide	Orap
pimozide	pimozide
prochlorperazine maleate	Compazine
prochlorperazine maleate	prochlorperazine maleate
protriptyline HCl	Vivactil
protriptyline HCl	protriptyline
quazepam	Doral
quazepam	quazepam
quetiapine fumarate	Seroquel
quetiapine fumarate	Seroquel XR
quetiapine fumarate	quetiapine
ramelteon	Rozerem
ramelteon	ramelteon

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
risperidone	Perseris
risperidone	Risperdal
risperidone	Risperdal M-TAB
risperidone	Uzedy
risperidone	risperidone
risperidone microspheres	Risperdal Consta
risperidone microspheres	Rykindo
secobarbital sodium	Seconal Sodium
selegiline	Emsam
selegiline HCl	Eldepryl
selegiline HCl	Zelapar
selegiline HCl	selegiline HCl
serdexmethylphenidate chloride/dexmethylphenidate HCl	Azstarys
sertraline HCl	Zoloft
sertraline HCl	sertraline
suvorexant	Belsomra
tasimelteon	Hetlioz
tasimelteon	Hetlioz LQ
tasimelteon	tasimelteon
temazepam	Restoril
temazepam	temazepam
theanine/5-hydroxytryptophan (5-HTP)/lemon balm leaf extract	Relaxia Day Calm
thioridazine HCl	thioridazine
thiothixene	thiothixene
tranylcypromine sulfate	Parnate
tranylcypromine sulfate	tranylcypromine
trazodone HCl	Oleptro ER
trazodone HCl	trazodone
triazolam	Halcion
triazolam	triazolam
trifluoperazine HCl	trifluoperazine
trimipramine maleate	Surmontil
trimipramine maleate	trimipramine
tryptophan	tryptophan
valerian root extract	valerian root extract
valerian root extract/hops	valerian root extract-hops
valerian root/valerian root extract	valerian root-valerian root xt
valerian rt/passion flower/hops/cherry/magnesium comb/potass	SynovX Calm
valerian/passion flower/hops/lemon balm	valerian-flower-hops-lemon
valproic acid	Depakene
valproic acid	Stavzor
valproic acid	valproic acid
valproic acid (as sodium salt) (valproate sodium)	Depacon
valproic acid (as sodium salt) (valproate sodium)	Depakene
valproic acid (as sodium salt) (valproate sodium)	valproate sodium
valproic acid (as sodium salt) (valproate sodium)	valproic acid (as sodium salt)

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
venlafaxine HCl	Effexor XR
venlafaxine HCl	venlafaxine
venlafaxine besylate	venlafaxine besylate
vilazodone HCl	Viibryd
vilazodone HCl	vilazodone
vit B/folic acid/calcium/soy xt/black cohosh xt/melatonin	Complete Balance Menopause Rlf
vortioxetine hydrobromide	Brintellix
vortioxetine hydrobromide	Trintellix
zaleplon	Sonata
zaleplon	zaleplon
ziprasidone HCl	Geodon
ziprasidone HCl	ziprasidone HCl
ziprasidone mesylate	Geodon
ziprasidone mesylate	ziprasidone mesylate
zolpidem tartrate	Ambien
zolpidem tartrate	Ambien CR
zolpidem tartrate	Edluar
zolpidem tartrate	Intermezzo
zolpidem tartrate	Zolpimist
zolpidem tartrate	zolpidem
Albiglutide	
albiglutide	Tanzeum
Dulaglutide	
dulaglutide	Trulicity
Exenatide	
exenatide	Byetta
exenatide microspheres	Bydureon
exenatide microspheres	Bydureon BCise
Liraglutide	
insulin degludec/liraglutide	Xultophy 100/3.6
liraglutide	Saxenda
liraglutide	Victoza 2-Pak
liraglutide	Victoza 3-Pak
Lixisenatide	
insulin glargine,human recombinant analog/lixisenatide	Soliqua 100/33
lixisenatide	Adlyxin
Semaglutide	
semaglutide	Ozempic
semaglutide	Rybelsus
semaglutide	Wegovy
Tirzepatide	
tirzepatide	Mounjaro
Insulin	
insulin NPH human isophane	Humulin N NPH Insulin KwikPen
insulin NPH human isophane	Humulin N NPH U-100 Insulin
insulin NPH human isophane	Novolin N FlexPen
insulin NPH human isophane	Novolin N NPH U-100 Insulin

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
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 aspart	Novolog FlexPen U-100 Insulin
insulin aspart	Novolog PenFill U-100 Insulin
insulin aspart	Novolog U-100 Insulin aspart
insulin aspart	insulin aspart U-100
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	Novolog Mix 70-30 U-100 Insulin
insulin aspart protamine human/insulin aspart	Novolog Mix 70-30FlexPen U-100
insulin aspart protamine human/insulin aspart	insulin asp prt-insulin aspart
insulin degludec	Tresiba FlexTouch U-100
insulin degludec	Tresiba FlexTouch U-200
insulin degludec	Tresiba U-100 Insulin
insulin degludec	insulin degludec
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,human recombinant analog	Basaglar KwikPen U-100 Insulin
insulin glargine,human recombinant analog	Basaglar Tempo Pen(U-100)Insln
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 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	insulin glargine
insulin glargine,human recombinant analog/lixisenatide	Soliqua 100/33
insulin glargine-aglr	Rezvoglar KwikPen
insulin glargine-yfgn	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 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

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
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
Metformin	
alogliptin benzoate/metformin HCl	Kazano
alogliptin benzoate/metformin HCl	alogliptin-metformin
canagliflozin/metformin HCl	Invokamet
canagliflozin/metformin HCl	Invokamet XR
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	Riomet
metformin HCl	Riomet ER
metformin HCl	metformin
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
Alpha-glucosidase Inhibitors	
acarbose	Precose
acarbose	acarbose
miglitol	Glyset

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
miglitol	miglitol
Thiazolidinediones	
pioglitazone HCl	Actos
pioglitazone HCl	pioglitazone
rosiglitazone maleate	Avandia
Meglitinides	
nateglinide	Starlix
nateglinide	nateglinide
repaglinide	Prandin
repaglinide	repaglinide
repaglinide/metformin HCl	Prandimet
repaglinide/metformin HCl	repaglinide-metformin
Amylin Analogues	
pramlintide acetate	SymlinPen 120
pramlintide acetate	SymlinPen 60
Sulfonylureas	
chlorpropamide	chlorpropamide
glimepiride	Amaryl
glimepiride	glimepiride
glipizide	Glucotrol
glipizide	Glucotrol XL
glipizide	glipizide
glipizide/metformin HCl	glipizide-metformin
glyburide	Diabeta
glyburide	glyburide
glyburide,micronized	Glynase
glyburide,micronized	glyburide micronized
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
Bile Acid Sequestrants	
colesevelam HCl	WelChol
colesevelam HCl	colesevelam
Benzphetamine	
benzphetamine HCl	Didrex
benzphetamine HCl	Regimex
benzphetamine HCl	benzphetamine
Combination Naltrexone and Bupropion	
naltrexone HCl/bupropion HCl	Contrave
Diethylpropion	
diethylpropion HCl	diethylpropion
Lorcaserin	
lorcaserin HCl	Belviq
lorcaserin HCl	Belviq XR

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
Phentermine	
phentermine HCl	Adipex-P
phentermine HCl	Lomaira
phentermine HCl	Suprenza
phentermine HCl	phentermine
Phentermine-topiramate	
phentermine HCl/topiramate	Qsymia
Phendimetrazine	
phendimetrazine tartrate	Bontril PDM
phendimetrazine tartrate	phendimetrazine tartrate
Orlistat	
orlistat	Alli
orlistat	Xenical
orlistat	orlistat
Setmelanotide	
setmelanotide acetate	Imcivree
Analgesic Opiates	
TRAMADOL HCL/GLUCOSAMINE SULFATE	Synapryn
acetaminophen with codeine phosphate	Capital with Codeine
acetaminophen with codeine phosphate	Tylenol-Codeine #3
acetaminophen with codeine phosphate	Tylenol-Codeine #4
acetaminophen with codeine phosphate	acetaminophen-codeine
acetaminophen/caffeine/dihydrocodeine bitartrate	Dvorah
acetaminophen/caffeine/dihydrocodeine bitartrate	Panlor(acetam-caff-dihydrocod)
acetaminophen/caffeine/dihydrocodeine bitartrate	Trezix
acetaminophen/caffeine/dihydrocodeine bitartrate	acetaminophen-caff-dihydrocod
alfentanil HCl	alfentanil
aspirin/caffeine/dihydrocodeine bitartrate	Synalgos-DC
aspirin/caffeine/dihydrocodeine bitartrate	aspirin-caffeine-dihydrocodein
benzhydrocodone HCl/acetaminophen	Apadaz
benzhydrocodone HCl/acetaminophen	benzhydrocodone-acetaminophen
buprenorphine	Butrans
buprenorphine	buprenorphine
buprenorphine HCl	Belbuca
buprenorphine HCl	Buprenex
buprenorphine HCl	buprenorphine HCl
butalbital/acetaminophen/caffeine/codeine phosphate	Fioricet with Codeine
butalbital/acetaminophen/caffeine/codeine phosphate	butalbital-acetaminop-caf-cod
butorphanol tartrate	butorphanol
carisoprodol/aspirin/codeine phosphate	carisoprodol-aspirin-codeine
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	Fiorinal-Codeine #3
codeine phosphate/butalbital/aspirin/caffeine	codeine-butalbital-ASA-caff
codeine sulfate	codeine sulfate
difelikefalin acetate	Korsuva
fentanyl	Duragesic

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
fentanyl	Subsys
fentanyl	fentanyl
fentanyl HCl	Ionsys
fentanyl citrate	Abstral
fentanyl citrate	Actiq
fentanyl citrate	Fentora
fentanyl citrate	Lazanda
fentanyl citrate	fentanyl citrate
fentanyl citrate in 0.9 % sodium chloride/PF	fentanyl citrate (PF)-0.9%NaCl
fentanyl citrate in dextrose 5% in water/PF	fentanyl citrate in D5W (PF)
fentanyl citrate/PF	fentanyl citrate (PF)
fentanyl citrate/bupivacaine HCl in 0.9 % sodium chloride/PF	fentanyl (PF)-bupivacaine-NaCl
fentanyl citrate/ropivacaine HCl/sodium chloride 0.9%/PF	fentanyl-ropivacaine-NaCl (PF)
hydrocodone bitartrate	Hysingla ER
hydrocodone bitartrate	Zohydro ER
hydrocodone bitartrate	hydrocodone bitartrate
hydrocodone bitartrate/acetaminophen	Hycet
hydrocodone bitartrate/acetaminophen	Lorcet (hydrocodone)
hydrocodone bitartrate/acetaminophen	Lorcet HD
hydrocodone bitartrate/acetaminophen	Lorcet Plus
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	Norco
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	hydrocodone-acetaminophen
hydrocodone/ibuprofen	Ibudone
hydrocodone/ibuprofen	Reprexain
hydrocodone/ibuprofen	Vicoprofen
hydrocodone/ibuprofen	Xylon 10
hydrocodone/ibuprofen	hydrocodone-ibuprofen
hydromorphone HCl	Dilaudid
hydromorphone HCl	Exalgo ER
hydromorphone HCl	hydromorphone
hydromorphone HCl in 0.9 % sodium chloride	hydromorphone in 0.9 % NaCl
hydromorphone HCl in 0.9 % sodium chloride/PF	hydromorphone (PF)-0.9 % NaCl
hydromorphone HCl in dextrose 5 %-water/PF	hydromorphone in D5W (PF)
hydromorphone HCl in sodium chloride, iso-osmotic/PF	hydromorphone(PF)-NaCl,iso-osm

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
hydromorphone HCl in sterile water/PF	hydromorphone (PF) in water
hydromorphone HCl/PF	Dilaudid (PF)
hydromorphone HCl/PF	Dilaudid-HP (PF)
hydromorphone HCl/PF	hydromorphone (PF)
hydromorphone HCl/bupivacaine HCl in 0.9% sodium chloride/PF	hydromorphone-bupiv (PF)-NaCl
hydromorphone HCl/ropivacaine in 0.9 % sodium chloride/PF	hydromorph(PF)-ropiv-0.9% NaCl
ibuprofen/oxycodone HCl	ibuprofen-oxycodone
levorphanol tartrate	levorphanol tartrate
meperidine HCl	Demerol
meperidine HCl	meperidine
meperidine HCl in 0.9 % sodium chloride	meperidine in 0.9 % NaCl
meperidine HCl in 0.9 % sodium chloride/PF	meperidine (PF) in 0.9 % NaCl
meperidine HCl/PF	Demerol (PF)
meperidine HCl/PF	meperidine (PF)
methadone HCl	Diskets
methadone HCl	Dolophine
methadone HCl	Methadone Intensol
methadone HCl	Methadose
methadone HCl	methadone
methadone hydrochloride in 0.9 % sodium chloride	methadone in 0.9 % sod.chlorid
morphine sulfate	Arymo ER
morphine sulfate	Avinza
morphine sulfate	Kadian
morphine sulfate	MS Contin
morphine sulfate	MorphaBond ER
morphine sulfate	morphine
morphine sulfate	morphine concentrate
morphine sulfate in 0.9 % sodium chloride	morphine in 0.9 % sodium chlor
morphine sulfate in 0.9 % sodium chloride/PF	morphine (PF) in 0.9 % sod chl
morphine sulfate in sodium chloride, iso-osmotic/PF	morphine(PF)in iso sod chlorid
morphine sulfate liposomal/PF	DepoDur (PF)
morphine sulfate/PF	Duramorph (PF)
morphine sulfate/PF	Infumorph P/F
morphine sulfate/PF	Mitigo (PF)
morphine sulfate/PF	morphine (PF)
morphine sulfate/dextrose 5 % in water	morphine in dextrose 5 %
morphine sulfate/dextrose 5%-water/PF	morphine (PF) in dextrose 5 %
morphine sulfate/naltrexone HCl	Embeda
nalbuphine HCl	nalbuphine
naltrexone HCl	Lotrexone
naltrexone HCl	Naltrex
oliceridine fumarate	Olinvyk
oxycodone HCl	Oxaydo
oxycodone HCl	Oxecta
oxycodone HCl	OxyContin
oxycodone HCl	Roxicodone

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
oxycodone HCl	RoxyBond
oxycodone HCl	oxycodone
oxycodone HCl/acetaminophen	Endocet
oxycodone HCl/acetaminophen	Nalocet
oxycodone HCl/acetaminophen	Percocet
oxycodone HCl/acetaminophen	Primlev
oxycodone HCl/acetaminophen	Prolate
oxycodone HCl/acetaminophen	Roxicet
oxycodone HCl/acetaminophen	Xartemis XR
oxycodone HCl/acetaminophen	oxycodone-acetaminophen
oxycodone HCl/aspirin	Endodan
oxycodone HCl/aspirin	Percodan
oxycodone HCl/aspirin	oxycodone-aspirin
oxycodone myristate	Xtampza ER
oxymorphone HCl	Opana
oxymorphone HCl	Opana ER
oxymorphone HCl	oxymorphone
pentazocine HCl/naloxone HCl	pentazocine-naloxone
pentazocine lactate	Talwin
sufentanil citrate	Dsuvia
sufentanil citrate/bupivacaine HCl/0.9 % sodium chloride/PF	sufentanil-bupivacain-NaCl(PF)
tapentadol HCl	Nucynta
tapentadol HCl	Nucynta ER
tramadol HCl	ConZip
tramadol HCl	Qdolo
tramadol HCl	Ultram
tramadol HCl	Ultram ER
tramadol HCl	tramadol
tramadol HCl/acetaminophen	Ultracet
tramadol HCl/acetaminophen	tramadol-acetaminophen
tramadol HCl/celecoxib	Seglentis
Antipsychotics	
acepromazine maleate	acepromazine maleate (bulk)
aripiprazole	Abilify
aripiprazole	Abilify Asimtufii
aripiprazole	Abilify Discmelt
aripiprazole	Abilify Maintena
aripiprazole	Abilify MyCite
aripiprazole	Abilify MyCite Maintenance Kit
aripiprazole	Abilify MyCite Starter Kit
aripiprazole	aripiprazole
aripiprazole lauroxil	Aristada
aripiprazole lauroxil, submicronized	Aristada Initio
asenapine	Secuado
asenapine maleate	Saphris
asenapine maleate	Saphris (black cherry)
asenapine maleate	asenapine maleate

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
brexpiprazole	Rexulti
cariprazine HCl	Vraylar
chlorpromazine HCl	chlorpromazine
chlorpromazine HCl	chlorpromazine (bulk)
clozapine	Clozaril
clozapine	FazaClo
clozapine	Versacloz
clozapine	clozapine
fluphenazine HCl	fluphenazine HCl
fluphenazine decanoate	fluphenazine decanoate
fluphenazine decanoate	fluphenazine decanoate (bulk)
haloperidol	haloperidol
haloperidol	haloperidol (bulk)
haloperidol decanoate	Haldol Decanoate
haloperidol decanoate	haloperidol decanoate
haloperidol decanoate	haloperidol decanoate (bulk)
haloperidol lactate	Haldol
haloperidol lactate	haloperidol lactate
iloperidone	Fanapt
loxapine	Adasuve
loxapine succinate	loxapine succinate
lumateperone tosylate	Caplyta
lurasidone HCl	Latuda
lurasidone HCl	lurasidone
molindone HCl	molindone
olanzapine	Zyprexa
olanzapine	Zyprexa Zydys
olanzapine	olanzapine
olanzapine pamoate	Zyprexa Relprevv
olanzapine/fluoxetine HCl	Symbyax
olanzapine/fluoxetine HCl	olanzapine-fluoxetine
olanzapine/samidorphan malate	Lybalvi
paliperidone	Invega
paliperidone	paliperidone
paliperidone palmitate	Invega Hafyera
paliperidone palmitate	Invega Sustenna
paliperidone palmitate	Invega Trinza
perphenazine	perphenazine
perphenazine	perphenazine (bulk)
perphenazine/amitriptyline HCl	perphenazine-amitriptyline
pimavanserin tartrate	Nuplazid
pimozide	Orap
pimozide	pimozide
prochlorperazine maleate	Compazine
prochlorperazine maleate	prochlorperazine maleate
quetiapine fumarate	Seroquel
quetiapine fumarate	Seroquel XR
quetiapine fumarate	quetiapine

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
risperidone	Perseris
risperidone	Risperdal
risperidone	Risperdal M-TAB
risperidone	Uzedy
risperidone	risperidone
risperidone microspheres	Risperdal Consta
risperidone microspheres	Rykindo
thioridazine HCl	thioridazine
thioridazine HCl	thioridazine (bulk)
thiothixene	thiothixene
trifluoperazine HCl	trifluoperazine
ziprasidone HCl	Geodon
ziprasidone HCl	ziprasidone HCl
ziprasidone mesylate	Geodon
ziprasidone mesylate	ziprasidone mesylate
Anxiolytics/Hypnotics	
alprazolam	Alprazolam Intensol
alprazolam	Xanax
alprazolam	Xanax XR
alprazolam	alprazolam
amobarbital sodium	Amytal
bromelains/melatonin/herbal complex no.233	MidNite PM
bupirone HCl	bupirone
butabarbital sodium	Butisol
calcium carb,hydroxide/soy isoflavone/black cohosh/melatonin	Estroven Nighttime (cal-meltn)
calcium phosphate/melatonin	calcium-melatonin
chlordiazepoxide HCl	chlordiazepoxide HCl
clonazepam	Klonopin
clonazepam	clonazepam
clorazepate dipotassium	Tranxene T-Tab
clorazepate dipotassium	clorazepate dipotassium
daridorexant HCl	Quviviq
dexmedetomidine HCl	Igalmi
dexmedetomidine HCl	Precedex
dexmedetomidine HCl	dexmedetomidine
dexmedetomidine HCl in 0.9 % sodium chloride	Precedex in 0.9 % sodium chlor
dexmedetomidine HCl in 0.9 % sodium chloride	dexmedetomidine in 0.9 % NaCl
dexmedetomidine in 5 % dextrose in water	dexmedetomidine in dextrose 5%
diazepam	Diazepam Intensol
diazepam	Valium
diazepam	diazepam
doxepin HCl	Silenor
doxepin HCl	doxepin
estazolam	estazolam
eszopiclone	Lunesta
eszopiclone	eszopiclone
ethyl alcohol/herbal drugs	Lydia Pinkham Herbal

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
flurazepam HCl	flurazepam
hydroxyzine HCl	hydroxyzine HCl
hydroxyzine pamoate	Vistaril
hydroxyzine pamoate	hydroxyzine pamoate
lemborexant	Dayvigo
lorazepam	Ativan
lorazepam	Lorazepam Intenso
lorazepam	Loreev XR
lorazepam	lorazepam
lorazepam in 0.9 % sodium chloride	lorazepam in 0.9% sod chloride
lorazepam in 5 % dextrose and water	lorazepam in dextrose 5 %
melatonin	Kids Melatonin
melatonin	Meladox
melatonin	Melatin
melatonin	MelatoninMax
melatonin	VitaJoy Melatonin
melatonin	melatonin
melatonin/5-HTP/valerian/folic acid/dietary combination 28	Hypnosom
melatonin/5-Hydroxytryptophan/tryptophan/B6/magnesium oxide	Somnicin
melatonin/5-hydroxytryptophan/theanine/lemon balm leaf xt	Relax Night Calm
melatonin/GABA/5-HTP/theanine/magnesium citrate,oxide/herbs	Sopordren
melatonin/GABA/tryptophan/valerian root/hops/lemon balm	Sleep Optimizer
melatonin/ascorbic acid/vitamin D3/zinc citrate/elderberry	Kids Sleep Immune Health
melatonin/ascorbic acid/vitamin D3/zinc citrate/elderberry	Sleep Immune Health
melatonin/chamomile flower	melatonin-chamomile flower
melatonin/gamma-aminobutyric acid/herbal complex no.183	Sinralyne-PM
melatonin/gamma-aminobutyric acid/valerian	Medi-Doze
melatonin/genistein/herbal complex no.233	Midnite for Menopause
melatonin/herbal complex no.184	Sleep Caps
melatonin/herbal complex no.184	melatonin-herbal complex #184
melatonin/herbal complex no.233	MidNite
melatonin/lemon balm leaf extract	melatonin-lemon balm leaf extr
melatonin/mag carbonate,glycinate/pot bic/GABA/glycine/lemon	Soothing Night
melatonin/magnesium citrate	SlowMag Mg Calm-Sleep
melatonin/passion flower/lemon balm	Unisom Simple Slumbers
melatonin/pyridoxal phosphate	Melatonin-B6 (pyridoxal phos)
melatonin/pyridoxal phosphate	melatonin-pyridoxal phos (B6)
melatonin/pyridoxine	Melatonin (with B6)
melatonin/pyridoxine	melatonin-pyridoxine (vit B6)

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
melatonin/pyridoxine HCl (vit B6)	Melatonex
melatonin/pyridoxine HCl (vit B6)	melatonin-pyridoxine HCl (B6)
melatonin/theanine	melatonin-theanine
melatonin/theanine/lemon balm/chamomile flower/lavender	Kids Sleep Calm
melatonin/theanine/lemon balm/chamomile flower/lavender	Sleep Calm
melatonin/tryptophan	Restone
melatonin/tryptophan	Wrestone
melatonin/tryptophan/valerian/chamomile/niacin/inositol/B6	Toprophan
meprobamate	meprobamate
midazolam HCl	midazolam
oxazepam	oxazepam
pentobarbital sodium	Nembutal Sodium
pentobarbital sodium	pentobarbital sodium
phenobarbital	phenobarbital
phenobarbital sodium	phenobarbital sodium
phenobarbital sodium in 0.9 % sodium chloride	phenobarbital in 0.9 % sod chl
quazepam	Doral
quazepam	quazepam
ramelteon	Rozerem
ramelteon	ramelteon
secobarbital sodium	Seconal Sodium
suvorexant	Belsomra
tasimelteon	Hetlioz
tasimelteon	Hetlioz LQ
tasimelteon	tasimelteon
temazepam	Restoril
temazepam	temazepam
triazolam	Halcion
triazolam	triazolam
tryptophan	tryptophan
valerian root extract	valerian root extract
valerian root extract/hops	valerian root extract-hops
valerian root/valerian root extract	valerian root-valerian root xt
valerian rt/passion flower/hops/cherry/magnesium comb/potass	SynovX Calm
valerian/passion flower/hops/lemon balm	valerian-flower-hops-lemon
vit B/folic acid/calcium/soy xt/black cohosh xt/melatonin	Complete Balance Menopause Rlf
zaleplon	Sonata
zaleplon	zaleplon
zolpidem tartrate	Ambien
zolpidem tartrate	Ambien CR
zolpidem tartrate	Edluar
zolpidem tartrate	Intermezzo
zolpidem tartrate	Zolpimist

Appendix BG. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request

Generic Name	Brand Name
zolpidem tartrate	zolpidem
Lithium and Other Mood Stabilizers	
carbamazepine	Carbatrol
carbamazepine	Epitol
carbamazepine	Equetro
carbamazepine	Tegretol
carbamazepine	Tegretol XR
carbamazepine	carbamazepine
clonazepam	Klonopin
clonazepam	clonazepam
divalproex sodium	Depakote
divalproex sodium	Depakote ER
divalproex sodium	Depakote Sprinkles
divalproex sodium	divalproex
lamotrigine	Lamictal
lamotrigine	Lamictal ODT
lamotrigine	Lamictal ODT Starter (Blue)
lamotrigine	Lamictal ODT Starter (Green)
lamotrigine	Lamictal ODT Starter (Orange)
lamotrigine	Lamictal Starter (Blue) Kit
lamotrigine	Lamictal Starter (Green) Kit
lamotrigine	Lamictal Starter (Orange) Kit
lamotrigine	Lamictal XR
lamotrigine	Lamictal XR Starter (Blue)
lamotrigine	Lamictal XR Starter (Green)
lamotrigine	Lamictal XR Starter (Orange)
lamotrigine	Subvenite
lamotrigine	Subvenite Starter (Blue) Kit
lamotrigine	Subvenite Starter (Green) Kit
lamotrigine	Subvenite Starter (Orange) Kit
lamotrigine	lamotrigine
lithium carbonate	Lithobid
lithium carbonate	lithium carbonate
lithium citrate	lithium citrate
oxcarbazepine	Oxtellar XR
oxcarbazepine	Trileptal
oxcarbazepine	oxcarbazepine
valproic acid	Depakene
valproic acid	Stavzor
valproic acid	valproic acid
valproic acid (as sodium salt) (valproate sodium)	Depacon
valproic acid (as sodium salt) (valproate sodium)	Depakene
valproic acid (as sodium salt) (valproate sodium)	valproate sodium
valproic acid (as sodium salt) (valproate sodium)	valproic acid (as sodium salt)

Appendix CA: Specifications Defining Parameters for Covariates in this Request

Baseline Characteristics

Covariate Number	Covariate	Include in Baseline Table?	Include in Propensity Score model?	Create Subgroup?	Care setting	Principal diagnosis position
<u>Demographics</u>						
	Calendar year	Yes	Yes	No	N/A	N/A
	Age (in years) at index date	Yes	Yes	Yes	N/A	N/A
	Sex	Yes	Yes	Yes	N/A	N/A
<u>Psychiatric history</u>						
1	Previous ISH in any care setting ever	Yes	No	No	Any	Any
74	Psychiatric history overall	Yes	Yes	No	N/A	N/A
2	Psychiatric drug dispensings	Yes	No	--	N/A	N/A
3	Self harm encounter (Patrick algorithm for ICD-9 era)	Yes	No	No	Any	Any
4	Any other psychiatric event (inpatient, outpatient, ED; including psychotherapy)	Yes	No	--	Any	Any
5	ADHD (Attention-deficit/hyperactivity disorder)	Yes	No	No	Any	Any
6	Akathisia	Yes	No	No	Any	Any
7	Anxiety	Yes	No	No	Any	Any
8	Behavioral Disorder	Yes	No	No	Any	Any
9	Bipolar Disorder	Yes	No	No	Any	Any
10	Cerebral degenerations usually manifested in childhood	Yes	No	No	Any	Any
11	Conduct Disorder	Yes	No	No	Any	Any
12	Delirium	Yes	No	No	Any	Any
13	Depression	Yes	No	No	Any	Any
14	Electroconvulsive Therapy	Yes	No	No	Any	Any
15	Hallucination	Yes	No	No	Any	Any
16	Obsessive-Compulsive Disorder	Yes	No	No	Any	Any

Appendix CA: Specifications Defining Parameters for Covariates in this Request

Baseline Characteristics

Covariate Number	Covariate	Include in Baseline Table?	Include in Propensity		Care setting	Principal diagnosis position
			Score model?	Create Subgroup?		
17	Other Cerebral degenerations	Yes	No	No	Any	Any
18	Other mental disorders	Yes	No	No	Any	Any
19	Other Psychological Disorders	Yes	No	No	Any	Any
20	Persistent mental disorders due to conditions classified elsewhere	Yes	No	No	Any	Any
21	Personality disorders	Yes	No	No	Any	Any
22	Pervasive developmental disorders	Yes	No	No	Any	Any
23	Post-traumatic stress disorder	Yes	No	No	Any	Any
24	Psychotherapy	Yes	No	No	Any	Any
25	Psychotic Conditions	Yes	No	No	Any	Any
26	Schizophrenia	Yes	No	No	Any	Any
27	Sleep disorder	Yes	No	No	Any	Any
28	Substance abuse	Yes	No	No	Any	Any
29	Suicidal behavior	Yes	No	No	Any	Any
30	Transcranial magnetic stimulation	Yes	No	No	Any	Any
31	Vagus nerve stimulation	Yes	No	No	Any	Any
Medical History						
	Combined comorbidity score	Yes	Yes	No	Any	N/A
	Diabetes severity score (aDCSI)	Yes	Yes	No	Any	N/A
32	Obesity diagnosis	Yes	Yes	No	Any	Any
73	Weight reduction surgery or procedure	Yes	Yes	No	N/A	N/A
53	Lifestyle intervention	Yes	Yes	No	N/A	N/A
33	Cardiovascular Disease	Yes	Yes	No	Any	Any

Appendix CA: Specifications Defining Parameters for Covariates in this Request

Baseline Characteristics

Covariate Number	Covariate	Include in Baseline Table?	Include in Propensity Score model?	Create Subgroup?	Care setting	Principal diagnosis position
34	Cognitive impairment (Alzheimer's Disease and Related Disorders, Senile Dementia)	Yes	Yes	No	Any	Any
35	Traumatic brain injury (traumatic brain injury and nonpsychotic disorders due to brain damage)	Yes	Yes	No	Any	Any
36	Migraine	Yes	Yes	No	Any	Any
37	Epilepsy	Yes	Yes	No	Any	Any
38	Chronic Pain	Yes	Yes	No	Any	Any
<u>Drug Use History</u>						
	GLP1-RA Product	No	No	No	N/A	N/A
39	albiglutide	Yes	No	No	N/A	N/A
40	dulaglutide	Yes	No	No	N/A	N/A
41	exenatide	Yes	No	No	N/A	N/A
42	liraglutide	Yes	No	No	N/A	N/A
43	lixisenatide	Yes	No	No	N/A	N/A
44	semaglutide	Yes	No	No	N/A	N/A
45	tirzepatide	Yes	No	No	N/A	N/A
54	Any anti-diabetic agents	Yes	No	No	N/A	N/A
55	insulin	Yes	Yes	No	N/A	N/A
56	metformin	Yes	Yes	No	N/A	N/A
57	alpha-glucosidase inhibitors	Yes	Yes	No	N/A	N/A
58	thiazolidinediones	Yes	Yes	No	N/A	N/A
69	meglitinides (nateglinide, repaglinide)	Yes	Yes	No	N/A	N/A
70	amylin analogue (pramlintide)	Yes	Yes	No	N/A	N/A
71	sulfonylureas	Yes	Yes	No	N/A	N/A

Appendix CA: Specifications Defining Parameters for Covariates in this Request

Baseline Characteristics

Covariate Number	Covariate	Include in Baseline Table?	Include in Propensity Score model?	Create Subgroup?	Care setting	Principal diagnosis position
72	bile acid sequestrants (colesevelam)	Yes	Yes	No	N/A	N/A
59	Other weight loss agents	Yes	Yes	No	N/A	N/A
60	benzphetamine	Yes	No	No	N/A	N/A
61	combination naltrexone and bupropion	Yes	No	No	N/A	N/A
62	diethylpropion	Yes	No	No	N/A	N/A
63	lorcaserin	Yes	No	No	N/A	N/A
64	phentermine	Yes	No	No	N/A	N/A
65	phentermine-topiramate	Yes	No	No	N/A	N/A
66	phendimetrazine	Yes	No	No	N/A	N/A
67	orlistat	Yes	No	No	N/A	N/A
68	setmelanotide	Yes	No	No	N/A	N/A
	Other agents	No	No	No	N/A	N/A
46	Analgesic opiates	Yes	Yes	No	N/A	N/A
47	Antipsychotics	Yes	No	No	N/A	N/A
48	Anxiolytics/hypnotics	Yes	No	No	N/A	N/A
49	Lithium & other mood stabilizers	Yes	No	No	N/A	N/A
50	Antidepressants	Yes	No	No	N/A	N/A
Health Service Utilization Intensity						
	Mean number of ambulatory encounters	Yes	Yes	No	Ambulatory	N/A
	Mean number of inpatient encounters	Yes	Yes	No	Inpatient	N/A
	Mean number of non-acute institutional stays	Yes	Yes	No	Institutional Stay	N/A
	Mean number of ED visits	Yes	Yes	No	Emergency	N/A
	Mean number of other ambulatory visits	Yes	Yes	No	Other Ambulatory	N/A
	Count of dispensings	Yes	Yes	No	N/A	N/A

Appendix CA: Specifications Defining Parameters for Covariates in this Request

Baseline Characteristics

Covariate Number	Covariate	Include in Baseline Table?	Include in Propensity Score model?	Create Subgroup?	Care setting	Principal diagnosis position
	Count of unique generic names dispensed	Yes	Yes	No	N/A	N/A
	Count of unique class names dispensed	Yes	Yes	No	N/A	N/A

Appendix CA: Specifications Defining Parameters for Covariates in this Request

Baseline Characteristics

Code Category	Evaluation period start	Evaluation period end	Exclude evidence of days supply if covariate includes dispensings	Number of instances the covariate should be found in evaluation period
N/A	0	0	N/A	N/A
N/A	0	0	N/A	N/A
N/A	0	0	N/A	N/A
Diagnosis	Ever	-1	N/A	1
Covar2 or Covar3 or Covar4	N/A	N/A	N/A	1
Drug Code; Procedure Codes	-183	0	Dispensing and days supply	1
Diagnosis	-183	-1	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1

Appendix CA: Specifications Defining Parameters for Covariates in this Request

Baseline Characteristics

Code Category	Evaluation period start	Evaluation period end	Exclude evidence of days supply if covariate includes dispensings	Number of instances the covariate should be found in evaluation period
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
N/A	-183	0	N/A	N/A
N/A	-183	0	N/A	N/A

Appendix CA: Specifications Defining Parameters for Covariates in this Request

Baseline Characteristics

Code Category	Evaluation period start	Evaluation period end	Exclude evidence of days supply if covariate includes dispensings	Number of instances the covariate should be found in evaluation period
Diagnosis	-183	0	N/A	1
Procedure	-183	-1	N/A	1
Procedure	-183	-1	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Diagnosis	-183	0	N/A	1
Drug Code; Procedure Codes	0	0	Dispensing date only	1
Drug Code; Procedure Codes	0	0	Dispensing date only	1
Drug Code; Procedure Codes	0	0	Dispensing date only	1
Drug Code; Procedure Codes	0	0	Dispensing date only	1
Drug Code; Procedure Codes	0	0	Dispensing date only	1
Drug Code; Procedure Codes	0	0	Dispensing date only	1
Drug Code; Procedure Codes	0	0	Dispensing date only	1
Drug Code	-183	0	Dispensing and days supply	1
Drug Code; Procedure Codes	-183	0	Dispensing and days supply	1

Appendix CA: Specifications Defining Parameters for Covariates in this Request

Baseline Characteristics

Code Category	Evaluation period start	Evaluation period end	Exclude evidence of days supply if covariate includes dispensings	Number of instances the covariate should be found in evaluation period
Drug Code	-183	0	Dispensing and days supply	1
Drug Code	-183	0	Dispensing and days supply	1
Drug Code	-183	0	Dispensing and days supply	1
Drug Code	-183	0	Dispensing and days supply	1
Drug Code	-183	0	Dispensing and days supply	1
Drug Code	-183	0	Dispensing and days supply	1
Drug Code	-183	0	Dispensing and days supply	1
Drug Code	-183	0	Dispensing and days supply	1
Drug Code	-183	0	Dispensing and days supply	1
Drug Code	-183	0	Dispensing and days supply	1
Drug Code	-183	0	Dispensing and days supply	1
Drug Code	-183	0	Dispensing and days supply	1
Drug Code	-183	0	Dispensing and days supply	1
Drug Code	-183	0	Dispensing and days supply	1
Drug Code	-183	0	Dispensing and days supply	1
Drug Code	-183	0	Dispensing and days supply	1
Drug Code	-183	0	Dispensing and days supply	1
Drug Code; Procedure Codes	-183	0	Dispensing and days supply	1
Drug Code; Procedure Codes	-183	0	Dispensing and days supply	1
Drug Code; Procedure Codes	-183	0	Dispensing and days supply	1

Appendix CA: Specifications Defining Parameters for Covariates in this Request

Baseline Characteristics

Code Category	Evaluation period start	Evaluation period end	Exclude evidence of days supply if covariate includes dispensings	Number of instances the covariate should be found in evaluation period
Drug Code; Procedure Codes	-183	0	Dispensing and days supply	1
Drug Code	-183	0	Dispensing and days supply	1
Drug Code	-183	0	Dispensing and days supply	1
N/A	-183	0	N/A	N/A
N/A	-183	0	N/A	N/A
N/A	-183	0	N/A	N/A
N/A	-183	0	N/A	N/A
N/A	-183	0	N/A	N/A
N/A	-183	0	N/A	N/A
N/A	-183	0	N/A	N/A
N/A	-183	0	N/A	N/A

N/A: Not Applicable

Appendix CB: Specifications Defining Parameters in this Request

The Center for Drug Evaluation and Research (CDER) has requested execution of the Cohort Identification and Descriptive Analysis (CIDA) tool (version 13.0.1) to investigate whether there is an increased risk of intentional self-harm among diabetic patients who receive GLP-1 receptor agonists compared to SGLT-2 inhibitors and DPP4 inhibitors. This query includes plus programming to construct the 2+ dispensing cohort and to produce additional plots.

Query Period: 10/1/2015 - 9/30/2023
Coverage Requirement: Medical & Drug Coverage
Pre-index enrollment requirement: 183 days
Enrollment gap: 45 days
Restrictions: None
Age groups: 18-24, 25-44, 45-64, 65-79, 80+
Envelope macro: Reclassify encounters during inpatient stay as inpatient
Distribution of index-defining codes: Y
Freeze data: Y

	GLP-1RA vs. SGLT2i Comparison		GLP-1RA vs. DPP4i Comparison		GLP-1RA vs. SGLT2i IP/ED Comparison	
Logic						
Group	glp1ra	sglt2i	glp1ra	dpp4i	glp_iped	sglt_iped
Drug/Exposure						
Index Exposure/Comparator	GLP-1 receptor agonists	SGLT2 inhibitors	GLP-1 receptor agonists	DPP4 inhibitors	GLP-1 receptor agonists	SGLT2 inhibitors
Cohort Definition	First valid exposure episodes during query period		First valid exposure episodes during query period		First valid exposure episodes during query period	
Incidence Exposure washout period	(-183, -1)		(-183, -1)		(-183, -1)	
Incident w/ Respect to:	GLP1RA SGLT2i DPP4i	GLP1RA SGLT2i DPP4i	GLP1RA SGLT2i DPP4i	GLP1RA SGLT2i DPP4i	GLP1RA SGLT2i DPP4i	GLP1RA SGLT2i DPP4i
Exclude evidence of days supply if exposure washout include dispensings	Washout lookback period should search for only evidence of a dispensing date		Washout lookback period should search for only evidence of a dispensing date		Washout lookback period should search for only evidence of a dispensing date	
Stockpiling	See stockpiling tab		See stockpiling tab		See stockpiling tab	
Build Episodes on Point Exposure?	No		No		No	
Treatment Episode Gap	30 days		30 days		30 days	

Appendix CB: Specifications Defining Parameters in this Request						
Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings						
Number of instances the criteria should be found in the evaluation period						
Inclusion/Exclusion group	Other Diabetes diagnosis <i>(1 insulin code AND <u>no</u> code for antidiabetics)</i> OR <i>(1 T1DM code)</i> OR <i>(1 GDM/secondary DM code)</i>		Other Diabetes diagnosis <i>(1 insulin code AND <u>no</u> code for antidiabetics)</i> OR <i>(1 T1DM code)</i> OR <i>(1 GDM/secondary DM code)</i>		Other Diabetes diagnosis <i>(1 insulin code AND <u>no</u> code for antidiabetics)</i> OR <i>(1 T1DM code)</i> OR <i>(1 GDM/secondary DM code)</i>	
Type of criteria	Exclusion		Exclusion		Exclusion	
Evaluation Period Start	-183		-183		-183	
Evaluation Period End	0		0		0	
Care Setting/PDX	Any care setting		Any care setting		Any care setting	
Principal Diagnosis Position	Any		Any		Any	
Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	N/A		N/A		N/A	
Number of instances the criteria should be found in the evaluation period	1		1		1	
Inclusion/Exclusion group	SGLT2i DPP4i	GLP-1 RA DPP4i	DPP4i SGLT2i	GLP-1 RA SGLT2i	SGLT2i DPP4i	GLP-1 RA DPP4i
Type of criteria	Exclusion		Exclusion		Exclusion	
Evaluation Period Start	-183		-183		-183	
	GLP-1RA vs. SGLT2i Comparison		GLP-1RA vs. DPP4i Comparison		GLP-1RA vs. SGLT2i IP/ED Comparison	
Evaluation Period End	0		0		0	
Care Setting/PDX	Any		Any		Any	
Principal Diagnosis Position	Any		Any		Any	

Appendix CB: Specifications Defining Parameters in this Request						
Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	Evaluation period should search for evidence of days supply		Evaluation period should search for evidence of days supply		Evaluation period should search for evidence of days supply	
Number of instances the criteria should be found in the evaluation period	1		1		1	
Inclusion/Exclusion group	Pregnancy		Pregnancy		Pregnancy	
Type of criteria	Exclusion		Exclusion		Exclusion	
Evaluation Period Start	-183 days		-183 days		-183 days	
Evaluation Period End	0		0		0	
Care Setting/PDX	Any		Any		Any	
Principal Diagnosis Position	Any		Any		Any	
Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	N/A		N/A		N/A	
Number of instances the criteria should be found in the evaluation period	1		1		1	
Inclusion/Exclusion group	GLP-1RA	SGLT2i	GLP-1 RA	DPP4i	GLP-1 RA	SGLT2i
Type of criteria	Exclusion		Exclusion		Exclusion	
Evaluation Period Start	-183		-183		-183	
Evaluation Period End	-1		-1		-1	
Care Setting/PDX	Any		Any		Any	
Principal Diagnosis Position	Any		Any		Any	
	GLP-1RA vs. SGLT2i Comparison		GLP-1RA vs. DPP4i Comparison		GLP-1RA vs. SGLT2i IP/ED Comparison	
Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	Evaluation period should search for only evidence of a dispensing date		Evaluation period should search for only evidence of a dispensing date		Evaluation period should search for only evidence of a dispensing date	

Appendix CB: Specifications Defining Parameters in this Request			
Number of instances the criteria should be found in the evaluation period	1	1	1
At Risk Time			
Minimum exposure episode duration	1	1	1
Maximum exposure episode duration	N/A	N/A	N/A
Risk window interval start	1	1	1
Censor treatment episode at evidence of:	*Death; *DP end date; *Query end date; *Initiation of SGLT2i *Treatment end + 30 days *Disenrollment *Hospitalization *Initiation of DPP4i	*Death; *DP end date; *Query end date; *Initiation of GLP1RA *Treatment end + 30 days *Disenrollment *Hospitalization *Initiation of DPP4i	*Death; *DP end date; *Query end date; *Initiation of SGLT2i *Treatment end + 30 days *Disenrollment *Hospitalization *Initiation of DPP4i
Blackout Period	1 (excludes 'same-day' HOIs)	1 (excludes same-day HOIs)	1 (excludes same-day HOIs)
Event/Outcome			
Event/Outcome	Intentional self harm	Intentional self harm	Intentional self harm
Incident event washout period	None	None	None
Care Setting	Any care setting	Any care setting	*IP *ED
Principal Diagnosis Position	Any	Any	Any
Exclude evidence of days supply if event washout includes dispensings	N/A	N/A	N/A
	GLP-1RA vs. SGLT2i Comparison	GLP-1RA vs. DPP4i Comparison	GLP-1RA vs. SGLT2i IP/ED Comparison
Event de-duplication	De-duplicates occurrences of the same event group on the same day	De-duplicates occurrences of the same event group on the same day	De-duplicates occurrences of the same event group on the same day
Forced supply to attach to	N/A	N/A	N/A

Appendix CB: Specifications Defining Parameters in this Request			
Propensity Score Model Parameters			
PS Model Label	glp_sgl_t_all	glp_dpp_all	glp_sgl_t_iped
Covariates	See covariates tab	See covariates tab	See covariates tab
Firth Logistic Intercept Correct (FLIC) Method	No	No	No
High-dimensional Propensity Score	No	No	No
Output Kaplan Meier Plot	Yes	Yes	Yes
IPTW			
IP Weight	ATES (with stabilization)	ATES (with stabilization)	ATES (with stabilization)
Weight truncation	No truncation 1%ile truncation 2.5%ile truncation	No truncation 1%ile truncation 2.5%ile truncation	No truncation 1%ile truncation 2.5%ile truncation
Subgroup Analyses			
Stratifying variable	Sex	Sex	None
Subgroup Categories	Female, Male	Female, Male	N/A
Firth Logistic Intercept Correct (FLIC) Method	No	No	N/A
Re-estimate Propensity Score within subgroup level	Yes	Yes	N/A
Stratifying variable	Agegroup	Agegroup	None
Subgroup Categories	18-24, 25-44, 45-64, 65-79, 80+	18-24, 25-44, 45-64, 65-79, 80+	N/A
Firth Logistic Intercept Correct (FLIC) Method	No	No	N/A
Re-estimate Propensity Score within subgroup level	Yes	Yes	N/A
ICD-9-CM, HCPCS, and CPT codes are provided by Optum360. NDC codes are checked against First Data Bank's "National Drug Data File (NDDF®) Plus."			
N/A: Not Applicable			

Appendix CB: Specifications Defining Parameters in this Request

This request executed the Cohort Identification and Descriptive Analysis (CIDA) tool (version 13.0.1) to investigate whether there is an increased risk of intentional self-harm among diabetic patients who receive GLP-1 receptor agonists compared to SGLT-2 inhibitors and DPP4 inhibitors. This query includes plus programming to construct the 2+ dispensing cohort and to produce additional plots.

Query Period: 10/1/2015 - 9/30/2023
Coverage Requirement: Medical & Drug Coverage
Pre-index enrollment requirement: 183 days
Enrollment gap: 45 days
Restrictions: None
Age groups: 18-24, 25-44, 45-64, 65-79, 80+
Envelope macro: Reclassify encounters during inpatient stay as inpatient
Distribution of index-defining codes: Y
Freeze data: Y

GLP-1RA vs. SGLT2i 15 day Comparison		GLP1RA 2+ dispensing vs. SGLT2i 2+ dispensing Comparison		GLP-1RA vs. SGLT2i Obesity and Diabetes	
glp_15	sglt_15	glp_2disp	sglt_2disp	glp_obesdm	sglt_obesdm
GLP-1 receptor agonists SGLT2 inhibitors First valid exposure episodes during query period (-183, -1) GLP1RA SGLT2i DPP4i	SGLT2 inhibitors First valid exposure episodes during query period (-183, -1) GLP1RA SGLT2i DPP4i	2+ dispensings of GLP-1 receptor agonists 2nd valid exposure episode during query period within 45 days of first dispensing (-183, -1) GLP1RA SGLT2i DPP4i	2+ dispensings of SGLT inhibitors 2nd valid exposure episode during query period within 45 days of first dispensing (-183, -1) GLP1RA SGLT2i DPP4i	GLP-1 receptor agonists SGLT2 inhibitors First valid exposure episodes during query period (-183, -1) GLP1RA SGLT2i DPP4i	SGLT2 inhibitors First valid exposure episodes during query period (-183, -1) GLP1RA SGLT2i DPP4i
Washout lookback period should search for only evidence of a dispensing date See stockpiling tab No 15 days 15 days	Washout lookback period should search for only evidence of a dispensing date See stockpiling tab Yes 30 days 30 days	Washout lookback period should search for only evidence of a dispensing date See stockpiling tab Yes 30 days 30 days	Washout lookback period should search for only evidence of a dispensing date See stockpiling tab No 30 days 30 days	Washout lookback period should search for only evidence of a dispensing date See stockpiling tab No 30 days 30 days	Washout lookback period should search for only evidence of a dispensing date See stockpiling tab No 30 days 30 days

Appendix CB: Specifications Defining Parameters in this Request

1 day	1 day	1 day
GLP-1RA vs. SGLT2i 15 day Comparison	GLP1RA 2+ dispensing vs. SGLT2i 2+ dispensing Comparison	GLP-1RA vs. SGLT2i Obesity and Diabetes
Any	Any	Any
Any	Any	Any
N/A	N/A	N/A
Yes	Yes	Yes
Type 2 diabetes diagnosis (1 T2DM code AND 1 oral anti-diabetic dispensing)	Type 2 diabetes diagnosis (1 T2DM code AND 1 oral anti-diabetic dispensing)	Type 2 Diabetes diagnosis (1 T2DM code AND 1 oral anti-diabetic dispensing)
Inclusion	Inclusion	Inclusion
-183	-183	-183
0	0	0
Any care setting	Any care setting	Any care setting
Any	Any	Any
N/A	N/A	N/A
1	1	1
		Obesity diagnosis
		Inclusion
		-183
		0
		Any care setting
		Any
		N/A
		1

Appendix CB: Specifications Defining Parameters in this Request

Other Diabetes diagnosis (1 insulin code AND <u>no</u> code for antidiabetics) OR (1 T1DM code) OR (1 GDM/secondary DM code)		Other Diabetes diagnosis (1 insulin code AND <u>no</u> code for antidiabetics) OR (1 T1DM code) OR (1 GDM/secondary DM code)		Other Diabetes diagnosis (1 insulin code AND <u>no</u> code for antidiabetics) OR (1 T1DM code) OR (1 GDM/secondary DM code)	
GLP-1RA vs. SGLT2i 15 day Comparison		GLP1RA 2+ dispensing vs. SGLT2i 2+ dispensing Comparison		GLP-1RA vs. SGLT2i Obesity and Diabetes	
Exclusion -183 0 Any care setting Any N/A 1		Exclusion -183 0 Any care setting Any N/A 1		Exclusion -183 0 Any care setting Any N/A 1	
SGLT2i DPP4i	GLP-1 RA DPP4i	SGLT2i DPP4i	GLP-1 RA DPP4i	SGLT2i DPP4i	GLP-1 RA DPP4i
Exclusion -183 0 Any Any Evaluation period should search for evidence of days supply 1		Exclusion -183 0 Any Any Evaluation period should search for evidence of days supply 1		Exclusion -183 0 Any Any Evaluation period should search for evidence of days supply 1	
Pregnancy Exclusion -183 days 0		Pregnancy Exclusion -183 days 0		Pregnancy Exclusion -183 days 0	

Appendix CB: Specifications Defining Parameters in this Request

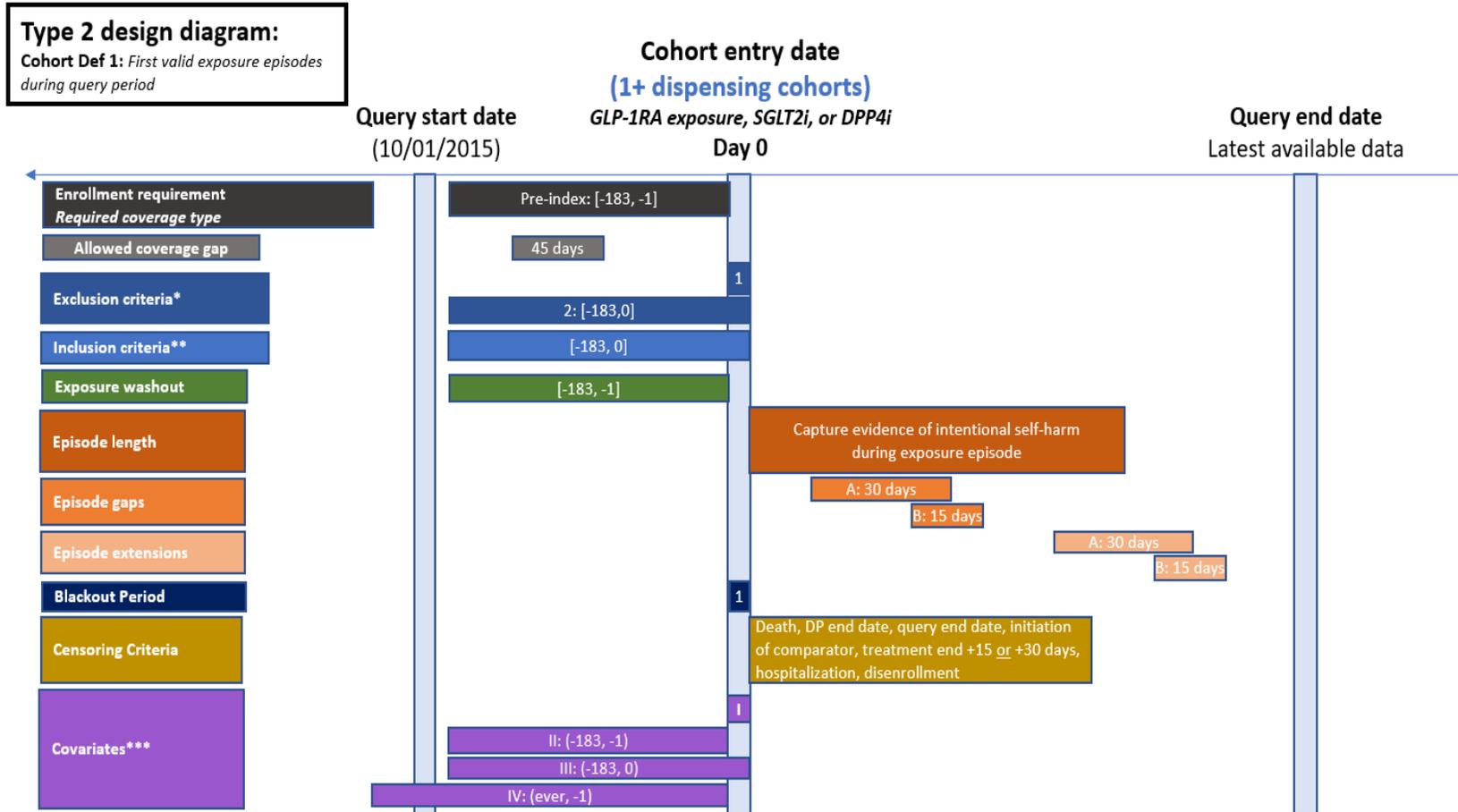
Any	Any	Any	Any	Any	Any
Any	Any	Any	Any	Any	Any
N/A	N/A	N/A	N/A	N/A	N/A
1	1	1	1	1	1
GLP-1 RA	SGLT2i	GLP-1 RA	SGLT2i	GLP-1 RA	SGLT2i
GLP-1RA vs. SGLT2i 15 day Comparison		GLP1RA 2+ dispensing vs. SGLT2i 2+ dispensing Comparison		GLP-1RA vs. SGLT2i Obesity and Diabetes	
Exclusion		Exclusion		Exclusion	
-183		-183		-183	
-1		-1		-1	
Any		Any		Any	
Any		Any		Any	
Evaluation period should search for only evidence of a dispensing date		Evaluation period should search for only evidence of a dispensing date		Evaluation period should search for only evidence of a dispensing date	
1		1		1	
1		N/A		1	
N/A		N/A		N/A	
1		N/A		1	
*Death;	*Death;	*Death;	*Death;	*Death;	*Death;
*DP end date;	*DP end date;	*DP end date;	*DP end date;	*DP end date;	*DP end date;
*Query end date;	*Query end date;	*Query end date;	*Query end date;	*Query end date;	*Query end date;
*Initiation of SGLT2i	*Initiation of GLP1RA	*Initiation of SGLT2i	*Initiation of GLP1RA	*Initiation of SGLT2i	*Initiation of GLP1RA
*Treatment end + 15 days	*Treatment end + 15 days	*Treatment end + 30 days	*Treatment end + 30 days	*Treatment end + 30 days	*Treatment end + 30 days
*Disenrollment	*Disenrollment	*Disenrollment	*Disenrollment	*Disenrollment	*Disenrollment
*Hospitalization	*Hospitalization	*Hospitalization	*Hospitalization	*Hospitalization	*Hospitalization
*Initiation of DPP4i	*Initiation of DPP4i	*Initiation of DPP4i	*Initiation of DPP4i	*Initiation of DPP4i	*Initiation of DPP4i
1 (excludes 'same-day' HOIs)		1 (excludes 'same-day' HOIs)		1 (excludes 'same-day' HOIs)	
Intentional self harm		Intentional self harm		Intentional self harm	

Appendix CB: Specifications Defining Parameters in this Request

None	None	None
Any care setting	Any care setting	Any care setting
Any	Any	Any
N/A	N/A	N/A
De-duplicates occurrences of the same event group on the same day	De-duplicates occurrences of the same event group on the same day	De-duplicates occurrences of the same event group on the same day
GLP-1RA vs. SGLT2i 15 day Comparison	GLP1RA 2+ dispensing vs. SGLT2i 2+ dispensing Comparison	GLP-1RA vs. SGLT2i Obesity and Diabetes
N/A	N/A	N/A
glp_sgl_15gap	glp_sgl_2dis	glp_sgl_obesdm
See covariates tab	See covariates tab	See covariates tab
No	No	No
No	No	No
Yes	Yes	Yes
ATES (with stabilization) No truncation 1%ile truncation 2.5%ile truncation	ATES (with stabilization) No truncation 1%ile truncation 2.5%ile truncation	ATES (with stabilization) No truncation 1%ile truncation 2.5%ile truncation
None	None	None
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
None	None	None
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

N/A: Not Applicable

Appendix CC: Design Diagram for This Request



***Exclusion Criteria**

Window 1: Comparator
Window 2: Type 1 diabetes AND NO antidiabetic agents, insulin, gestational diabetes, secondary diabetes

****Inclusion Criteria**

Window: Type 2 Diabetes AND oral antidiabetic;
Obesity only for the combined diabetes/obesity cohort

*****Covariates:**

Window I: Age, year, race, sex, individual GLP-1RA product use (applicable only to GLP-1RA cohort)
Window II: Self-harm encounter, use of weight loss procedures
Window III: Combined comorbidity score, aDSCi, psychiatric history overall, psychiatric and psychotropic drugs, other psychiatric event, obesity, cognitive impairment, traumatic brain injury, cardiovascular disease, migraine, epilepsy, chronic pain, analgesic opiates, antipsychotics, anxiolytics/hypnotics, lithium and other mood stabilizers, antidepressants, anti-diabetic agents, other anti-obesity agents, mean health service utilization by care setting, count of dispensings
Window IV: Previous intentional self-harm encounter in any care setting