

## 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

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

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

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

**Overview for Request: cder\_mpl1r\_wp215**

**Request ID:** cder\_mpl1r\_wp215

**Request Description:** This request evaluated the uptake and length of follow-up time of New Molecular Entities (NMEs) approved in 2019 in the Sentinel Distributed Database (SDD).

**Sentinel Routine Querying Module:** Cohort Identification and Descriptive Analysis (CIDA) module, version 10.4.0

**Data Source:** We distributed this query to 6 Sentinel Data Partners on October 22, 2021. The study period included data from January 1, 2019 through March 31, 2021. Please see Appendix A for a list of dates of available data for each Data Partner.

**Study Design:** We conducted a descriptive cohort study to calculate the duration of follow-up time available for new users of NMEs approved in 2019. We described demographic and clinical characteristics of new users of each NME based on history recorded in the year prior to initiation of treatment with NME. This was a Type 1 analysis in the Query Request Package (QRP) documentation.

**Exposures of Interest:** The exposures of interest were all NMEs approved in 2019; this report contains data on 24 of the 48 NMEs approved in that year. A second report contains data on the remaining NMEs. We defined the exposures of interest using dispensing and procedure data with National Drug Codes (NDCs) and Healthcare Common Procedure Coding System (HCPCS) procedure codes. The first qualifying dispensing or procedure was identified for all eligible patients; cohort re-entry was not allowed. Please see Appendix B for a list of generic and brand names of medical products and Appendix C for Healthcare Common Procedure Coding System, Level II (HCPCS) codes used to define exposure in this request.

**Cohort Eligibility Criteria:** We required members to be enrolled in health plans with medical and drug coverages in the 365 days prior to their index date in order to be included in the cohort; gaps in coverage of up to 45 days were allowed and treated as continuous enrollment. New use of each NME was defined by the absence of any days supplied of that NME in the 183 days prior to the index date. We defined the following age groups: 0-18, 19-64, and 65+ years.

**Baseline Characteristics:** We assessed the following characteristics on the index date of NME dispensing: age, year, sex. We also assessed the following characteristics in the 365 days prior to the index NME dispensing: acute myocardial infarction, Alzheimer's disease and related conditions, heart failure, depression, ischemic heart disease, rheumatoid arthritis/osteoarthritis, anemia, glaucoma, atrial fibrillation, diabetes, hyperlipidemia, hypertension, stroke/transient ischemic attack (TIA), breast cancer, colorectal cancer, prostate cancer, lung cancer, endometrial cancer, acquired hypothyroidism, asthma, benign prostatic hyperplasia, chronic kidney disease, chronic obstructive pulmonary disease (COPD) and bronchiectasis, osteoporosis, obesity, overweight, smoking, alcohol abuse or dependence, drug abuse or dependence, history of cardiac arrest, and history of coronary angioplasty or bypass. We identified diabetes, hyperlipidemia, hypertension, stroke/TIA, breast cancer, colorectal cancer, prostate cancer, lung cancer, endometrial cancer, acquired hypothyroidism, asthma, benign prostatic hyperplasia, chronic kidney disease, COPD and bronchiectasis, and osteoporosis by presence of one diagnosis or procedure code in the inpatient or non-acute institutional stay care setting (in any position) or two codes in the ambulatory visit, emergency department encounter, or other ambulatory visit (in any position). We identified atrial fibrillation by presence of one diagnosis or procedure code in the inpatient or non-acute institutional stay care setting (in the principal or secondary position) or two codes in the ambulatory visit, emergency department encounter, or other ambulatory visit (in any position). We identified acute myocardial infarction by presence of one diagnosis or procedure code in the inpatient care setting (in the principal or secondary position). All other conditions were assessed by the presence of one diagnosis, procedure, or dispensing code in any care setting (in any position). We used International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), and NDCs to define these conditions. Please see Appendix D for a list of diagnosis and procedure codes, Appendix E for a list of generic and brand names of medical products.

Please see Appendices F, G, and H for the specifications of parameters used in this request, baseline characteristics used in this request, and a design diagram.

**Limitations:** Algorithms to define exposures and covariates are imperfect and may be misclassified. Therefore, data should be interpreted with this limitation in mind.

**Overview for Request: cder\_mpl1r\_wp215**

**Notes:** Please contact the Sentinel Operations Center ([info@sentinelsystem.org](mailto:info@sentinelsystem.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.sentinelsystem.org/projects/SENTINEL/repos/sentinel-routine-querying-tool-documentation/browse>).

**Table of Contents**

<b>Glossary</b>	Summary of terms found in this report and their definitions
<b>Table 1a</b>	Aggregated Baseline Table For New Users Of Padcev in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1b</b>	Aggregated Baseline Table For New Users Of Piqray in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1c</b>	Aggregated Baseline Table For New Users Of Polivy in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1d</b>	Aggregated Baseline Table For New Users Of Pretomanid in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1e</b>	Aggregated Baseline Table For New Users Of Reblozyl in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1f</b>	Aggregated Baseline Table For New Users Of Recarbrio in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1g</b>	Aggregated Baseline Table For New Users Of Reyvow in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1h</b>	Aggregated Baseline Table For New Users Of Rinvoq in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1i</b>	Aggregated Baseline Table For New Users Of Rozlytrek in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1j</b>	Aggregated Baseline Table For New Users Of Scenesse in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1k</b>	Aggregated Baseline Table For New Users Of Skyrizi in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1l</b>	Aggregated Baseline Table For New Users Of Sunosi in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1m</b>	Aggregated Baseline Table For New Users Of Tissueblue in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1n</b>	Aggregated Baseline Table For New Users Of Trikafta in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1o</b>	Aggregated Baseline Table For New Users Of Turalio in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1p</b>	Aggregated Baseline Table For New Users Of Ubrelyv in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1q</b>	Aggregated Baseline Table For New Users Of Vyleesi in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1r</b>	Aggregated Baseline Table For New Users Of Vyndaqel in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1s</b>	Aggregated Baseline Table For New Users Of Vyondys 53 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1t</b>	Aggregated Baseline Table For New Users Of Wakix in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1u</b>	Aggregated Baseline Table For New Users Of Xcopri in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1v</b>	Aggregated Baseline Table For New Users Of Xenleta in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1w</b>	Aggregated Baseline Table For New Users Of Xpovio in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 1x</b>	Aggregated Baseline Table For New Users Of Zulresso in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 2a</b>	Summary of Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021
<b>Table 2b</b>	Summary of Follow-Up Time for Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021

## Table of Contents

<b>Table 3a</b>	Summary of Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021, by Sex
<b>Table 3b</b>	Summary of Follow-Up Time for Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021, by Sex
<b>Table 4a</b>	Summary of Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021, by Age Group
<b>Table 4b</b>	Summary of Follow-Up Time for Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021, by Age Group
<b>Table 5a</b>	Summary of Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021, by Year
<b>Table 5b</b>	Summary of Follow-Up Time for Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021, by Year
<b>Figure 1</b>	Counts of New Users of Padcev in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 2</b>	Counts of New Users of Piqray in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 3</b>	Counts of New Users of Polivy in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 4</b>	Counts of New Users of Pretomanid in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 5</b>	Counts of New Users of Reblozyl in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 6</b>	2021
<b>Figure 7</b>	Counts of New Users of Reyvow in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 8</b>	Counts of New Users of Rinvoq in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 9</b>	Counts of New Users of Rozlytrek in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 10</b>	Counts of New Users of Scenesse in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 11</b>	Counts of New Users of Skyrizi in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 12</b>	Counts of New Users of Sunosi in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 13</b>	Counts of New Users of Tissue blue in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 14</b>	Counts of New Users of Trikafta in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 15</b>	Counts of New Users of Turalio in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 16</b>	Counts of New Users of Ubrelyv in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 17</b>	Counts of New Users of Vyleesi in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 18</b>	Counts of New Users of Vyndaqel in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 19</b>	Counts of New Users of Vyondys 53 in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 20</b>	Counts of New Users of Wakix in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 21</b>	Counts of New Users of Xcopri in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 22</b>	Counts of New Users of Xenleta in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 23</b>	Counts of New Users of Xpovio in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Figure 24</b>	Counts of New Users of Zulresso in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021
<b>Appendix A</b>	Start and End Dates for Each Data Partner up to Request End Date (09/30/2021)
<b>Appendix B</b>	Generic and Brand Names of Medical Products Used to Define Exposures in this Request
<b>Appendix C</b>	Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Exposure in this Request
<b>Appendix D</b>	International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request

Table of Contents	
<b>Appendix E</b>	Generic and Brand Names of Medical Products Used to Define Covariates in this Request
<b>Appendix F</b>	Specifications For Request: cder_mpl1r_wp215
<b>Appendix G</b>	Baseline Characteristics For Request: cder_mpl1r_wp215
<b>Appendix H</b>	Design Diagrams For Request: cder_mpl1r_wp215

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

\*all terms may not be used in this report

**Table 1a. Aggregated Baseline Table For New Users Of Padcev in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	992	
Number of unique patients	992	
Demographics	Mean	Standard Deviation
Mean Age (years)	74.4	7.7
Age (years)	Number	Percent
0-18	0	0.0%
19-64	88	8.9%
65+	904	91.1%
Sex		
Female	269	27.1%
Male	723	72.9%
Year		
2019	0	0.0%
2020	767	77.3%
2021	225	22.7%
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index	Number	Percent
Acute myocardial infarction	24	2.4%
Alzheimer's disease and related conditions	48	4.8%
Heart failure	142	14.3%
Depression	248	25.0%
Ischemic heart disease	425	42.8%
Rheumatoid arthritis/osteoarthritis	256	25.8%
Anemia	759	76.5%
Glaucoma	116	11.7%
Atrial fibrillation	187	18.9%
Diabetes	297	29.9%
Hyperlipidemia	628	63.3%
Hypertension	776	78.2%
Stroke/TIA	64	6.5%
Breast cancer	37	3.7%
Colorectal cancer	40	4.0%
Prostate cancer	215	21.7%
Lung cancer	92	9.3%
Endometrial cancer	*****	*****
Acquired hypothyroidism	248	25.0%
Asthma	66	6.7%
Benign prostatic hyperplasia	230	23.2%
Chronic kidney disease	855	86.2%
COPD and bronchiectasis	214	21.6%
Osteoporosis	55	5.5%
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	245	24.7%
Overweight	184	18.5%
Smoking	632	63.7%
Alcohol Abuse or Dependence	42	4.2%
Drug Abuse or Dependence	25	2.5%
History of Cardiac Arrest	*****	*****
History of Coronary Angioplasty or Bypass	158	15.9%

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 1b. Aggregated Baseline Table For New Users Of Piqray in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	2,286	
Number of unique patients	2,286	
Demographics	Mean	Standard Deviation
Mean Age (years)	68.7	9.2
Age (years)	Number	Percent
0-18	0	0.0%
19-64	654	28.6%
65+	1,632	71.4%
Sex		
Female	2,242	98.1%
Male	44	1.9%
Year		
2019	870	38.1%
2020	1,230	53.8%
2021	186	8.1%
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index	Number	Percent
Acute myocardial infarction	15	0.7%
Alzheimer's disease and related conditions	71	3.1%
Heart failure	252	11.0%
Depression	646	28.3%
Ischemic heart disease	359	15.7%
Rheumatoid arthritis/osteoarthritis	517	22.6%
Anemia	1,197	52.4%
Glaucoma	241	10.5%
Atrial fibrillation	190	8.3%
Diabetes	469	20.5%
Hyperlipidemia	874	38.2%
Hypertension	1,170	51.2%
Stroke/TIA	69	3.0%
Breast cancer	2,229	97.5%
Colorectal cancer	52	2.3%
Prostate cancer	11	0.5%
Lung cancer	111	4.9%
Endometrial cancer	31	1.4%
Acquired hypothyroidism	481	21.0%
Asthma	151	6.6%
Benign prostatic hyperplasia	*****	*****
Chronic kidney disease	596	26.1%
COPD and bronchiectasis	235	10.3%
Osteoporosis	277	12.1%
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	465	20.3%
Overweight	317	13.9%
Smoking	653	28.6%
Alcohol Abuse or Dependence	32	1.4%
Drug Abuse or Dependence	60	2.6%
History of Cardiac Arrest	*****	*****
History of Coronary Angioplasty or Bypass	71	3.1%

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 1c. Aggregated Baseline Table For New Users Of Polivy in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	867	
Number of unique patients	867	
Demographics	Mean	Standard Deviation
Mean Age (years)	74.5	8.9
Age (years)	Number	Percent
0-18	0	0.0%
19-64	88	10.1%
65+	779	89.9%
Sex		
Female	370	42.7%
Male	497	57.3%
Year		
2019	36	4.2%
2020	696	80.3%
2021	135	15.6%
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index	Number	Percent
Acute myocardial infarction	17	2.0%
Alzheimer's disease and related conditions	55	6.3%
Heart failure	227	26.2%
Depression	204	23.5%
Ischemic heart disease	334	38.5%
Rheumatoid arthritis/osteoarthritis	272	31.4%
Anemia	659	76.0%
Glaucoma	129	14.9%
Atrial fibrillation	189	21.8%
Diabetes	249	28.7%
Hyperlipidemia	506	58.4%
Hypertension	622	71.7%
Stroke/TIA	52	6.0%
Breast cancer	43	5.0%
Colorectal cancer	34	3.9%
Prostate cancer	65	7.5%
Lung cancer	30	3.5%
Endometrial cancer	*****	*****
Acquired hypothyroidism	184	21.2%
Asthma	73	8.4%
Benign prostatic hyperplasia	172	19.8%
Chronic kidney disease	396	45.7%
COPD and bronchiectasis	139	16.0%
Osteoporosis	73	8.4%
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	211	24.3%
Overweight	175	20.2%
Smoking	381	43.9%
Alcohol Abuse or Dependence	34	3.9%
Drug Abuse or Dependence	23	2.7%
History of Cardiac Arrest	*****	*****
History of Coronary Angioplasty or Bypass	124	14.3%

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 1d. Aggregated Baseline Table For New Users Of Pretomanid in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	*****	*****
Number of unique patients	*****	*****
Demographics	Mean	Standard Deviation
Mean Age (years)	49.4	0
Age (years)	Number	Percent
0-18	0	0.0%
19-64	*****	*****
65+	*****	*****
Sex		
Female	*****	*****
Male	*****	*****
Year		
2019	0	0.0%
2020	*****	*****
2021	*****	*****
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index	Number	Percent
Acute myocardial infarction	0	0.0%
Alzheimer's disease and related conditions	0	0.0%
Heart failure	0	0.0%
Depression	*****	*****
Ischemic heart disease	*****	*****
Rheumatoid arthritis/osteoarthritis	*****	*****
Anemia	*****	*****
Glaucoma	0	0.0%
Atrial fibrillation	0	0.0%
Diabetes	*****	*****
Hyperlipidemia	*****	*****
Hypertension	*****	*****
Stroke/TIA	0	0.0%
Breast cancer	0	0.0%
Colorectal cancer	0	0.0%
Prostate cancer	0	0.0%
Lung cancer	0	0.0%
Endometrial cancer	0	0.0%
Acquired hypothyroidism	0	0.0%
Asthma	0	0.0%
Benign prostatic hyperplasia	0	0.0%
Chronic kidney disease	*****	*****
COPD and bronchiectasis	*****	*****
Osteoporosis	*****	*****
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	0	0.0%
Overweight	0	0.0%
Smoking	0	0.0%
Alcohol Abuse or Dependence	0	0.0%
Drug Abuse or Dependence	0	0.0%
History of Cardiac Arrest	0	0.0%
History of Coronary Angioplasty or Bypass	0	0.0%

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 1e. Aggregated Baseline Table For New Users Of Reblozyl in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	1,724	
Number of unique patients	1,724	
Demographics	Mean	Standard Deviation
Mean Age (years)	77.4	9.5
Age (years)	Number	Percent
0-18	*****	*****
19-64	*****	*****
65+	1,632	94.7%
Sex		
Female	729	42.3%
Male	995	57.7%
Year		
2019	*****	*****
2020	1,437	83.4%
2021	*****	*****
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index	Number	Percent
Acute myocardial infarction	45	2.6%
Alzheimer's disease and related conditions	134	7.8%
Heart failure	518	30.0%
Depression	380	22.0%
Ischemic heart disease	699	40.5%
Rheumatoid arthritis/osteoarthritis	557	32.3%
Anemia	1,693	98.2%
Glaucoma	240	13.9%
Atrial fibrillation	420	24.4%
Diabetes	474	27.5%
Hyperlipidemia	869	50.4%
Hypertension	1,183	68.6%
Stroke/TIA	101	5.9%
Breast cancer	78	4.5%
Colorectal cancer	47	2.7%
Prostate cancer	146	8.5%
Lung cancer	42	2.4%
Endometrial cancer	*****	*****
Acquired hypothyroidism	410	23.8%
Asthma	117	6.8%
Benign prostatic hyperplasia	288	16.7%
Chronic kidney disease	725	42.1%
COPD and bronchiectasis	352	20.4%
Osteoporosis	204	11.8%
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	324	18.8%
Overweight	292	16.9%
Smoking	778	45.1%
Alcohol Abuse or Dependence	57	3.3%
Drug Abuse or Dependence	24	1.4%
History of Cardiac Arrest	*****	*****
History of Coronary Angioplasty or Bypass	288	16.7%

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 1f. Aggregated Baseline Table For New Users Of Recarbrio in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

<b>Characteristic</b>	<b>Number</b>	<b>Percent</b>
Number of episodes	*****	*****
Number of unique patients	*****	*****
<b>Demographics</b>	<b>Mean</b>	<b>Standard Deviation</b>
Mean Age (years)	63.2	9.1
	<b>Number</b>	<b>Percent</b>
Age (years)		
0-18	*****	*****
19-64	*****	*****
65+	*****	*****
Sex		
Female	*****	*****
Male	*****	*****
Year		
2019	*****	*****
2020	*****	*****
2021	*****	*****
<b>Recorded History of CCW<sup>1</sup> Conditions in the 365 Days prior to Index</b>	<b>Number</b>	<b>Percent</b>
Acute myocardial infarction	0	0.0%
Alzheimer's disease and related conditions	*****	*****
Heart failure	*****	*****
Depression	*****	*****
Ischemic heart disease	*****	*****
Rheumatoid arthritis/osteoarthritis	*****	*****
Anemia	*****	*****
Glaucoma	0	0.0%
Atrial fibrillation	*****	*****
Diabetes	*****	*****
Hyperlipidemia	*****	*****
Hypertension	*****	*****
Stroke/TIA	0	0.0%
Breast cancer	0	0.0%
Colorectal cancer	0	0.0%
Prostate cancer	0	0.0%
Lung cancer	0	0.0%
Endometrial cancer	0	0.0%
Acquired hypothyroidism	*****	*****
Asthma	*****	*****
Benign prostatic hyperplasia	*****	*****
Chronic kidney disease	*****	*****
COPD and bronchiectasis	*****	*****
Osteoporosis	*****	*****
<b>Recorded History of Characteristics in the 365 Days prior to Index</b>	<b>Number</b>	<b>Percent</b>
Obesity	*****	*****
Overweight	*****	*****
Smoking	*****	*****
Alcohol Abuse or Dependence	0	0.0%
Drug Abuse or Dependence	0	0.0%
History of Cardiac Arrest	0	0.0%
History of Coronary Angioplasty or Bypass	*****	*****

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 1g. Aggregated Baseline Table For New Users Of Reyvow in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	1,937	
Number of unique patients	1,937	
Demographics	Mean	Standard Deviation
Mean Age (years)	51	13
Age (years)	Number	Percent
0-18	18	0.9%
19-64	1,563	80.7%
65+	356	18.4%
Sex		
Female	1,633	84.3%
Male	304	15.7%
Year		
2019	0	0.0%
2020	1,653	85.3%
2021	284	14.7%
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index	Number	Percent
Acute myocardial infarction	12	0.6%
Alzheimer's disease and related conditions	45	2.3%
Heart failure	106	5.5%
Depression	1,004	51.8%
Ischemic heart disease	230	11.9%
Rheumatoid arthritis/osteoarthritis	605	31.2%
Anemia	427	22.0%
Glaucoma	133	6.9%
Atrial fibrillation	83	4.3%
Diabetes	277	14.3%
Hyperlipidemia	644	33.2%
Hypertension	718	37.1%
Stroke/TIA	117	6.0%
Breast cancer	42	2.2%
Colorectal cancer	*****	*****
Prostate cancer	11	0.6%
Lung cancer	*****	*****
Endometrial cancer	*****	*****
Acquired hypothyroidism	363	18.7%
Asthma	287	14.8%
Benign prostatic hyperplasia	38	2.0%
Chronic kidney disease	266	13.7%
COPD and bronchiectasis	163	8.4%
Osteoporosis	130	6.7%
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	633	32.7%
Overweight	236	12.2%
Smoking	469	24.2%
Alcohol Abuse or Dependence	40	2.1%
Drug Abuse or Dependence	133	6.9%
History of Cardiac Arrest	*****	*****
History of Coronary Angioplasty or Bypass	63	3.3%

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 1h. Aggregated Baseline Table For New Users Of Rinvoq in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	7,638	
Number of unique patients	7,638	
Demographics	Mean	Standard Deviation
Mean Age (years)	59.4	11.6
Age (years)	Number	Percent
0-18	*****	*****
19-64	5,047	66.1%
65+	*****	*****
Sex		
Female	6,316	82.7%
Male	1,322	17.3%
Year		
2019	1,050	13.7%
2020	5,538	72.5%
2021	1,050	13.7%
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index	Number	Percent
Acute myocardial infarction	51	0.7%
Alzheimer's disease and related conditions	127	1.7%
Heart failure	551	7.2%
Depression	2,280	29.9%
Ischemic heart disease	1,162	15.2%
Rheumatoid arthritis/osteoarthritis	7,469	97.8%
Anemia	2,051	26.9%
Glaucoma	707	9.3%
Atrial fibrillation	345	4.5%
Diabetes	1,665	21.8%
Hyperlipidemia	3,132	41.0%
Hypertension	3,879	50.8%
Stroke/TIA	135	1.8%
Breast cancer	154	2.0%
Colorectal cancer	27	0.4%
Prostate cancer	40	0.5%
Lung cancer	19	0.2%
Endometrial cancer	14	0.2%
Acquired hypothyroidism	1,548	20.3%
Asthma	762	10.0%
Benign prostatic hyperplasia	187	2.4%
Chronic kidney disease	1,273	16.7%
COPD and bronchiectasis	1,008	13.2%
Osteoporosis	1,279	16.7%
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	2,704	35.4%
Overweight	1,087	14.2%
Smoking	2,051	26.9%
Alcohol Abuse or Dependence	131	1.7%
Drug Abuse or Dependence	285	3.7%
History of Cardiac Arrest	*****	*****
History of Coronary Angioplasty or Bypass	289	3.8%

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 1i. Aggregated Baseline Table For New Users Of Rozlytrek in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

<b>Characteristic</b>	<b>Number</b>	<b>Percent</b>
Number of episodes	99	
Number of unique patients	99	
<b>Demographics</b>	<b>Mean</b>	<b>Standard Deviation</b>
Mean Age (years)	67.7	13.7
Age (years)	<b>Number</b>	<b>Percent</b>
0-18	*****	*****
19-64	*****	*****
65+	71	71.7%
Sex		
Female	63	63.6%
Male	36	36.4%
Year		
2019	18	18.2%
2020	63	63.6%
2021	18	18.2%
<b>Recorded History of CCW<sup>1</sup> Conditions in the 365 Days prior to Index</b>	<b>Number</b>	<b>Percent</b>
Acute myocardial infarction	*****	*****
Alzheimer's disease and related conditions	*****	*****
Heart failure	13	13.1%
Depression	26	26.3%
Ischemic heart disease	26	26.3%
Rheumatoid arthritis/osteoarthritis	22	22.2%
Anemia	49	49.5%
Glaucoma	11	11.1%
Atrial fibrillation	14	14.1%
Diabetes	22	22.2%
Hyperlipidemia	48	48.5%
Hypertension	57	57.6%
Stroke/TIA	*****	*****
Breast cancer	*****	*****
Colorectal cancer	*****	*****
Prostate cancer	*****	*****
Lung cancer	86	86.9%
Endometrial cancer	*****	*****
Acquired hypothyroidism	20	20.2%
Asthma	13	13.1%
Benign prostatic hyperplasia	*****	*****
Chronic kidney disease	25	25.3%
COPD and bronchiectasis	25	25.3%
Osteoporosis	*****	*****
<b>Recorded History of Characteristics in the 365 Days prior to Index</b>	<b>Number</b>	<b>Percent</b>
Obesity	22	22.2%
Overweight	*****	*****
Smoking	44	44.4%
Alcohol Abuse or Dependence	*****	*****
Drug Abuse or Dependence	*****	*****
History of Cardiac Arrest	*****	*****
History of Coronary Angioplasty or Bypass	*****	*****

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 1j. Aggregated Baseline Table For New Users Of Scenesse in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	****	****
Number of unique patients	****	****
Demographics	Mean	Standard Deviation
Mean Age (years)	43.2	14.8
Age (years)	Number	Percent
0-18	0	0.0%
19-64	****	****
65+	0	0.0%
Sex		
Female	0	0.0%
Male	****	****
Year		
2019	0	0.0%
2020	****	****
2021	****	****
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index	Number	Percent
Acute myocardial infarction	0	0.0%
Alzheimer's disease and related conditions	0	0.0%
Heart failure	0	0.0%
Depression	****	****
Ischemic heart disease	0	0.0%
Rheumatoid arthritis/osteoarthritis	****	****
Anemia	0	0.0%
Glaucoma	0	0.0%
Atrial fibrillation	0	0.0%
Diabetes	0	0.0%
Hyperlipidemia	****	****
Hypertension	0	0.0%
Stroke/TIA	0	0.0%
Breast cancer	0	0.0%
Colorectal cancer	0	0.0%
Prostate cancer	0	0.0%
Lung cancer	0	0.0%
Endometrial cancer	0	0.0%
Acquired hypothyroidism	0	0.0%
Asthma	0	0.0%
Benign prostatic hyperplasia	****	****
Chronic kidney disease	0	0.0%
COPD and bronchiectasis	0	0.0%
Osteoporosis	0	0.0%
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	****	****
Overweight	0	0.0%
Smoking	0	0.0%
Alcohol Abuse or Dependence	****	****
Drug Abuse or Dependence	0	0.0%
History of Cardiac Arrest	0	0.0%
History of Coronary Angioplasty or Bypass	0	0.0%

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*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.

**Table 1k. Aggregated Baseline Table For New Users Of Skyrizi in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	8,065	
Number of unique patients	8,065	
Demographics	Mean	Standard Deviation
Mean Age (years)	51.5	13.3
Age (years)	Number	Percent
0-18	48	0.6%
19-64	6,432	79.8%
65+	1,585	19.7%
Sex		
Female	4,035	50.0%
Male	4,030	50.0%
Year		
2019	2,207	27.4%
2020	4,922	61.0%
2021	936	11.6%
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index	Number	Percent
Acute myocardial infarction	27	0.3%
Alzheimer's disease and related conditions	98	1.2%
Heart failure	378	4.7%
Depression	1,748	21.7%
Ischemic heart disease	833	10.3%
Rheumatoid arthritis/osteoarthritis	1,236	15.3%
Anemia	944	11.7%
Glaucoma	421	5.2%
Atrial fibrillation	275	3.4%
Diabetes	1,636	20.3%
Hyperlipidemia	2,483	30.8%
Hypertension	2,954	36.6%
Stroke/TIA	85	1.1%
Breast cancer	88	1.1%
Colorectal cancer	19	0.2%
Prostate cancer	76	0.9%
Lung cancer	18	0.2%
Endometrial cancer	19	0.2%
Acquired hypothyroidism	817	10.1%
Asthma	409	5.1%
Benign prostatic hyperplasia	235	2.9%
Chronic kidney disease	1,020	12.6%
COPD and bronchiectasis	581	7.2%
Osteoporosis	166	2.1%
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	2,564	31.8%
Overweight	753	9.3%
Smoking	1,782	22.1%
Alcohol Abuse or Dependence	247	3.1%
Drug Abuse or Dependence	190	2.4%
History of Cardiac Arrest	*****	*****
History of Coronary Angioplasty or Bypass	249	3.1%

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 1I. Aggregated Baseline Table For New Users Of Sunosi in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	3,103	
Number of unique patients	3,103	
Demographics	Mean	Standard Deviation
Mean Age (years)	50.4	14.6
Age (years)	Number	Percent
0-18	35	1.1%
19-64	2,380	76.7%
65+	688	22.2%
Sex		
Female	1,824	58.8%
Male	1,279	41.2%
Year		
2019	807	26.0%
2020	1,888	60.8%
2021	408	13.1%
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index	Number	Percent
Acute myocardial infarction	*****	*****
Alzheimer's disease and related conditions	68	2.2%
Heart failure	139	4.5%
Depression	1,513	48.8%
Ischemic heart disease	361	11.6%
Rheumatoid arthritis/osteoarthritis	798	25.7%
Anemia	580	18.7%
Glaucoma	198	6.4%
Atrial fibrillation	141	4.5%
Diabetes	577	18.6%
Hyperlipidemia	1,064	34.3%
Hypertension	1,228	39.6%
Stroke/TIA	77	2.5%
Breast cancer	52	1.7%
Colorectal cancer	17	0.5%
Prostate cancer	46	1.5%
Lung cancer	*****	*****
Endometrial cancer	*****	*****
Acquired hypothyroidism	543	17.5%
Asthma	390	12.6%
Benign prostatic hyperplasia	173	5.6%
Chronic kidney disease	405	13.1%
COPD and bronchiectasis	268	8.6%
Osteoporosis	109	3.5%
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	1,263	40.7%
Overweight	415	13.4%
Smoking	673	21.7%
Alcohol Abuse or Dependence	81	2.6%
Drug Abuse or Dependence	146	4.7%
History of Cardiac Arrest	*****	*****
History of Coronary Angioplasty or Bypass	90	2.9%

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 1m. Aggregated Baseline Table For New Users Of Tissueblue in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	0	
Number of unique patients	0	
Demographics	Mean	Standard Deviation
Mean Age (years)	0	0
Age (years)	Number	Percent
0-18	0	0.0%
19-64	0	0.0%
65+	0	0.0%
Sex		
Female	0	0.0%
Male	0	0.0%
Year		
2019	0	0.0%
2020	0	0.0%
2021	0	0.0%
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index	Number	Percent
Acute myocardial infarction	0	0.0%
Alzheimer's disease and related conditions	0	0.0%
Heart failure	0	0.0%
Depression	0	0.0%
Ischemic heart disease	0	0.0%
Rheumatoid arthritis/osteoarthritis	0	0.0%
Anemia	0	0.0%
Glaucoma	0	0.0%
Atrial fibrillation	0	0.0%
Diabetes	0	0.0%
Hyperlipidemia	0	0.0%
Hypertension	0	0.0%
Stroke/TIA	0	0.0%
Breast cancer	0	0.0%
Colorectal cancer	0	0.0%
Prostate cancer	0	0.0%
Lung cancer	0	0.0%
Endometrial cancer	0	0.0%
Acquired hypothyroidism	0	0.0%
Asthma	0	0.0%
Benign prostatic hyperplasia	0	0.0%
Chronic kidney disease	0	0.0%
COPD and bronchiectasis	0	0.0%
Osteoporosis	0	0.0%
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	0	0.0%
Overweight	0	0.0%
Smoking	0	0.0%
Alcohol Abuse or Dependence	0	0.0%
Drug Abuse or Dependence	0	0.0%
History of Cardiac Arrest	0	0.0%
History of Coronary Angioplasty or Bypass	0	0.0%

<sup>1</sup>CCW: Chronic Conditions Warehouse

**Table 1n. Aggregated Baseline Table For New Users Of Trikafta in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	2,902	
Number of unique patients	2,902	
Demographics	Mean	Standard Deviation
Mean Age (years)	33.4	13.3
Age (years)	Number	Percent
0-18	456	15.7%
19-64	2,315	79.8%
65+	131	4.5%
Sex		
Female	1,404	48.4%
Male	1,498	51.6%
Year		
2019	1,557	53.7%
2020	1,222	42.1%
2021	123	4.20%
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index	Number	Percent
Acute myocardial infarction	*****	*****
Alzheimer's disease and related conditions	16	0.6%
Heart failure	135	4.7%
Depression	950	32.7%
Ischemic heart disease	89	3.1%
Rheumatoid arthritis/osteoarthritis	162	5.6%
Anemia	583	20.1%
Glaucoma	75	2.6%
Atrial fibrillation	42	1.4%
Diabetes	1,126	38.8%
Hyperlipidemia	171	5.9%
Hypertension	405	14.0%
Stroke/TIA	21	0.7%
Breast cancer	11	0.4%
Colorectal cancer	*****	*****
Prostate cancer	*****	*****
Lung cancer	*****	*****
Endometrial cancer	0	0.0%
Acquired hypothyroidism	177	6.1%
Asthma	871	30.0%
Benign prostatic hyperplasia	36	1.2%
Chronic kidney disease	639	22.0%
COPD and bronchiectasis	1,338	46.1%
Osteoporosis	228	7.9%
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	137	4.7%
Overweight	170	5.9%
Smoking	227	7.8%
Alcohol Abuse or Dependence	97	3.3%
Drug Abuse or Dependence	156	5.4%
History of Cardiac Arrest	*****	*****
History of Coronary Angioplasty or Bypass	13	0.4%

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 10. Aggregated Baseline Table For New Users Of Turalio in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	27	
Number of unique patients	27	
Demographics	Mean	Standard Deviation
Mean Age (years)	41.7	12.9
Age (years)	Number	Percent
0-18	*****	*****
19-64	*****	*****
65+	*****	*****
Sex		
Female	*****	*****
Male	*****	*****
Year		
2019	*****	*****
2020	15	55.6%
2021	*****	*****
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index		
Acute myocardial infarction	0	0.0%
Alzheimer's disease and related conditions	0	0.0%
Heart failure	0	0.0%
Depression	*****	*****
Ischemic heart disease	0	0.0%
Rheumatoid arthritis/osteoarthritis	*****	*****
Anemia	*****	*****
Glaucoma	*****	*****
Atrial fibrillation	0	0.0%
Diabetes	*****	*****
Hyperlipidemia	*****	*****
Hypertension	*****	*****
Stroke/TIA	0	0.0%
Breast cancer	0	0.0%
Colorectal cancer	0	0.0%
Prostate cancer	0	0.0%
Lung cancer	*****	*****
Endometrial cancer	0	0.0%
Acquired hypothyroidism	*****	*****
Asthma	*****	*****
Benign prostatic hyperplasia	0	0.0%
Chronic kidney disease	*****	*****
COPD and bronchiectasis	*****	*****
Osteoporosis	0	0.0%
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	*****	*****
Overweight	*****	*****
Smoking	*****	*****
Alcohol Abuse or Dependence	0	0.0%
Drug Abuse or Dependence	*****	*****
History of Cardiac Arrest	0	0.0%
History of Coronary Angioplasty or Bypass	0	0.0%

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 1p. Aggregated Baseline Table For New Users Of Ubrelyv in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

<b>Characteristic</b>	<b>Number</b>	<b>Percent</b>
Number of episodes	25,764	
Number of unique patients	25,764	
<b>Demographics</b>	<b>Mean</b>	<b>Standard Deviation</b>
Mean Age (years)	50.1	13.1
Age (years)	<b>Number</b>	<b>Percent</b>
0-18	225	0.9%
19-64	21,101	81.9%
65+	4,438	17.2%
Sex		
Female	22,288	86.5%
Male	3,476	13.5%
Year		
2019	0	0.0%
2020	21,794	84.6%
2021	3,970	15.4%
<b>Recorded History of CCW<sup>1</sup> Conditions in the 365 Days prior to Index</b>	<b>Number</b>	<b>Percent</b>
Acute myocardial infarction	101	0.4%
Alzheimer's disease and related conditions	505	2.0%
Heart failure	1,129	4.4%
Depression	10,690	41.5%
Ischemic heart disease	2,734	10.6%
Rheumatoid arthritis/osteoarthritis	7,194	27.9%
Anemia	5,023	19.5%
Glaucoma	1,596	6.2%
Atrial fibrillation	763	3.0%
Diabetes	3,621	14.1%
Hyperlipidemia	7,962	30.9%
Hypertension	8,829	34.3%
Stroke/TIA	1,199	4.7%
Breast cancer	547	2.1%
Colorectal cancer	83	0.3%
Prostate cancer	91	0.4%
Lung cancer	73	0.3%
Endometrial cancer	56	0.2%
Acquired hypothyroidism	4,594	17.8%
Asthma	3,253	12.6%
Benign prostatic hyperplasia	449	1.7%
Chronic kidney disease	2,819	10.9%
COPD and bronchiectasis	2,003	7.8%
Osteoporosis	1,290	5.0%
<b>Recorded History of Characteristics in the 365 Days prior to Index</b>	<b>Number</b>	<b>Percent</b>
Obesity	7,795	30.3%
Overweight	3,163	12.3%
Smoking	5,190	20.1%
Alcohol Abuse or Dependence	479	1.9%
Drug Abuse or Dependence	1,088	4.2%
History of Cardiac Arrest	32	0.1%
History of Coronary Angioplasty or Bypass	630	2.4%

<sup>1</sup>CCW: Chronic Conditions Warehouse

**Table 1q. Aggregated Baseline Table For New Users Of Vyleesi in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	246	
Number of unique patients	246	
Demographics	Mean	Standard Deviation
Mean Age (years)	44.4	9.7
Age (years)	Number	Percent
0-18	0	0.0%
19-64	*****	*****
65+	*****	*****
Sex		
Female	*****	*****
Male	*****	*****
Year		
2019	60	24.4%
2020	150	61.0%
2021	36	14.6%
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index	Number	Percent
Acute myocardial infarction	0	0.0%
Alzheimer's disease and related conditions	*****	*****
Heart failure	0	0.0%
Depression	77	31.3%
Ischemic heart disease	*****	*****
Rheumatoid arthritis/osteoarthritis	32	13.0%
Anemia	30	12.2%
Glaucoma	*****	*****
Atrial fibrillation	*****	*****
Diabetes	*****	*****
Hyperlipidemia	38	15.4%
Hypertension	40	16.3%
Stroke/TIA	*****	*****
Breast cancer	*****	*****
Colorectal cancer	0	0.0%
Prostate cancer	0	0.0%
Lung cancer	0	0.0%
Endometrial cancer	*****	*****
Acquired hypothyroidism	29	11.8%
Asthma	11	4.5%
Benign prostatic hyperplasia	0	0.0%
Chronic kidney disease	*****	*****
COPD and bronchiectasis	*****	*****
Osteoporosis	*****	*****
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	58	23.6%
Overweight	34	13.8%
Smoking	33	13.4%
Alcohol Abuse or Dependence	*****	*****
Drug Abuse or Dependence	*****	*****
History of Cardiac Arrest	0	0.0%
History of Coronary Angioplasty or Bypass	0	0.0%

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 1r. Aggregated Baseline Table For New Users Of Vyndaqel in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	1,312	
Number of unique patients	1,312	
Demographics	Mean	Standard Deviation
Mean Age (years)	79.7	7
Age (years)	Number	Percent
0-18	0	0.0%
19-64	31	2.4%
65+	1,281	97.6%
Sex		
Female	180	13.7%
Male	1,132	86.3%
Year		
2019	1,069	81.5%
2020	214	16.3%
2021	29	2.2%
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index	Number	Percent
Acute myocardial infarction	95	7.2%
Alzheimer's disease and related conditions	115	8.8%
Heart failure	1,208	92.1%
Depression	205	15.6%
Ischemic heart disease	894	68.1%
Rheumatoid arthritis/osteoarthritis	508	38.7%
Anemia	547	41.7%
Glaucoma	290	22.1%
Atrial fibrillation	882	67.2%
Diabetes	339	25.8%
Hyperlipidemia	964	73.5%
Hypertension	1,078	82.2%
Stroke/TIA	115	8.8%
Breast cancer	17	1.3%
Colorectal cancer	24	1.8%
Prostate cancer	172	13.1%
Lung cancer	11	0.8%
Endometrial cancer	*****	*****
Acquired hypothyroidism	233	17.8%
Asthma	113	8.6%
Benign prostatic hyperplasia	404	30.8%
Chronic kidney disease	690	52.6%
COPD and bronchiectasis	224	17.1%
Osteoporosis	55	4.2%
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	240	18.3%
Overweight	227	17.3%
Smoking	501	38.2%
Alcohol Abuse or Dependence	28	2.1%
Drug Abuse or Dependence	19	1.4%
History of Cardiac Arrest	16	1.2%
History of Coronary Angioplasty or Bypass	282	21.5%

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 1s. Aggregated Baseline Table For New Users Of Vyondys 53 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

<b>Characteristic</b>	<b>Number</b>	<b>Percent</b>
Number of episodes	*****	*****
Number of unique patients	*****	*****
<b>Demographics</b>	<b>Mean</b>	<b>Standard Deviation</b>
Mean Age (years)	18.3	3.7
Age (years)	<b>Number</b>	<b>Percent</b>
0-18	*****	*****
19-64	*****	*****
65+	0	0.0%
Sex		
Female	0	0.0%
Male	*****	*****
Year		
2019	0	0.0%
2020	*****	*****
2021	0	0.0%
<b>Recorded History of CCW<sup>1</sup> Conditions in the 365 Days prior to Index</b>	<b>Number</b>	<b>Percent</b>
Acute myocardial infarction	0	0.0%
Alzheimer's disease and related conditions	0	0.0%
Heart failure	*****	*****
Depression	*****	*****
Ischemic heart disease	0	0.0%
Rheumatoid arthritis/osteoarthritis	0	0.0%
Anemia	*****	*****
Glaucoma	0	0.0%
Atrial fibrillation	0	0.0%
Diabetes	0	0.0%
Hyperlipidemia	*****	*****
Hypertension	*****	*****
Stroke/TIA	0	0.0%
Breast cancer	0	0.0%
Colorectal cancer	0	0.0%
Prostate cancer	0	0.0%
Lung cancer	0	0.0%
Endometrial cancer	0	0.0%
Acquired hypothyroidism	0	0.0%
Asthma	0	0.0%
Benign prostatic hyperplasia	0	0.0%
Chronic kidney disease	0	0.0%
COPD and bronchiectasis	0	0.0%
Osteoporosis	*****	*****
<b>Recorded History of Characteristics in the 365 Days prior to Index</b>	<b>Number</b>	<b>Percent</b>
Obesity	*****	*****
Overweight	*****	*****
Smoking	0	0.0%
Alcohol Abuse or Dependence	0	0.0%
Drug Abuse or Dependence	0	0.0%
History of Cardiac Arrest	0	0.0%
History of Coronary Angioplasty or Bypass	0	0.0%

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 1t. Aggregated Baseline Table For New Users Of Wakix in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	914	
Number of unique patients	914	
Demographics	Mean	Standard Deviation
Mean Age (years)	46	14.5
Age (years)	Number	Percent
0-18	20	2.2%
19-64	762	83.4%
65+	132	14.4%
Sex		
Female	618	67.6%
Male	296	32.4%
Year		
2019	102	11.2%
2020	699	76.5%
2021	113	12.4%
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index	Number	Percent
Acute myocardial infarction	*****	*****
Alzheimer's disease and related conditions	16	1.8%
Heart failure	44	4.8%
Depression	448	49.0%
Ischemic heart disease	90	9.8%
Rheumatoid arthritis/osteoarthritis	202	22.1%
Anemia	163	17.8%
Glaucoma	40	4.4%
Atrial fibrillation	21	2.3%
Diabetes	129	14.1%
Hyperlipidemia	227	24.8%
Hypertension	313	34.2%
Stroke/TIA	20	2.2%
Breast cancer	12	1.3%
Colorectal cancer	*****	*****
Prostate cancer	11	1.2%
Lung cancer	0	0.0%
Endometrial cancer	0	0.0%
Acquired hypothyroidism	143	15.6%
Asthma	99	10.8%
Benign prostatic hyperplasia	33	3.6%
Chronic kidney disease	88	9.6%
COPD and bronchiectasis	56	6.1%
Osteoporosis	33	3.6%
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	263	28.8%
Overweight	113	12.4%
Smoking	207	22.6%
Alcohol Abuse or Dependence	25	2.7%
Drug Abuse or Dependence	51	5.6%
History of Cardiac Arrest	*****	*****
History of Coronary Angioplasty or Bypass	26	2.8%

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 1u. Aggregated Baseline Table For New Users Of Xcopri in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	934	
Number of unique patients	934	
Demographics	Mean	Standard Deviation
Mean Age (years)	44.2	13.5
Age (years)	Number	Percent
0-18	*****	*****
19-64	838	89.7%
65+	*****	*****
Sex		
Female	451	48.3%
Male	483	51.7%
Year		
2019	0	0.0%
2020	597	63.9%
2021	337	36.1%
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index	Number	Percent
Acute myocardial infarction	*****	*****
Alzheimer's disease and related conditions	49	5.2%
Heart failure	25	2.7%
Depression	290	31.0%
Ischemic heart disease	58	6.2%
Rheumatoid arthritis/osteoarthritis	86	9.2%
Anemia	167	17.9%
Glaucoma	41	4.4%
Atrial fibrillation	17	1.8%
Diabetes	65	7.0%
Hyperlipidemia	200	21.4%
Hypertension	209	22.4%
Stroke/TIA	28	3.0%
Breast cancer	11	1.2%
Colorectal cancer	*****	*****
Prostate cancer	*****	*****
Lung cancer	*****	*****
Endometrial cancer	*****	*****
Acquired hypothyroidism	124	13.3%
Asthma	58	6.2%
Benign prostatic hyperplasia	27	2.9%
Chronic kidney disease	80	8.6%
COPD and bronchiectasis	30	3.2%
Osteoporosis	51	5.5%
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	216	23.1%
Overweight	89	9.5%
Smoking	158	16.9%
Alcohol Abuse or Dependence	17	1.8%
Drug Abuse or Dependence	43	4.6%
History of Cardiac Arrest	*****	*****
History of Coronary Angioplasty or Bypass	11	1.2%

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 1v. Aggregated Baseline Table For New Users Of Xenleta in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	53	
Number of unique patients	53	
Demographics	Mean	Standard Deviation
Mean Age (years)	66.7	12.1
Age (years)	Number	Percent
0-18	0	0.0%
19-64	22	41.5%
65+	31	58.5%
Sex		
Female	32	60.4%
Male	21	39.6%
Year		
2019	*****	*****
2020	35	66.0%
2021	*****	*****
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index	Number	Percent
Acute myocardial infarction	*****	*****
Alzheimer's disease and related conditions	*****	*****
Heart failure	16	30.2%
Depression	21	39.6%
Ischemic heart disease	23	43.4%
Rheumatoid arthritis/osteoarthritis	19	35.8%
Anemia	25	47.2%
Glaucoma	*****	*****
Atrial fibrillation	*****	*****
Diabetes	18	34.0%
Hyperlipidemia	33	62.3%
Hypertension	34	64.2%
Stroke/TIA	*****	*****
Breast cancer	*****	*****
Colorectal cancer	0	0.0%
Prostate cancer	*****	*****
Lung cancer	*****	*****
Endometrial cancer	0	0.0%
Acquired hypothyroidism	15	28.3%
Asthma	15	28.3%
Benign prostatic hyperplasia	*****	*****
Chronic kidney disease	18	34.0%
COPD and bronchiectasis	20	37.7%
Osteoporosis	*****	*****
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	16	30.2%
Overweight	*****	*****
Smoking	22	41.5%
Alcohol Abuse or Dependence	*****	*****
Drug Abuse or Dependence	0	0.0%
History of Cardiac Arrest	*****	*****
History of Coronary Angioplasty or Bypass	*****	*****

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 1w. Aggregated Baseline Table For New Users Of Xpovio in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	1,039	
Number of unique patients	1,039	
Demographics	Mean	Standard Deviation
Mean Age (years)	70.9	9
Age (years)	Number	Percent
0-18	*****	*****
19-64	*****	*****
65+	823	79.2%
Sex		
Female	486	46.8%
Male	553	53.2%
Year		
2019	326	31.4%
2020	573	55.1%
2021	140	13.5%
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index	Number	Percent
Acute myocardial infarction	22	2.1%
Alzheimer's disease and related conditions	59	5.7%
Heart failure	263	25.3%
Depression	302	29.1%
Ischemic heart disease	289	27.8%
Rheumatoid arthritis/osteoarthritis	324	31.2%
Anemia	907	87.3%
Glaucoma	131	12.6%
Atrial fibrillation	200	19.2%
Diabetes	274	26.4%
Hyperlipidemia	477	45.9%
Hypertension	734	70.6%
Stroke/TIA	62	6.0%
Breast cancer	44	4.2%
Colorectal cancer	16	1.5%
Prostate cancer	60	5.8%
Lung cancer	18	1.7%
Endometrial cancer	*****	*****
Acquired hypothyroidism	204	19.6%
Asthma	101	9.7%
Benign prostatic hyperplasia	142	13.7%
Chronic kidney disease	580	55.8%
COPD and bronchiectasis	179	17.2%
Osteoporosis	81	7.8%
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	250	24.1%
Overweight	194	18.7%
Smoking	401	38.6%
Alcohol Abuse or Dependence	21	2.0%
Drug Abuse or Dependence	49	4.7%
History of Cardiac Arrest	*****	*****
History of Coronary Angioplasty or Bypass	83	8.0%

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 1x. Aggregated Baseline Table For New Users Of Zulresso in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Characteristic	Number	Percent
Number of episodes	19	
Number of unique patients	19	
Demographics	Mean	Standard Deviation
Mean Age (years)	32.6	4.5
Age (years)	Number	Percent
0-18	0	0.0%
19-64	19	100.0%
65+	0	0.0%
Sex		
Female	19	100.0%
Male	0	0.0%
Year		
2019	*****	*****
2020	*****	*****
2021	*****	*****
Recorded History of CCW <sup>1</sup> Conditions in the 365 Days prior to Index	Number	Percent
Acute myocardial infarction	0	0.0%
Alzheimer's disease and related conditions	0	0.0%
Heart failure	0	0.0%
Depression	15	78.9%
Ischemic heart disease	0	0.0%
Rheumatoid arthritis/osteoarthritis	0	0.0%
Anemia	*****	*****
Glaucoma	0	0.0%
Atrial fibrillation	0	0.0%
Diabetes	*****	*****
Hyperlipidemia	0	0.0%
Hypertension	0	0.0%
Stroke/TIA	0	0.0%
Breast cancer	0	0.0%
Colorectal cancer	0	0.0%
Prostate cancer	0	0.0%
Lung cancer	0	0.0%
Endometrial cancer	0	0.0%
Acquired hypothyroidism	*****	*****
Asthma	*****	*****
Benign prostatic hyperplasia	0	0.0%
Chronic kidney disease	*****	*****
COPD and bronchiectasis	0	0.0%
Osteoporosis	0	0.0%
Recorded History of Characteristics in the 365 Days prior to Index	Number	Percent
Obesity	*****	*****
Overweight	*****	*****
Smoking	*****	*****
Alcohol Abuse or Dependence	0	0.0%
Drug Abuse or Dependence	*****	*****
History of Cardiac Arrest	0	0.0%
History of Coronary Angioplasty or Bypass	0	0.0%

<sup>1</sup>CCW: Chronic Conditions Warehouse

\*\*\*\*\*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.

**Table 2a. Summary of Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

<b>Drug</b>	<b>Number of New Users</b>	<b>Number of Episodes</b>	<b>Eligible Members<sup>1</sup></b>	<b>Eligible Member Years<sup>1</sup></b>	<b>New Users / 100,000 Eligible Members</b>
Padcev	992	992	70,662,336	104,632,515.7	1.40
Piqray	2,286	2,286	70,662,239	104,631,254.1	3.24
Polivy	867	867	70,662,369	104,632,466.2	1.23
Pretomanid	*****	*****	70,662,407	104,632,925.3	0.00
Reblozyl	1,724	1,724	70,662,319	104,632,082.0	2.44
Recarbrio	*****	*****	70,662,405	104,632,924.2	0.01
Reyvow	1,937	1,937	70,662,194	104,631,889.0	2.74
Rinvoq	7,638	7,638	70,661,452	104,627,752.8	10.81
Rozlytrek	99	99	70,662,395	104,632,878.7	0.14
Scenesse	*****	*****	70,662,407	104,632,924.2	0.00
Skyrizi	8,065	8,065	70,660,926	104,626,604.8	11.41
Sunosi	3,103	3,103	70,662,000	104,630,554.9	4.39
Tissueblue	0	0	70,662,407	104,632,925.6	0.00
Trikafta	2,902	2,902	70,661,704	104,629,833.2	4.11
Turalio	27	27	70,662,406	104,632,906.6	0.04
Ubrelyvy	25,764	25,764	70,659,553	104,619,919.7	36.46
Vyleesi	246	246	70,662,388	104,632,784.3	0.35
Vyndaqel	1,312	1,312	70,662,326	104,631,210.4	1.86
Vyondys 53	*****	*****	70,662,407	104,632,920.5	0.01
Wakix	914	914	70,662,262	104,632,289.7	1.29
Xcopri	934	934	70,662,366	104,632,640.0	1.32
Xenleta	53	53	70,662,406	104,632,894.4	0.08
Xpovio	1,039	1,039	70,662,364	104,632,446.9	1.47
Zulresso	19	19	70,662,407	104,632,912.1	0.03

<sup>1</sup>Eligible Members and Member-Years are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period

\*\*\*\*\*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.

**Table 2b. Summary of Follow-Up Time for Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021**

Drug	Number of New Users	Counts of New Users by Length of Follow-Up Time in Years <sup>1</sup>			Summary Statistics for Length of Follow-Up Time in Days						
		< 1	1-2	3+	Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation
Padcev	992	*****	*****	0	1	60	133	226	413	143	92
Piqray	2,286	1,671	615	0	1	100	220	378	666	249	171
Polivy	867	760	107	0	1	72	161	274	534	184	131
Pretomanid	*****	*****	*****	0	3	3	67	130	130	67	90
Reblozyl	1,724	*****	*****	0	1	98	184	255	447	173	89
Recarbrio	*****	*****	*****	0	2	9	39	143	148	63	67
Reyvow	1,937	1,811	126	0	1	84	185	282	412	187	115
Rinvoq	7,638	5,923	1,715	0	1	106	224	350	576	232	147
Rozlytrek	99	87	12	0	1	36	98	266	573	156	148
Scenesse	*****	*****	*****	0	31	31	199	307	307	179	139
Skyrizi	8,065	5,596	2,469	0	1	108	252	394	701	261	171
Sunosi	3,103	2,142	961	0	1	104	241	404	629	259	174
Tissueblue	0	0	0	0							
Trikafta	2,902	1,131	1,771	0	1	267	399	472	521	347	154
Turalio	27	*****	*****	0	48	117	255	357	471	255	137
Ubrelyv	25,764	24,188	1,576	0	1	76	167	267	435	176	114
Vyleesi	246	197	49	0	2	60	144	325	587	202	166
Vyndaqel	1,312	349	963	0	2	346	527	601	679	455	183
Vyondys 53	*****	*****	*****	0	9	149	266	332	380	235	125
Wakix	914	720	194	0	1	108	240	346	523	232	140
Xcopri	934	934	0	0	1	49	103	169	299	110	71
Xenleta	53	40	13	0	1	57	187	364	538	211	169
Xpovio	1,039	922	117	0	3	47	108	224	612	157	143
Zulresso	19	*****	*****	0	24	165	260	324	566	255	129

<sup>1</sup>Time to censor is for characterization purposes only. It does not represent at-risk time and does not take into account episode end date, outcome occurrence, or blackout period when calculating time to censor

\*\*\*\*\*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.

**Table 3a. Summary of Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021, by Sex**

Sex	New Users	New Episodes	Eligible Members <sup>1</sup>	Eligible Member-Years <sup>1</sup>	New Users / 100,000 Eligible Members
Padcev					
Female	269	269	37,445,160	56,260,077	0.72
Male	723	723	33,217,176	48,372,438	2.18
Piqray					
Female	2,242	2,242	37,445,014	56,258,546	5.99
Male	44	44	33,217,225	48,372,708	0.13
Polivy					
Female	370	370	37,445,160	56,259,994	0.99
Male	497	497	33,217,209	48,372,472	1.50
Pretomanid					
Female	*****	*****	37,445,178	56,260,191	0.00
Male	*****	*****	33,217,229	48,372,734	0.00
Reblozyl					
Female	729	729	37,445,142	56,259,833	1.95
Male	995	995	33,217,177	48,372,249	3.00
Recarbrio					
Female	*****	*****	37,445,176	56,260,191	0.01
Male	*****	*****	33,217,229	48,372,734	0.01
Reyvow					
Female	1,633	1,633	37,445,002	56,259,324	4.36
Male	304	304	33,217,192	48,372,565	0.92
Rinvoq					
Female	6,316	6,316	37,444,406	56,255,914	16.87
Male	1,322	1,322	33,217,046	48,371,839	3.98
Rozlytrek					
Female	63	63	37,445,175	56,260,163	0.17
Male	36	36	33,217,220	48,372,716	0.11
Scenesse					
Female	*****	*****	37,445,178	56,260,191	0.00
Male	*****	*****	33,217,229	48,372,733	0.01
Skyrizi					
Female	4,035	4,035	37,444,462	56,257,015	10.78
Male	4,030	4,030	33,216,464	48,369,590	12.13
Sunosi					
Female	1,824	1,824	37,444,919	56,258,795	4.87
Male	1,279	1,279	33,217,081	48,371,760	3.85
Tissueblue					
Female	0	0	37,445,178	56,260,191	0.00
Male	0	0	33,217,229	48,372,734	0.00
Trikafta					
Female	1,404	1,404	37,444,858	56,258,681	3.75
Male	1,498	1,498	33,216,846	48,371,153	4.51
Turalio					
Female	*****	*****	37,445,178	56,260,179	0.05
Male	*****	*****	33,217,228	48,372,728	0.03

**Table 3a. Summary of Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021, by Sex**

Sex	New Users	New Episodes	Eligible Members <sup>1</sup>	Eligible Member-Years <sup>1</sup>	New Users / 100,000 Eligible Members
Ubrelvy					
Female	22,288	22,288	37,442,656	56,248,922	59.53
Male	3,476	3,476	33,216,897	48,370,997	10.46
Vyleesi					
Female	*****	*****	37,445,159	56,260,050	0.65
Male	*****	*****	33,217,229	48,372,734	0.01
Vyndaqel					
Female	180	180	37,445,166	56,259,963	0.48
Male	1,132	1,132	33,217,160	48,371,247	3.41
Vyondys 53					
Female	0	0	37,445,178	56,260,191	0.00
Male	*****	*****	33,217,229	48,372,729	0.02
Wakix					
Female	618	618	37,445,084	56,259,768	1.65
Male	296	296	33,217,178	48,372,522	0.89
Xcopri					
Female	451	451	37,445,153	56,260,054	1.20
Male	483	483	33,217,213	48,372,586	1.45
Xenleta					
Female	32	32	37,445,177	56,260,174	0.09
Male	21	21	33,217,229	48,372,720	0.06
Xpovio					
Female	486	486	37,445,156	56,259,965	1.30
Male	553	553	33,217,208	48,372,482	1.66
Zulresso					
Female	19	19	37,445,178	56,260,178	0.05
Male	0	0	33,217,229	48,372,734	0.00

<sup>1</sup>Eligible Members and Member years are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period

\*\*\*\*\*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.

**Table 3b. Summary of Follow-Up Time for Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021, by Sex**

Sex	Number of New Users	Counts of New Users by Length of Follow-Up Time in Years <sup>1</sup>		
		< 1	1-2	3+
Padcev				
Female	269	*****	*****	0
Male	723	*****	*****	0
Piqray				
Female	2,242	*****	*****	0
Male	44	*****	*****	0
Polivy				
Female	370	325	45	0
Male	497	435	62	0
Pretomanid				
Female	*****	*****	0	0
Male	*****	*****	0	0
Reblozyl				
Female	729	*****	*****	0
Male	995	*****	*****	0
Recarbrio				
Female	*****	*****	0	0
Male	*****	*****	0	0
Reyvow				
Female	1,633	1,533	100	0
Male	304	278	26	0
Rinvoq				
Female	6,316	4,882	1,434	0
Male	1,322	1,041	281	0
Rozlytrek				
Female	63	*****	*****	*****
Male	36	*****	*****	*****
Scenesse				
Female	*****	*****	0	0
Male	*****	*****	0	0
Skyrizi				
Female	4,035	2,780	1,255	0
Male	4,030	2,816	1,214	0
Sunosi				
Female	1,824	1,265	559	0
Male	1,279	877	402	0
Tissueblue				
Female	0	0	0	0
Male	0	0	0	0
Trikafta				
Female	1,404	522	882	0
Male	1,498	609	889	0
Turalio				
Female	*****	*****	*****	0
Male	*****	*****	*****	0
Ubrelyv				
Female	22,288	20,928	1,360	0
Male	3,476	3,260	216	0

**Table 3b. Summary of Follow-Up Time for Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021, by Sex**

Sex	Number of New Users	Counts of New Users by Length of Follow-Up Time in Years <sup>1</sup>		
		< 1	1-2	3+
Vyleesi				
Female	*****	*****	49	0
Male	*****	*****	0	0
Vyndaqel				
Female	180	53	127	0
Male	1,132	296	836	0
Vyondys 53				
Female	0	0	0	0
Male	*****	*****	*****	0
Wakix				
Female	618	492	126	0
Male	296	228	68	0
Xcopri				
Female	451	451	0	0
Male	483	483	0	0
Xenleta				
Female	32	*****	*****	0
Male	21	*****	*****	0
Xpovio				
Female	486	430	56	0
Male	553	492	61	0
Zulresso				
Female	19	*****	*****	0
Male	0	*****	*****	0

<sup>1</sup>Time to censor is for characterization purposes only. It does not represent at-risk time and does not take into account episode end date, outcome occurrence, or blackout period when calculating time to censor

\*\*\*\*\*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.

**Table 4a. Summary of Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021, by Age Group**

Age Group	New Users	New Episodes	Eligible Members <sup>1</sup>	Eligible Member-Years <sup>1</sup>	New Users / 100,000 Eligible Members
<b>Padcev</b>					
0-18	0	0	9,317,864	11366761.0	0.00
19-64	88	88	33,932,833	44029778.6	0.26
65+	904	904	29,040,875	49235976.0	3.11
<b>Piqray</b>					
0-18	0	0	9,317,864	11366761.0	0.00
19-64	654	654	33,932,760	44029359.5	1.93
65+	1,632	1,632	29,040,822	49235133.7	5.62
<b>Polivy</b>					
0-18	0	0	9,317,864	11366761.0	0.00
19-64	88	88	33,932,833	44029769.3	0.26
65+	779	779	29,040,908	49235935.8	2.68
<b>Pretomanid</b>					
0-18	0	0	9,317,864	11366761.0	0.00
19-64	*****	*****	33,932,843	44029814.8	0.00
65+	*****	*****	29,040,939	49236349.5	0.00
<b>Reblozyl</b>					
0-18	*****	*****	9,317,864	11366760.9	0.01
19-64	*****	*****	33,932,827	44029764.8	0.27
65+	1,632	1,632	29,040,863	49235556.4	5.62
<b>Recarbrio</b>					
0-18	0	0	9,317,864	11366761.0	0.00
19-64	*****	*****	33,932,841	44029814.2	0.01
65+	*****	*****	29,040,939	49236349.0	0.01
<b>Reyvow</b>					
0-18	18	18	9,317,863	11366751.3	0.19
19-64	1,563	1,563	33,932,654	44028993.4	4.61
65+	356	356	29,040,897	49236144.3	1.23
<b>Rinvoq</b>					
0-18	*****	*****	9,317,864	11366757.9	0.08
19-64	5,047	5,047	33,932,146	44026485.8	14.87
65+	*****	*****	29,040,555	49234509.1	8.90
<b>Rozlytrek</b>					
0-18	*****	*****	9,317,864	11366760.1	0.02
19-64	*****	*****	33,932,836	44029803.4	0.08
65+	71	71	29,040,934	49236315.2	0.24
<b>Scenesse</b>					
0-18	0	0	9,317,864	11366761.0	0.00
19-64	*****	*****	33,932,843	44029813.7	0.01
65+	0	0	29,040,939	49236349.5	0.00
<b>Skyrizi</b>					
0-18	48	48	9,317,859	11366736.3	0.52
19-64	6,432	6,432	33,931,523	44024829.9	18.96
65+	1,585	1,585	29,040,667	49235038.6	5.46
<b>Sunosi</b>					
0-18	35	35	9,317,862	11366744.8	0.38
19-64	2,380	2,380	33,932,472	44027998.7	7.01
65+	688	688	29,040,867	49235811.3	2.37

**Table 4a. Summary of Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021, by Age Group**

Age Group	New Users	New Episodes	Eligible Members <sup>1</sup>	Eligible Member-Years <sup>1</sup>	New Users / 100,000 Eligible Members
<b>Tissueblue</b>					
0-18	0	0	9,317,864	11366761.0	0.00
19-64	0	0	33,932,843	44029815.1	0.00
65+	0	0	29,040,939	49236349.5	0.00
<b>Trikafta</b>					
0-18	456	456	9,317,747	11366360.1	4.89
19-64	2,315	2,315	33,932,201	44027257.8	6.82
65+	131	131	29,040,913	49236215.3	0.45
<b>Turalio</b>					
0-18	*****	*****	9,317,864	11366760.3	0.02
19-64	*****	*****	33,932,843	44029797.4	0.07
65+	*****	*****	29,040,938	49236348.9	0.00
<b>Ubrelyv</b>					
0-18	225	225	9,317,844	11366667.7	2.41
19-64	21,101	21,101	33,930,218	44019261.9	62.19
65+	4,438	4,438	29,040,531	49233990.1	15.28
<b>Vyleesi</b>					
0-18	0	0	9,317,864	11366761.0	0.00
19-64	*****	*****	33,932,824	44029677.6	0.71
65+	*****	*****	29,040,939	49236345.6	0.02
<b>Vyndaqel</b>					
0-18	0	0	9,317,864	11366761.0	0.00
19-64	31	31	33,932,837	44029784.5	0.09
65+	1,281	1,281	29,040,857	49234664.9	4.41
<b>Vyondys 53</b>					
0-18	*****	*****	9,317,864	11366758.7	0.05
19-64	*****	*****	33,932,843	44029812.3	0.01
65+	0	0	29,040,939	49236349.5	0.00
<b>Wakix</b>					
0-18	20	20	9,317,862	11366749.2	0.21
19-64	762	762	33,932,707	44029288.4	2.25
65+	132	132	29,040,915	49236252.1	0.45
<b>Xcopri</b>					
0-18	*****	*****	9,317,863	11366759.2	0.11
19-64	838	838	33,932,805	44029557.3	2.47
65+	*****	*****	29,040,933	49236323.5	0.30
<b>Xenleta</b>					
0-18	0	0	9,317,864	11366761.0	0.00
19-64	22	22	33,932,842	44029803.0	0.06
65+	31	31	29,040,939	49236330.4	0.11
<b>Xpovio</b>					
0-18	*****	*****	9,317,864	11366760.7	0.01
19-64	*****	*****	33,932,830	44029712.0	0.63
65+	823	823	29,040,896	49235974.2	2.83

**Table 4a. Summary of Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021, by Age Group**

<b>Age Group</b>	<b>New Users</b>	<b>New Episodes</b>	<b>Eligible Members<sup>1</sup></b>	<b>Eligible Member-Years<sup>1</sup></b>	<b>New Users / 100,000 Eligible Members</b>
Zulresso					
0-18	0	0	9,317,864	11366761.0	0.00
19-64	19	19	33,932,843	44029801.6	0.06
65+	0	0	29,040,939	49236349.5	0.00

<sup>1</sup>Time to censor is for characterization purposes only. It does not represent at-risk time and does not take into account episode end date, outcome occurrence, or blackout period when calculating time to censor

\*\*\*\*\*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.

**Table 4b. Summary of Follow-Up Time for Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021, by Age Group**

Age Group (Years)	Number of New Users	Counts of New Users by Length of Follow-Up Time in Years <sup>1</sup>		
		< 1	1-2	3+
<b>Padcev</b>				
0-18	0	0	0	0
19-64	88	*****	*****	0
65+	904	*****	*****	0
<b>Piqray</b>				
0-18	0	0	0	0
19-64	654	483	171	0
65+	1,632	1,188	444	0
<b>Polivy</b>				
0-18	0	0	0	0
19-64	88	*****	*****	0
65+	779	*****	*****	0
<b>Pretomanid</b>				
0-18	0	0	0	0
19-64	*****	*****	*****	0
65+	*****	*****	*****	0
<b>Reblozyl</b>				
0-18	*****	*****	*****	0
19-64	*****	*****	*****	0
65+	1,632	*****	*****	0
<b>Recarbrio</b>				
0-18	0	0	0	0
19-64	*****	*****	*****	0
65+	*****	*****	*****	0
<b>Reyvow</b>				
0-18	18	18	0	0
19-64	1,563	1,467	96	0
65+	356	326	30	0
<b>Rinvoq</b>				
0-18	*****	*****	0	0
19-64	5,047	3,956	1,091	0
65+	*****	*****	624	0
<b>Rozlytrek</b>				
0-18	*****	*****	*****	0
19-64	*****	*****	*****	0
65+	71	*****	*****	0
<b>Scenesse</b>				
0-18	0	0	0	0
19-64	*****	*****	0	0
65+	*****	*****	0	0
<b>Skyrizi</b>				
0-18	48	33	15	0
19-64	6,432	4,509	1,923	0
65+	1,585	1,054	531	0
<b>Sunosi</b>				
0-18	35	*****	*****	0
19-64	2,380	1,678	702	0
65+	688	*****	*****	0
<b>Tissueblue</b>				
0-18	0	0	0	0
19-64	0	0	0	0
65+	0	0	0	0

**Table 4b. Summary of Follow-Up Time for Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021, by Age Group**

Age Group (Years)	Number of New Users	Counts of New Users by Length of Follow-Up Time in Years <sup>1</sup>		
		< 1	1-2	3+
<b>Trikafta</b>				
0-18	456	227	229	0
19-64	2,315	846	1,469	0
65+	131	58	73	0
<b>Turalio</b>				
0-18	*****	*****	*****	0
19-64	*****	*****	*****	0
65+	*****	*****	0	0
<b>Ubrelvy</b>				
0-18	225	209	16	0
19-64	21,101	19,882	1,219	0
65+	4,438	4,097	341	0
<b>Vyleesi</b>				
0-18	0	0	0	0
19-64	*****	*****	*****	0
65+	*****	*****	*****	0
<b>Vyndaqel</b>				
0-18	0	0	0	0
19-64	31	14	17	0
65+	1,281	335	946	0
<b>Vyondys 53</b>				
0-18	*****	*****	*****	0
19-64	*****	*****	*****	0
65+	0	0	0	0
<b>Wakix</b>				
0-18	20	*****	*****	0
19-64	762	599	163	0
65+	132	*****	*****	0
<b>Xcopri</b>				
0-18	*****	*****	0	0
19-64	838	838	0	0
65+	*****	*****	0	0
<b>Xenleta</b>				
0-18	0	0	0	0
19-64	22	*****	*****	0
65+	31	*****	*****	0
<b>Xpovio</b>				
0-18	*****	*****	0	0
19-64	*****	*****	28	0
65+	823	734	89	0
<b>Zulresso</b>				
0-18	0	*****	*****	0
19-64	19	*****	*****	0
65+	0	0	0	0

<sup>1</sup>Time to censor is for characterization purposes only. It does not represent at-risk time and does not take into account episode end date, outcome occurrence, or blackout period when calculating time to censor

\*\*\*\*\*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.

**Table 5a. Summary of Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database between (SDD) January 1, 2019 and March 31, 2021, by Year**

Year	New Users	New Episodes	Eligible Members <sup>1</sup>	Eligible Member-Years <sup>1</sup>	New Users / 100,000 Eligible Members
<b>Padcev</b>					
2019	0	0	55,407,042	48,668,768.1	0.00
2020	767	767	58,973,681	47,734,507.3	1.30
2021	225	225	35,354,239	8,229,240.3	0.64
<b>Piqray</b>					
2019	870	870	55,407,017	48,668,543.7	1.57
2020	1,230	1,230	58,972,863	47,733,602.8	2.09
2021	186	186	35,353,646	8,229,107.7	0.53
<b>Polivy</b>					
2019	*****	*****	55,407,042	48,668,760.5	0.06
2020	696	696	58,973,683	47,734,420.3	1.18
2021	*****	*****	35,354,379	8,229,285.3	0.38
<b>Pretomanid</b>					
2019	0	0	55,407,042	48,668,768.1	0.00
2020	*****	*****	58,973,748	47,734,760.1	0.00
2021	*****	*****	35,354,819	8,229,397.1	0.00
<b>Reblozyl</b>					
2019	*****	*****	55,407,042	48,668,768.0	0.00
2020	1,437	1,437	58,973,656	47,734,243.3	2.44
2021	*****	*****	35,353,571	8,229,070.8	0.81
<b>Recarbrio</b>					
2019	0	0	55,407,042	48,668,768.1	0.00
2020	*****	*****	58,973,745	47,734,759.6	0.01
2021	*****	*****	35,354,817	8,229,396.5	0.01
<b>Reyvow</b>					
2019	0	0	55,407,042	48,668,768.1	0.00
2020	1,653	1,653	58,973,532	47,734,037.5	2.80
2021	284	284	35,353,627	8,229,083.4	0.80
<b>Rinvoq</b>					
2019	1,050	1,050	55,407,035	48,668,627.3	1.90
2020	5,538	5,538	58,971,836	47,730,985.1	9.39
2021	1,050	1,050	35,349,811	8,228,140.4	2.97
<b>Rozlytrek</b>					
2019	18	18	55,407,041	48,668,765.3	0.03
2020	63	63	58,973,723	47,734,728.2	0.11
2021	18	18	35,354,775	8,229,385.3	0.05
<b>Scenesse</b>					
2019	0	0	55,407,042	48,668,768.1	0.00
2020	*****	*****	58,973,748	47,734,759.3	0.00
2021	*****	*****	35,354,818	8,229,396.8	0.00
<b>Skyrizi</b>					
2019	2,207	2,207	55,406,980	48,668,268.7	3.98
2020	4,922	4,922	58,970,337	47,730,064.3	8.35
2021	936	936	35,350,418	8,228,271.8	2.65
<b>Sunosi</b>					
2019	807	807	55,407,023	48,668,594.1	1.46
2020	1,888	1,888	58,972,630	47,733,028.0	3.20
2021	408	408	35,353,041	8,228,932.8	1.15

**Table 5a. Summary of Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database between (SDD) January 1, 2019 and March 31, 2021, by Year**

Year	New Users	New Episodes	Eligible Members <sup>1</sup>	Eligible Member-Years <sup>1</sup>	New Users / 100,000 Eligible Members
Tissueblue					
2019	0	0	55,407,042	48,668,768.1	0.00
2020	0	0	58,973,748	47,734,760.4	0.00
2021	0	0	35,354,819	8,229,397.1	0.00
Trikafta					
2019	1,557	1,557	55,407,031	48,668,623.9	2.81
2020	1,222	1,222	58,971,663	47,732,314.6	2.07
2021	123	123	35,352,769	8,228,894.7	0.35
Turalio					
2019	*****	*****	55,407,042	48,668,766.1	0.02
2020	15	15	58,973,739	47,734,746.4	0.03
2021	*****	*****	35,354,809	8,229,394.1	0.01
Ubrelyv					
2019	0	0	55,407,042	48,668,768.1	0.00
2020	21,794	21,794	58,970,838	47,725,883.2	36.96
2021	3,970	3,970	35,339,394	8,225,268.5	11.23
Vyleesi					
2019	60	60	55,407,040	48,668,758.4	0.11
2020	150	150	58,973,682	47,734,648.0	0.25
2021	36	36	35,354,748	8,229,377.9	0.10
Vyndaqel					
2019	1,069	1,069	55,407,026	48,668,398.8	1.93
2020	214	214	58,972,664	47,733,653.2	0.36
2021	29	29	35,353,837	8,229,158.4	0.08
Vyondys 53					
2019	0	0	55,407,042	48,668,768.1	0.00
2020	*****	*****	58,973,748	47,734,755.8	0.01
2021	0	0	35,354,817	8,229,396.6	0.00
Wakix					
2019	102	102	55,407,041	48,668,759.0	0.18
2020	699	699	58,973,507	47,734,286.2	1.19
2021	113	113	35,354,220	8,229,244.5	0.32
Xcopri					
2019	0	0	55,407,042	48,668,768.1	0.00
2020	597	597	58,973,714	47,734,639.8	1.01
2021	337	337	35,354,292	8,229,232.2	0.95
Xenleta					
2019	*****	*****	55,407,042	48,668,767.4	0.01
2020	*****	*****	58,973,741	47,734,736.2	0.06
2021	12	12	35,354,798	8,229,390.8	0.03
Xpovio					
2019	326	326	55,407,039	48,668,702.8	0.59
2020	573	573	58,973,501	47,734,441.5	0.97
2021	140	140	35,354,461	8,229,302.6	0.40

**Table 5a. Summary of Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database between (SDD) January 1, 2019 and March 31, 2021, by Year**

Year	New Users	New Episodes	Eligible Members <sup>1</sup>	Eligible Member-Years <sup>1</sup>	New Users / 100,000 Eligible Members
Zulresso					
2019	*****	*****	55,407,042	48,668,767.0	0.01
2020	*****	*****	58,973,746	47,734,750.2	0.02
2021	*****	*****	35,354,811	8,229,394.9	0.01

<sup>1</sup>Eligible Members and MemberYears are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period

\*\*\*\*\*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.

**Table 5b. Summary of Follow-Up Time for Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021, by Year**

Year	Number of New Users	Counts of New Users by Length of Follow-Up Time in Years <sup>1</sup>		
		< 1	1-2	3+
<b>Padcev</b>				
2019	0	0	0	0
2020	767	*****	*****	0
2021	225	*****	*****	0
<b>Piqray</b>				
2019	870	452	418	0
2020	1,230	1,033	197	0
2021	186	186	0	0
<b>Polivy</b>				
2019	36	23	13	0
2020	696	602	94	0
2021	135	135	0	0
<b>Pretomanid</b>				
2019	0	0	0	0
2020	*****	*****	0	0
2021	*****	*****	0	0
<b>Reblozyl</b>				
2019	*****	*****	*****	0
2020	*****	*****	*****	0
2021	286	286	0	0
<b>Recarbrio</b>				
2019	0	0	0	0
2020	*****	*****	0	0
2021	*****	*****	0	0
<b>Reyvow</b>				
2019	0	0	0	0
2020	1,653	1,527	126	0
2021	284	284	0	0
<b>Rinvoq</b>				
2019	1,050	192	858	0
2020	5,538	4,681	857	0
2021	1,050	1,050	0	0
<b>Rozlytrek</b>				
2019	*****	*****	*****	0
2020	*****	*****	*****	0
2021	18	18	0	0
<b>Scenesse</b>				
2019	0	0	0	0
2020	*****	*****	0	0
2021	*****	*****	0	0
<b>Skyrizi</b>				
2019	2,207	492	1,715	0
2020	4,922	4,168	754	0
2021	936	936	0	0
<b>Sunosi</b>				
2019	807	165	642	0
2020	1,888	1,569	319	0
2021	408	408	0	0

**Table 5b. Summary of Follow-Up Time for Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021, by Year**

Year	Number of New Users	Counts of New Users by Length of Follow-Up Time in Years <sup>1</sup>		
		< 1	1-2	3+
<b>Tissueblue</b>				
2019	0	0	0	0
2020	0	0	0	0
2021	0	0	0	0
<b>Trikafta</b>				
2019	1,557	287	1,270	0
2020	1,222	721	501	0
2021	123	123	0	0
<b>Turalio</b>				
2019	*****	*****	*****	0
2020	15	*****	*****	0
2021	*****	*****	0	0
<b>Ubrelvy</b>				
2019	0	0	0	0
2020	21,794	20,218	1,576	0
2021	3,970	3,970	0	0
<b>Vyleesi</b>				
2019	60	*****	*****	0
2020	150	*****	*****	0
2021	36	36	0	0
<b>Vyndaqel</b>				
2019	1,069	198	871	0
2020	214	122	92	0
2021	29	29	0	0
<b>Vyondys 53</b>				
2019	0	0	0	0
2020	*****	*****	*****	0
2021	0	0	0	0
<b>Wakix</b>				
2019	102	17	85	0
2020	699	590	109	0
2021	113	113	0	0
<b>Xcopri</b>				
2019	0	0	0	0
2020	597	597	0	0
2021	337	337	0	0
<b>Xenleta</b>				
2019	*****	*****	*****	0
2020	*****	*****	*****	0
2021	12	12	0	0
<b>Xpovio</b>				
2019	326	251	75	0
2020	573	531	42	0
2021	140	140	0	0

**Table 5b. Summary of Follow-Up Time for Patients Treated with a New Molecular Entities Approved in 2019 in the Sentinel Distributed Database (SDD) between January 1, 2019 and March 31, 2021, by Year**

Year	Number of New Users	Counts of New Users by Length of Follow-Up Time in Years <sup>1</sup>		
		< 1	1-2	3+
Zulresso				
2019	*****	*****	*****	0
2020	*****	*****	*****	0
2021	*****	*****	*****	0

<sup>1</sup>Eligible Members and MemberYears are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period

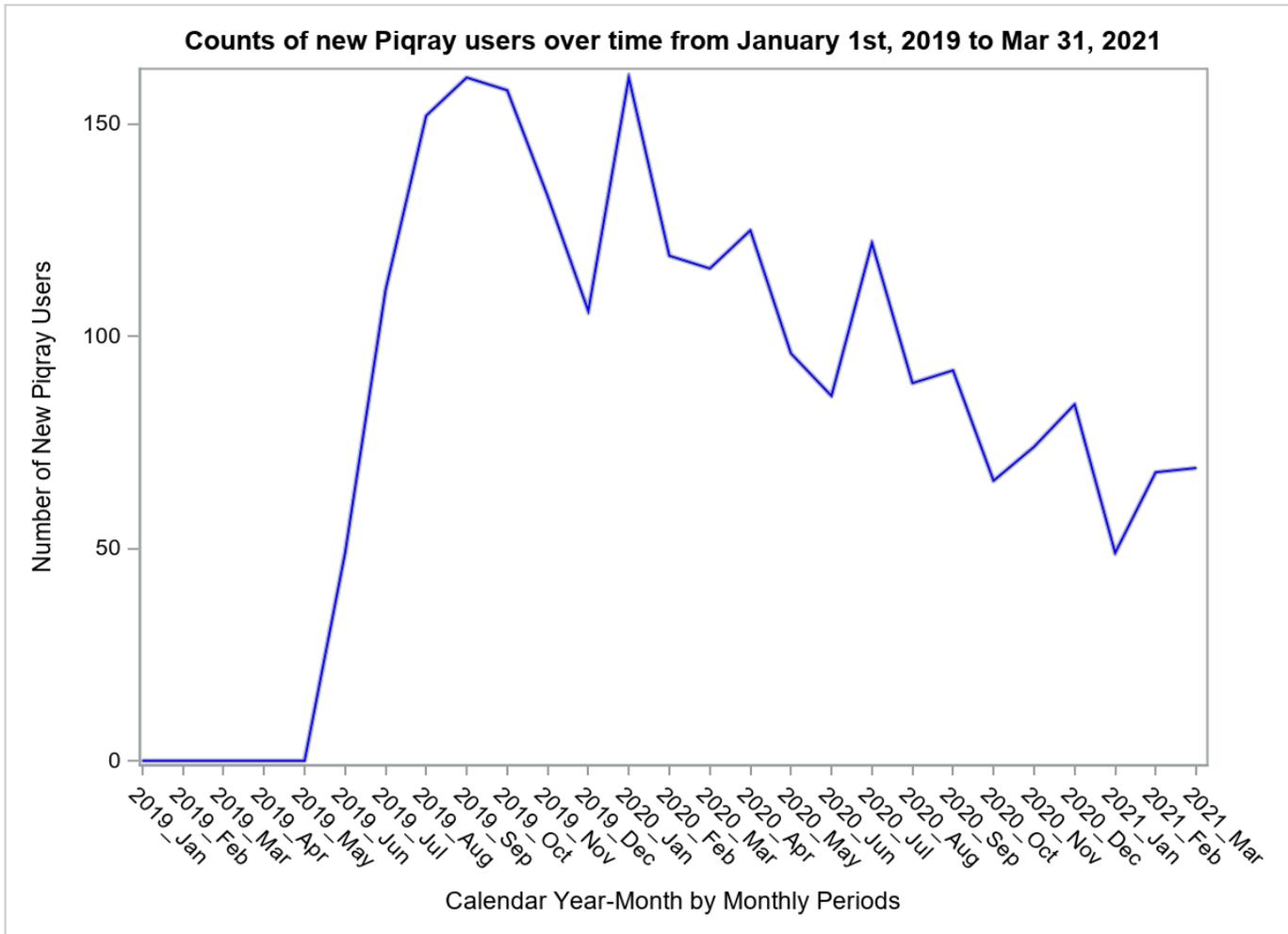
\*\*\*\*\*Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

**Figure 1. Counts of New Users of Padcev in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021**

---

\*\*\*\*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.

Figure 2. Counts of New Users of Piqray in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021



**Figure 3. Counts of New Users of Polivy in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021**

---

\*\*\*\*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.

**Figure 4. Counts of New Users of Pretomanid in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021**

---

\*\*\*\*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.

**Figure 5. Counts of New Users of Reblozyl in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021**

---

\*\*\*\*\*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.

Figure 6. Counts of New Users of Recarbrio in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021

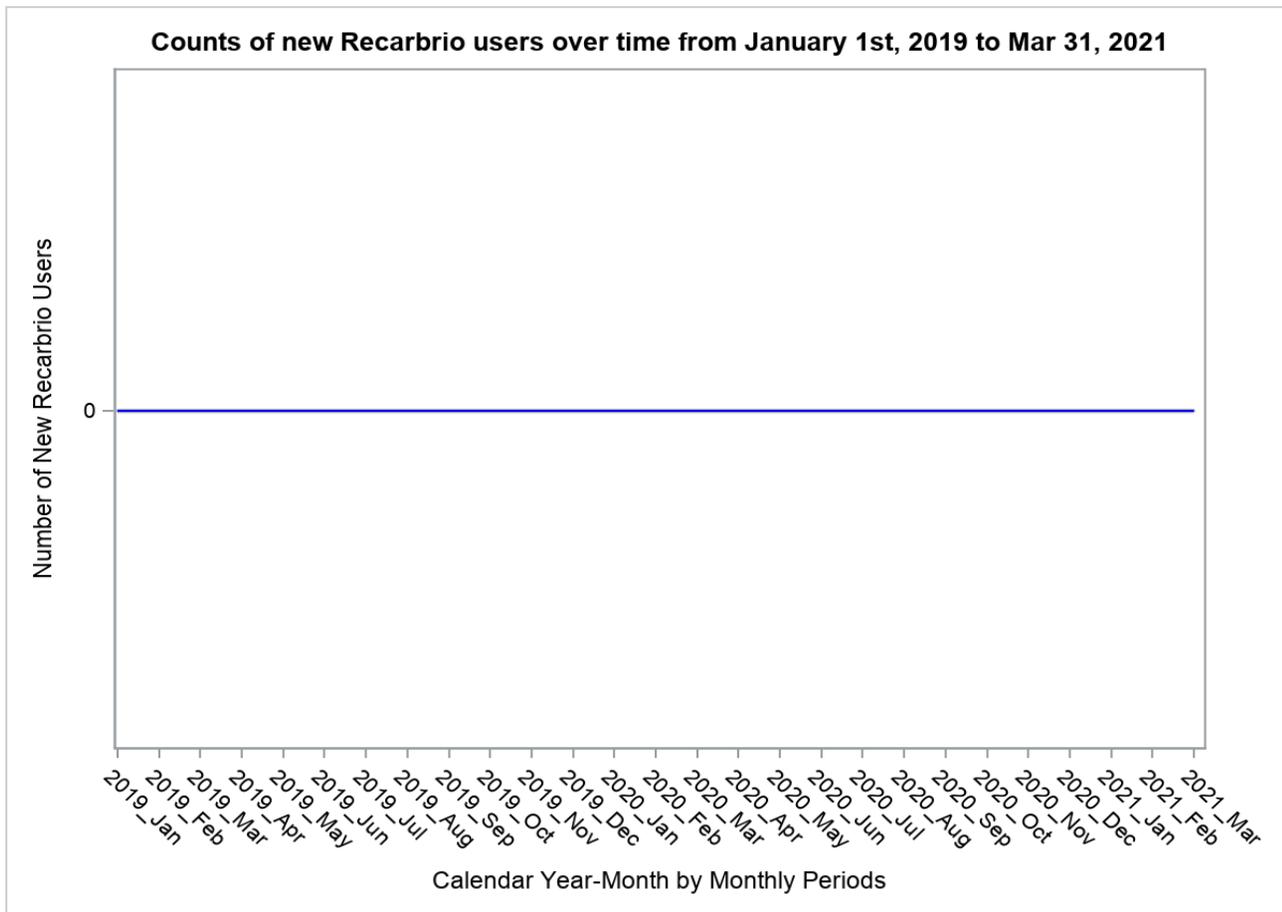
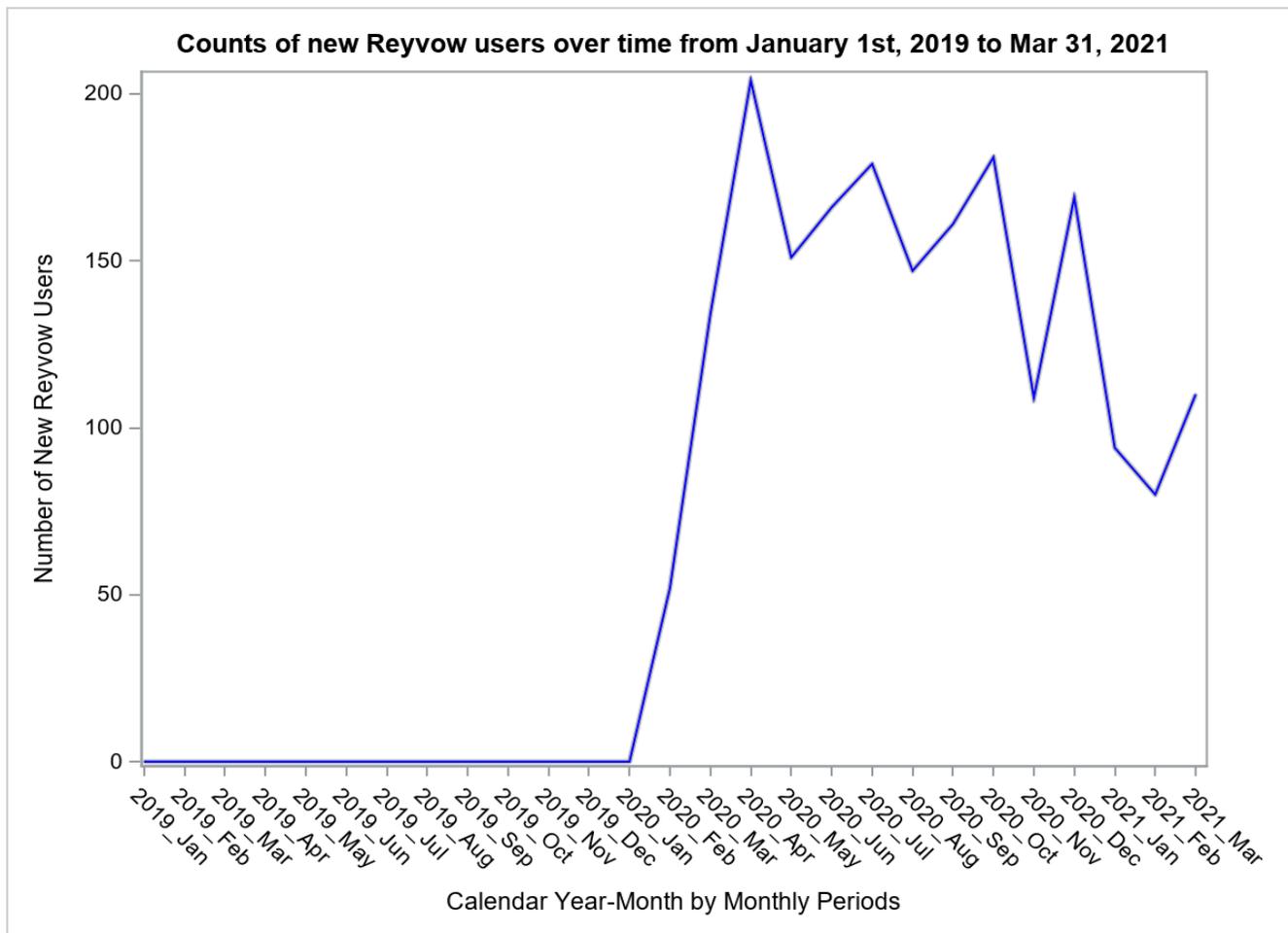


Figure 7. Counts of New Users of Reyvow in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021



**Figure 8. Counts of New Users of Rinvog in the Sentinel Distributed Database Over Time From January 1, 2019 to March 31, 2021**

---

\*\*\*\*\*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.

**Figure 9. Counts of New Users of Rozlytrek in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021**

---

\*\*\*\*\*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.

**Figure 10. Counts of New Users of Scenese in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021**

---

\*\*\*\*\*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.

**Figure 11. Counts of New Users of Skyrizi in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021**

---

\*\*\*\*\*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.

Figure 12. Counts of New Users of Sunosi in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021

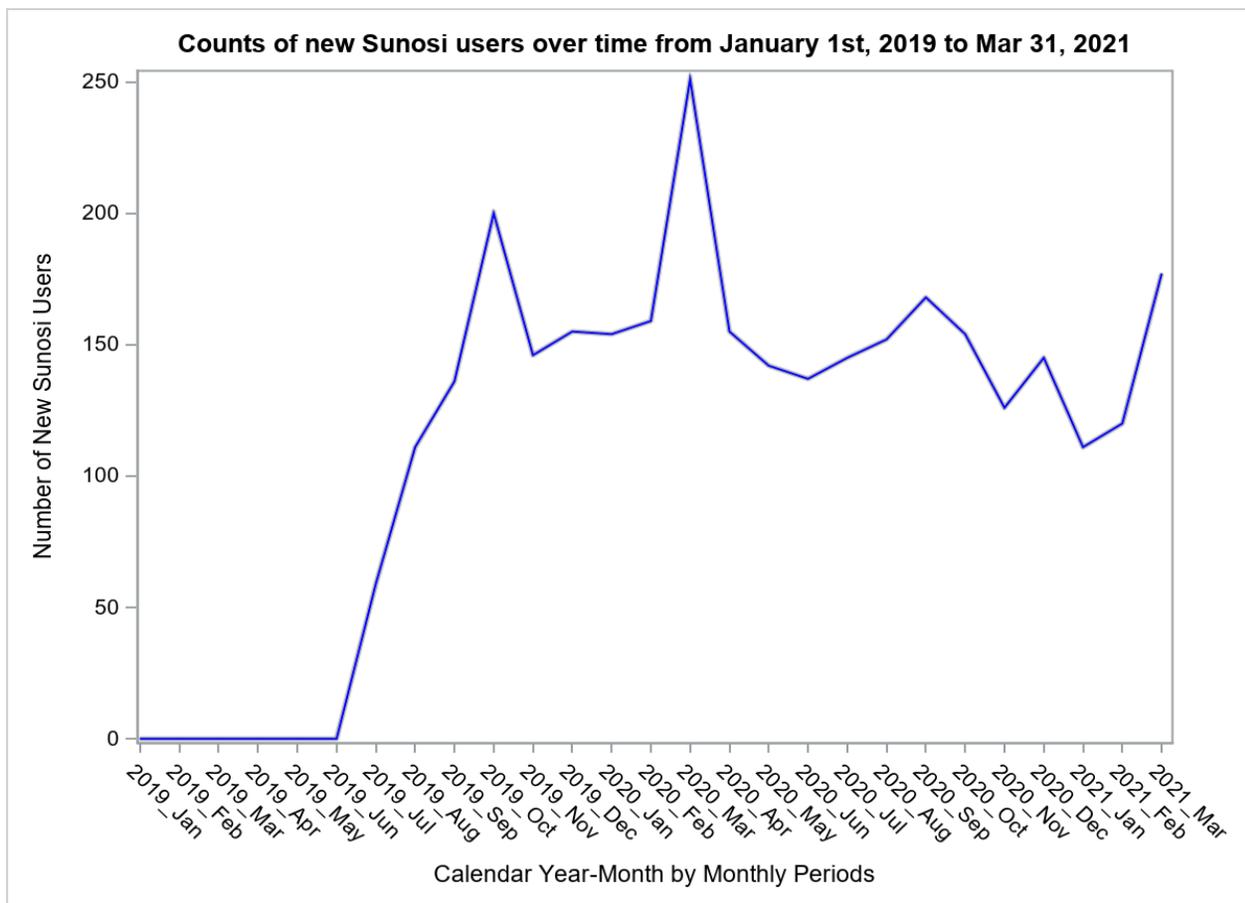
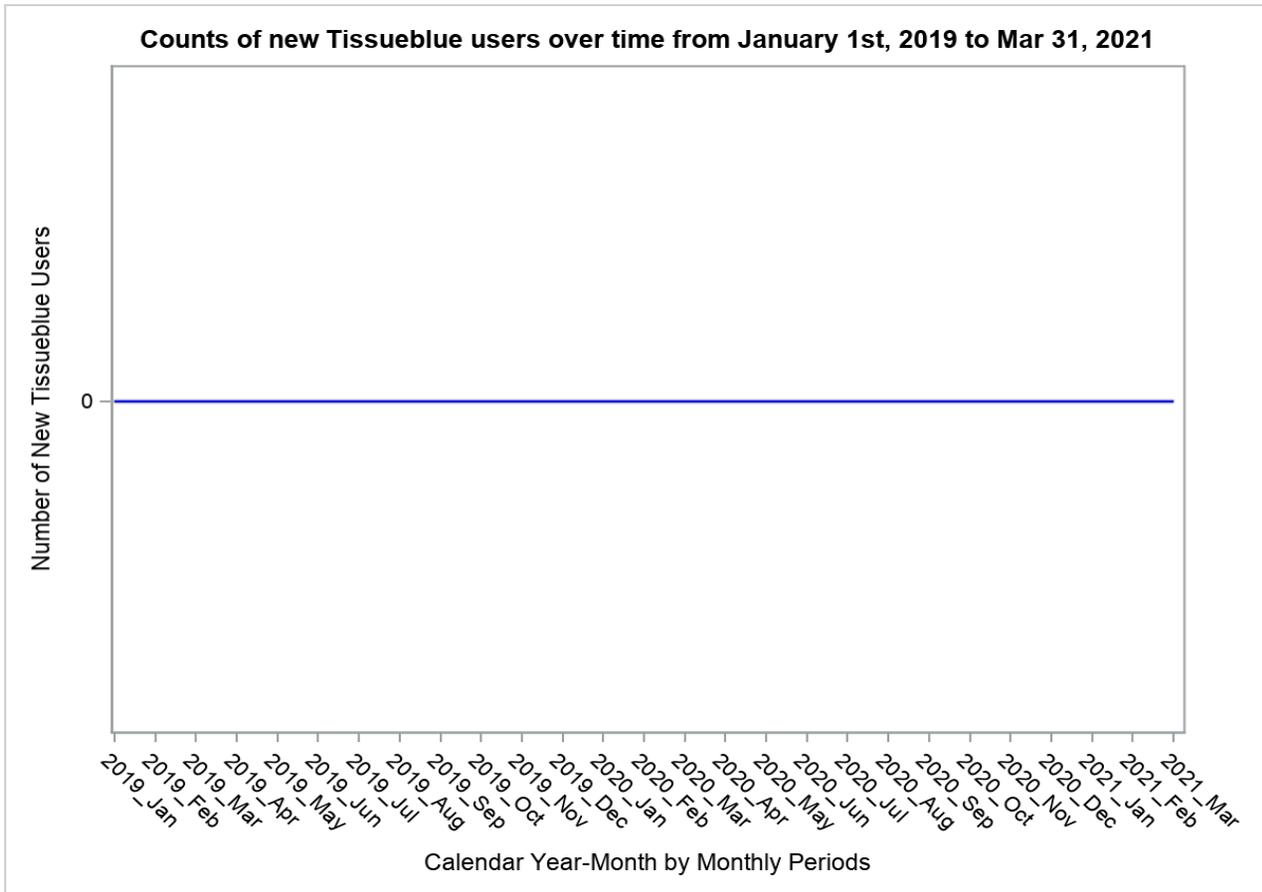
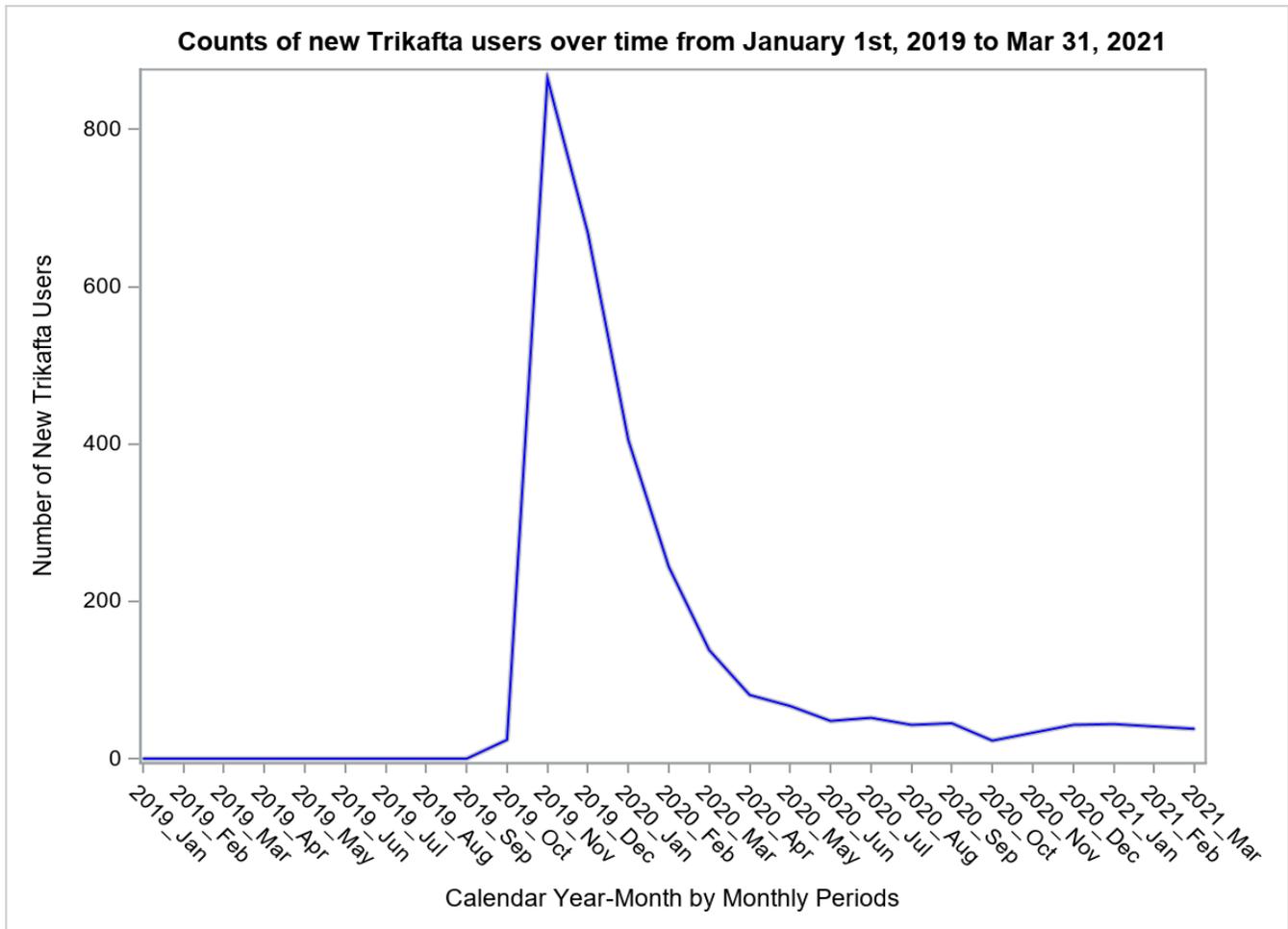


Figure 13. Counts of New Users of Tissue blue in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021



**Figure 14. Counts of New Users of Trikafta in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021**

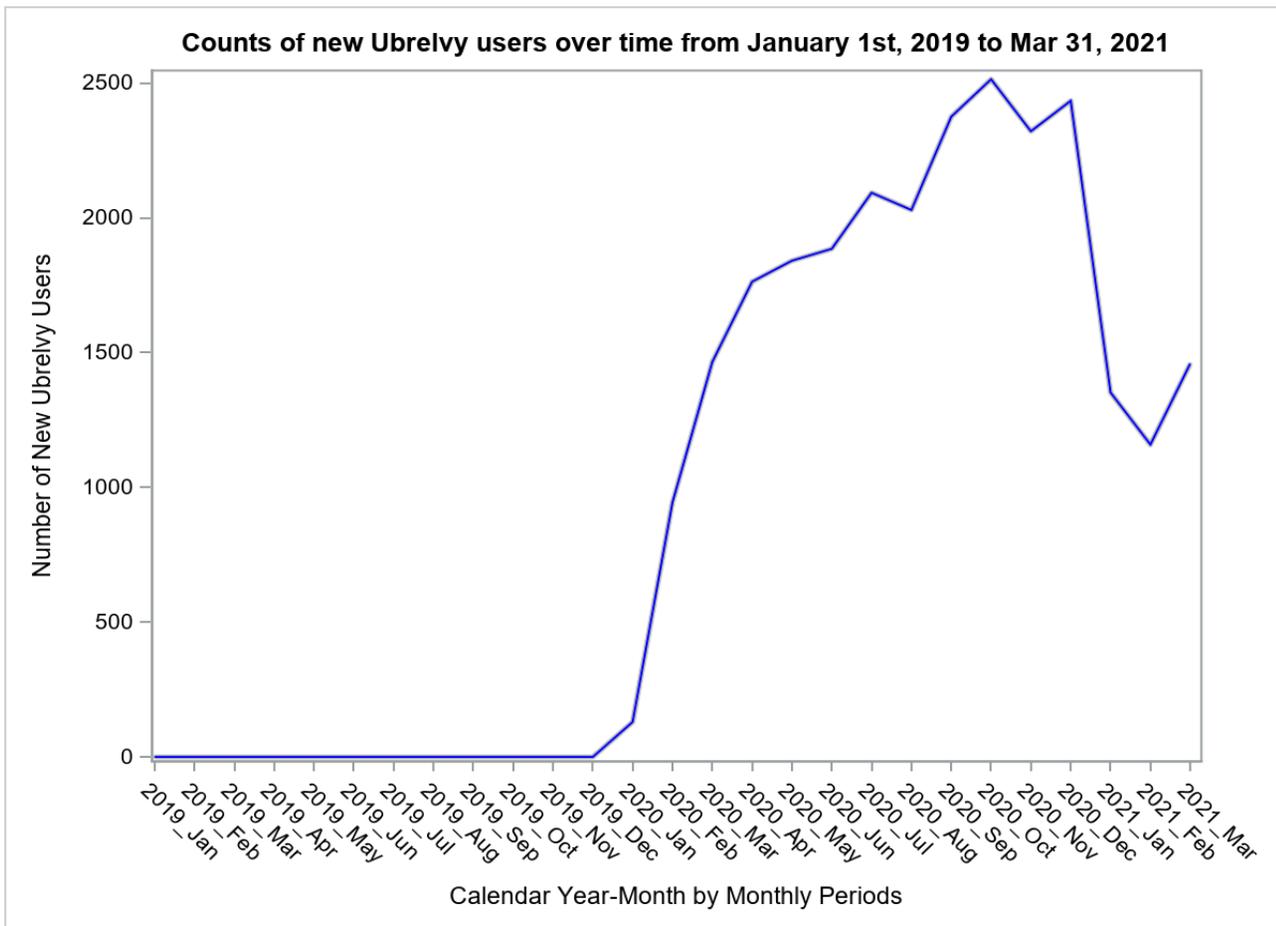


**Figure 15. Counts of New Users of Turalio in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021**

---

\*\*\*\*\*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.

**Figure 16. Counts of New Users of Ubrely in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021**



**Figure 17. Counts of New Users of Vyleesi in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021**

---

\*\*\*\*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.

**Figure 18. Counts of New Users of Vyndaqel in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021**

---

\*\*\*\*\*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.

**Figure 19. Counts of New Users of Vyondys 53 in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021**

---

\*\*\*\*\*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.

**Figure 20. Counts of New Users of Wakix in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021**

---

\*\*\*\*\*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.

**Figure 21. Counts of New Users of Xcopri in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021**

---

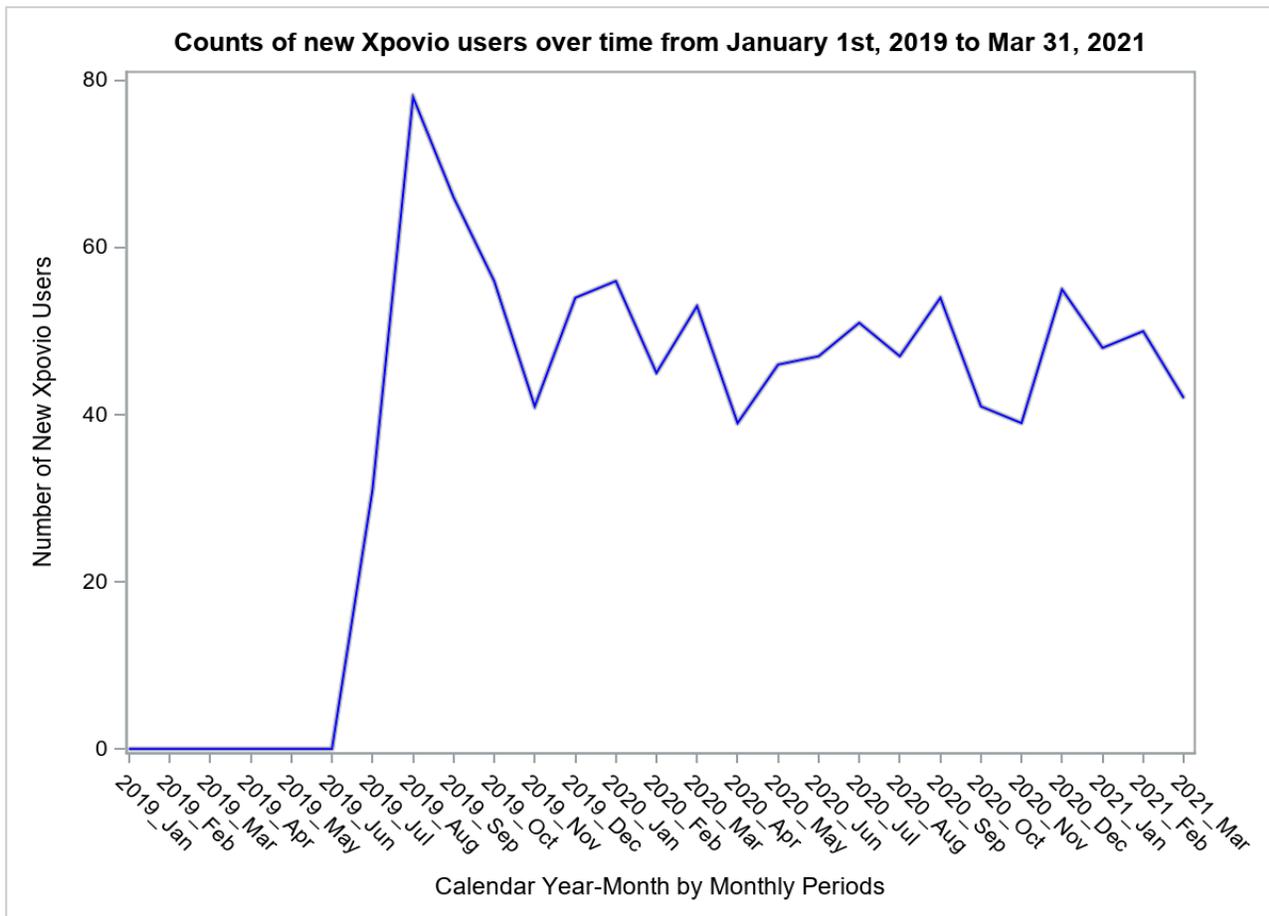
\*\*\*\*\*Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

**Figure 22. Counts of New Users of Xenleta in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021**

---

\*\*\*\*\*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.

**Figure 23. Counts of New Users of Xpovio in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021**



**Figure 24. Counts of New Users of Zulresso in the Sentinel Distributed Database (SDD) Over Time From January 1, 2019 to March 31, 2021**

---

\*\*\*\*\*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.

**Appendix A. Start and End Dates for Each Data Partner up to Request End Date (09/30/2021)**

---

<b>Masked ID</b>	<b>DP Start Date*</b>	<b>DP End Date*</b>
DP01	01/01/2008	12/31/2020
DP02	01/01/2007	02/28/2021
DP03	01/01/2006	03/31/2021
DP04	01/01/2008	12/31/2020
DP05	01/01/2000	12/31/2019
DP06	01/01/2010	12/31/2020

\*The start and end dates are based on the minimum and maximum dates within each DP. The month with the maximum date must have at least 80% of the number of records in the previous month.

**Appendix B. Generic and Brand Names of Medical Products Used to Define Exposures in this Request**

Generic Name	Brand Name
	<b>Padcev</b>
enfortumab vedotin-efv	Padcev
	<b>TissueBlue</b>
C.I. acid blue 90	TissueBlue
	<b>Scenesse</b>
afamelanotide acetate	Scenesse
	<b>Piqray</b>
alpelisib	Piqray
	<b>Vyleesi</b>
bremelanotide acetate	Vyleesi
	<b>Zulresso</b>
brexanolone	Zulresso
	<b>Xcopri</b>
cenobamate	Xcopri
	<b>Trikafta</b>
elexacaftor/tezacaftor/ivacaftor	Trikafta
	<b>Rozlytrek</b>
entrectinib	Rozlytrek
	<b>Vyondys 53</b>
golodirsen	Vyondys 53
	<b>Recarbrio</b>
imipenem/cilastatin sodium/relebactam	Recarbrio
	<b>Reyvow</b>
lasmiditan succinate	Reyvow
	<b>Xenleta</b>
lefamulin acetate	Xenleta
	<b>Reblozyl</b>
luspatercept-aamt	Reblozyl
	<b>Turalio</b>
pexidartinib hydrochloride	Turalio
	<b>Wakix</b>
pitolisant HCl	Wakix
	<b>Polivy</b>
polatuzumab vedotin-piiq	Polivy
	<b>Pretomanid</b>
pretomanid	pretomanid
	<b>Skyrizi</b>
risankizumab-rzaa	Skyrizi
	<b>Xpovio</b>
selinexor	Xpovio
	<b>Sunosi</b>
solriamfetol HCl	Sunosi
	<b>Vyndaqel</b>
tafamidis meglumine	Vyndaqel
	<b>Ubrelyv</b>
ubrogepant	Ubrelyv
	<b>Rinvoq</b>
upadacitinib	Rinvoq

**Appendix C. Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Outcome in this Request**

Code	Description	Code Category	Code Type
<b>Padcev</b>			
J9177	INJ ENFORTUMAB VEDOTIN-EJFV 0.25 MG	Procedure	HCPCS
<b>Polivy</b>			
J9309	INJ POLATUZUMAB VEDOTIN-PIIQ 1 MG	Procedure	HCPCS
<b>Reblozyl</b>			
J0896	INJECTION LUSPATERCEPT-AAMT 0.25 MG	Procedure	HCPCS
<b>Recarbrio</b>			
J0742	Injection, imipenem 4 mg, cilastatin 4 mg and relebactam 2 mg	Procedure	HCPCS
<b>Scenesse</b>			
J7352	AFAMELANOTIDE IMPLANT 1 MG	Procedure	HCPCS
<b>Vyondys 53</b>			
J1429	INJECTION GOLODIRSEN 10 MG	Procedure	HCPCS
<b>Xenleta</b>			
C9054	INJECTION LEFAMULIN XENLETA 1 MG	Procedure	HCPCS
J0691	INJECTION LEFAMULIN 1 MG	Procedure	HCPCS
<b>Zulresso</b>			
C9055	INJECTION BREXANOLONE 1 MG	Procedure	HCPCS
J1632	INJECTION BREXANOLONE 1 MG	Procedure	HCPCS

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

Code		Code Category	Code Type
<b>Hyperlipidemia</b>			
E78.00	Pure hypercholesterolemia, unspecified	Diagnosis	ICD-10-CM
E78.01	Familial hypercholesterolemia	Diagnosis	ICD-10-CM
E78.1	Pure hyperglyceridemia	Diagnosis	ICD-10-CM
E78.2	Mixed hyperlipidemia	Diagnosis	ICD-10-CM
E78.3	Hyperchylomicronemia	Diagnosis	ICD-10-CM
E78.4	Other hyperlipidemia	Diagnosis	ICD-10-CM
E78.41	Elevated Lipoprotein(a)	Diagnosis	ICD-10-CM
E78.49	Other hyperlipidemia	Diagnosis	ICD-10-CM
E78.5	Hyperlipidemia, unspecified	Diagnosis	ICD-10-CM
<b>Depression</b>			
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
F31.75	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
F32.0	Major depressive disorder, single episode, mild	Diagnosis	ICD-10-CM
F32.1	Major depressive disorder, single episode, moderate	Diagnosis	ICD-10-CM
F32.2	Major depressive disorder, single episode, severe without psychotic features	Diagnosis	ICD-10-CM
F32.3	Major depressive disorder, single episode, severe with psychotic features	Diagnosis	ICD-10-CM
F32.4	Major depressive disorder, single episode, in partial remission	Diagnosis	ICD-10-CM
F32.5	Major depressive disorder, single episode, in full remission	Diagnosis	ICD-10-CM
F32.9	Major depressive disorder, single episode, unspecified	Diagnosis	ICD-10-CM
F33.0	Major depressive disorder, recurrent, mild	Diagnosis	ICD-10-CM
F33.1	Major depressive disorder, recurrent, moderate	Diagnosis	ICD-10-CM
F33.2	Major depressive disorder, recurrent severe without psychotic features	Diagnosis	ICD-10-CM
F33.3	Major depressive disorder, recurrent, severe with psychotic symptoms	Diagnosis	ICD-10-CM
F33.40	Major depressive disorder, recurrent, in remission, unspecified	Diagnosis	ICD-10-CM
F33.41	Major depressive disorder, recurrent, in partial remission	Diagnosis	ICD-10-CM
F33.42	Major depressive disorder, recurrent, in full remission	Diagnosis	ICD-10-CM
F33.8	Other recurrent depressive disorders	Diagnosis	ICD-10-CM
F33.9	Major depressive disorder, recurrent, unspecified	Diagnosis	ICD-10-CM
F34.1	Dysthymic disorder	Diagnosis	ICD-10-CM
F43.21	Adjustment disorder with depressed mood	Diagnosis	ICD-10-CM
F43.23	Adjustment disorder with mixed anxiety and depressed mood	Diagnosis	ICD-10-CM
<b>Endometrial Cancer</b>			
C54.1	Malignant neoplasm of endometrium	Diagnosis	ICD-10-CM
C54.2	Malignant neoplasm of myometrium	Diagnosis	ICD-10-CM
C54.3	Malignant neoplasm of fundus uteri	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>		<b>Code Category</b>	<b>Code Type</b>
C54.8	Malignant neoplasm of overlapping sites of corpus uteri	Diagnosis	ICD-10-CM
C54.9	Malignant neoplasm of corpus uteri, unspecified	Diagnosis	ICD-10-CM
D07.0	Carcinoma in situ of endometrium	Diagnosis	ICD-10-CM
Z85.42	Personal history of malignant neoplasm of other parts of uterus	Diagnosis	ICD-10-CM
<b>Acquired Hypothyroidism</b>			
E01.8	Other iodine-deficiency related thyroid disorders and allied conditions	Diagnosis	ICD-10-CM
E02	Subclinical iodine-deficiency hypothyroidism	Diagnosis	ICD-10-CM
E03.2	Hypothyroidism due to medicaments and other exogenous substances	Diagnosis	ICD-10-CM
E03.3	Postinfectious hypothyroidism	Diagnosis	ICD-10-CM
E03.8	Other specified hypothyroidism	Diagnosis	ICD-10-CM
E03.9	Hypothyroidism, unspecified	Diagnosis	ICD-10-CM
E89.0	Postprocedural hypothyroidism	Diagnosis	ICD-10-CM
<b>Asthma</b>			
J45.20	Mild intermittent asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.21	Mild intermittent asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.22	Mild intermittent asthma with status asthmaticus	Diagnosis	ICD-10-CM
J45.30	Mild persistent asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.31	Mild persistent asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.32	Mild persistent asthma with status asthmaticus	Diagnosis	ICD-10-CM
J45.40	Moderate persistent asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.41	Moderate persistent asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.42	Moderate persistent asthma with status asthmaticus	Diagnosis	ICD-10-CM
J45.50	Severe persistent asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.51	Severe persistent asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.52	Severe persistent asthma with status asthmaticus	Diagnosis	ICD-10-CM
J45.901	Unspecified asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.902	Unspecified asthma with status asthmaticus	Diagnosis	ICD-10-CM
J45.909	Unspecified asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.990	Exercise induced bronchospasm	Diagnosis	ICD-10-CM
J45.991	Cough variant asthma	Diagnosis	ICD-10-CM
J45.998	Other asthma	Diagnosis	ICD-10-CM
J82.83	Eosinophilic asthma	Diagnosis	ICD-10-CM
<b>Chronic Obstructive Pulmonary Disorder</b>			
J40	Bronchitis, not specified as acute or chronic	Diagnosis	ICD-10-CM
J41.0	Simple chronic bronchitis	Diagnosis	ICD-10-CM
J41.1	Mucopurulent chronic bronchitis	Diagnosis	ICD-10-CM
J41.8	Mixed simple and mucopurulent chronic bronchitis	Diagnosis	ICD-10-CM
J42	Unspecified chronic bronchitis	Diagnosis	ICD-10-CM
J43.0	Unilateral pulmonary emphysema [MacLeod's syndrome]	Diagnosis	ICD-10-CM
J43.1	Panlobular emphysema	Diagnosis	ICD-10-CM
J43.2	Centrilobular emphysema	Diagnosis	ICD-10-CM
J43.8	Other emphysema	Diagnosis	ICD-10-CM
J43.9	Emphysema, unspecified	Diagnosis	ICD-10-CM
J44.0	Chronic obstructive pulmonary disease with (acute) lower respiratory infection	Diagnosis	ICD-10-CM
J44.1	Chronic obstructive pulmonary disease with (acute) exacerbation	Diagnosis	ICD-10-CM
J44.9	Chronic obstructive pulmonary disease, unspecified	Diagnosis	ICD-10-CM
J47.0	Bronchiectasis with acute lower respiratory infection	Diagnosis	ICD-10-CM
J47.1	Bronchiectasis with (acute) exacerbation	Diagnosis	ICD-10-CM
J47.9	Bronchiectasis, uncomplicated	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

Code	Code Category	Code Type
<b>Obesity</b>		
0D16079 Bypass Stomach to Duodenum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1607A Bypass Stomach to Jejunum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1607B Bypass Stomach to Ileum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1607L Bypass Stomach to Transverse Colon with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D160J9 Bypass Stomach to Duodenum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D160JA Bypass Stomach to Jejunum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D160JB Bypass Stomach to Ileum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D160JL Bypass Stomach to Transverse Colon with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D160K9 Bypass Stomach to Duodenum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D160KA Bypass Stomach to Jejunum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D160KB Bypass Stomach to Ileum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D160KL Bypass Stomach to Transverse Colon with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D160Z9 Bypass Stomach to Duodenum, Open Approach	Procedure	ICD-10-PCS
0D160ZA Bypass Stomach to Jejunum, Open Approach	Procedure	ICD-10-PCS
0D160ZB Bypass Stomach to Ileum, Open Approach	Procedure	ICD-10-PCS
0D160ZL Bypass Stomach to Transverse Colon, Open Approach	Procedure	ICD-10-PCS
0D16479 Bypass Stomach to Duodenum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1647A Bypass Stomach to Jejunum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1647B Bypass Stomach to Ileum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1647L Bypass Stomach to Transverse Colon with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164J9 Bypass Stomach to Duodenum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164JA Bypass Stomach to Jejunum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164JB Bypass Stomach to Ileum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164JL Bypass Stomach to Transverse Colon with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
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
0D164KL Bypass Stomach to Transverse Colon 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
0D164ZL Bypass Stomach to Transverse Colon, 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
0D1687L Bypass Stomach to Transverse Colon with Autologous Tissue Substitute, Via Natural or Artificial Opening	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
0D168JL Bypass Stomach to Transverse Colon with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

Code	Code Category	Code Type
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
0D168KL Bypass Stomach to Transverse Colon with Nonautologous Tissue Substitute, Via Natural or Artificial Opening	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
0D168ZL Bypass Stomach to Transverse Colon, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D19079 Bypass Duodenum to Duodenum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1907A Bypass Duodenum to Jejunum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1907B Bypass Duodenum to Ileum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D190J9 Bypass Duodenum to Duodenum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D190JA Bypass Duodenum to Jejunum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D190JB Bypass Duodenum to Ileum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D190K9 Bypass Duodenum to Duodenum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D190KA Bypass Duodenum to Jejunum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D190KB Bypass Duodenum to Ileum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D190Z9 Bypass Duodenum to Duodenum, Open Approach	Procedure	ICD-10-PCS
0D190ZA Bypass Duodenum to Jejunum, Open Approach	Procedure	ICD-10-PCS
0D190ZB Bypass Duodenum to Ileum, Open Approach	Procedure	ICD-10-PCS
0D19479 Bypass Duodenum to Duodenum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1947A Bypass Duodenum to Jejunum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1947B Bypass Duodenum to Ileum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D194J9 Bypass Duodenum to Duodenum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D194JA Bypass Duodenum to Jejunum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D194JB Bypass Duodenum to Ileum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D194K9 Bypass Duodenum to Duodenum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D194KA Bypass Duodenum to Jejunum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D194KB Bypass Duodenum to Ileum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D194Z9 Bypass Duodenum to Duodenum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D194ZA Bypass Duodenum to Jejunum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D194ZB Bypass Duodenum to Ileum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D19879 Bypass Duodenum to Duodenum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1987A Bypass Duodenum to Jejunum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1987B Bypass Duodenum to Ileum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D198J9 Bypass Duodenum to Duodenum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D198JA Bypass Duodenum to Jejunum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D198JB Bypass Duodenum to Ileum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code Category</b>	<b>Code Type</b>
0D198K9 Bypass Duodenum to Duodenum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D198KA Bypass Duodenum to Jejunum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D198KB Bypass Duodenum to Ileum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D198Z9 Bypass Duodenum to Duodenum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D198ZA Bypass Duodenum to Jejunum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D198ZB Bypass Duodenum to Ileum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1A07A Bypass Jejunum to Jejunum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1A07B Bypass Jejunum to Ileum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1A0JA Bypass Jejunum to Jejunum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D1A0JB Bypass Jejunum to Ileum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D1A0KA Bypass Jejunum to Jejunum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1A0KB Bypass Jejunum to Ileum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1A0ZA Bypass Jejunum to Jejunum, Open Approach	Procedure	ICD-10-PCS
0D1A0ZB Bypass Jejunum to Ileum, Open Approach	Procedure	ICD-10-PCS
0D1A47A Bypass Jejunum to Jejunum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1A47B Bypass Jejunum to Ileum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1A4JA Bypass Jejunum to Jejunum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1A4JB Bypass Jejunum to Ileum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1A4KA Bypass Jejunum to Jejunum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1A4KB Bypass Jejunum to Ileum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1A4ZA Bypass Jejunum to Jejunum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1A4ZB Bypass Jejunum to Ileum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1A87A Bypass Jejunum to Jejunum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1A87B Bypass Jejunum to Ileum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1A8JA Bypass Jejunum to Jejunum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1A8JB Bypass Jejunum to Ileum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1A8KA Bypass Jejunum to Jejunum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1A8KB Bypass Jejunum to Ileum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1A8ZA Bypass Jejunum to Jejunum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1A8ZB Bypass Jejunum to Ileum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1A8ZH Bypass Jejunum to Cecum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1B07B Bypass Ileum to Ileum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1B0JB Bypass Ileum to Ileum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D1B0KB Bypass Ileum to Ileum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1B0ZB Bypass Ileum to Ileum, Open Approach	Procedure	ICD-10-PCS
0D1B47B Bypass Ileum to Ileum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1B4JB Bypass Ileum to Ileum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1B4KB Bypass Ileum to Ileum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1B4ZB Bypass Ileum to Ileum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1B87B Bypass Ileum to Ileum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1B8JB Bypass Ileum to Ileum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

Code	Code Category	Code Type
0D1B8KB Bypass Ileum to Ileum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1B8ZB Bypass Ileum to Ileum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1B8ZH Bypass Ileum to Cecum, 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
0DB63ZZ Excision of Stomach, Percutaneous 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
0DB80ZZ Excision of Small Intestine, Open Approach	Procedure	ICD-10-PCS
0DB90ZZ Excision of Duodenum, Open Approach	Procedure	ICD-10-PCS
0DBB0ZZ Excision of Ileum, Open Approach	Procedure	ICD-10-PCS
0DQ64ZZ Repair Stomach, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DV64CZ Restriction of Stomach with Extraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0F190Z3 Bypass Common Bile Duct to Duodenum, Open Approach	Procedure	ICD-10-PCS
0TRB07Z Replacement of Bladder with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
43644 Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and Roux-en-Y gastroenterostomy (roux limb)	Procedure	CPT-4
43645 Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and small intestine reconstruction to limit	Procedure	CPT-4
43770 Laparoscopy, surgical, gastric restrictive procedure; placement of adjustable gastric restrictive device (eg, gastric)	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	Procedure	CPT-4
43846 Gastric restrictive procedure, with gastric bypass for morbid obesity; with short limb (150 cm or less) Roux-en-Y	Procedure	CPT-4
43847 Gastric restrictive procedure, with gastric bypass for morbid obesity; with small intestine reconstruction to limit	Procedure	CPT-4
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

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

Code		Code Category	Code Type
O99.840	Bariatric surgery status complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O99.841	Bariatric surgery status complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99.842	Bariatric surgery status complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99.843	Bariatric surgery status complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99.844	Bariatric surgery status complicating childbirth	Diagnosis	ICD-10-CM
O99.845	Bariatric surgery status complicating the puerperium	Diagnosis	ICD-10-CM
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) 50-59.9, adult	Diagnosis	ICD-10-CM
Z68.44	Body mass index (BMI) 60.0-69.9, adult	Diagnosis	ICD-10-CM
Z68.45	Body mass index (BMI) 70 or greater, adult	Diagnosis	ICD-10-CM
<b>Smoking</b>			
1034F	Current tobacco smoker (CAD, CAP, COPD, PV) (DM)	Procedure	CPT-2
4001F	Tobacco use cessation intervention, pharmacologic therapy (COPD, CAD, CAP, PV, Asthma) (DM) (PV)	Procedure	CPT-2
4004F	Patient screened for tobacco use and received tobacco cessation intervention (counseling, pharmacotherapy, or	Procedure	CPT-2
99406	Smoking and tobacco use cessation counseling visit; intermediate, greater than 3 minutes up to 10 minutes	Procedure	CPT-4
99407	Smoking and tobacco use cessation counseling visit; intensive, greater than 10 minutes	Procedure	CPT-4
F17.200	Nicotine dependence, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F17.201	Nicotine dependence, unspecified, in remission	Diagnosis	ICD-10-CM
F17.210	Nicotine dependence, cigarettes, uncomplicated	Diagnosis	ICD-10-CM
F17.211	Nicotine dependence, cigarettes, in remission	Diagnosis	ICD-10-CM
F17.290	Nicotine dependence, other tobacco product, uncomplicated	Diagnosis	ICD-10-CM
F17.291	Nicotine dependence, other tobacco product, in remission	Diagnosis	ICD-10-CM
G0436	Smoking and tobacco cessation counseling visit for the asymptomatic patient; intermediate, greater than 3 minutes, up to 10 minutes	Procedure	HCPCS
G0437	Smoking and tobacco cessation counseling visit for the asymptomatic patient; intensive, greater than 10 minutes	Procedure	HCPCS
G9016	Smoking cessation counseling, individual, in the absence of or in addition to any other evaluation and management	Procedure	HCPCS
G9276	Documentation that patient is a current tobacco user	Procedure	HCPCS
G9458	Patient documented as tobacco user and received tobacco cessation intervention (must include at least one of the following: advice given to quit smoking or tobacco use, counseling on the benefits of quitting smoking or tobacco use, assistance with or	Procedure	HCPCS
O99.330	Smoking (tobacco) complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O99.331	Smoking (tobacco) complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99.332	Smoking (tobacco) complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99.333	Smoking (tobacco) complicating pregnancy, third trimester	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
O99.334 Smoking (tobacco) complicating childbirth	Diagnosis	ICD-10-CM
O99.335 Smoking (tobacco) complicating the puerperium	Diagnosis	ICD-10-CM
S4995 Smoking cessation gum	Procedure	HCPCS
S9075 Smoking cessation treatment	Procedure	HCPCS
S9453 Smoking cessation classes, non-physician provider, per session	Procedure	HCPCS
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
Z87.891 Personal history of nicotine dependence	Diagnosis	ICD-10-CM
<b>Chronic Kidney Disorder</b>		
A18.11 Tuberculosis of kidney and ureter	Diagnosis	ICD-10-CM
A52.75 Syphilis of kidney and ureter	Diagnosis	ICD-10-CM
B52.0 Plasmodium malariae malaria with nephropathy	Diagnosis	ICD-10-CM
C64.1 Malignant neoplasm of right kidney, except renal pelvis	Diagnosis	ICD-10-CM
C64.2 Malignant neoplasm of left kidney, except renal pelvis	Diagnosis	ICD-10-CM
C64.9 Malignant neoplasm of unspecified kidney, except renal pelvis	Diagnosis	ICD-10-CM
C68.9 Malignant neoplasm of urinary organ, unspecified	Diagnosis	ICD-10-CM
D30.00 Benign neoplasm of unspecified kidney	Diagnosis	ICD-10-CM
D30.01 Benign neoplasm of right kidney	Diagnosis	ICD-10-CM
D30.02 Benign neoplasm of left kidney	Diagnosis	ICD-10-CM
D41.00 Neoplasm of uncertain behavior of unspecified kidney	Diagnosis	ICD-10-CM
D41.01 Neoplasm of uncertain behavior of right kidney	Diagnosis	ICD-10-CM
D41.02 Neoplasm of uncertain behavior of left kidney	Diagnosis	ICD-10-CM
D41.10 Neoplasm of uncertain behavior of unspecified renal pelvis	Diagnosis	ICD-10-CM
D41.11 Neoplasm of uncertain behavior of right renal pelvis	Diagnosis	ICD-10-CM
D41.12 Neoplasm of uncertain behavior of left renal pelvis	Diagnosis	ICD-10-CM
D41.20 Neoplasm of uncertain behavior of unspecified ureter	Diagnosis	ICD-10-CM
D41.21 Neoplasm of uncertain behavior of right ureter	Diagnosis	ICD-10-CM
D41.22 Neoplasm of uncertain behavior of left ureter	Diagnosis	ICD-10-CM
D59.3 Hemolytic-uremic syndrome	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
E08.65 Diabetes mellitus due to underlying condition with hyperglycemia	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
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
E10.65 Type 1 diabetes mellitus with hyperglycemia	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
E11.65 Type 2 diabetes mellitus with hyperglycemia	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

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>		<b>Code Category</b>	<b>Code Type</b>
E74.8	Other specified disorders of carbohydrate metabolism	Diagnosis	ICD-10-CM
I12.0	Hypertensive chronic kidney disease with stage 5 chronic kidney disease or end stage renal disease	Diagnosis	ICD-10-CM
I12.9	Hypertensive chronic kidney disease with stage 1 through stage 4 chronic kidney disease, or unspecified chronic	Diagnosis	ICD-10-CM
I13.0	Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease,	Diagnosis	ICD-10-CM
I13.10	Hypertensive heart and chronic kidney disease without heart failure, with stage 1 through stage 4 chronic kidney	Diagnosis	ICD-10-CM
I13.11	Hypertensive heart and chronic kidney disease without heart failure, with stage 5 chronic kidney disease, or end	Diagnosis	ICD-10-CM
I13.2	Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end	Diagnosis	ICD-10-CM
I70.1	Atherosclerosis of renal artery	Diagnosis	ICD-10-CM
I72.2	Aneurysm of renal artery	Diagnosis	ICD-10-CM
K76.7	Hepatorenal syndrome	Diagnosis	ICD-10-CM
M10.30	Gout due to renal impairment, unspecified site	Diagnosis	ICD-10-CM
M10.311	Gout due to renal impairment, right shoulder	Diagnosis	ICD-10-CM
M10.312	Gout due to renal impairment, left shoulder	Diagnosis	ICD-10-CM
M10.319	Gout due to renal impairment, unspecified shoulder	Diagnosis	ICD-10-CM
M10.321	Gout due to renal impairment, right elbow	Diagnosis	ICD-10-CM
M10.322	Gout due to renal impairment, left elbow	Diagnosis	ICD-10-CM
M10.329	Gout due to renal impairment, unspecified elbow	Diagnosis	ICD-10-CM
M10.331	Gout due to renal impairment, right wrist	Diagnosis	ICD-10-CM
M10.332	Gout due to renal impairment, left wrist	Diagnosis	ICD-10-CM
M10.339	Gout due to renal impairment, unspecified wrist	Diagnosis	ICD-10-CM
M10.341	Gout due to renal impairment, right hand	Diagnosis	ICD-10-CM
M10.342	Gout due to renal impairment, left hand	Diagnosis	ICD-10-CM
M10.349	Gout due to renal impairment, unspecified hand	Diagnosis	ICD-10-CM
M10.351	Gout due to renal impairment, right hip	Diagnosis	ICD-10-CM
M10.352	Gout due to renal impairment, left hip	Diagnosis	ICD-10-CM
M10.359	Gout due to renal impairment, unspecified hip	Diagnosis	ICD-10-CM
M10.361	Gout due to renal impairment, right knee	Diagnosis	ICD-10-CM
M10.362	Gout due to renal impairment, left knee	Diagnosis	ICD-10-CM
M10.369	Gout due to renal impairment, unspecified knee	Diagnosis	ICD-10-CM
M10.371	Gout due to renal impairment, right ankle and foot	Diagnosis	ICD-10-CM
M10.372	Gout due to renal impairment, left ankle and foot	Diagnosis	ICD-10-CM
M10.379	Gout due to renal impairment, unspecified ankle and foot	Diagnosis	ICD-10-CM
M10.38	Gout due to renal impairment, vertebrae	Diagnosis	ICD-10-CM
M10.39	Gout due to renal impairment, multiple sites	Diagnosis	ICD-10-CM
M32.14	Glomerular disease in systemic lupus erythematosus	Diagnosis	ICD-10-CM
M32.15	Tubulo-interstitial nephropathy in systemic lupus erythematosus	Diagnosis	ICD-10-CM
M35.04	Sicca syndrome with tubulo-interstitial nephropathy	Diagnosis	ICD-10-CM
N00.0	Acute nephritic syndrome with minor glomerular abnormality	Diagnosis	ICD-10-CM
N00.1	Acute nephritic syndrome with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N00.2	Acute nephritic syndrome with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N00.3	Acute nephritic syndrome with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N00.4	Acute nephritic syndrome with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N00.5	Acute nephritic syndrome with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N00.6	Acute nephritic syndrome with dense deposit disease	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>		<b>Code Category</b>	<b>Code Type</b>
N00.7	Acute nephritic syndrome with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N00.8	Acute nephritic syndrome with other morphologic changes	Diagnosis	ICD-10-CM
N00.9	Acute nephritic syndrome with unspecified morphologic changes	Diagnosis	ICD-10-CM
N00.A	Acute nephritic syndrome with C3 glomerulonephritis	Diagnosis	ICD-10-CM
N01.0	Rapidly progressive nephritic syndrome with minor glomerular abnormality	Diagnosis	ICD-10-CM
N01.1	Rapidly progressive nephritic syndrome with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N01.2	Rapidly progressive nephritic syndrome with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N01.3	Rapidly progressive nephritic syndrome with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N01.4	Rapidly progressive nephritic syndrome with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N01.5	Rapidly progressive nephritic syndrome with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N01.6	Rapidly progressive nephritic syndrome with dense deposit disease	Diagnosis	ICD-10-CM
N01.7	Rapidly progressive nephritic syndrome with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N01.8	Rapidly progressive nephritic syndrome with other morphologic changes	Diagnosis	ICD-10-CM
N01.9	Rapidly progressive nephritic syndrome with unspecified morphologic changes	Diagnosis	ICD-10-CM
N01.A	Rapidly progressive nephritic syndrome with C3 glomerulonephritis	Diagnosis	ICD-10-CM
N02.0	Recurrent and persistent hematuria with minor glomerular abnormality	Diagnosis	ICD-10-CM
N02.1	Recurrent and persistent hematuria with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N02.2	Recurrent and persistent hematuria with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N02.3	Recurrent and persistent hematuria with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N02.4	Recurrent and persistent hematuria with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N02.5	Recurrent and persistent hematuria with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N02.6	Recurrent and persistent hematuria with dense deposit disease	Diagnosis	ICD-10-CM
N02.7	Recurrent and persistent hematuria with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N02.8	Recurrent and persistent hematuria with other morphologic changes	Diagnosis	ICD-10-CM
N02.9	Recurrent and persistent hematuria with unspecified morphologic changes	Diagnosis	ICD-10-CM
N02.A	Recurrent and persistent hematuria with C3 glomerulonephritis	Diagnosis	ICD-10-CM
N03.0	Chronic nephritic syndrome with minor glomerular abnormality	Diagnosis	ICD-10-CM
N03.1	Chronic nephritic syndrome with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N03.2	Chronic nephritic syndrome with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N03.3	Chronic nephritic syndrome with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N03.4	Chronic nephritic syndrome with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N03.5	Chronic nephritic syndrome with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N03.6	Chronic nephritic syndrome with dense deposit disease	Diagnosis	ICD-10-CM
N03.7	Chronic nephritic syndrome with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N03.8	Chronic nephritic syndrome with other morphologic changes	Diagnosis	ICD-10-CM
N03.9	Chronic nephritic syndrome with unspecified morphologic changes	Diagnosis	ICD-10-CM
N03.A	Chronic nephritic syndrome with C3 glomerulonephritis	Diagnosis	ICD-10-CM
N04.0	Nephrotic syndrome with minor glomerular abnormality	Diagnosis	ICD-10-CM
N04.1	Nephrotic syndrome with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N04.2	Nephrotic syndrome with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N04.3	Nephrotic syndrome with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N04.4	Nephrotic syndrome with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N04.5	Nephrotic syndrome with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N04.6	Nephrotic syndrome with dense deposit disease	Diagnosis	ICD-10-CM
N04.7	Nephrotic syndrome with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N04.8	Nephrotic syndrome with other morphologic changes	Diagnosis	ICD-10-CM
N04.9	Nephrotic syndrome with unspecified morphologic changes	Diagnosis	ICD-10-CM
N04.A	Nephrotic syndrome with C3 glomerulonephritis	Diagnosis	ICD-10-CM
N05.0	Unspecified nephritic syndrome with minor glomerular abnormality	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Category</b>	<b>Code Type</b>
N05.1	Unspecified nephritic syndrome with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N05.2	Unspecified nephritic syndrome with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N05.3	Unspecified nephritic syndrome with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N05.4	Unspecified nephritic syndrome with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N05.5	Unspecified nephritic syndrome with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N05.6	Unspecified nephritic syndrome with dense deposit disease	Diagnosis	ICD-10-CM
N05.7	Unspecified nephritic syndrome with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N05.8	Unspecified nephritic syndrome with other morphologic changes	Diagnosis	ICD-10-CM
N05.9	Unspecified nephritic syndrome with unspecified morphologic changes	Diagnosis	ICD-10-CM
N05.A	Unspecified nephritic syndrome with C3 glomerulonephritis	Diagnosis	ICD-10-CM
N06.0	Isolated proteinuria with minor glomerular abnormality	Diagnosis	ICD-10-CM
N06.1	Isolated proteinuria with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N06.2	Isolated proteinuria with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N06.3	Isolated proteinuria with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N06.4	Isolated proteinuria with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N06.5	Isolated proteinuria with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N06.6	Isolated proteinuria with dense deposit disease	Diagnosis	ICD-10-CM
N06.7	Isolated proteinuria with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N06.8	Isolated proteinuria with other morphologic lesion	Diagnosis	ICD-10-CM
N06.9	Isolated proteinuria with unspecified morphologic lesion	Diagnosis	ICD-10-CM
N06.A	Isolated proteinuria with C3 glomerulonephritis	Diagnosis	ICD-10-CM
N07.0	Hereditary nephropathy, not elsewhere classified with minor glomerular abnormality	Diagnosis	ICD-10-CM
N07.1	Hereditary nephropathy, not elsewhere classified with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N07.2	Hereditary nephropathy, not elsewhere classified with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N07.3	Hereditary nephropathy, not elsewhere classified with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N07.4	Hereditary nephropathy, not elsewhere classified with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N07.5	Hereditary nephropathy, not elsewhere classified with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N07.6	Hereditary nephropathy, not elsewhere classified with dense deposit disease	Diagnosis	ICD-10-CM
N07.7	Hereditary nephropathy, not elsewhere classified with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N07.8	Hereditary nephropathy, not elsewhere classified with other morphologic lesions	Diagnosis	ICD-10-CM
N07.9	Hereditary nephropathy, not elsewhere classified with unspecified morphologic lesions	Diagnosis	ICD-10-CM
N07.A	Hereditary nephropathy, not elsewhere classified with C3 glomerulonephritis	Diagnosis	ICD-10-CM
N08	Glomerular disorders in diseases classified elsewhere	Diagnosis	ICD-10-CM
N13.1	Hydronephrosis with ureteral stricture, not elsewhere classified	Diagnosis	ICD-10-CM
N13.2	Hydronephrosis with renal and ureteral calculous obstruction	Diagnosis	ICD-10-CM
N13.30	Unspecified hydronephrosis	Diagnosis	ICD-10-CM
N13.39	Other hydronephrosis	Diagnosis	ICD-10-CM
N14.0	Analgesic nephropathy	Diagnosis	ICD-10-CM
N14.1	Nephropathy induced by other drugs, medicaments and biological substances	Diagnosis	ICD-10-CM
N14.2	Nephropathy induced by unspecified drug, medicament or biological substance	Diagnosis	ICD-10-CM
N14.3	Nephropathy induced by heavy metals	Diagnosis	ICD-10-CM
N14.4	Toxic nephropathy, not elsewhere classified	Diagnosis	ICD-10-CM
N15.0	Balkan nephropathy	Diagnosis	ICD-10-CM
N15.8	Other specified renal tubulo-interstitial diseases	Diagnosis	ICD-10-CM
N15.9	Renal tubulo-interstitial disease, unspecified	Diagnosis	ICD-10-CM
N16	Renal tubulo-interstitial disorders in diseases classified elsewhere	Diagnosis	ICD-10-CM
N17.0	Acute kidney failure with tubular necrosis	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>		<b>Code</b>	<b>Code Type</b>
		<b>Category</b>	
N17.1	Acute kidney failure with acute cortical necrosis	Diagnosis	ICD-10-CM
N17.2	Acute kidney failure with medullary necrosis	Diagnosis	ICD-10-CM
N17.8	Other acute kidney failure	Diagnosis	ICD-10-CM
N17.9	Acute kidney failure, unspecified	Diagnosis	ICD-10-CM
N18.1	Chronic kidney disease, stage 1	Diagnosis	ICD-10-CM
N18.2	Chronic kidney disease, stage 2 (mild)	Diagnosis	ICD-10-CM
N18.3	Chronic kidney disease, stage 3 (moderate)	Diagnosis	ICD-10-CM
N18.30	Chronic kidney disease, stage 3 unspecified	Diagnosis	ICD-10-CM
N18.31	Chronic kidney disease, stage 3a	Diagnosis	ICD-10-CM
N18.32	Chronic kidney disease, stage 3b	Diagnosis	ICD-10-CM
N18.4	Chronic kidney disease, stage 4 (severe)	Diagnosis	ICD-10-CM
N18.5	Chronic kidney disease, stage 5	Diagnosis	ICD-10-CM
N18.6	End stage renal disease	Diagnosis	ICD-10-CM
N18.9	Chronic kidney disease, unspecified	Diagnosis	ICD-10-CM
N19	Unspecified kidney failure	Diagnosis	ICD-10-CM
N25.0	Renal osteodystrophy	Diagnosis	ICD-10-CM
N25.1	Nephrogenic diabetes insipidus	Diagnosis	ICD-10-CM
N25.81	Secondary hyperparathyroidism of renal origin	Diagnosis	ICD-10-CM
N25.89	Other disorders resulting from impaired renal tubular function	Diagnosis	ICD-10-CM
N25.9	Disorder resulting from impaired renal tubular function, unspecified	Diagnosis	ICD-10-CM
N26.1	Atrophy of kidney (terminal)	Diagnosis	ICD-10-CM
N26.9	Renal sclerosis, unspecified	Diagnosis	ICD-10-CM
Q61.02	Congenital multiple renal cysts	Diagnosis	ICD-10-CM
Q61.11	Cystic dilatation of collecting ducts	Diagnosis	ICD-10-CM
Q61.19	Other polycystic kidney, infantile type	Diagnosis	ICD-10-CM
Q61.2	Polycystic kidney, adult type	Diagnosis	ICD-10-CM
Q61.3	Polycystic kidney, unspecified	Diagnosis	ICD-10-CM
Q61.4	Renal dysplasia	Diagnosis	ICD-10-CM
Q61.5	Medullary cystic kidney	Diagnosis	ICD-10-CM
Q61.8	Other cystic kidney diseases	Diagnosis	ICD-10-CM
Q62.0	Congenital hydronephrosis	Diagnosis	ICD-10-CM
Q62.10	Congenital occlusion of ureter, unspecified	Diagnosis	ICD-10-CM
Q62.11	Congenital occlusion of ureteropelvic junction	Diagnosis	ICD-10-CM
Q62.12	Congenital occlusion of ureterovesical orifice	Diagnosis	ICD-10-CM
Q62.2	Congenital megaureter	Diagnosis	ICD-10-CM
Q62.31	Congenital ureterocele, orthotopic	Diagnosis	ICD-10-CM
Q62.32	Cecoureterocele	Diagnosis	ICD-10-CM
Q62.39	Other obstructive defects of renal pelvis and ureter	Diagnosis	ICD-10-CM
R94.4	Abnormal results of kidney function studies	Diagnosis	ICD-10-CM
<b>Colorectal Cancer</b>			
C18.0	Malignant neoplasm of cecum	Diagnosis	ICD-10-CM
C18.1	Malignant neoplasm of appendix	Diagnosis	ICD-10-CM
C18.2	Malignant neoplasm of ascending colon	Diagnosis	ICD-10-CM
C18.3	Malignant neoplasm of hepatic flexure	Diagnosis	ICD-10-CM
C18.4	Malignant neoplasm of transverse colon	Diagnosis	ICD-10-CM
C18.5	Malignant neoplasm of splenic flexure	Diagnosis	ICD-10-CM
C18.6	Malignant neoplasm of descending colon	Diagnosis	ICD-10-CM
C18.7	Malignant neoplasm of sigmoid colon	Diagnosis	ICD-10-CM
C18.8	Malignant neoplasm of overlapping sites of colon	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>		<b>Code Category</b>	<b>Code Type</b>
C18.9	Malignant neoplasm of colon, unspecified	Diagnosis	ICD-10-CM
C19	Malignant neoplasm of rectosigmoid junction	Diagnosis	ICD-10-CM
C20	Malignant neoplasm of rectum	Diagnosis	ICD-10-CM
D01.0	Carcinoma in situ of colon	Diagnosis	ICD-10-CM
D01.1	Carcinoma in situ of rectosigmoid junction	Diagnosis	ICD-10-CM
D01.2	Carcinoma in situ of rectum	Diagnosis	ICD-10-CM
Z85.038	Personal history of other malignant neoplasm of large intestine	Diagnosis	ICD-10-CM
Z85.040	Personal history of malignant carcinoid tumor of rectum	Diagnosis	ICD-10-CM
Z85.048	Personal history of other malignant neoplasm of rectum, rectosigmoid junction, and anus	Diagnosis	ICD-10-CM
<b>Lung Cancer</b>			
C34.00	Malignant neoplasm of unspecified main bronchus	Diagnosis	ICD-10-CM
C34.01	Malignant neoplasm of right main bronchus	Diagnosis	ICD-10-CM
C34.02	Malignant neoplasm of left main bronchus	Diagnosis	ICD-10-CM
C34.10	Malignant neoplasm of upper lobe, unspecified bronchus or lung	Diagnosis	ICD-10-CM
C34.11	Malignant neoplasm of upper lobe, right bronchus or lung	Diagnosis	ICD-10-CM
C34.12	Malignant neoplasm of upper lobe, left bronchus or lung	Diagnosis	ICD-10-CM
C34.2	Malignant neoplasm of middle lobe, bronchus or lung	Diagnosis	ICD-10-CM
C34.30	Malignant neoplasm of lower lobe, unspecified bronchus or lung	Diagnosis	ICD-10-CM
C34.31	Malignant neoplasm of lower lobe, right bronchus or lung	Diagnosis	ICD-10-CM
C34.32	Malignant neoplasm of lower lobe, left bronchus or lung	Diagnosis	ICD-10-CM
C34.80	Malignant neoplasm of overlapping sites of unspecified bronchus and lung	Diagnosis	ICD-10-CM
C34.81	Malignant neoplasm of overlapping sites of right bronchus and lung	Diagnosis	ICD-10-CM
C34.82	Malignant neoplasm of overlapping sites of left bronchus and lung	Diagnosis	ICD-10-CM
C34.90	Malignant neoplasm of unspecified part of unspecified bronchus or lung	Diagnosis	ICD-10-CM
C34.91	Malignant neoplasm of unspecified part of right bronchus or lung	Diagnosis	ICD-10-CM
C34.92	Malignant neoplasm of unspecified part of left bronchus or lung	Diagnosis	ICD-10-CM
D02.20	Carcinoma in situ of unspecified bronchus and lung	Diagnosis	ICD-10-CM
D02.21	Carcinoma in situ of right bronchus and lung	Diagnosis	ICD-10-CM
D02.22	Carcinoma in situ of left bronchus and lung	Diagnosis	ICD-10-CM
Z85.110	Personal history of malignant carcinoid tumor of bronchus and lung	Diagnosis	ICD-10-CM
Z85.118	Personal history of other malignant neoplasm of bronchus and lung	Diagnosis	ICD-10-CM
<b>Breast Cancer</b>			
C50.011	Malignant neoplasm of nipple and areola, right female breast	Diagnosis	ICD-10-CM
C50.012	Malignant neoplasm of nipple and areola, left female breast	Diagnosis	ICD-10-CM
C50.019	Malignant neoplasm of nipple and areola, unspecified female breast	Diagnosis	ICD-10-CM
C50.021	Malignant neoplasm of nipple and areola, right male breast	Diagnosis	ICD-10-CM
C50.022	Malignant neoplasm of nipple and areola, left male breast	Diagnosis	ICD-10-CM
C50.029	Malignant neoplasm of nipple and areola, unspecified male breast	Diagnosis	ICD-10-CM
C50.111	Malignant neoplasm of central portion of right female breast	Diagnosis	ICD-10-CM
C50.112	Malignant neoplasm of central portion of left female breast	Diagnosis	ICD-10-CM
C50.119	Malignant neoplasm of central portion of unspecified female breast	Diagnosis	ICD-10-CM
C50.121	Malignant neoplasm of central portion of right male breast	Diagnosis	ICD-10-CM
C50.122	Malignant neoplasm of central portion of left male breast	Diagnosis	ICD-10-CM
C50.129	Malignant neoplasm of central portion of unspecified male breast	Diagnosis	ICD-10-CM
C50.211	Malignant neoplasm of upper-inner quadrant of right female breast	Diagnosis	ICD-10-CM
C50.212	Malignant neoplasm of upper-inner quadrant of left female breast	Diagnosis	ICD-10-CM
C50.219	Malignant neoplasm of upper-inner quadrant of unspecified female breast	Diagnosis	ICD-10-CM
C50.221	Malignant neoplasm of upper-inner quadrant of right male breast	Diagnosis	ICD-10-CM
C50.222	Malignant neoplasm of upper-inner quadrant of left male breast	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
C50.229	Malignant neoplasm of upper-inner quadrant of unspecified male breast	Diagnosis ICD-10-CM
C50.311	Malignant neoplasm of lower-inner quadrant of right female breast	Diagnosis ICD-10-CM
C50.312	Malignant neoplasm of lower-inner quadrant of left female breast	Diagnosis ICD-10-CM
C50.319	Malignant neoplasm of lower-inner quadrant of unspecified female breast	Diagnosis ICD-10-CM
C50.321	Malignant neoplasm of lower-inner quadrant of right male breast	Diagnosis ICD-10-CM
C50.322	Malignant neoplasm of lower-inner quadrant of left male breast	Diagnosis ICD-10-CM
C50.329	Malignant neoplasm of lower-inner quadrant of unspecified male breast	Diagnosis ICD-10-CM
C50.411	Malignant neoplasm of upper-outer quadrant of right female breast	Diagnosis ICD-10-CM
C50.412	Malignant neoplasm of upper-outer quadrant of left female breast	Diagnosis ICD-10-CM
C50.419	Malignant neoplasm of upper-outer quadrant of unspecified female breast	Diagnosis ICD-10-CM
C50.421	Malignant neoplasm of upper-outer quadrant of right male breast	Diagnosis ICD-10-CM
C50.422	Malignant neoplasm of upper-outer quadrant of left male breast	Diagnosis ICD-10-CM
C50.429	Malignant neoplasm of upper-outer quadrant of unspecified male breast	Diagnosis ICD-10-CM
C50.511	Malignant neoplasm of lower-outer quadrant of right female breast	Diagnosis ICD-10-CM
C50.512	Malignant neoplasm of lower-outer quadrant of left female breast	Diagnosis ICD-10-CM
C50.519	Malignant neoplasm of lower-outer quadrant of unspecified female breast	Diagnosis ICD-10-CM
C50.521	Malignant neoplasm of lower-outer quadrant of right male breast	Diagnosis ICD-10-CM
C50.522	Malignant neoplasm of lower-outer quadrant of left male breast	Diagnosis ICD-10-CM
C50.529	Malignant neoplasm of lower-outer quadrant of unspecified male breast	Diagnosis ICD-10-CM
C50.611	Malignant neoplasm of axillary tail of right female breast	Diagnosis ICD-10-CM
C50.612	Malignant neoplasm of axillary tail of left female breast	Diagnosis ICD-10-CM
C50.619	Malignant neoplasm of axillary tail of unspecified female breast	Diagnosis ICD-10-CM
C50.621	Malignant neoplasm of axillary tail of right male breast	Diagnosis ICD-10-CM
C50.622	Malignant neoplasm of axillary tail of left male breast	Diagnosis ICD-10-CM
C50.629	Malignant neoplasm of axillary tail of unspecified male breast	Diagnosis ICD-10-CM
C50.811	Malignant neoplasm of overlapping sites of right female breast	Diagnosis ICD-10-CM
C50.812	Malignant neoplasm of overlapping sites of left female breast	Diagnosis ICD-10-CM
C50.819	Malignant neoplasm of overlapping sites of unspecified female breast	Diagnosis ICD-10-CM
C50.821	Malignant neoplasm of overlapping sites of right male breast	Diagnosis ICD-10-CM
C50.822	Malignant neoplasm of overlapping sites of left male breast	Diagnosis ICD-10-CM
C50.829	Malignant neoplasm of overlapping sites of unspecified male breast	Diagnosis ICD-10-CM
C50.911	Malignant neoplasm of unspecified site of right female breast	Diagnosis ICD-10-CM
C50.912	Malignant neoplasm of unspecified site of left female breast	Diagnosis ICD-10-CM
C50.919	Malignant neoplasm of unspecified site of unspecified female breast	Diagnosis ICD-10-CM
C50.921	Malignant neoplasm of unspecified site of right male breast	Diagnosis ICD-10-CM
C50.922	Malignant neoplasm of unspecified site of left male breast	Diagnosis ICD-10-CM
C50.929	Malignant neoplasm of unspecified site of unspecified male breast	Diagnosis ICD-10-CM
D05.00	Lobular carcinoma in situ of unspecified breast	Diagnosis ICD-10-CM
D05.01	Lobular carcinoma in situ of right breast	Diagnosis ICD-10-CM
D05.02	Lobular carcinoma in situ of left breast	Diagnosis ICD-10-CM
D05.10	Intraductal carcinoma in situ of unspecified breast	Diagnosis ICD-10-CM
D05.11	Intraductal carcinoma in situ of right breast	Diagnosis ICD-10-CM
D05.12	Intraductal carcinoma in situ of left breast	Diagnosis ICD-10-CM
D05.80	Other specified type of carcinoma in situ of unspecified breast	Diagnosis ICD-10-CM
D05.81	Other specified type of carcinoma in situ of right breast	Diagnosis ICD-10-CM
D05.82	Other specified type of carcinoma in situ of left breast	Diagnosis ICD-10-CM
D05.90	Unspecified type of carcinoma in situ of unspecified breast	Diagnosis ICD-10-CM
D05.91	Unspecified type of carcinoma in situ of right breast	Diagnosis ICD-10-CM
D05.92	Unspecified type of carcinoma in situ of left breast	Diagnosis ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>		<b>Code Category</b>	<b>Code Type</b>
Z85.3	Personal history of malignant neoplasm of breast	Diagnosis	ICD-10-CM
<b>Prostate Cancer</b>			
C61	Malignant neoplasm of prostate	Diagnosis	ICD-10-CM
D07.5	Carcinoma in situ of prostate	Diagnosis	ICD-10-CM
Z85.46	Personal history of malignant neoplasm of prostate	Diagnosis	ICD-10-CM
<b>Anemia</b>			
D50.0	Iron deficiency anemia secondary to blood loss (chronic)	Diagnosis	ICD-10-CM
D50.1	Sideropenic dysphagia	Diagnosis	ICD-10-CM
D50.8	Other iron deficiency anemias	Diagnosis	ICD-10-CM
D50.9	Iron deficiency anemia, unspecified	Diagnosis	ICD-10-CM
D51.0	Vitamin B12 deficiency anemia due to intrinsic factor deficiency	Diagnosis	ICD-10-CM
D51.1	Vitamin B12 deficiency anemia due to selective vitamin B12 malabsorption with proteinuria	Diagnosis	ICD-10-CM
D51.2	Transcobalamin II deficiency	Diagnosis	ICD-10-CM
D51.3	Other dietary vitamin B12 deficiency anemia	Diagnosis	ICD-10-CM
D51.8	Other vitamin B12 deficiency anemias	Diagnosis	ICD-10-CM
D51.9	Vitamin B12 deficiency anemia, unspecified	Diagnosis	ICD-10-CM
D52.0	Dietary folate deficiency anemia	Diagnosis	ICD-10-CM
D52.1	Drug-induced folate deficiency anemia	Diagnosis	ICD-10-CM
D52.8	Other folate deficiency anemias	Diagnosis	ICD-10-CM
D52.9	Folate deficiency anemia, unspecified	Diagnosis	ICD-10-CM
D53.0	Protein deficiency anemia	Diagnosis	ICD-10-CM
D53.1	Other megaloblastic anemias, not elsewhere classified	Diagnosis	ICD-10-CM
D53.2	Scorbutic anemia	Diagnosis	ICD-10-CM
D53.8	Other specified nutritional anemias	Diagnosis	ICD-10-CM
D53.9	Nutritional anemia, unspecified	Diagnosis	ICD-10-CM
D55.0	Anemia due to glucose-6-phosphate dehydrogenase [G6PD] deficiency	Diagnosis	ICD-10-CM
D55.1	Anemia due to other disorders of glutathione metabolism	Diagnosis	ICD-10-CM
D55.2	Anemia due to disorders of glycolytic enzymes	Diagnosis	ICD-10-CM
D55.3	Anemia due to disorders of nucleotide metabolism	Diagnosis	ICD-10-CM
D55.8	Other anemias due to enzyme disorders	Diagnosis	ICD-10-CM
D55.9	Anemia due to enzyme disorder, unspecified	Diagnosis	ICD-10-CM
D56.0	Alpha thalassemia	Diagnosis	ICD-10-CM
D56.1	Beta thalassemia	Diagnosis	ICD-10-CM
D56.2	Delta-beta thalassemia	Diagnosis	ICD-10-CM
D56.3	Thalassemia minor	Diagnosis	ICD-10-CM
D56.4	Hereditary persistence of fetal hemoglobin [HPFH]	Diagnosis	ICD-10-CM
D56.5	Hemoglobin E-beta thalassemia	Diagnosis	ICD-10-CM
D56.8	Other thalassemias	Diagnosis	ICD-10-CM
D56.9	Thalassemia, unspecified	Diagnosis	ICD-10-CM
D57.00	Hb-SS disease with crisis, unspecified	Diagnosis	ICD-10-CM
D57.01	Hb-SS disease with acute chest syndrome	Diagnosis	ICD-10-CM
D57.02	Hb-SS disease with splenic sequestration	Diagnosis	ICD-10-CM
D57.03	Hb-SS disease with cerebral vascular involvement	Diagnosis	ICD-10-CM
D57.09	Hb-SS disease with crisis with other specified complication	Diagnosis	ICD-10-CM
D57.1	Sickle-cell disease without crisis	Diagnosis	ICD-10-CM
D57.20	Sickle-cell/Hb-C disease without crisis	Diagnosis	ICD-10-CM
D57.211	Sickle-cell/Hb-C disease with acute chest syndrome	Diagnosis	ICD-10-CM
D57.212	Sickle-cell/Hb-C disease with splenic sequestration	Diagnosis	ICD-10-CM
D57.213	Sickle-cell/Hb-C disease with cerebral vascular involvement	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
D57.218 Sickle-cell/Hb-C disease with crisis with other specified complication	Diagnosis	ICD-10-CM
D57.219 Sickle-cell/Hb-C disease with crisis, unspecified	Diagnosis	ICD-10-CM
D57.3 Sickle-cell trait	Diagnosis	ICD-10-CM
D57.40 Sickle-cell thalassemia without crisis	Diagnosis	ICD-10-CM
D57.411 Sickle-cell thalassemia, unspecified, with acute chest syndrome	Diagnosis	ICD-10-CM
D57.412 Sickle-cell thalassemia, unspecified, with splenic sequestration	Diagnosis	ICD-10-CM
D57.413 Sickle-cell thalassemia, unspecified, with cerebral vascular involvement	Diagnosis	ICD-10-CM
D57.418 Sickle-cell thalassemia, unspecified, with crisis with other specified complication	Diagnosis	ICD-10-CM
D57.419 Sickle-cell thalassemia, unspecified, with crisis	Diagnosis	ICD-10-CM
D57.42 Sickle-cell thalassemia beta zero without crisis	Diagnosis	ICD-10-CM
D57.431 Sickle-cell thalassemia beta zero with acute chest syndrome	Diagnosis	ICD-10-CM
D57.432 Sickle-cell thalassemia beta zero with splenic sequestration	Diagnosis	ICD-10-CM
D57.433 Sickle-cell thalassemia beta zero with cerebral vascular involvement	Diagnosis	ICD-10-CM
D57.438 Sickle-cell thalassemia beta zero with crisis with other specified complication	Diagnosis	ICD-10-CM
D57.439 Sickle-cell thalassemia beta zero with crisis, unspecified	Diagnosis	ICD-10-CM
D57.44 Sickle-cell thalassemia beta plus without crisis	Diagnosis	ICD-10-CM
D57.451 Sickle-cell thalassemia beta plus with acute chest syndrome	Diagnosis	ICD-10-CM
D57.452 Sickle-cell thalassemia beta plus with splenic sequestration	Diagnosis	ICD-10-CM
D57.453 Sickle-cell thalassemia beta plus with cerebral vascular involvement	Diagnosis	ICD-10-CM
D57.458 Sickle-cell thalassemia beta plus with crisis with other specified complication	Diagnosis	ICD-10-CM
D57.459 Sickle-cell thalassemia beta plus with crisis, unspecified	Diagnosis	ICD-10-CM
D57.80 Other sickle-cell disorders without crisis	Diagnosis	ICD-10-CM
D57.811 Other sickle-cell disorders with acute chest syndrome	Diagnosis	ICD-10-CM
D57.812 Other sickle-cell disorders with splenic sequestration	Diagnosis	ICD-10-CM
D57.813 Other sickle-cell disorders with cerebral vascular involvement	Diagnosis	ICD-10-CM
D57.818 Other sickle-cell disorders with crisis with other specified complication	Diagnosis	ICD-10-CM
D57.819 Other sickle-cell disorders with crisis, unspecified	Diagnosis	ICD-10-CM
D58.0 Hereditary spherocytosis	Diagnosis	ICD-10-CM
D58.1 Hereditary elliptocytosis	Diagnosis	ICD-10-CM
D58.2 Other hemoglobinopathies	Diagnosis	ICD-10-CM
D58.8 Other specified hereditary hemolytic anemias	Diagnosis	ICD-10-CM
D58.9 Hereditary hemolytic anemia, unspecified	Diagnosis	ICD-10-CM
D59.0 Drug-induced autoimmune hemolytic anemia	Diagnosis	ICD-10-CM
D59.1 Other autoimmune hemolytic anemias	Diagnosis	ICD-10-CM
D59.10 Autoimmune hemolytic anemia, unspecified	Diagnosis	ICD-10-CM
D59.11 Warm autoimmune hemolytic anemia	Diagnosis	ICD-10-CM
D59.12 Cold autoimmune hemolytic anemia	Diagnosis	ICD-10-CM
D59.13 Mixed type autoimmune hemolytic anemia	Diagnosis	ICD-10-CM
D59.19 Other autoimmune hemolytic anemia	Diagnosis	ICD-10-CM
D59.2 Drug-induced nonautoimmune hemolytic anemia	Diagnosis	ICD-10-CM
D59.3 Hemolytic-uremic syndrome	Diagnosis	ICD-10-CM
D59.4 Other nonautoimmune hemolytic anemias	Diagnosis	ICD-10-CM
D59.5 Paroxysmal nocturnal hemoglobinuria [Marchiafava-Micheli]	Diagnosis	ICD-10-CM
D59.6 Hemoglobinuria due to hemolysis from other external causes	Diagnosis	ICD-10-CM
D59.8 Other acquired hemolytic anemias	Diagnosis	ICD-10-CM
D59.9 Acquired hemolytic anemia, unspecified	Diagnosis	ICD-10-CM
D60.0 Chronic acquired pure red cell aplasia	Diagnosis	ICD-10-CM
D60.1 Transient acquired pure red cell aplasia	Diagnosis	ICD-10-CM
D60.8 Other acquired pure red cell aplasias	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
D60.9	Acquired pure red cell aplasia, unspecified	Diagnosis ICD-10-CM
D61.01	Constitutional (pure) red blood cell aplasia	Diagnosis ICD-10-CM
D61.09	Other constitutional aplastic anemia	Diagnosis ICD-10-CM
D61.1	Drug-induced aplastic anemia	Diagnosis ICD-10-CM
D61.2	Aplastic anemia due to other external agents	Diagnosis ICD-10-CM
D61.3	Idiopathic aplastic anemia	Diagnosis ICD-10-CM
D61.810	Antineoplastic chemotherapy induced pancytopenia	Diagnosis ICD-10-CM
D61.811	Other drug-induced pancytopenia	Diagnosis ICD-10-CM
D61.818	Other pancytopenia	Diagnosis ICD-10-CM
D61.82	Myelophthisis	Diagnosis ICD-10-CM
D61.89	Other specified aplastic anemias and other bone marrow failure syndromes	Diagnosis ICD-10-CM
D61.9	Aplastic anemia, unspecified	Diagnosis ICD-10-CM
D62	Acute posthemorrhagic anemia	Diagnosis ICD-10-CM
D63.0	Anemia in neoplastic disease	Diagnosis ICD-10-CM
D63.1	Anemia in chronic kidney disease	Diagnosis ICD-10-CM
D63.8	Anemia in other chronic diseases classified elsewhere	Diagnosis ICD-10-CM
D64.0	Hereditary sideroblastic anemia	Diagnosis ICD-10-CM
D64.1	Secondary sideroblastic anemia due to disease	Diagnosis ICD-10-CM
D64.2	Secondary sideroblastic anemia due to drugs and toxins	Diagnosis ICD-10-CM
D64.3	Other sideroblastic anemias	Diagnosis ICD-10-CM
D64.4	Congenital dyserythropoietic anemia	Diagnosis ICD-10-CM
D64.81	Anemia due to antineoplastic chemotherapy	Diagnosis ICD-10-CM
D64.89	Other specified anemias	Diagnosis ICD-10-CM
D64.9	Anemia, unspecified	Diagnosis ICD-10-CM
<b>Diabetes</b>		
E08.00	Diabetes mellitus due to underlying condition with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar	Diagnosis ICD-10-CM
E08.01	Diabetes mellitus due to underlying condition with hyperosmolarity with coma	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
E08.21	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
E08.311	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
E08.321	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	Diagnosis ICD-10-CM
E08.3212	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with macular edema, left	Diagnosis ICD-10-CM
E08.3213	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with macular edema,	Diagnosis ICD-10-CM
E08.3219	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with macular edema,	Diagnosis ICD-10-CM
E08.329	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without m	Diagnosis ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code Category</b>	<b>Code Type</b>
E08.3291 Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema,	Diagnosis	ICD-10-CM
E08.3292 Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema,	Diagnosis	ICD-10-CM
E08.3293 Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema,	Diagnosis	ICD-10-CM
E08.3299 Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema,	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,	Diagnosis	ICD-10-CM
E08.3312 Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy with macular edema,	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
E08.341 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
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	Diagnosis	ICD-10-CM
E08.3492 Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular	Diagnosis	ICD-10-CM
E08.3493 Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular	Diagnosis	ICD-10-CM
E08.3499 Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular	Diagnosis	ICD-10-CM
E08.351 Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code Category</b>	<b>Code Type</b>
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	Diagnosis	ICD-10-CM
E08.3521 Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment	Diagnosis	ICD-10-CM
E08.3522 Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment	Diagnosis	ICD-10-CM
E08.3523 Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment	Diagnosis	ICD-10-CM
E08.3529 Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment	Diagnosis	ICD-10-CM
E08.3531 Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment	Diagnosis	ICD-10-CM
E08.3532 Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment	Diagnosis	ICD-10-CM
E08.3533 Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment	Diagnosis	ICD-10-CM
E08.3539 Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment	Diagnosis	ICD-10-CM
E08.3541 Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal	Diagnosis	ICD-10-CM
E08.3542 Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal	Diagnosis	ICD-10-CM
E08.3543 Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal	Diagnosis	ICD-10-CM
E08.3549 Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal	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,	Diagnosis	ICD-10-CM
E08.36 Diabetes mellitus due to underlying condition with diabetic cataract	Diagnosis	ICD-10-CM
E08.37X1 Diabetes mellitus due to underlying condition with diabetic macular edema, resolved following treatment	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code Category</b>	<b>Code Type</b>
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	Diagnosis	ICD-10-CM
E08.39 Diabetes mellitus due to underlying condition with other diabetic ophthalmic complication	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
E08.51 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
E08.610 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
E08.620 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
E08.630 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
E08.641 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
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
E09.00 Drug or chemical induced diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar	Diagnosis	ICD-10-CM
E09.01 Drug or chemical induced diabetes mellitus with hyperosmolarity with coma	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
E09.21 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
E09.311 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
E09.321 Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right	Diagnosis	ICD-10-CM
E09.3212 Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left	Diagnosis	ICD-10-CM
E09.3213 Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema,	Diagnosis	ICD-10-CM
E09.3219 Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema,	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code Category</b>	<b>Code Type</b>
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,	Diagnosis	ICD-10-CM
E09.3292 Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left	Diagnosis	ICD-10-CM
E09.3293 Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema,	Diagnosis	ICD-10-CM
E09.3299 Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema,	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,	Diagnosis	ICD-10-CM
E09.3312 Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema,	Diagnosis	ICD-10-CM
E09.3313 Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema,	Diagnosis	ICD-10-CM
E09.3319 Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema,	Diagnosis	ICD-10-CM
E09.339 Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular	Diagnosis	ICD-10-CM
E09.3391 Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular	Diagnosis	ICD-10-CM
E09.3392 Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular	Diagnosis	ICD-10-CM
E09.3393 Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular	Diagnosis	ICD-10-CM
E09.3399 Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular	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,	Diagnosis	ICD-10-CM
E09.3412 Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left	Diagnosis	ICD-10-CM
E09.3413 Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema,	Diagnosis	ICD-10-CM
E09.3419 Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema,	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,	Diagnosis	ICD-10-CM
E09.3492 Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema,	Diagnosis	ICD-10-CM
E09.3493 Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema,	Diagnosis	ICD-10-CM
E09.3499 Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema,	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,	Diagnosis	ICD-10-CM
E09.3512 Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema,	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code Category</b>	<b>Code Type</b>
E09.3513 Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema,	Diagnosis	ICD-10-CM
E09.3519 Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified	Diagnosis	ICD-10-CM
E09.3521 Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment	Diagnosis	ICD-10-CM
E09.3522 Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment	Diagnosis	ICD-10-CM
E09.3523 Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment	Diagnosis	ICD-10-CM
E09.3529 Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment	Diagnosis	ICD-10-CM
E09.3531 Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not	Diagnosis	ICD-10-CM
E09.3532 Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not	Diagnosis	ICD-10-CM
E09.3533 Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not	Diagnosis	ICD-10-CM
E09.3539 Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not	Diagnosis	ICD-10-CM
E09.3541 Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal	Diagnosis	ICD-10-CM
E09.3542 Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal	Diagnosis	ICD-10-CM
E09.3543 Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal	Diagnosis	ICD-10-CM
E09.3549 Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal	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	Diagnosis	ICD-10-CM
E09.3592 Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E09.3593 Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E09.3599 Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified	Diagnosis	ICD-10-CM
E09.36 Drug or chemical induced diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E09.37X1 Drug or chemical induced diabetes mellitus with diabetic macular edema, resolved following treatment,	Diagnosis	ICD-10-CM
E09.37X2 Drug or chemical induced diabetes mellitus with diabetic macular edema, resolved following treatment,	Diagnosis	ICD-10-CM
E09.37X3 Drug or chemical induced diabetes mellitus with diabetic macular edema, resolved following treatment,	Diagnosis	ICD-10-CM
E09.37X9 Drug or chemical induced diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified	Diagnosis	ICD-10-CM
E09.39 Drug or chemical induced diabetes mellitus with other diabetic ophthalmic complication	Diagnosis	ICD-10-CM
E09.40 Drug or chemical induced diabetes mellitus with neurological complications with diabetic neuropathy, u	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 (p	Diagnosis	ICD-10-CM
E09.44 Drug or chemical induced diabetes mellitus with neurological complications with diabetic amyotrophy	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

Code		Code Category	Code Type
E09.49	Drug or chemical induced diabetes mellitus with neurological complications with other diabetic neurological	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
E09.610	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
E09.620	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
E09.630	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
E09.641	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
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
E10.21	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
E10.311	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
E10.321	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	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	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	Diagnosis	ICD-10-CM
E10.339	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E10.3391	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E10.3392	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E10.3393	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3399	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified	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

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code Category</b>	<b>Code Type</b>
E10.3413 Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilatera	Diagnosis	ICD-10-CM
E10.3419 Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspeci	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	Diagnosis	ICD-10-CM
E10.3492 Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left	Diagnosis	ICD-10-CM
E10.3493 Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilat	Diagnosis	ICD-10-CM
E10.3499 Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unsp	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
E10.3521 Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula,	Diagnosis	ICD-10-CM
E10.3522 Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula,	Diagnosis	ICD-10-CM
E10.3523 Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula,	Diagnosis	ICD-10-CM
E10.3529 Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula,	Diagnosis	ICD-10-CM
E10.3531 Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the	Diagnosis	ICD-10-CM
E10.3532 Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the	Diagnosis	ICD-10-CM
E10.3533 Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the	Diagnosis	ICD-10-CM
E10.3539 Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the	Diagnosis	ICD-10-CM
E10.3541 Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and	Diagnosis	ICD-10-CM
E10.3542 Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and	Diagnosis	ICD-10-CM
E10.3543 Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and	Diagnosis	ICD-10-CM
E10.3549 Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and	Diagnosis	ICD-10-CM
E10.3551 Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E10.3552 Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM
E10.3553 Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E10.3559 Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E10.359 Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E10.3591 Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E10.3592 Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E10.3593 Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3599 Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.36 Type 1 diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E10.37X1 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

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

Code	Code	Code Type
	Category	
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
E10.40	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
E10.51	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
E10.610	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
E10.620	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
E10.630	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
E10.641	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
E11.00	Type 2 diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (†)	Diagnosis ICD-10-CM
E11.01	Type 2 diabetes mellitus with hyperosmolarity with coma	Diagnosis ICD-10-CM
E11.10	Type 2 diabetes mellitus with ketoacidosis without coma	Diagnosis ICD-10-CM
E11.11	Type 2 diabetes mellitus with ketoacidosis with coma	Diagnosis ICD-10-CM
E11.21	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
E11.311	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
E11.321	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	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	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	Diagnosis ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code Category</b>	<b>Code Type</b>
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, r	Diagnosis	ICD-10-CM
E11.3392 Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, l	Diagnosis	ICD-10-CM
E11.3393 Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, b	Diagnosis	ICD-10-CM
E11.3399 Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, u	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 ey	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, bilatera	Diagnosis	ICD-10-CM
E11.3419 Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspeci	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	Diagnosis	ICD-10-CM
E11.3492 Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left	Diagnosis	ICD-10-CM
E11.3493 Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilat	Diagnosis	ICD-10-CM
E11.3499 Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unsp	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
E11.3521 Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula,	Diagnosis	ICD-10-CM
E11.3522 Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula,	Diagnosis	ICD-10-CM
E11.3523 Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula,	Diagnosis	ICD-10-CM
E11.3529 Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula,	Diagnosis	ICD-10-CM
E11.3531 Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the	Diagnosis	ICD-10-CM
E11.3532 Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the	Diagnosis	ICD-10-CM
E11.3533 Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the	Diagnosis	ICD-10-CM
E11.3539 Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the	Diagnosis	ICD-10-CM
E11.3541 Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and	Diagnosis	ICD-10-CM
E11.3542 Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and	Diagnosis	ICD-10-CM
E11.3543 Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and	Diagnosis	ICD-10-CM
E11.3549 Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and	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

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
E11.3591 Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E11.3592 Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E11.3593 Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3599 Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.36 Type 2 diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E11.37X1 Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	Diagnosis	ICD-10-CM
E11.37X2 Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	Diagnosis	ICD-10-CM
E11.37X3 Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral	Diagnosis	ICD-10-CM
E11.37X9 Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	Diagnosis	ICD-10-CM
E11.39 Type 2 diabetes mellitus with other diabetic ophthalmic complication	Diagnosis	ICD-10-CM
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
E11.51 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
E11.610 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
E11.620 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
E11.630 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
E11.641 Type 2 diabetes mellitus with hypoglycemia with coma	Diagnosis	ICD-10-CM
E11.649 Type 2 diabetes mellitus with hypoglycemia without coma	Diagnosis	ICD-10-CM
E11.65 Type 2 diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E11.69 Type 2 diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM
E11.8 Type 2 diabetes mellitus with unspecified complications	Diagnosis	ICD-10-CM
E11.9 Type 2 diabetes mellitus without complications	Diagnosis	ICD-10-CM
E13.00 Other specified diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma	Diagnosis	ICD-10-CM
E13.01 Other specified diabetes mellitus with hyperosmolarity with coma	Diagnosis	ICD-10-CM
E13.10 Other specified diabetes mellitus with ketoacidosis without coma	Diagnosis	ICD-10-CM
E13.11 Other specified diabetes mellitus with ketoacidosis with coma	Diagnosis	ICD-10-CM
E13.21 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
E13.311 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
E13.321 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, ri	Diagnosis	ICD-10-CM
E13.3212 Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, le	Diagnosis	ICD-10-CM
E13.3213 Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, b	Diagnosis	ICD-10-CM
E13.3219 Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, u	Diagnosis	ICD-10-CM
E13.329 Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edem.	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
E13.3291 Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edem.	Diagnosis	ICD-10-CM
E13.3292 Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edem.	Diagnosis	ICD-10-CM
E13.3293 Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edem.	Diagnosis	ICD-10-CM
E13.3299 Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified	Diagnosis	ICD-10-CM
E13.331 Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular ede	Diagnosis	ICD-10-CM
E13.3311 Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular ede	Diagnosis	ICD-10-CM
E13.3312 Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular ede	Diagnosis	ICD-10-CM
E13.3313 Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular ede	Diagnosis	ICD-10-CM
E13.3319 Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified	Diagnosis	ICD-10-CM
E13.339 Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular	Diagnosis	ICD-10-CM
E13.3391 Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right	Diagnosis	ICD-10-CM
E13.3392 Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular	Diagnosis	ICD-10-CM
E13.3393 Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular	Diagnosis	ICD-10-CM
E13.3399 Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema,	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,	Diagnosis	ICD-10-CM
E13.3412 Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema,	Diagnosis	ICD-10-CM
E13.3413 Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema,	Diagnosis	ICD-10-CM
E13.3419 Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified	Diagnosis	ICD-10-CM
E13.349 Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular ede	Diagnosis	ICD-10-CM
E13.3491 Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular ede	Diagnosis	ICD-10-CM
E13.3492 Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular ede	Diagnosis	ICD-10-CM
E13.3493 Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular ede	Diagnosis	ICD-10-CM
E13.3499 Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema,	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
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, unspecifie	Diagnosis	ICD-10-CM
E13.3521 Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the	Diagnosis	ICD-10-CM
E13.3522 Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the	Diagnosis	ICD-10-CM
E13.3523 Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the	Diagnosis	ICD-10-CM
E13.3529 Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the	Diagnosis	ICD-10-CM
E13.3531 Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving	Diagnosis	ICD-10-CM
E13.3532 Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving	Diagnosis	ICD-10-CM
E13.3533 Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

Code	Code Category	Code Type
E13.3539 Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving	Diagnosis	ICD-10-CM
E13.3541 Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and	Diagnosis	ICD-10-CM
E13.3542 Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and	Diagnosis	ICD-10-CM
E13.3543 Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and	Diagnosis	ICD-10-CM
E13.3549 Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and	Diagnosis	ICD-10-CM
E13.3551 Other specified diabetes mellitus with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E13.3552 Other specified diabetes mellitus with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM
E13.3553 Other specified diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E13.3559 Other specified diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E13.359 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	Diagnosis	ICD-10-CM
E13.36 Other specified diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E13.39 Other specified diabetes mellitus with other diabetic ophthalmic complication	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
E13.51 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
E13.610 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
E13.620 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
E13.630 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
E13.641 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
<b>Overweight</b>		
E66.3 Overweight	Diagnosis	ICD-10-CM
Z68.25 Body mass index (BMI) 25.0-25.9, adult	Diagnosis	ICD-10-CM
Z68.26 Body mass index (BMI) 26.0-26.9, adult	Diagnosis	ICD-10-CM
Z68.27 Body mass index (BMI) 27.0-27.9, adult	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

Code		Code Category	Code Type
Z68.28	Body mass index (BMI) 28.0-28.9, adult	Diagnosis	ICD-10-CM
Z68.29	Body mass index (BMI) 29.0-29.9, adult	Diagnosis	ICD-10-CM
<b>Alzheimer's Disease</b>			
F01.50	Vascular dementia without behavioral disturbance	Diagnosis	ICD-10-CM
F01.51	Vascular dementia with behavioral disturbance	Diagnosis	ICD-10-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	Amnesic 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 dementia	Diagnosis	ICD-10-CM
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
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
<b>Alcohol Abuse</b>			
F10.10	Alcohol abuse, uncomplicated	Diagnosis	ICD-10-CM
F10.11	Alcohol abuse, in remission	Diagnosis	ICD-10-CM
F10.120	Alcohol abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F10.121	Alcohol abuse with intoxication delirium	Diagnosis	ICD-10-CM
F10.129	Alcohol abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F10.14	Alcohol abuse with alcohol-induced mood disorder	Diagnosis	ICD-10-CM
F10.150	Alcohol abuse with alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F10.151	Alcohol abuse with alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F10.159	Alcohol abuse with alcohol-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F10.180	Alcohol abuse with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10.181	Alcohol abuse with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
F10.182	Alcohol abuse with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10.188	Alcohol abuse with other alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.19	Alcohol abuse with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.20	Alcohol dependence, uncomplicated	Diagnosis	ICD-10-CM
F10.21	Alcohol dependence, in remission	Diagnosis	ICD-10-CM
F10.220	Alcohol dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F10.221	Alcohol dependence with intoxication delirium	Diagnosis	ICD-10-CM
F10.229	Alcohol dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F10.230	Alcohol dependence with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F10.231	Alcohol dependence with withdrawal delirium	Diagnosis	ICD-10-CM
F10.232	Alcohol dependence with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F10.239	Alcohol dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
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
G62.1	Alcoholic polyneuropathy	Diagnosis ICD-10-CM
HZ2ZZZZ	Detoxification Services for Substance Abuse Treatment	Procedure ICD-10-PCS
HZ30ZZZ	Individual Counseling for Substance Abuse Treatment, Cognitive	Procedure ICD-10-PCS
HZ31ZZZ	Individual Counseling for Substance Abuse Treatment, Behavioral	Procedure ICD-10-PCS
HZ32ZZZ	Individual Counseling for Substance Abuse Treatment, Cognitive-Behavioral	Procedure ICD-10-PCS
HZ33ZZZ	Individual Counseling for Substance Abuse Treatment, 12-Step	Procedure ICD-10-PCS
HZ34ZZZ	Individual Counseling for Substance Abuse Treatment, Interpersonal	Procedure ICD-10-PCS
HZ35ZZZ	Individual Counseling for Substance Abuse Treatment, Vocational	Procedure ICD-10-PCS
HZ36ZZZ	Individual Counseling for Substance Abuse Treatment, Psychoeducation	Procedure ICD-10-PCS
HZ37ZZZ	Individual Counseling for Substance Abuse Treatment, Motivational Enhancement	Procedure ICD-10-PCS
HZ38ZZZ	Individual Counseling for Substance Abuse Treatment, Confrontational	Procedure ICD-10-PCS
HZ39ZZZ	Individual Counseling for Substance Abuse Treatment, Continuing Care	Procedure ICD-10-PCS
HZ3BZZZ	Individual Counseling for Substance Abuse Treatment, Spiritual	Procedure ICD-10-PCS
HZ40ZZZ	Group Counseling for Substance Abuse Treatment, Cognitive	Procedure ICD-10-PCS
HZ41ZZZ	Group Counseling for Substance Abuse Treatment, Behavioral	Procedure ICD-10-PCS
HZ42ZZZ	Group Counseling for Substance Abuse Treatment, Cognitive-Behavioral	Procedure ICD-10-PCS
HZ43ZZZ	Group Counseling for Substance Abuse Treatment, 12-Step	Procedure ICD-10-PCS
HZ44ZZZ	Group Counseling for Substance Abuse Treatment, Interpersonal	Procedure ICD-10-PCS
HZ45ZZZ	Group Counseling for Substance Abuse Treatment, Vocational	Procedure ICD-10-PCS
HZ46ZZZ	Group Counseling for Substance Abuse Treatment, Psychoeducation	Procedure ICD-10-PCS
HZ47ZZZ	Group Counseling for Substance Abuse Treatment, Motivational Enhancement	Procedure ICD-10-PCS
HZ48ZZZ	Group Counseling for Substance Abuse Treatment, Confrontational	Procedure ICD-10-PCS
HZ49ZZZ	Group Counseling for Substance Abuse Treatment, Continuing Care	Procedure ICD-10-PCS
HZ4BZZZ	Group Counseling for Substance Abuse Treatment, Spiritual	Procedure ICD-10-PCS

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
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
HZ98ZZZ Pharmacotherapy for Substance Abuse Treatment, Psychiatric Medication	Procedure	ICD-10-PCS
HZ99ZZZ Pharmacotherapy for Substance Abuse Treatment, Other Replacement Medication	Procedure	ICD-10-PCS
I42.6 Alcoholic cardiomyopathy	Diagnosis	ICD-10-CM
K29.20 Alcoholic gastritis without bleeding	Diagnosis	ICD-10-CM
K29.21 Alcoholic gastritis with bleeding	Diagnosis	ICD-10-CM
K70.0 Alcoholic fatty liver	Diagnosis	ICD-10-CM
K70.10 Alcoholic hepatitis without ascites	Diagnosis	ICD-10-CM
K70.11 Alcoholic hepatitis with ascites	Diagnosis	ICD-10-CM
K70.2 Alcoholic fibrosis and sclerosis of liver	Diagnosis	ICD-10-CM
K70.30 Alcoholic cirrhosis of liver without ascites	Diagnosis	ICD-10-CM
K70.31 Alcoholic cirrhosis of liver with ascites	Diagnosis	ICD-10-CM
K70.40 Alcoholic hepatic failure without coma	Diagnosis	ICD-10-CM
K70.41 Alcoholic hepatic failure with coma	Diagnosis	ICD-10-CM
K70.9 Alcoholic liver disease, unspecified	Diagnosis	ICD-10-CM
R78.0 Finding of alcohol in blood	Diagnosis	ICD-10-CM
Z65.8 Other specified problems related to psychosocial circumstances	Diagnosis	ICD-10-CM
<b>Drug Abuse</b>		
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

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
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
F11.220	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
F12.220	Cannabis dependence with intoxication, uncomplicated	Diagnosis ICD-10-CM
F12.221	Cannabis dependence with intoxication delirium	Diagnosis ICD-10-CM
F12.222	Cannabis dependence with intoxication with perceptual disturbance	Diagnosis ICD-10-CM
F12.229	Cannabis dependence with intoxication, unspecified	Diagnosis ICD-10-CM
F12.250	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

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

Code	Code	Code Type
	Category	
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
F12.950	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
F13.11	Sedative, hypnotic or anxiolytic abuse, in remission	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 w	Diagnosis ICD-10-CM
F13.151	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder with	Diagnosis ICD-10-CM
F13.159	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder, u	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
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 disorde	Diagnosis ICD-10-CM
F13.250	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with	Diagnosis ICD-10-CM
F13.251	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with	Diagnosis ICD-10-CM
F13.259	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder,	Diagnosis ICD-10-CM
F13.26	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting amr	Diagnosis ICD-10-CM
F13.27	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting den	Diagnosis ICD-10-CM
F13.280	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced anxiety disord	Diagnosis ICD-10-CM
F13.281	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sexual dysfun	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 di	Diagnosis ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
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 disc	Diagnosis	ICD-10-CM
F13.950 Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder with	Diagnosis	ICD-10-CM
F13.951 Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder with	Diagnosis	ICD-10-CM
F13.959 Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder,	Diagnosis	ICD-10-CM
F13.96 Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced persisting amnesic	Diagnosis	ICD-10-CM
F13.97 Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced persisting	Diagnosis	ICD-10-CM
F13.980 Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced anxiety dis	Diagnosis	ICD-10-CM
F13.981 Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced sexual dys	Diagnosis	ICD-10-CM
F13.982 Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced sleep diso	Diagnosis	ICD-10-CM
F13.988 Sedative, hypnotic or anxiolytic use, unspecified with other sedative, hypnotic or anxiolytic-induced diso	Diagnosis	ICD-10-CM
F13.99 Sedative, hypnotic or anxiolytic use, unspecified with unspecified sedative, hypnotic or anxiolytic-induce	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
F14.122 Cocaine abuse with intoxication with perceptual disturbance	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
F14.220 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
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

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
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
F15.220	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
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

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
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
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
F16.220	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

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
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
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
F18.220	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
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

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

Code	Code	Category	Code Type
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 delus	Diagnosis	ICD-10-CM
F19.151	Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder with halluc	Diagnosis	ICD-10-CM
F19.159	Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F19.16	Other psychoactive substance abuse with psychoactive substance-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F19.17	Other psychoactive substance abuse with psychoactive substance-induced persisting dementia	Diagnosis	ICD-10-CM
F19.180	Other psychoactive substance abuse with psychoactive substance-induced anxiety disorder	Diagnosis	ICD-10-CM
F19.181	Other psychoactive substance abuse with psychoactive substance-induced sexual dysfunction	Diagnosis	ICD-10-CM
F19.182	Other psychoactive substance abuse with psychoactive substance-induced sleep disorder	Diagnosis	ICD-10-CM
F19.188	Other psychoactive substance abuse with other psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.19	Other psychoactive substance abuse with unspecified psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.21	Other psychoactive substance dependence, in remission	Diagnosis	ICD-10-CM
F19.220	Other psychoactive substance dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F19.221	Other psychoactive substance dependence with intoxication delirium	Diagnosis	ICD-10-CM
F19.222	Other psychoactive substance dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F19.229	Other psychoactive substance dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F19.230	Other psychoactive substance dependence with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F19.231	Other psychoactive substance dependence with withdrawal delirium	Diagnosis	ICD-10-CM
F19.232	Other psychoactive substance dependence with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F19.239	Other psychoactive substance dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM
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	Diagnosis	ICD-10-CM
F19.251	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder with	Diagnosis	ICD-10-CM
F19.259	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder, un	Diagnosis	ICD-10-CM
F19.26	Other psychoactive substance dependence with psychoactive substance-induced persisting amnestic dis	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	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

Code		Code Category	Code Type
F19.951	Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder with	Diagnosis	ICD-10-CM
F19.959	Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder,	Diagnosis	ICD-10-CM
F19.96	Other psychoactive substance use, unspecified with psychoactive substance-induced persisting amnesic	Diagnosis	ICD-10-CM
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
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
<b>Stroke</b>			
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
G46.3	Brain stem stroke syndrome	Diagnosis	ICD-10-CM
G46.4	Cerebellar stroke syndrome	Diagnosis	ICD-10-CM
G46.5	Pure motor lacunar syndrome	Diagnosis	ICD-10-CM
G46.6	Pure sensory lacunar syndrome	Diagnosis	ICD-10-CM
G46.7	Other lacunar syndromes	Diagnosis	ICD-10-CM
G46.8	Other vascular syndromes of brain in cerebrovascular diseases	Diagnosis	ICD-10-CM
G97.31	Intraoperative hemorrhage and hematoma of a nervous system organ or structure complicating a nervous system	Diagnosis	ICD-10-CM
G97.32	Intraoperative hemorrhage and hematoma of a nervous system organ or structure complicating other p	Diagnosis	ICD-10-CM
I60.00	Nontraumatic subarachnoid hemorrhage from unspecified carotid siphon and bifurcation	Diagnosis	ICD-10-CM
I60.01	Nontraumatic subarachnoid hemorrhage from right carotid siphon and bifurcation	Diagnosis	ICD-10-CM
I60.02	Nontraumatic subarachnoid hemorrhage from left carotid siphon and bifurcation	Diagnosis	ICD-10-CM
I60.10	Nontraumatic subarachnoid hemorrhage from unspecified middle cerebral artery	Diagnosis	ICD-10-CM
I60.11	Nontraumatic subarachnoid hemorrhage from right middle cerebral artery	Diagnosis	ICD-10-CM
I60.12	Nontraumatic subarachnoid hemorrhage from left middle cerebral artery	Diagnosis	ICD-10-CM
I60.20	Nontraumatic subarachnoid hemorrhage from unspecified anterior communicating artery	Diagnosis	ICD-10-CM
I60.21	Nontraumatic subarachnoid hemorrhage from right anterior communicating artery	Diagnosis	ICD-10-CM
I60.22	Nontraumatic subarachnoid hemorrhage from left anterior communicating artery	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Category</b>	<b>Code Type</b>
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
I60.50	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
I61.0	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
I63.00	Cerebral infarction due to thrombosis of unspecified precerebral artery	Diagnosis	ICD-10-CM
I63.011	Cerebral infarction due to thrombosis of right vertebral artery	Diagnosis	ICD-10-CM
I63.012	Cerebral infarction due to thrombosis of left vertebral artery	Diagnosis	ICD-10-CM
I63.013	Cerebral infarction due to thrombosis of bilateral vertebral arteries	Diagnosis	ICD-10-CM
I63.019	Cerebral infarction due to thrombosis of unspecified vertebral artery	Diagnosis	ICD-10-CM
I63.02	Cerebral infarction due to thrombosis of basilar artery	Diagnosis	ICD-10-CM
I63.031	Cerebral infarction due to thrombosis of right carotid artery	Diagnosis	ICD-10-CM
I63.032	Cerebral infarction due to thrombosis of left carotid artery	Diagnosis	ICD-10-CM
I63.039	Cerebral infarction due to thrombosis of unspecified carotid artery	Diagnosis	ICD-10-CM
I63.09	Cerebral infarction due to thrombosis of other precerebral artery	Diagnosis	ICD-10-CM
I63.10	Cerebral infarction due to embolism of unspecified precerebral artery	Diagnosis	ICD-10-CM
I63.111	Cerebral infarction due to embolism of right vertebral artery	Diagnosis	ICD-10-CM
I63.112	Cerebral infarction due to embolism of left vertebral artery	Diagnosis	ICD-10-CM
I63.119	Cerebral infarction due to embolism of unspecified vertebral artery	Diagnosis	ICD-10-CM
I63.12	Cerebral infarction due to embolism of basilar artery	Diagnosis	ICD-10-CM
I63.131	Cerebral infarction due to embolism of right carotid artery	Diagnosis	ICD-10-CM
I63.132	Cerebral infarction due to embolism of left carotid artery	Diagnosis	ICD-10-CM
I63.139	Cerebral infarction due to embolism of unspecified carotid artery	Diagnosis	ICD-10-CM
I63.19	Cerebral infarction due to embolism of other precerebral artery	Diagnosis	ICD-10-CM
I63.20	Cerebral infarction due to unspecified occlusion or stenosis of unspecified precerebral arteries	Diagnosis	ICD-10-CM
I63.211	Cerebral infarction due to unspecified occlusion or stenosis of right vertebral artery	Diagnosis	ICD-10-CM
I63.212	Cerebral infarction due to unspecified occlusion or stenosis of left vertebral artery	Diagnosis	ICD-10-CM
I63.213	Cerebral infarction due to unspecified occlusion or stenosis of bilateral vertebral arteries	Diagnosis	ICD-10-CM
I63.219	Cerebral infarction due to unspecified occlusion or stenosis of unspecified vertebral artery	Diagnosis	ICD-10-CM
I63.22	Cerebral infarction due to unspecified occlusion or stenosis of basilar artery	Diagnosis	ICD-10-CM
I63.231	Cerebral infarction due to unspecified occlusion or stenosis of right carotid arteries	Diagnosis	ICD-10-CM
I63.232	Cerebral infarction due to unspecified occlusion or stenosis of left carotid arteries	Diagnosis	ICD-10-CM
I63.233	Cerebral infarction due to unspecified occlusion or stenosis of bilateral carotid arteries	Diagnosis	ICD-10-CM
I63.239	Cerebral infarction due to unspecified occlusion or stenosis of unspecified carotid artery	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
I63.29	Cerebral infarction due to unspecified occlusion or stenosis of other precerebral arteries	Diagnosis ICD-10-CM
I63.30	Cerebral infarction due to thrombosis of unspecified cerebral artery	Diagnosis ICD-10-CM
I63.311	Cerebral infarction due to thrombosis of right middle cerebral artery	Diagnosis ICD-10-CM
I63.312	Cerebral infarction due to thrombosis of left middle cerebral artery	Diagnosis ICD-10-CM
I63.313	Cerebral infarction due to thrombosis of bilateral middle cerebral arteries	Diagnosis ICD-10-CM
I63.319	Cerebral infarction due to thrombosis of unspecified middle cerebral artery	Diagnosis ICD-10-CM
I63.321	Cerebral infarction due to thrombosis of right anterior cerebral artery	Diagnosis ICD-10-CM
I63.322	Cerebral infarction due to thrombosis of left anterior cerebral artery	Diagnosis ICD-10-CM
I63.323	Cerebral infarction due to thrombosis of bilateral anterior cerebral arteries	Diagnosis ICD-10-CM
I63.329	Cerebral infarction due to thrombosis of unspecified anterior cerebral artery	Diagnosis ICD-10-CM
I63.331	Cerebral infarction due to thrombosis of right posterior cerebral artery	Diagnosis ICD-10-CM
I63.332	Cerebral infarction due to thrombosis of left posterior cerebral artery	Diagnosis ICD-10-CM
I63.333	Cerebral infarction due to thrombosis of bilateral posterior cerebral arteries	Diagnosis ICD-10-CM
I63.339	Cerebral infarction due to thrombosis of unspecified posterior cerebral artery	Diagnosis ICD-10-CM
I63.341	Cerebral infarction due to thrombosis of right cerebellar artery	Diagnosis ICD-10-CM
I63.342	Cerebral infarction due to thrombosis of left cerebellar artery	Diagnosis ICD-10-CM
I63.343	Cerebral infarction due to thrombosis of bilateral cerebellar arteries	Diagnosis ICD-10-CM
I63.349	Cerebral infarction due to thrombosis of unspecified cerebellar artery	Diagnosis ICD-10-CM
I63.39	Cerebral infarction due to thrombosis of other cerebral artery	Diagnosis ICD-10-CM
I63.40	Cerebral infarction due to embolism of unspecified cerebral artery	Diagnosis ICD-10-CM
I63.411	Cerebral infarction due to embolism of right middle cerebral artery	Diagnosis ICD-10-CM
I63.412	Cerebral infarction due to embolism of left middle cerebral artery	Diagnosis ICD-10-CM
I63.413	Cerebral infarction due to embolism of bilateral middle cerebral arteries	Diagnosis ICD-10-CM
I63.419	Cerebral infarction due to embolism of unspecified middle cerebral artery	Diagnosis ICD-10-CM
I63.421	Cerebral infarction due to embolism of right anterior cerebral artery	Diagnosis ICD-10-CM
I63.422	Cerebral infarction due to embolism of left anterior cerebral artery	Diagnosis ICD-10-CM
I63.423	Cerebral infarction due to embolism of bilateral anterior cerebral arteries	Diagnosis ICD-10-CM
I63.429	Cerebral infarction due to embolism of unspecified anterior cerebral artery	Diagnosis ICD-10-CM
I63.431	Cerebral infarction due to embolism of right posterior cerebral artery	Diagnosis ICD-10-CM
I63.432	Cerebral infarction due to embolism of left posterior cerebral artery	Diagnosis ICD-10-CM
I63.433	Cerebral infarction due to embolism of bilateral posterior cerebral arteries	Diagnosis ICD-10-CM
I63.439	Cerebral infarction due to embolism of unspecified posterior cerebral artery	Diagnosis ICD-10-CM
I63.441	Cerebral infarction due to embolism of right cerebellar artery	Diagnosis ICD-10-CM
I63.442	Cerebral infarction due to embolism of left cerebellar artery	Diagnosis ICD-10-CM
I63.443	Cerebral infarction due to embolism of bilateral cerebellar arteries	Diagnosis ICD-10-CM
I63.449	Cerebral infarction due to embolism of unspecified cerebellar artery	Diagnosis ICD-10-CM
I63.49	Cerebral infarction due to embolism of other cerebral artery	Diagnosis ICD-10-CM
I63.50	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebral artery	Diagnosis ICD-10-CM
I63.511	Cerebral infarction due to unspecified occlusion or stenosis of right middle cerebral artery	Diagnosis ICD-10-CM
I63.512	Cerebral infarction due to unspecified occlusion or stenosis of left middle cerebral artery	Diagnosis ICD-10-CM
I63.513	Cerebral infarction due to unspecified occlusion or stenosis of bilateral middle cerebral arteries	Diagnosis ICD-10-CM
I63.519	Cerebral infarction due to unspecified occlusion or stenosis of unspecified middle cerebral artery	Diagnosis ICD-10-CM
I63.521	Cerebral infarction due to unspecified occlusion or stenosis of right anterior cerebral 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
I63.531	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

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Category</b>	<b>Code Type</b>
I63.539	Cerebral infarction due to unspecified occlusion or stenosis of unspecified posterior cerebral artery	Diagnosis	ICD-10-CM
I63.541	Cerebral infarction due to unspecified occlusion or stenosis of right cerebellar artery	Diagnosis	ICD-10-CM
I63.542	Cerebral infarction due to unspecified occlusion or stenosis of left cerebellar artery	Diagnosis	ICD-10-CM
I63.543	Cerebral infarction due to unspecified occlusion or stenosis of bilateral cerebellar arteries	Diagnosis	ICD-10-CM
I63.549	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebellar 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
I63.9	Cerebral infarction, unspecified	Diagnosis	ICD-10-CM
I66.01	Occlusion and stenosis of right middle cerebral artery	Diagnosis	ICD-10-CM
I66.02	Occlusion and stenosis of left middle cerebral artery	Diagnosis	ICD-10-CM
I66.03	Occlusion and stenosis of bilateral middle cerebral arteries	Diagnosis	ICD-10-CM
I66.09	Occlusion and stenosis of unspecified middle cerebral artery	Diagnosis	ICD-10-CM
I66.11	Occlusion and stenosis of right anterior cerebral artery	Diagnosis	ICD-10-CM
I66.12	Occlusion and stenosis of left anterior cerebral artery	Diagnosis	ICD-10-CM
I66.13	Occlusion and stenosis of bilateral anterior cerebral arteries	Diagnosis	ICD-10-CM
I66.19	Occlusion and stenosis of unspecified anterior cerebral artery	Diagnosis	ICD-10-CM
I66.21	Occlusion and stenosis of right posterior cerebral artery	Diagnosis	ICD-10-CM
I66.22	Occlusion and stenosis of left posterior cerebral artery	Diagnosis	ICD-10-CM
I66.23	Occlusion and stenosis of bilateral posterior cerebral arteries	Diagnosis	ICD-10-CM
I66.29	Occlusion and stenosis of unspecified posterior cerebral artery	Diagnosis	ICD-10-CM
I66.3	Occlusion and stenosis of cerebellar arteries	Diagnosis	ICD-10-CM
I66.8	Occlusion and stenosis of other cerebral arteries	Diagnosis	ICD-10-CM
I66.9	Occlusion and stenosis of unspecified cerebral artery	Diagnosis	ICD-10-CM
I67.841	Reversible cerebrovascular vasoconstriction syndrome	Diagnosis	ICD-10-CM
I67.848	Other cerebrovascular vasospasm and vasoconstriction	Diagnosis	ICD-10-CM
I67.89	Other cerebrovascular disease	Diagnosis	ICD-10-CM
I97.810	Intraoperative cerebrovascular infarction during cardiac surgery	Diagnosis	ICD-10-CM
I97.811	Intraoperative cerebrovascular infarction during other surgery	Diagnosis	ICD-10-CM
I97.820	Postprocedural cerebrovascular infarction following cardiac surgery	Diagnosis	ICD-10-CM
I97.821	Postprocedural cerebrovascular infarction following other surgery	Diagnosis	ICD-10-CM
<b>Hypertension</b>			
H35.031	Hypertensive retinopathy, right eye	Diagnosis	ICD-10-CM
H35.032	Hypertensive retinopathy, left eye	Diagnosis	ICD-10-CM
H35.033	Hypertensive retinopathy, bilateral	Diagnosis	ICD-10-CM
H35.039	Hypertensive retinopathy, unspecified eye	Diagnosis	ICD-10-CM
I10	Essential (primary) hypertension	Diagnosis	ICD-10-CM
I11.0	Hypertensive heart disease with heart failure	Diagnosis	ICD-10-CM
I11.9	Hypertensive heart disease without heart failure	Diagnosis	ICD-10-CM
I12.0	Hypertensive chronic kidney disease with stage 5 chronic kidney disease or end stage renal disease	Diagnosis	ICD-10-CM
I12.9	Hypertensive chronic kidney disease with stage 1 through stage 4 chronic kidney disease, or unspecified chronic	Diagnosis	ICD-10-CM
I13.0	Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease,	Diagnosis	ICD-10-CM
I13.10	Hypertensive heart and chronic kidney disease without heart failure, with stage 1 through stage 4 chronic kidney	Diagnosis	ICD-10-CM
I13.11	Hypertensive heart and chronic kidney disease without heart failure, with stage 5 chronic kidney disease, or end	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>		<b>Code Category</b>	<b>Code Type</b>
I13.2	Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end	Diagnosis	ICD-10-CM
I15.0	Renovascular hypertension	Diagnosis	ICD-10-CM
I15.1	Hypertension secondary to other renal disorders	Diagnosis	ICD-10-CM
I15.2	Hypertension secondary to endocrine disorders	Diagnosis	ICD-10-CM
I15.8	Other secondary hypertension	Diagnosis	ICD-10-CM
I15.9	Secondary hypertension, unspecified	Diagnosis	ICD-10-CM
I67.4	Hypertensive encephalopathy	Diagnosis	ICD-10-CM
N26.2	Page kidney	Diagnosis	ICD-10-CM
<b>Glaucoma</b>			
H40.001	Preglaucoma, unspecified, right eye	Diagnosis	ICD-10-CM
H40.002	Preglaucoma, unspecified, left eye	Diagnosis	ICD-10-CM
H40.003	Preglaucoma, unspecified, bilateral	Diagnosis	ICD-10-CM
H40.009	Preglaucoma, unspecified, unspecified eye	Diagnosis	ICD-10-CM
H40.011	Open angle with borderline findings, low risk, right eye	Diagnosis	ICD-10-CM
H40.012	Open angle with borderline findings, low risk, left eye	Diagnosis	ICD-10-CM
H40.013	Open angle with borderline findings, low risk, bilateral	Diagnosis	ICD-10-CM
H40.019	Open angle with borderline findings, low risk, unspecified eye	Diagnosis	ICD-10-CM
H40.031	Anatomical narrow angle, right eye	Diagnosis	ICD-10-CM
H40.032	Anatomical narrow angle, left eye	Diagnosis	ICD-10-CM
H40.033	Anatomical narrow angle, bilateral	Diagnosis	ICD-10-CM
H40.039	Anatomical narrow angle, unspecified eye	Diagnosis	ICD-10-CM
H40.041	Steroid responder, right eye	Diagnosis	ICD-10-CM
H40.042	Steroid responder, left eye	Diagnosis	ICD-10-CM
H40.043	Steroid responder, bilateral	Diagnosis	ICD-10-CM
H40.049	Steroid responder, unspecified eye	Diagnosis	ICD-10-CM
H40.051	Ocular hypertension, right eye	Diagnosis	ICD-10-CM
H40.052	Ocular hypertension, left eye	Diagnosis	ICD-10-CM
H40.053	Ocular hypertension, bilateral	Diagnosis	ICD-10-CM
H40.059	Ocular hypertension, unspecified eye	Diagnosis	ICD-10-CM
H40.10X0	Unspecified open-angle glaucoma, stage unspecified	Diagnosis	ICD-10-CM
H40.10X1	Unspecified open-angle glaucoma, mild stage	Diagnosis	ICD-10-CM
H40.10X2	Unspecified open-angle glaucoma, moderate stage	Diagnosis	ICD-10-CM
H40.10X3	Unspecified open-angle glaucoma, severe stage	Diagnosis	ICD-10-CM
H40.10X4	Unspecified open-angle glaucoma, indeterminate stage	Diagnosis	ICD-10-CM
H40.1110	Primary open-angle glaucoma, right eye, stage unspecified	Diagnosis	ICD-10-CM
H40.1111	Primary open-angle glaucoma, right eye, mild stage	Diagnosis	ICD-10-CM
H40.1112	Primary open-angle glaucoma, right eye, moderate stage	Diagnosis	ICD-10-CM
H40.1113	Primary open-angle glaucoma, right eye, severe stage	Diagnosis	ICD-10-CM
H40.1114	Primary open-angle glaucoma, right eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.1120	Primary open-angle glaucoma, left eye, stage unspecified	Diagnosis	ICD-10-CM
H40.1121	Primary open-angle glaucoma, left eye, mild stage	Diagnosis	ICD-10-CM
H40.1122	Primary open-angle glaucoma, left eye, moderate stage	Diagnosis	ICD-10-CM
H40.1123	Primary open-angle glaucoma, left eye, severe stage	Diagnosis	ICD-10-CM
H40.1124	Primary open-angle glaucoma, left eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.1130	Primary open-angle glaucoma, bilateral, stage unspecified	Diagnosis	ICD-10-CM
H40.1131	Primary open-angle glaucoma, bilateral, mild stage	Diagnosis	ICD-10-CM
H40.1132	Primary open-angle glaucoma, bilateral, moderate stage	Diagnosis	ICD-10-CM
H40.1133	Primary open-angle glaucoma, bilateral, severe stage	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code Category</b>	<b>Code Type</b>
H40.113 <sup>4</sup> Primary open-angle glaucoma, bilateral, indeterminate stage	Diagnosis	ICD-10-CM
H40.119 <sup>0</sup> Primary open-angle glaucoma, unspecified eye, stage unspecified	Diagnosis	ICD-10-CM
H40.119 <sup>1</sup> Primary open-angle glaucoma, unspecified eye, mild stage	Diagnosis	ICD-10-CM
H40.119 <sup>2</sup> Primary open-angle glaucoma, unspecified eye, moderate stage	Diagnosis	ICD-10-CM
H40.119 <sup>3</sup> Primary open-angle glaucoma, unspecified eye, severe stage	Diagnosis	ICD-10-CM
H40.119 <sup>4</sup> Primary open-angle glaucoma, unspecified eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.11X <sup>0</sup> Primary open-angle glaucoma, stage unspecified	Diagnosis	ICD-10-CM
H40.11X <sup>1</sup> Primary open-angle glaucoma, mild stage	Diagnosis	ICD-10-CM
H40.11X <sup>2</sup> Primary open-angle glaucoma, moderate stage	Diagnosis	ICD-10-CM
H40.11X <sup>3</sup> Primary open-angle glaucoma, severe stage	Diagnosis	ICD-10-CM
H40.11X <sup>4</sup> Primary open-angle glaucoma, indeterminate stage	Diagnosis	ICD-10-CM
H40.121 <sup>0</sup> Low-tension glaucoma, right eye, stage unspecified	Diagnosis	ICD-10-CM
H40.121 <sup>1</sup> Low-tension glaucoma, right eye, mild stage	Diagnosis	ICD-10-CM
H40.121 <sup>2</sup> Low-tension glaucoma, right eye, moderate stage	Diagnosis	ICD-10-CM
H40.121 <sup>3</sup> Low-tension glaucoma, right eye, severe stage	Diagnosis	ICD-10-CM
H40.121 <sup>4</sup> Low-tension glaucoma, right eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.122 <sup>0</sup> Low-tension glaucoma, left eye, stage unspecified	Diagnosis	ICD-10-CM
H40.122 <sup>1</sup> Low-tension glaucoma, left eye, mild stage	Diagnosis	ICD-10-CM
H40.122 <sup>2</sup> Low-tension glaucoma, left eye, moderate stage	Diagnosis	ICD-10-CM
H40.122 <sup>3</sup> Low-tension glaucoma, left eye, severe stage	Diagnosis	ICD-10-CM
H40.122 <sup>4</sup> Low-tension glaucoma, left eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.123 <sup>0</sup> Low-tension glaucoma, bilateral, stage unspecified	Diagnosis	ICD-10-CM
H40.123 <sup>1</sup> Low-tension glaucoma, bilateral, mild stage	Diagnosis	ICD-10-CM
H40.123 <sup>2</sup> Low-tension glaucoma, bilateral, moderate stage	Diagnosis	ICD-10-CM
H40.123 <sup>3</sup> Low-tension glaucoma, bilateral, severe stage	Diagnosis	ICD-10-CM
H40.123 <sup>4</sup> Low-tension glaucoma, bilateral, indeterminate stage	Diagnosis	ICD-10-CM
H40.129 <sup>0</sup> Low-tension glaucoma, unspecified eye, stage unspecified	Diagnosis	ICD-10-CM
H40.129 <sup>1</sup> Low-tension glaucoma, unspecified eye, mild stage	Diagnosis	ICD-10-CM
H40.129 <sup>2</sup> Low-tension glaucoma, unspecified eye, moderate stage	Diagnosis	ICD-10-CM
H40.129 <sup>3</sup> Low-tension glaucoma, unspecified eye, severe stage	Diagnosis	ICD-10-CM
H40.129 <sup>4</sup> Low-tension glaucoma, unspecified eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.131 <sup>0</sup> Pigmentary glaucoma, right eye, stage unspecified	Diagnosis	ICD-10-CM
H40.131 <sup>1</sup> Pigmentary glaucoma, right eye, mild stage	Diagnosis	ICD-10-CM
H40.131 <sup>2</sup> Pigmentary glaucoma, right eye, moderate stage	Diagnosis	ICD-10-CM
H40.131 <sup>3</sup> Pigmentary glaucoma, right eye, severe stage	Diagnosis	ICD-10-CM
H40.131 <sup>4</sup> Pigmentary glaucoma, right eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.132 <sup>0</sup> Pigmentary glaucoma, left eye, stage unspecified	Diagnosis	ICD-10-CM
H40.132 <sup>1</sup> Pigmentary glaucoma, left eye, mild stage	Diagnosis	ICD-10-CM
H40.132 <sup>2</sup> Pigmentary glaucoma, left eye, moderate stage	Diagnosis	ICD-10-CM
H40.132 <sup>3</sup> Pigmentary glaucoma, left eye, severe stage	Diagnosis	ICD-10-CM
H40.132 <sup>4</sup> Pigmentary glaucoma, left eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.133 <sup>0</sup> Pigmentary glaucoma, bilateral, stage unspecified	Diagnosis	ICD-10-CM
H40.133 <sup>1</sup> Pigmentary glaucoma, bilateral, mild stage	Diagnosis	ICD-10-CM
H40.133 <sup>2</sup> Pigmentary glaucoma, bilateral, moderate stage	Diagnosis	ICD-10-CM
H40.133 <sup>3</sup> Pigmentary glaucoma, bilateral, severe stage	Diagnosis	ICD-10-CM
H40.133 <sup>4</sup> Pigmentary glaucoma, bilateral, indeterminate stage	Diagnosis	ICD-10-CM
H40.139 <sup>0</sup> Pigmentary glaucoma, unspecified eye, stage unspecified	Diagnosis	ICD-10-CM
H40.139 <sup>1</sup> Pigmentary glaucoma, unspecified eye, mild stage	Diagnosis	ICD-10-CM
H40.139 <sup>2</sup> Pigmentary glaucoma, unspecified eye, moderate stage	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
H40.139: Pigmentary glaucoma, unspecified eye, severe stage	Diagnosis	ICD-10-CM
H40.139: Pigmentary glaucoma, unspecified eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.141: Capsular glaucoma with pseudoexfoliation of lens, right eye, stage unspecified	Diagnosis	ICD-10-CM
H40.141: Capsular glaucoma with pseudoexfoliation of lens, right eye, mild stage	Diagnosis	ICD-10-CM
H40.141: Capsular glaucoma with pseudoexfoliation of lens, right eye, moderate stage	Diagnosis	ICD-10-CM
H40.141: Capsular glaucoma with pseudoexfoliation of lens, right eye, severe stage	Diagnosis	ICD-10-CM
H40.141: Capsular glaucoma with pseudoexfoliation of lens, right eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.142: Capsular glaucoma with pseudoexfoliation of lens, left eye, stage unspecified	Diagnosis	ICD-10-CM
H40.142: Capsular glaucoma with pseudoexfoliation of lens, left eye, mild stage	Diagnosis	ICD-10-CM
H40.142: Capsular glaucoma with pseudoexfoliation of lens, left eye, moderate stage	Diagnosis	ICD-10-CM
H40.142: Capsular glaucoma with pseudoexfoliation of lens, left eye, severe stage	Diagnosis	ICD-10-CM
H40.142: Capsular glaucoma with pseudoexfoliation of lens, left eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.143: Capsular glaucoma with pseudoexfoliation of lens, bilateral, stage unspecified	Diagnosis	ICD-10-CM
H40.143: Capsular glaucoma with pseudoexfoliation of lens, bilateral, mild stage	Diagnosis	ICD-10-CM
H40.143: Capsular glaucoma with pseudoexfoliation of lens, bilateral, moderate stage	Diagnosis	ICD-10-CM
H40.143: Capsular glaucoma with pseudoexfoliation of lens, bilateral, severe stage	Diagnosis	ICD-10-CM
H40.143: Capsular glaucoma with pseudoexfoliation of lens, bilateral, indeterminate stage	Diagnosis	ICD-10-CM
H40.149: Capsular glaucoma with pseudoexfoliation of lens, unspecified eye, stage unspecified	Diagnosis	ICD-10-CM
H40.149: Capsular glaucoma with pseudoexfoliation of lens, unspecified eye, mild stage	Diagnosis	ICD-10-CM
H40.149: Capsular glaucoma with pseudoexfoliation of lens, unspecified eye, moderate stage	Diagnosis	ICD-10-CM
H40.149: Capsular glaucoma with pseudoexfoliation of lens, unspecified eye, severe stage	Diagnosis	ICD-10-CM
H40.149: Capsular glaucoma with pseudoexfoliation of lens, unspecified eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.151 Residual stage of open-angle glaucoma, right eye	Diagnosis	ICD-10-CM
H40.152 Residual stage of open-angle glaucoma, left eye	Diagnosis	ICD-10-CM
H40.153 Residual stage of open-angle glaucoma, bilateral	Diagnosis	ICD-10-CM
H40.159 Residual stage of open-angle glaucoma, unspecified eye	Diagnosis	ICD-10-CM
H40.20X: Unspecified primary angle-closure glaucoma, stage unspecified	Diagnosis	ICD-10-CM
H40.20X: Unspecified primary angle-closure glaucoma, mild stage	Diagnosis	ICD-10-CM
H40.20X: Unspecified primary angle-closure glaucoma, moderate stage	Diagnosis	ICD-10-CM
H40.20X: Unspecified primary angle-closure glaucoma, severe stage	Diagnosis	ICD-10-CM
H40.20X: Unspecified primary angle-closure glaucoma, indeterminate stage	Diagnosis	ICD-10-CM
H40.211 Acute angle-closure glaucoma, right eye	Diagnosis	ICD-10-CM
H40.212 Acute angle-closure glaucoma, left eye	Diagnosis	ICD-10-CM
H40.213 Acute angle-closure glaucoma, bilateral	Diagnosis	ICD-10-CM
H40.219 Acute angle-closure glaucoma, unspecified eye	Diagnosis	ICD-10-CM
H40.221: Chronic angle-closure glaucoma, right eye, stage unspecified	Diagnosis	ICD-10-CM
H40.221: Chronic angle-closure glaucoma, right eye, mild stage	Diagnosis	ICD-10-CM
H40.221: Chronic angle-closure glaucoma, right eye, moderate stage	Diagnosis	ICD-10-CM
H40.221: Chronic angle-closure glaucoma, right eye, severe stage	Diagnosis	ICD-10-CM
H40.221: Chronic angle-closure glaucoma, right eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.222: Chronic angle-closure glaucoma, left eye, stage unspecified	Diagnosis	ICD-10-CM
H40.222: Chronic angle-closure glaucoma, left eye, mild stage	Diagnosis	ICD-10-CM
H40.222: Chronic angle-closure glaucoma, left eye, moderate stage	Diagnosis	ICD-10-CM
H40.222: Chronic angle-closure glaucoma, left eye, severe stage	Diagnosis	ICD-10-CM
H40.222: Chronic angle-closure glaucoma, left eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.223: Chronic angle-closure glaucoma, bilateral, stage unspecified	Diagnosis	ICD-10-CM
H40.223: Chronic angle-closure glaucoma, bilateral, mild stage	Diagnosis	ICD-10-CM
H40.223: Chronic angle-closure glaucoma, bilateral, moderate stage	Diagnosis	ICD-10-CM
H40.223: Chronic angle-closure glaucoma, bilateral, severe stage	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code Category</b>	<b>Code Type</b>
H40.223 <sup>4</sup> Chronic angle-closure glaucoma, bilateral, indeterminate stage	Diagnosis	ICD-10-CM
H40.229 <sup>0</sup> Chronic angle-closure glaucoma, unspecified eye, stage unspecified	Diagnosis	ICD-10-CM
H40.229 <sup>1</sup> Chronic angle-closure glaucoma, unspecified eye, mild stage	Diagnosis	ICD-10-CM
H40.229 <sup>2</sup> Chronic angle-closure glaucoma, unspecified eye, moderate stage	Diagnosis	ICD-10-CM
H40.229 <sup>3</sup> Chronic angle-closure glaucoma, unspecified eye, severe stage	Diagnosis	ICD-10-CM
H40.229 <sup>4</sup> Chronic angle-closure glaucoma, unspecified eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.231 Intermittent angle-closure glaucoma, right eye	Diagnosis	ICD-10-CM
H40.232 Intermittent angle-closure glaucoma, left eye	Diagnosis	ICD-10-CM
H40.233 Intermittent angle-closure glaucoma, bilateral	Diagnosis	ICD-10-CM
H40.239 Intermittent angle-closure glaucoma, unspecified eye	Diagnosis	ICD-10-CM
H40.241 Residual stage of angle-closure glaucoma, right eye	Diagnosis	ICD-10-CM
H40.242 Residual stage of angle-closure glaucoma, left eye	Diagnosis	ICD-10-CM
H40.243 Residual stage of angle-closure glaucoma, bilateral	Diagnosis	ICD-10-CM
H40.249 Residual stage of angle-closure glaucoma, unspecified eye	Diagnosis	ICD-10-CM
H40.30X <sup>0</sup> Glaucoma secondary to eye trauma, unspecified eye, stage unspecified	Diagnosis	ICD-10-CM
H40.30X <sup>1</sup> Glaucoma secondary to eye trauma, unspecified eye, mild stage	Diagnosis	ICD-10-CM
H40.30X <sup>2</sup> Glaucoma secondary to eye trauma, unspecified eye, moderate stage	Diagnosis	ICD-10-CM
H40.30X <sup>3</sup> Glaucoma secondary to eye trauma, unspecified eye, severe stage	Diagnosis	ICD-10-CM
H40.30X <sup>4</sup> Glaucoma secondary to eye trauma, unspecified eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.31X <sup>0</sup> Glaucoma secondary to eye trauma, right eye, stage unspecified	Diagnosis	ICD-10-CM
H40.31X <sup>1</sup> Glaucoma secondary to eye trauma, right eye, mild stage	Diagnosis	ICD-10-CM
H40.31X <sup>2</sup> Glaucoma secondary to eye trauma, right eye, moderate stage	Diagnosis	ICD-10-CM
H40.31X <sup>3</sup> Glaucoma secondary to eye trauma, right eye, severe stage	Diagnosis	ICD-10-CM
H40.31X <sup>4</sup> Glaucoma secondary to eye trauma, right eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.32X <sup>0</sup> Glaucoma secondary to eye trauma, left eye, stage unspecified	Diagnosis	ICD-10-CM
H40.32X <sup>1</sup> Glaucoma secondary to eye trauma, left eye, mild stage	Diagnosis	ICD-10-CM
H40.32X <sup>2</sup> Glaucoma secondary to eye trauma, left eye, moderate stage	Diagnosis	ICD-10-CM
H40.32X <sup>3</sup> Glaucoma secondary to eye trauma, left eye, severe stage	Diagnosis	ICD-10-CM
H40.32X <sup>4</sup> Glaucoma secondary to eye trauma, left eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.33X <sup>0</sup> Glaucoma secondary to eye trauma, bilateral, stage unspecified	Diagnosis	ICD-10-CM
H40.33X <sup>1</sup> Glaucoma secondary to eye trauma, bilateral, mild stage	Diagnosis	ICD-10-CM
H40.33X <sup>2</sup> Glaucoma secondary to eye trauma, bilateral, moderate stage	Diagnosis	ICD-10-CM
H40.33X <sup>3</sup> Glaucoma secondary to eye trauma, bilateral, severe stage	Diagnosis	ICD-10-CM
H40.33X <sup>4</sup> Glaucoma secondary to eye trauma, bilateral, indeterminate stage	Diagnosis	ICD-10-CM
H40.40X <sup>0</sup> Glaucoma secondary to eye inflammation, unspecified eye, stage unspecified	Diagnosis	ICD-10-CM
H40.40X <sup>1</sup> Glaucoma secondary to eye inflammation, unspecified eye, mild stage	Diagnosis	ICD-10-CM
H40.40X <sup>2</sup> Glaucoma secondary to eye inflammation, unspecified eye, moderate stage	Diagnosis	ICD-10-CM
H40.40X <sup>3</sup> Glaucoma secondary to eye inflammation, unspecified eye, severe stage	Diagnosis	ICD-10-CM
H40.40X <sup>4</sup> Glaucoma secondary to eye inflammation, unspecified eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.41X <sup>0</sup> Glaucoma secondary to eye inflammation, right eye, stage unspecified	Diagnosis	ICD-10-CM
H40.41X <sup>1</sup> Glaucoma secondary to eye inflammation, right eye, mild stage	Diagnosis	ICD-10-CM
H40.41X <sup>2</sup> Glaucoma secondary to eye inflammation, right eye, moderate stage	Diagnosis	ICD-10-CM
H40.41X <sup>3</sup> Glaucoma secondary to eye inflammation, right eye, severe stage	Diagnosis	ICD-10-CM
H40.41X <sup>4</sup> Glaucoma secondary to eye inflammation, right eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.42X <sup>0</sup> Glaucoma secondary to eye inflammation, left eye, stage unspecified	Diagnosis	ICD-10-CM
H40.42X <sup>1</sup> Glaucoma secondary to eye inflammation, left eye, mild stage	Diagnosis	ICD-10-CM
H40.42X <sup>2</sup> Glaucoma secondary to eye inflammation, left eye, moderate stage	Diagnosis	ICD-10-CM
H40.42X <sup>3</sup> Glaucoma secondary to eye inflammation, left eye, severe stage	Diagnosis	ICD-10-CM
H40.42X <sup>4</sup> Glaucoma secondary to eye inflammation, left eye, indeterminate stage	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
H40.43X( Glaucoma secondary to eye inflammation, bilateral, stage unspecified	Diagnosis	ICD-10-CM
H40.43X( Glaucoma secondary to eye inflammation, bilateral, mild stage	Diagnosis	ICD-10-CM
H40.43X( Glaucoma secondary to eye inflammation, bilateral, moderate stage	Diagnosis	ICD-10-CM
H40.43X( Glaucoma secondary to eye inflammation, bilateral, severe stage	Diagnosis	ICD-10-CM
H40.43X( Glaucoma secondary to eye inflammation, bilateral, indeterminate stage	Diagnosis	ICD-10-CM
H40.50X( Glaucoma secondary to other eye disorders, unspecified eye, stage unspecified	Diagnosis	ICD-10-CM
H40.50X( Glaucoma secondary to other eye disorders, unspecified eye, mild stage	Diagnosis	ICD-10-CM
H40.50X( Glaucoma secondary to other eye disorders, unspecified eye, moderate stage	Diagnosis	ICD-10-CM
H40.50X( Glaucoma secondary to other eye disorders, unspecified eye, severe stage	Diagnosis	ICD-10-CM
H40.50X( Glaucoma secondary to other eye disorders, unspecified eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.51X( Glaucoma secondary to other eye disorders, right eye, stage unspecified	Diagnosis	ICD-10-CM
H40.51X( Glaucoma secondary to other eye disorders, right eye, mild stage	Diagnosis	ICD-10-CM
H40.51X( Glaucoma secondary to other eye disorders, right eye, moderate stage	Diagnosis	ICD-10-CM
H40.51X( Glaucoma secondary to other eye disorders, right eye, severe stage	Diagnosis	ICD-10-CM
H40.51X( Glaucoma secondary to other eye disorders, right eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.52X( Glaucoma secondary to other eye disorders, left eye, stage unspecified	Diagnosis	ICD-10-CM
H40.52X( Glaucoma secondary to other eye disorders, left eye, mild stage	Diagnosis	ICD-10-CM
H40.52X( Glaucoma secondary to other eye disorders, left eye, moderate stage	Diagnosis	ICD-10-CM
H40.52X( Glaucoma secondary to other eye disorders, left eye, severe stage	Diagnosis	ICD-10-CM
H40.52X( Glaucoma secondary to other eye disorders, left eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.53X( Glaucoma secondary to other eye disorders, bilateral, stage unspecified	Diagnosis	ICD-10-CM
H40.53X( Glaucoma secondary to other eye disorders, bilateral, mild stage	Diagnosis	ICD-10-CM
H40.53X( Glaucoma secondary to other eye disorders, bilateral, moderate stage	Diagnosis	ICD-10-CM
H40.53X( Glaucoma secondary to other eye disorders, bilateral, severe stage	Diagnosis	ICD-10-CM
H40.53X( Glaucoma secondary to other eye disorders, bilateral, indeterminate stage	Diagnosis	ICD-10-CM
H40.60X( Glaucoma secondary to drugs, unspecified eye, stage unspecified	Diagnosis	ICD-10-CM
H40.60X( Glaucoma secondary to drugs, unspecified eye, mild stage	Diagnosis	ICD-10-CM
H40.60X( Glaucoma secondary to drugs, unspecified eye, moderate stage	Diagnosis	ICD-10-CM
H40.60X( Glaucoma secondary to drugs, unspecified eye, severe stage	Diagnosis	ICD-10-CM
H40.60X( Glaucoma secondary to drugs, unspecified eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.61X( Glaucoma secondary to drugs, right eye, stage unspecified	Diagnosis	ICD-10-CM
H40.61X( Glaucoma secondary to drugs, right eye, mild stage	Diagnosis	ICD-10-CM
H40.61X( Glaucoma secondary to drugs, right eye, moderate stage	Diagnosis	ICD-10-CM
H40.61X( Glaucoma secondary to drugs, right eye, severe stage	Diagnosis	ICD-10-CM
H40.61X( Glaucoma secondary to drugs, right eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.62X( Glaucoma secondary to drugs, left eye, stage unspecified	Diagnosis	ICD-10-CM
H40.62X( Glaucoma secondary to drugs, left eye, mild stage	Diagnosis	ICD-10-CM
H40.62X( Glaucoma secondary to drugs, left eye, moderate stage	Diagnosis	ICD-10-CM
H40.62X( Glaucoma secondary to drugs, left eye, severe stage	Diagnosis	ICD-10-CM
H40.62X( Glaucoma secondary to drugs, left eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.63X( Glaucoma secondary to drugs, bilateral, stage unspecified	Diagnosis	ICD-10-CM
H40.63X( Glaucoma secondary to drugs, bilateral, mild stage	Diagnosis	ICD-10-CM
H40.63X( Glaucoma secondary to drugs, bilateral, moderate stage	Diagnosis	ICD-10-CM
H40.63X( Glaucoma secondary to drugs, bilateral, severe stage	Diagnosis	ICD-10-CM
H40.63X( Glaucoma secondary to drugs, bilateral, indeterminate stage	Diagnosis	ICD-10-CM
H40.811 Glaucoma with increased episcleral venous pressure, right eye	Diagnosis	ICD-10-CM
H40.812 Glaucoma with increased episcleral venous pressure, left eye	Diagnosis	ICD-10-CM
H40.813 Glaucoma with increased episcleral venous pressure, bilateral	Diagnosis	ICD-10-CM
H40.819 Glaucoma with increased episcleral venous pressure, unspecified eye	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
H40.821	Hypersecretion glaucoma, right eye	Diagnosis ICD-10-CM
H40.822	Hypersecretion glaucoma, left eye	Diagnosis ICD-10-CM
H40.823	Hypersecretion glaucoma, bilateral	Diagnosis ICD-10-CM
H40.829	Hypersecretion glaucoma, unspecified eye	Diagnosis ICD-10-CM
H40.831	Aqueous misdirection, right eye	Diagnosis ICD-10-CM
H40.832	Aqueous misdirection, left eye	Diagnosis ICD-10-CM
H40.833	Aqueous misdirection, bilateral	Diagnosis ICD-10-CM
H40.839	Aqueous misdirection, unspecified eye	Diagnosis ICD-10-CM
H40.89	Other specified glaucoma	Diagnosis ICD-10-CM
H40.9	Unspecified glaucoma	Diagnosis ICD-10-CM
H42	Glaucoma in diseases classified elsewhere	Diagnosis ICD-10-CM
H44.511	Absolute glaucoma, right eye	Diagnosis ICD-10-CM
H44.512	Absolute glaucoma, left eye	Diagnosis ICD-10-CM
H44.513	Absolute glaucoma, bilateral	Diagnosis ICD-10-CM
H44.519	Absolute glaucoma, unspecified eye	Diagnosis ICD-10-CM
H47.231	Glaucomatous optic atrophy, right eye	Diagnosis ICD-10-CM
H47.232	Glaucomatous optic atrophy, left eye	Diagnosis ICD-10-CM
H47.233	Glaucomatous optic atrophy, bilateral	Diagnosis ICD-10-CM
H47.239	Glaucomatous optic atrophy, unspecified eye	Diagnosis ICD-10-CM
Q15.0	Congenital glaucoma	Diagnosis ICD-10-CM
<b>Heart Failure</b>		
I09.81	Rheumatic heart failure	Diagnosis ICD-10-CM
I11.0	Hypertensive heart disease with heart failure	Diagnosis ICD-10-CM
I13.0	Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease,	Diagnosis ICD-10-CM
I13.2	Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end	Diagnosis ICD-10-CM
I50.1	Left ventricular failure, unspecified	Diagnosis ICD-10-CM
I50.20	Unspecified systolic (congestive) heart failure	Diagnosis ICD-10-CM
I50.21	Acute systolic (congestive) heart failure	Diagnosis ICD-10-CM
I50.22	Chronic systolic (congestive) heart failure	Diagnosis ICD-10-CM
I50.23	Acute on chronic systolic (congestive) heart failure	Diagnosis ICD-10-CM
I50.30	Unspecified diastolic (congestive) heart failure	Diagnosis ICD-10-CM
I50.31	Acute diastolic (congestive) heart failure	Diagnosis ICD-10-CM
I50.32	Chronic diastolic (congestive) heart failure	Diagnosis ICD-10-CM
I50.33	Acute on chronic diastolic (congestive) heart failure	Diagnosis ICD-10-CM
I50.40	Unspecified combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis ICD-10-CM
I50.41	Acute combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis ICD-10-CM
I50.42	Chronic combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis ICD-10-CM
I50.43	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis ICD-10-CM
I50.810	Right heart failure, unspecified	Diagnosis ICD-10-CM
I50.811	Acute right heart failure	Diagnosis ICD-10-CM
I50.812	Chronic right heart failure	Diagnosis ICD-10-CM
I50.813	Acute on chronic right heart failure	Diagnosis ICD-10-CM
I50.814	Right heart failure due to left heart failure	Diagnosis ICD-10-CM
I50.82	Biventricular heart failure	Diagnosis ICD-10-CM
I50.83	High output heart failure	Diagnosis ICD-10-CM
I50.84	End stage heart failure	Diagnosis ICD-10-CM
I50.89	Other heart failure	Diagnosis ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

Code		Code Category	Code Type
I50.9	Heart failure, unspecified	Diagnosis	ICD-10-CM
<b>Ischemic Heart Disease</b>			
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
I21.01	ST elevation (STEMI) myocardial infarction involving left main coronary artery	Diagnosis	ICD-10-CM
I21.02	ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery	Diagnosis	ICD-10-CM
I21.09	ST elevation (STEMI) myocardial infarction involving other coronary artery of anterior wall	Diagnosis	ICD-10-CM
I21.11	ST elevation (STEMI) myocardial infarction involving right coronary artery	Diagnosis	ICD-10-CM
I21.19	ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall	Diagnosis	ICD-10-CM
I21.21	ST elevation (STEMI) myocardial infarction involving left circumflex coronary artery	Diagnosis	ICD-10-CM
I21.29	ST elevation (STEMI) myocardial infarction involving other sites	Diagnosis	ICD-10-CM
I21.3	ST elevation (STEMI) myocardial infarction of unspecified site	Diagnosis	ICD-10-CM
I21.4	Non-ST elevation (NSTEMI) myocardial infarction	Diagnosis	ICD-10-CM
I21.A1	Myocardial infarction type 2	Diagnosis	ICD-10-CM
I21.A9	Other myocardial infarction type	Diagnosis	ICD-10-CM
I22.0	Subsequent ST elevation (STEMI) myocardial infarction of anterior wall	Diagnosis	ICD-10-CM
I22.1	Subsequent ST elevation (STEMI) myocardial infarction of inferior wall	Diagnosis	ICD-10-CM
I22.2	Subsequent non-ST elevation (NSTEMI) myocardial infarction	Diagnosis	ICD-10-CM
I22.8	Subsequent ST elevation (STEMI) myocardial infarction of other sites	Diagnosis	ICD-10-CM
I22.9	Subsequent ST elevation (STEMI) myocardial infarction of unspecified site	Diagnosis	ICD-10-CM
I23.0	Hemopericardium as current complication following acute myocardial infarction	Diagnosis	ICD-10-CM
I23.1	Atrial septal defect as current complication following acute myocardial infarction	Diagnosis	ICD-10-CM
I23.2	Ventricular septal defect as current complication following acute myocardial infarction	Diagnosis	ICD-10-CM
I23.3	Rupture of cardiac wall without hemopericardium as current complication following acute myocardial in	Diagnosis	ICD-10-CM
I23.4	Rupture of chordae tendineae as current complication following acute myocardial infarction	Diagnosis	ICD-10-CM
I23.5	Rupture of papillary muscle as current complication following acute myocardial infarction	Diagnosis	ICD-10-CM
I23.6	Thrombosis of atrium, auricular appendage, and ventricle as current complications following acute myocardial	Diagnosis	ICD-10-CM
I23.7	Postinfarction angina	Diagnosis	ICD-10-CM
I23.8	Other current complications following acute myocardial infarction	Diagnosis	ICD-10-CM
I24.0	Acute coronary thrombosis not resulting in myocardial infarction	Diagnosis	ICD-10-CM
I24.1	Dressler's syndrome	Diagnosis	ICD-10-CM
I24.8	Other forms of acute ischemic heart disease	Diagnosis	ICD-10-CM
I24.9	Acute ischemic heart disease, unspecified	Diagnosis	ICD-10-CM
I25.10	Atherosclerotic heart disease of native coronary artery without angina pectoris	Diagnosis	ICD-10-CM
I25.110	Atherosclerotic heart disease of native coronary artery with unstable angina pectoris	Diagnosis	ICD-10-CM
I25.111	Atherosclerotic heart disease of native coronary artery with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25.118	Atherosclerotic heart disease of native coronary artery with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25.119	Atherosclerotic heart disease of native coronary artery with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.2	Old myocardial infarction	Diagnosis	ICD-10-CM
I25.3	Aneurysm of heart	Diagnosis	ICD-10-CM
I25.41	Coronary artery aneurysm	Diagnosis	ICD-10-CM
I25.42	Coronary artery dissection	Diagnosis	ICD-10-CM
I25.5	Ischemic cardiomyopathy	Diagnosis	ICD-10-CM
I25.6	Silent myocardial ischemia	Diagnosis	ICD-10-CM
I25.700	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unstable angina pectoris	Diagnosis	ICD-10-CM
I25.701	Atherosclerosis of coronary artery bypass graft(s), unspecified, with angina pectoris with documented s	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

Code		Code Category	Code Type
I25.708	Atherosclerosis of coronary artery bypass graft(s), unspecified, with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25.709	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.710	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unstable angina pectoris	Diagnosis	ICD-10-CM
I25.711	Atherosclerosis of autologous vein coronary artery bypass graft(s) with angina pectoris with documented	Diagnosis	ICD-10-CM
I25.718	Atherosclerosis of autologous vein coronary artery bypass graft(s) with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25.719	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.720	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unstable angina pectoris	Diagnosis	ICD-10-CM
I25.721	Atherosclerosis of autologous artery coronary artery bypass graft(s) with angina pectoris with document	Diagnosis	ICD-10-CM
I25.728	Atherosclerosis of autologous artery coronary artery bypass graft(s) with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25.729	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.730	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unstable angina pectori	Diagnosis	ICD-10-CM
I25.731	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with angina pectoris with documented	Diagnosis	ICD-10-CM
I25.738	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with other forms of angina p	Diagnosis	ICD-10-CM
I25.739	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unspecified angina pect	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 s	Diagnosis	ICD-10-CM
I25.758	Atherosclerosis of native coronary artery of transplanted heart with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25.759	Atherosclerosis of native coronary artery of transplanted heart with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.760	Atherosclerosis of bypass graft of coronary artery of transplanted heart with unstable angina	Diagnosis	ICD-10-CM
I25.761	Atherosclerosis of bypass graft of coronary artery of transplanted heart with angina pectoris with docum	Diagnosis	ICD-10-CM
I25.768	Atherosclerosis of bypass graft of coronary artery of transplanted heart with other forms of angina pect	Diagnosis	ICD-10-CM
I25.769	Atherosclerosis of bypass graft of coronary artery of transplanted heart with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.790	Atherosclerosis of other coronary artery bypass graft(s) with unstable angina pectoris	Diagnosis	ICD-10-CM
I25.791	Atherosclerosis of other coronary artery bypass graft(s) with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25.798	Atherosclerosis of other coronary artery bypass graft(s) with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25.799	Atherosclerosis of other coronary artery bypass graft(s) with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.810	Atherosclerosis of coronary artery bypass graft(s) without angina pectoris	Diagnosis	ICD-10-CM
I25.811	Atherosclerosis of native coronary artery of transplanted heart without angina pectoris	Diagnosis	ICD-10-CM
I25.812	Atherosclerosis of bypass graft of coronary artery of transplanted heart without angina pectoris	Diagnosis	ICD-10-CM
I25.82	Chronic total occlusion of coronary artery	Diagnosis	ICD-10-CM
I25.83	Coronary atherosclerosis due to lipid rich plaque	Diagnosis	ICD-10-CM
I25.84	Coronary atherosclerosis due to calcified coronary lesion	Diagnosis	ICD-10-CM
I25.89	Other forms of chronic ischemic heart disease	Diagnosis	ICD-10-CM
I25.9	Chronic ischemic heart disease, unspecified	Diagnosis	ICD-10-CM
<b>Acute Myocardial Infarction</b>			
I21.01	ST elevation (STEMI) myocardial infarction involving left main coronary artery	Diagnosis	ICD-10-CM
I21.02	ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery	Diagnosis	ICD-10-CM
I21.09	ST elevation (STEMI) myocardial infarction involving other coronary artery of anterior wall	Diagnosis	ICD-10-CM
I21.11	ST elevation (STEMI) myocardial infarction involving right coronary artery	Diagnosis	ICD-10-CM
I21.19	ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall	Diagnosis	ICD-10-CM
I21.21	ST elevation (STEMI) myocardial infarction involving left circumflex coronary artery	Diagnosis	ICD-10-CM
I21.29	ST elevation (STEMI) myocardial infarction involving other sites	Diagnosis	ICD-10-CM
I21.3	ST elevation (STEMI) myocardial infarction of unspecified site	Diagnosis	ICD-10-CM
I21.4	Non-ST elevation (NSTEMI) myocardial infarction	Diagnosis	ICD-10-CM
I21.9	Acute myocardial infarction, unspecified	Diagnosis	ICD-10-CM
I21.A1	Myocardial infarction type 2	Diagnosis	ICD-10-CM
I21.A9	Other myocardial infarction type	Diagnosis	ICD-10-CM
I22.0	Subsequent ST elevation (STEMI) myocardial infarction of anterior wall	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>		<b>Code Category</b>	<b>Code Type</b>
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
<b>Atrial Fibrillation</b>			
I48.0	Paroxysmal atrial fibrillation	Diagnosis	ICD-10-CM
I48.1	Persistent atrial fibrillation	Diagnosis	ICD-10-CM
I48.11	Longstanding persistent atrial fibrillation	Diagnosis	ICD-10-CM
I48.19	Other persistent atrial fibrillation	Diagnosis	ICD-10-CM
I48.2	Chronic atrial fibrillation	Diagnosis	ICD-10-CM
I48.20	Chronic atrial fibrillation, unspecified	Diagnosis	ICD-10-CM
I48.21	Permanent atrial fibrillation	Diagnosis	ICD-10-CM
I48.91	Unspecified atrial fibrillation	Diagnosis	ICD-10-CM
<b>Arthritis</b>			
M05.00	Felty's syndrome, unspecified site	Diagnosis	ICD-10-CM
M05.011	Felty's syndrome, right shoulder	Diagnosis	ICD-10-CM
M05.012	Felty's syndrome, left shoulder	Diagnosis	ICD-10-CM
M05.019	Felty's syndrome, unspecified shoulder	Diagnosis	ICD-10-CM
M05.021	Felty's syndrome, right elbow	Diagnosis	ICD-10-CM
M05.022	Felty's syndrome, left elbow	Diagnosis	ICD-10-CM
M05.029	Felty's syndrome, unspecified elbow	Diagnosis	ICD-10-CM
M05.031	Felty's syndrome, right wrist	Diagnosis	ICD-10-CM
M05.032	Felty's syndrome, left wrist	Diagnosis	ICD-10-CM
M05.039	Felty's syndrome, unspecified wrist	Diagnosis	ICD-10-CM
M05.041	Felty's syndrome, right hand	Diagnosis	ICD-10-CM
M05.042	Felty's syndrome, left hand	Diagnosis	ICD-10-CM
M05.049	Felty's syndrome, unspecified hand	Diagnosis	ICD-10-CM
M05.051	Felty's syndrome, right hip	Diagnosis	ICD-10-CM
M05.052	Felty's syndrome, left hip	Diagnosis	ICD-10-CM
M05.059	Felty's syndrome, unspecified hip	Diagnosis	ICD-10-CM
M05.061	Felty's syndrome, right knee	Diagnosis	ICD-10-CM
M05.062	Felty's syndrome, left knee	Diagnosis	ICD-10-CM
M05.069	Felty's syndrome, unspecified knee	Diagnosis	ICD-10-CM
M05.071	Felty's syndrome, right ankle and foot	Diagnosis	ICD-10-CM
M05.072	Felty's syndrome, left ankle and foot	Diagnosis	ICD-10-CM
M05.079	Felty's syndrome, unspecified ankle and foot	Diagnosis	ICD-10-CM
M05.09	Felty's syndrome, multiple sites	Diagnosis	ICD-10-CM
M05.20	Rheumatoid vasculitis with rheumatoid arthritis of unspecified site	Diagnosis	ICD-10-CM
M05.211	Rheumatoid vasculitis with rheumatoid arthritis of right shoulder	Diagnosis	ICD-10-CM
M05.212	Rheumatoid vasculitis with rheumatoid arthritis of left shoulder	Diagnosis	ICD-10-CM
M05.219	Rheumatoid vasculitis with rheumatoid arthritis of unspecified shoulder	Diagnosis	ICD-10-CM
M05.221	Rheumatoid vasculitis with rheumatoid arthritis of right elbow	Diagnosis	ICD-10-CM
M05.222	Rheumatoid vasculitis with rheumatoid arthritis of left elbow	Diagnosis	ICD-10-CM
M05.229	Rheumatoid vasculitis with rheumatoid arthritis of unspecified elbow	Diagnosis	ICD-10-CM
M05.231	Rheumatoid vasculitis with rheumatoid arthritis of right wrist	Diagnosis	ICD-10-CM
M05.232	Rheumatoid vasculitis with rheumatoid arthritis of left wrist	Diagnosis	ICD-10-CM
M05.239	Rheumatoid vasculitis with rheumatoid arthritis of unspecified wrist	Diagnosis	ICD-10-CM
M05.241	Rheumatoid vasculitis with rheumatoid arthritis of right hand	Diagnosis	ICD-10-CM
M05.242	Rheumatoid vasculitis with rheumatoid arthritis of left hand	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
M05.249 Rheumatoid vasculitis with rheumatoid arthritis of unspecified hand	Diagnosis	ICD-10-CM
M05.251 Rheumatoid vasculitis with rheumatoid arthritis of right hip	Diagnosis	ICD-10-CM
M05.252 Rheumatoid vasculitis with rheumatoid arthritis of left hip	Diagnosis	ICD-10-CM
M05.259 Rheumatoid vasculitis with rheumatoid arthritis of unspecified hip	Diagnosis	ICD-10-CM
M05.261 Rheumatoid vasculitis with rheumatoid arthritis of right knee	Diagnosis	ICD-10-CM
M05.262 Rheumatoid vasculitis with rheumatoid arthritis of left knee	Diagnosis	ICD-10-CM
M05.269 Rheumatoid vasculitis with rheumatoid arthritis of unspecified knee	Diagnosis	ICD-10-CM
M05.271 Rheumatoid vasculitis with rheumatoid arthritis of right ankle and foot	Diagnosis	ICD-10-CM
M05.272 Rheumatoid vasculitis with rheumatoid arthritis of left ankle and foot	Diagnosis	ICD-10-CM
M05.279 Rheumatoid vasculitis with rheumatoid arthritis of unspecified ankle and foot	Diagnosis	ICD-10-CM
M05.29 Rheumatoid vasculitis with rheumatoid arthritis of multiple sites	Diagnosis	ICD-10-CM
M05.30 Rheumatoid heart disease with rheumatoid arthritis of unspecified site	Diagnosis	ICD-10-CM
M05.311 Rheumatoid heart disease with rheumatoid arthritis of right shoulder	Diagnosis	ICD-10-CM
M05.312 Rheumatoid heart disease with rheumatoid arthritis of left shoulder	Diagnosis	ICD-10-CM
M05.319 Rheumatoid heart disease with rheumatoid arthritis of unspecified shoulder	Diagnosis	ICD-10-CM
M05.321 Rheumatoid heart disease with rheumatoid arthritis of right elbow	Diagnosis	ICD-10-CM
M05.322 Rheumatoid heart disease with rheumatoid arthritis of left elbow	Diagnosis	ICD-10-CM
M05.329 Rheumatoid heart disease with rheumatoid arthritis of unspecified elbow	Diagnosis	ICD-10-CM
M05.331 Rheumatoid heart disease with rheumatoid arthritis of right wrist	Diagnosis	ICD-10-CM
M05.332 Rheumatoid heart disease with rheumatoid arthritis of left wrist	Diagnosis	ICD-10-CM
M05.339 Rheumatoid heart disease with rheumatoid arthritis of unspecified wrist	Diagnosis	ICD-10-CM
M05.341 Rheumatoid heart disease with rheumatoid arthritis of right hand	Diagnosis	ICD-10-CM
M05.342 Rheumatoid heart disease with rheumatoid arthritis of left hand	Diagnosis	ICD-10-CM
M05.349 Rheumatoid heart disease with rheumatoid arthritis of unspecified hand	Diagnosis	ICD-10-CM
M05.351 Rheumatoid heart disease with rheumatoid arthritis of right hip	Diagnosis	ICD-10-CM
M05.352 Rheumatoid heart disease with rheumatoid arthritis of left hip	Diagnosis	ICD-10-CM
M05.359 Rheumatoid heart disease with rheumatoid arthritis of unspecified hip	Diagnosis	ICD-10-CM
M05.361 Rheumatoid heart disease with rheumatoid arthritis of right knee	Diagnosis	ICD-10-CM
M05.362 Rheumatoid heart disease with rheumatoid arthritis of left knee	Diagnosis	ICD-10-CM
M05.369 Rheumatoid heart disease with rheumatoid arthritis of unspecified knee	Diagnosis	ICD-10-CM
M05.371 Rheumatoid heart disease with rheumatoid arthritis of right ankle and foot	Diagnosis	ICD-10-CM
M05.372 Rheumatoid heart disease with rheumatoid arthritis of left ankle and foot	Diagnosis	ICD-10-CM
M05.379 Rheumatoid heart disease with rheumatoid arthritis of unspecified ankle and foot	Diagnosis	ICD-10-CM
M05.39 Rheumatoid heart disease with rheumatoid arthritis of multiple sites	Diagnosis	ICD-10-CM
M05.40 Rheumatoid myopathy with rheumatoid arthritis of unspecified site	Diagnosis	ICD-10-CM
M05.411 Rheumatoid myopathy with rheumatoid arthritis of right shoulder	Diagnosis	ICD-10-CM
M05.412 Rheumatoid myopathy with rheumatoid arthritis of left shoulder	Diagnosis	ICD-10-CM
M05.419 Rheumatoid myopathy with rheumatoid arthritis of unspecified shoulder	Diagnosis	ICD-10-CM
M05.421 Rheumatoid myopathy with rheumatoid arthritis of right elbow	Diagnosis	ICD-10-CM
M05.422 Rheumatoid myopathy with rheumatoid arthritis of left elbow	Diagnosis	ICD-10-CM
M05.429 Rheumatoid myopathy with rheumatoid arthritis of unspecified elbow	Diagnosis	ICD-10-CM
M05.431 Rheumatoid myopathy with rheumatoid arthritis of right wrist	Diagnosis	ICD-10-CM
M05.432 Rheumatoid myopathy with rheumatoid arthritis of left wrist	Diagnosis	ICD-10-CM
M05.439 Rheumatoid myopathy with rheumatoid arthritis of unspecified wrist	Diagnosis	ICD-10-CM
M05.441 Rheumatoid myopathy with rheumatoid arthritis of right hand	Diagnosis	ICD-10-CM
M05.442 Rheumatoid myopathy with rheumatoid arthritis of left hand	Diagnosis	ICD-10-CM
M05.449 Rheumatoid myopathy with rheumatoid arthritis of unspecified hand	Diagnosis	ICD-10-CM
M05.451 Rheumatoid myopathy with rheumatoid arthritis of right hip	Diagnosis	ICD-10-CM
M05.452 Rheumatoid myopathy with rheumatoid arthritis of left hip	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
M05.459 Rheumatoid myopathy with rheumatoid arthritis of unspecified hip	Diagnosis	ICD-10-CM
M05.461 Rheumatoid myopathy with rheumatoid arthritis of right knee	Diagnosis	ICD-10-CM
M05.462 Rheumatoid myopathy with rheumatoid arthritis of left knee	Diagnosis	ICD-10-CM
M05.469 Rheumatoid myopathy with rheumatoid arthritis of unspecified knee	Diagnosis	ICD-10-CM
M05.471 Rheumatoid myopathy with rheumatoid arthritis of right ankle and foot	Diagnosis	ICD-10-CM
M05.472 Rheumatoid myopathy with rheumatoid arthritis of left ankle and foot	Diagnosis	ICD-10-CM
M05.479 Rheumatoid myopathy with rheumatoid arthritis of unspecified ankle and foot	Diagnosis	ICD-10-CM
M05.49 Rheumatoid myopathy with rheumatoid arthritis of multiple sites	Diagnosis	ICD-10-CM
M05.50 Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified site	Diagnosis	ICD-10-CM
M05.511 Rheumatoid polyneuropathy with rheumatoid arthritis of right shoulder	Diagnosis	ICD-10-CM
M05.512 Rheumatoid polyneuropathy with rheumatoid arthritis of left shoulder	Diagnosis	ICD-10-CM
M05.519 Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified shoulder	Diagnosis	ICD-10-CM
M05.521 Rheumatoid polyneuropathy with rheumatoid arthritis of right elbow	Diagnosis	ICD-10-CM
M05.522 Rheumatoid polyneuropathy with rheumatoid arthritis of left elbow	Diagnosis	ICD-10-CM
M05.529 Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified elbow	Diagnosis	ICD-10-CM
M05.531 Rheumatoid polyneuropathy with rheumatoid arthritis of right wrist	Diagnosis	ICD-10-CM
M05.532 Rheumatoid polyneuropathy with rheumatoid arthritis of left wrist	Diagnosis	ICD-10-CM
M05.539 Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified wrist	Diagnosis	ICD-10-CM
M05.541 Rheumatoid polyneuropathy with rheumatoid arthritis of right hand	Diagnosis	ICD-10-CM
M05.542 Rheumatoid polyneuropathy with rheumatoid arthritis of left hand	Diagnosis	ICD-10-CM
M05.549 Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified hand	Diagnosis	ICD-10-CM
M05.551 Rheumatoid polyneuropathy with rheumatoid arthritis of right hip	Diagnosis	ICD-10-CM
M05.552 Rheumatoid polyneuropathy with rheumatoid arthritis of left hip	Diagnosis	ICD-10-CM
M05.559 Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified hip	Diagnosis	ICD-10-CM
M05.561 Rheumatoid polyneuropathy with rheumatoid arthritis of right knee	Diagnosis	ICD-10-CM
M05.562 Rheumatoid polyneuropathy with rheumatoid arthritis of left knee	Diagnosis	ICD-10-CM
M05.569 Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified knee	Diagnosis	ICD-10-CM
M05.571 Rheumatoid polyneuropathy with rheumatoid arthritis of right ankle and foot	Diagnosis	ICD-10-CM
M05.572 Rheumatoid polyneuropathy with rheumatoid arthritis of left ankle and foot	Diagnosis	ICD-10-CM
M05.579 Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified ankle and foot	Diagnosis	ICD-10-CM
M05.59 Rheumatoid polyneuropathy with rheumatoid arthritis of multiple sites	Diagnosis	ICD-10-CM
M05.60 Rheumatoid arthritis of unspecified site with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.611 Rheumatoid arthritis of right shoulder with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.612 Rheumatoid arthritis of left shoulder with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.619 Rheumatoid arthritis of unspecified shoulder with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.621 Rheumatoid arthritis of right elbow with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.622 Rheumatoid arthritis of left elbow with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.629 Rheumatoid arthritis of unspecified elbow with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.631 Rheumatoid arthritis of right wrist with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.632 Rheumatoid arthritis of left wrist with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.639 Rheumatoid arthritis of unspecified wrist with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.641 Rheumatoid arthritis of right hand with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.642 Rheumatoid arthritis of left hand with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.649 Rheumatoid arthritis of unspecified hand with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.651 Rheumatoid arthritis of right hip with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.652 Rheumatoid arthritis of left hip with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.659 Rheumatoid arthritis of unspecified hip with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.661 Rheumatoid arthritis of right knee with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.662 Rheumatoid arthritis of left knee with involvement of other organs and systems	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
M05.669 Rheumatoid arthritis of unspecified knee with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.671 Rheumatoid arthritis of right ankle and foot with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.672 Rheumatoid arthritis of left ankle and foot with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.679 Rheumatoid arthritis of unspecified ankle and foot with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.69 Rheumatoid arthritis of multiple sites with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.70 Rheumatoid arthritis with rheumatoid factor of unspecified site without organ or systems involvement	Diagnosis	ICD-10-CM
M05.711 Rheumatoid arthritis with rheumatoid factor of right shoulder without organ or systems involvement	Diagnosis	ICD-10-CM
M05.712 Rheumatoid arthritis with rheumatoid factor of left shoulder without organ or systems involvement	Diagnosis	ICD-10-CM
M05.719 Rheumatoid arthritis with rheumatoid factor of unspecified shoulder without organ or systems involvement	Diagnosis	ICD-10-CM
M05.721 Rheumatoid arthritis with rheumatoid factor of right elbow without organ or systems involvement	Diagnosis	ICD-10-CM
M05.722 Rheumatoid arthritis with rheumatoid factor of left elbow without organ or systems involvement	Diagnosis	ICD-10-CM
M05.729 Rheumatoid arthritis with rheumatoid factor of unspecified elbow without organ or systems involvement	Diagnosis	ICD-10-CM
M05.731 Rheumatoid arthritis with rheumatoid factor of right wrist without organ or systems involvement	Diagnosis	ICD-10-CM
M05.732 Rheumatoid arthritis with rheumatoid factor of left wrist without organ or systems involvement	Diagnosis	ICD-10-CM
M05.739 Rheumatoid arthritis with rheumatoid factor of unspecified wrist without organ or systems involvement	Diagnosis	ICD-10-CM
M05.741 Rheumatoid arthritis with rheumatoid factor of right hand without organ or systems involvement	Diagnosis	ICD-10-CM
M05.742 Rheumatoid arthritis with rheumatoid factor of left hand without organ or systems involvement	Diagnosis	ICD-10-CM
M05.749 Rheumatoid arthritis with rheumatoid factor of unspecified hand without organ or systems involvement	Diagnosis	ICD-10-CM
M05.751 Rheumatoid arthritis with rheumatoid factor of right hip without organ or systems involvement	Diagnosis	ICD-10-CM
M05.752 Rheumatoid arthritis with rheumatoid factor of left hip without organ or systems involvement	Diagnosis	ICD-10-CM
M05.759 Rheumatoid arthritis with rheumatoid factor of unspecified hip without organ or systems involvement	Diagnosis	ICD-10-CM
M05.761 Rheumatoid arthritis with rheumatoid factor of right knee without organ or systems involvement	Diagnosis	ICD-10-CM
M05.762 Rheumatoid arthritis with rheumatoid factor of left knee without organ or systems involvement	Diagnosis	ICD-10-CM
M05.769 Rheumatoid arthritis with rheumatoid factor of unspecified knee without organ or systems involvement	Diagnosis	ICD-10-CM
M05.771 Rheumatoid arthritis with rheumatoid factor of right ankle and foot without organ or systems involvement	Diagnosis	ICD-10-CM
M05.772 Rheumatoid arthritis with rheumatoid factor of left ankle and foot without organ or systems involvement	Diagnosis	ICD-10-CM
M05.779 Rheumatoid arthritis with rheumatoid factor of unspecified ankle and foot without organ or systems involvement	Diagnosis	ICD-10-CM
M05.79 Rheumatoid arthritis with rheumatoid factor of multiple sites without organ or systems involvement	Diagnosis	ICD-10-CM
M05.7A Rheumatoid arthritis with rheumatoid factor of other specified site without organ or systems involvement	Diagnosis	ICD-10-CM
M05.80 Other rheumatoid arthritis with rheumatoid factor of unspecified site	Diagnosis	ICD-10-CM
M05.811 Other rheumatoid arthritis with rheumatoid factor of right shoulder	Diagnosis	ICD-10-CM
M05.812 Other rheumatoid arthritis with rheumatoid factor of left shoulder	Diagnosis	ICD-10-CM
M05.819 Other rheumatoid arthritis with rheumatoid factor of unspecified shoulder	Diagnosis	ICD-10-CM
M05.821 Other rheumatoid arthritis with rheumatoid factor of right elbow	Diagnosis	ICD-10-CM
M05.822 Other rheumatoid arthritis with rheumatoid factor of left elbow	Diagnosis	ICD-10-CM
M05.829 Other rheumatoid arthritis with rheumatoid factor of unspecified elbow	Diagnosis	ICD-10-CM
M05.831 Other rheumatoid arthritis with rheumatoid factor of right wrist	Diagnosis	ICD-10-CM
M05.832 Other rheumatoid arthritis with rheumatoid factor of left wrist	Diagnosis	ICD-10-CM
M05.839 Other rheumatoid arthritis with rheumatoid factor of unspecified wrist	Diagnosis	ICD-10-CM
M05.841 Other rheumatoid arthritis with rheumatoid factor of right hand	Diagnosis	ICD-10-CM
M05.842 Other rheumatoid arthritis with rheumatoid factor of left hand	Diagnosis	ICD-10-CM
M05.849 Other rheumatoid arthritis with rheumatoid factor of unspecified hand	Diagnosis	ICD-10-CM
M05.851 Other rheumatoid arthritis with rheumatoid factor of right hip	Diagnosis	ICD-10-CM
M05.852 Other rheumatoid arthritis with rheumatoid factor of left hip	Diagnosis	ICD-10-CM
M05.859 Other rheumatoid arthritis with rheumatoid factor of unspecified hip	Diagnosis	ICD-10-CM
M05.861 Other rheumatoid arthritis with rheumatoid factor of right knee	Diagnosis	ICD-10-CM
M05.862 Other rheumatoid arthritis with rheumatoid factor of left knee	Diagnosis	ICD-10-CM
M05.869 Other rheumatoid arthritis with rheumatoid factor of unspecified knee	Diagnosis	ICD-10-CM
M05.871 Other rheumatoid arthritis with rheumatoid factor of right ankle and foot	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
M05.872	Other rheumatoid arthritis with rheumatoid factor of left ankle and foot	Diagnosis ICD-10-CM
M05.879	Other rheumatoid arthritis with rheumatoid factor of unspecified ankle and foot	Diagnosis ICD-10-CM
M05.89	Other rheumatoid arthritis with rheumatoid factor of multiple sites	Diagnosis ICD-10-CM
M05.8A	Other rheumatoid arthritis with rheumatoid factor of other specified site	Diagnosis ICD-10-CM
M05.9	Rheumatoid arthritis with rheumatoid factor, unspecified	Diagnosis ICD-10-CM
M06.00	Rheumatoid arthritis without rheumatoid factor, unspecified site	Diagnosis ICD-10-CM
M06.011	Rheumatoid arthritis without rheumatoid factor, right shoulder	Diagnosis ICD-10-CM
M06.012	Rheumatoid arthritis without rheumatoid factor, left shoulder	Diagnosis ICD-10-CM
M06.019	Rheumatoid arthritis without rheumatoid factor, unspecified shoulder	Diagnosis ICD-10-CM
M06.021	Rheumatoid arthritis without rheumatoid factor, right elbow	Diagnosis ICD-10-CM
M06.022	Rheumatoid arthritis without rheumatoid factor, left elbow	Diagnosis ICD-10-CM
M06.029	Rheumatoid arthritis without rheumatoid factor, unspecified elbow	Diagnosis ICD-10-CM
M06.031	Rheumatoid arthritis without rheumatoid factor, right wrist	Diagnosis ICD-10-CM
M06.032	Rheumatoid arthritis without rheumatoid factor, left wrist	Diagnosis ICD-10-CM
M06.039	Rheumatoid arthritis without rheumatoid factor, unspecified wrist	Diagnosis ICD-10-CM
M06.041	Rheumatoid arthritis without rheumatoid factor, right hand	Diagnosis ICD-10-CM
M06.042	Rheumatoid arthritis without rheumatoid factor, left hand	Diagnosis ICD-10-CM
M06.049	Rheumatoid arthritis without rheumatoid factor, unspecified hand	Diagnosis ICD-10-CM
M06.051	Rheumatoid arthritis without rheumatoid factor, right hip	Diagnosis ICD-10-CM
M06.052	Rheumatoid arthritis without rheumatoid factor, left hip	Diagnosis ICD-10-CM
M06.059	Rheumatoid arthritis without rheumatoid factor, unspecified hip	Diagnosis ICD-10-CM
M06.061	Rheumatoid arthritis without rheumatoid factor, right knee	Diagnosis ICD-10-CM
M06.062	Rheumatoid arthritis without rheumatoid factor, left knee	Diagnosis ICD-10-CM
M06.069	Rheumatoid arthritis without rheumatoid factor, unspecified knee	Diagnosis ICD-10-CM
M06.071	Rheumatoid arthritis without rheumatoid factor, right ankle and foot	Diagnosis ICD-10-CM
M06.072	Rheumatoid arthritis without rheumatoid factor, left ankle and foot	Diagnosis ICD-10-CM
M06.079	Rheumatoid arthritis without rheumatoid factor, unspecified ankle and foot	Diagnosis ICD-10-CM
M06.08	Rheumatoid arthritis without rheumatoid factor, vertebrae	Diagnosis ICD-10-CM
M06.09	Rheumatoid arthritis without rheumatoid factor, multiple sites	Diagnosis ICD-10-CM
M06.0A	Rheumatoid arthritis without rheumatoid factor, other specified site	Diagnosis ICD-10-CM
M06.1	Adult-onset Still's disease	Diagnosis ICD-10-CM
M06.20	Rheumatoid bursitis, unspecified site	Diagnosis ICD-10-CM
M06.211	Rheumatoid bursitis, right shoulder	Diagnosis ICD-10-CM
M06.212	Rheumatoid bursitis, left shoulder	Diagnosis ICD-10-CM
M06.219	Rheumatoid bursitis, unspecified shoulder	Diagnosis ICD-10-CM
M06.221	Rheumatoid bursitis, right elbow	Diagnosis ICD-10-CM
M06.222	Rheumatoid bursitis, left elbow	Diagnosis ICD-10-CM
M06.229	Rheumatoid bursitis, unspecified elbow	Diagnosis ICD-10-CM
M06.231	Rheumatoid bursitis, right wrist	Diagnosis ICD-10-CM
M06.232	Rheumatoid bursitis, left wrist	Diagnosis ICD-10-CM
M06.239	Rheumatoid bursitis, unspecified wrist	Diagnosis ICD-10-CM
M06.241	Rheumatoid bursitis, right hand	Diagnosis ICD-10-CM
M06.242	Rheumatoid bursitis, left hand	Diagnosis ICD-10-CM
M06.249	Rheumatoid bursitis, unspecified hand	Diagnosis ICD-10-CM
M06.251	Rheumatoid bursitis, right hip	Diagnosis ICD-10-CM
M06.252	Rheumatoid bursitis, left hip	Diagnosis ICD-10-CM
M06.259	Rheumatoid bursitis, unspecified hip	Diagnosis ICD-10-CM
M06.261	Rheumatoid bursitis, right knee	Diagnosis ICD-10-CM
M06.262	Rheumatoid bursitis, left knee	Diagnosis ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
M06.269 Rheumatoid bursitis, unspecified knee	Diagnosis	ICD-10-CM
M06.271 Rheumatoid bursitis, right ankle and foot	Diagnosis	ICD-10-CM
M06.272 Rheumatoid bursitis, left ankle and foot	Diagnosis	ICD-10-CM
M06.279 Rheumatoid bursitis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M06.28 Rheumatoid bursitis, vertebrae	Diagnosis	ICD-10-CM
M06.29 Rheumatoid bursitis, multiple sites	Diagnosis	ICD-10-CM
M06.30 Rheumatoid nodule, unspecified site	Diagnosis	ICD-10-CM
M06.311 Rheumatoid nodule, right shoulder	Diagnosis	ICD-10-CM
M06.312 Rheumatoid nodule, left shoulder	Diagnosis	ICD-10-CM
M06.319 Rheumatoid nodule, unspecified shoulder	Diagnosis	ICD-10-CM
M06.321 Rheumatoid nodule, right elbow	Diagnosis	ICD-10-CM
M06.322 Rheumatoid nodule, left elbow	Diagnosis	ICD-10-CM
M06.329 Rheumatoid nodule, unspecified elbow	Diagnosis	ICD-10-CM
M06.331 Rheumatoid nodule, right wrist	Diagnosis	ICD-10-CM
M06.332 Rheumatoid nodule, left wrist	Diagnosis	ICD-10-CM
M06.339 Rheumatoid nodule, unspecified wrist	Diagnosis	ICD-10-CM
M06.341 Rheumatoid nodule, right hand	Diagnosis	ICD-10-CM
M06.342 Rheumatoid nodule, left hand	Diagnosis	ICD-10-CM
M06.349 Rheumatoid nodule, unspecified hand	Diagnosis	ICD-10-CM
M06.351 Rheumatoid nodule, right hip	Diagnosis	ICD-10-CM
M06.352 Rheumatoid nodule, left hip	Diagnosis	ICD-10-CM
M06.359 Rheumatoid nodule, unspecified hip	Diagnosis	ICD-10-CM
M06.361 Rheumatoid nodule, right knee	Diagnosis	ICD-10-CM
M06.362 Rheumatoid nodule, left knee	Diagnosis	ICD-10-CM
M06.369 Rheumatoid nodule, unspecified knee	Diagnosis	ICD-10-CM
M06.371 Rheumatoid nodule, right ankle and foot	Diagnosis	ICD-10-CM
M06.372 Rheumatoid nodule, left ankle and foot	Diagnosis	ICD-10-CM
M06.379 Rheumatoid nodule, unspecified ankle and foot	Diagnosis	ICD-10-CM
M06.38 Rheumatoid nodule, vertebrae	Diagnosis	ICD-10-CM
M06.39 Rheumatoid nodule, multiple sites	Diagnosis	ICD-10-CM
M06.80 Other specified rheumatoid arthritis, unspecified site	Diagnosis	ICD-10-CM
M06.811 Other specified rheumatoid arthritis, right shoulder	Diagnosis	ICD-10-CM
M06.812 Other specified rheumatoid arthritis, left shoulder	Diagnosis	ICD-10-CM
M06.819 Other specified rheumatoid arthritis, unspecified shoulder	Diagnosis	ICD-10-CM
M06.821 Other specified rheumatoid arthritis, right elbow	Diagnosis	ICD-10-CM
M06.822 Other specified rheumatoid arthritis, left elbow	Diagnosis	ICD-10-CM
M06.829 Other specified rheumatoid arthritis, unspecified elbow	Diagnosis	ICD-10-CM
M06.831 Other specified rheumatoid arthritis, right wrist	Diagnosis	ICD-10-CM
M06.832 Other specified rheumatoid arthritis, left wrist	Diagnosis	ICD-10-CM
M06.839 Other specified rheumatoid arthritis, unspecified wrist	Diagnosis	ICD-10-CM
M06.841 Other specified rheumatoid arthritis, right hand	Diagnosis	ICD-10-CM
M06.842 Other specified rheumatoid arthritis, left hand	Diagnosis	ICD-10-CM
M06.849 Other specified rheumatoid arthritis, unspecified hand	Diagnosis	ICD-10-CM
M06.851 Other specified rheumatoid arthritis, right hip	Diagnosis	ICD-10-CM
M06.852 Other specified rheumatoid arthritis, left hip	Diagnosis	ICD-10-CM
M06.859 Other specified rheumatoid arthritis, unspecified hip	Diagnosis	ICD-10-CM
M06.861 Other specified rheumatoid arthritis, right knee	Diagnosis	ICD-10-CM
M06.862 Other specified rheumatoid arthritis, left knee	Diagnosis	ICD-10-CM
M06.869 Other specified rheumatoid arthritis, unspecified knee	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
M06.871	Other specified rheumatoid arthritis, right ankle and foot	Diagnosis ICD-10-CM
M06.872	Other specified rheumatoid arthritis, left ankle and foot	Diagnosis ICD-10-CM
M06.879	Other specified rheumatoid arthritis, unspecified ankle and foot	Diagnosis ICD-10-CM
M06.88	Other specified rheumatoid arthritis, vertebrae	Diagnosis ICD-10-CM
M06.89	Other specified rheumatoid arthritis, multiple sites	Diagnosis ICD-10-CM
M06.8A	Other specified rheumatoid arthritis, other specified site	Diagnosis ICD-10-CM
M06.9	Rheumatoid arthritis, unspecified	Diagnosis ICD-10-CM
M08.00	Unspecified juvenile rheumatoid arthritis of unspecified site	Diagnosis ICD-10-CM
M08.011	Unspecified juvenile rheumatoid arthritis, right shoulder	Diagnosis ICD-10-CM
M08.012	Unspecified juvenile rheumatoid arthritis, left shoulder	Diagnosis ICD-10-CM
M08.019	Unspecified juvenile rheumatoid arthritis, unspecified shoulder	Diagnosis ICD-10-CM
M08.021	Unspecified juvenile rheumatoid arthritis, right elbow	Diagnosis ICD-10-CM
M08.022	Unspecified juvenile rheumatoid arthritis, left elbow	Diagnosis ICD-10-CM
M08.029	Unspecified juvenile rheumatoid arthritis, unspecified elbow	Diagnosis ICD-10-CM
M08.031	Unspecified juvenile rheumatoid arthritis, right wrist	Diagnosis ICD-10-CM
M08.032	Unspecified juvenile rheumatoid arthritis, left wrist	Diagnosis ICD-10-CM
M08.039	Unspecified juvenile rheumatoid arthritis, unspecified wrist	Diagnosis ICD-10-CM
M08.041	Unspecified juvenile rheumatoid arthritis, right hand	Diagnosis ICD-10-CM
M08.042	Unspecified juvenile rheumatoid arthritis, left hand	Diagnosis ICD-10-CM
M08.049	Unspecified juvenile rheumatoid arthritis, unspecified hand	Diagnosis ICD-10-CM
M08.051	Unspecified juvenile rheumatoid arthritis, right hip	Diagnosis ICD-10-CM
M08.052	Unspecified juvenile rheumatoid arthritis, left hip	Diagnosis ICD-10-CM
M08.059	Unspecified juvenile rheumatoid arthritis, unspecified hip	Diagnosis ICD-10-CM
M08.061	Unspecified juvenile rheumatoid arthritis, right knee	Diagnosis ICD-10-CM
M08.062	Unspecified juvenile rheumatoid arthritis, left knee	Diagnosis ICD-10-CM
M08.069	Unspecified juvenile rheumatoid arthritis, unspecified knee	Diagnosis ICD-10-CM
M08.071	Unspecified juvenile rheumatoid arthritis, right ankle and foot	Diagnosis ICD-10-CM
M08.072	Unspecified juvenile rheumatoid arthritis, left ankle and foot	Diagnosis ICD-10-CM
M08.079	Unspecified juvenile rheumatoid arthritis, unspecified ankle and foot	Diagnosis ICD-10-CM
M08.08	Unspecified juvenile rheumatoid arthritis, vertebrae	Diagnosis ICD-10-CM
M08.09	Unspecified juvenile rheumatoid arthritis, multiple sites	Diagnosis ICD-10-CM
M08.0A	Unspecified juvenile rheumatoid arthritis, other specified site	Diagnosis ICD-10-CM
M08.1	Juvenile ankylosing spondylitis	Diagnosis ICD-10-CM
M08.20	Juvenile rheumatoid arthritis with systemic onset, unspecified site	Diagnosis ICD-10-CM
M08.211	Juvenile rheumatoid arthritis with systemic onset, right shoulder	Diagnosis ICD-10-CM
M08.212	Juvenile rheumatoid arthritis with systemic onset, left shoulder	Diagnosis ICD-10-CM
M08.219	Juvenile rheumatoid arthritis with systemic onset, unspecified shoulder	Diagnosis ICD-10-CM
M08.221	Juvenile rheumatoid arthritis with systemic onset, right elbow	Diagnosis ICD-10-CM
M08.222	Juvenile rheumatoid arthritis with systemic onset, left elbow	Diagnosis ICD-10-CM
M08.229	Juvenile rheumatoid arthritis with systemic onset, unspecified elbow	Diagnosis ICD-10-CM
M08.231	Juvenile rheumatoid arthritis with systemic onset, right wrist	Diagnosis ICD-10-CM
M08.232	Juvenile rheumatoid arthritis with systemic onset, left wrist	Diagnosis ICD-10-CM
M08.239	Juvenile rheumatoid arthritis with systemic onset, unspecified wrist	Diagnosis ICD-10-CM
M08.241	Juvenile rheumatoid arthritis with systemic onset, right hand	Diagnosis ICD-10-CM
M08.242	Juvenile rheumatoid arthritis with systemic onset, left hand	Diagnosis ICD-10-CM
M08.249	Juvenile rheumatoid arthritis with systemic onset, unspecified hand	Diagnosis ICD-10-CM
M08.251	Juvenile rheumatoid arthritis with systemic onset, right hip	Diagnosis ICD-10-CM
M08.252	Juvenile rheumatoid arthritis with systemic onset, left hip	Diagnosis ICD-10-CM
M08.259	Juvenile rheumatoid arthritis with systemic onset, unspecified hip	Diagnosis ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
M08.261 Juvenile rheumatoid arthritis with systemic onset, right knee	Diagnosis	ICD-10-CM
M08.262 Juvenile rheumatoid arthritis with systemic onset, left knee	Diagnosis	ICD-10-CM
M08.269 Juvenile rheumatoid arthritis with systemic onset, unspecified knee	Diagnosis	ICD-10-CM
M08.271 Juvenile rheumatoid arthritis with systemic onset, right ankle and foot	Diagnosis	ICD-10-CM
M08.272 Juvenile rheumatoid arthritis with systemic onset, left ankle and foot	Diagnosis	ICD-10-CM
M08.279 Juvenile rheumatoid arthritis with systemic onset, unspecified ankle and foot	Diagnosis	ICD-10-CM
M08.28 Juvenile rheumatoid arthritis with systemic onset, vertebrae	Diagnosis	ICD-10-CM
M08.29 Juvenile rheumatoid arthritis with systemic onset, multiple sites	Diagnosis	ICD-10-CM
M08.2A Juvenile rheumatoid arthritis with systemic onset, other specified site	Diagnosis	ICD-10-CM
M08.3 Juvenile rheumatoid polyarthritis (seronegative)	Diagnosis	ICD-10-CM
M08.40 Pauciarticular juvenile rheumatoid arthritis, unspecified site	Diagnosis	ICD-10-CM
M08.411 Pauciarticular juvenile rheumatoid arthritis, right shoulder	Diagnosis	ICD-10-CM
M08.412 Pauciarticular juvenile rheumatoid arthritis, left shoulder	Diagnosis	ICD-10-CM
M08.419 Pauciarticular juvenile rheumatoid arthritis, unspecified shoulder	Diagnosis	ICD-10-CM
M08.421 Pauciarticular juvenile rheumatoid arthritis, right elbow	Diagnosis	ICD-10-CM
M08.422 Pauciarticular juvenile rheumatoid arthritis, left elbow	Diagnosis	ICD-10-CM
M08.429 Pauciarticular juvenile rheumatoid arthritis, unspecified elbow	Diagnosis	ICD-10-CM
M08.431 Pauciarticular juvenile rheumatoid arthritis, right wrist	Diagnosis	ICD-10-CM
M08.432 Pauciarticular juvenile rheumatoid arthritis, left wrist	Diagnosis	ICD-10-CM
M08.439 Pauciarticular juvenile rheumatoid arthritis, unspecified wrist	Diagnosis	ICD-10-CM
M08.441 Pauciarticular juvenile rheumatoid arthritis, right hand	Diagnosis	ICD-10-CM
M08.442 Pauciarticular juvenile rheumatoid arthritis, left hand	Diagnosis	ICD-10-CM
M08.449 Pauciarticular juvenile rheumatoid arthritis, unspecified hand	Diagnosis	ICD-10-CM
M08.451 Pauciarticular juvenile rheumatoid arthritis, right hip	Diagnosis	ICD-10-CM
M08.452 Pauciarticular juvenile rheumatoid arthritis, left hip	Diagnosis	ICD-10-CM
M08.459 Pauciarticular juvenile rheumatoid arthritis, unspecified hip	Diagnosis	ICD-10-CM
M08.461 Pauciarticular juvenile rheumatoid arthritis, right knee	Diagnosis	ICD-10-CM
M08.462 Pauciarticular juvenile rheumatoid arthritis, left knee	Diagnosis	ICD-10-CM
M08.469 Pauciarticular juvenile rheumatoid arthritis, unspecified knee	Diagnosis	ICD-10-CM
M08.471 Pauciarticular juvenile rheumatoid arthritis, right ankle and foot	Diagnosis	ICD-10-CM
M08.472 Pauciarticular juvenile rheumatoid arthritis, left ankle and foot	Diagnosis	ICD-10-CM
M08.479 Pauciarticular juvenile rheumatoid arthritis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M08.48 Pauciarticular juvenile rheumatoid arthritis, vertebrae	Diagnosis	ICD-10-CM
M08.4A Pauciarticular juvenile rheumatoid arthritis, other specified site	Diagnosis	ICD-10-CM
M08.80 Other juvenile arthritis, unspecified site	Diagnosis	ICD-10-CM
M08.811 Other juvenile arthritis, right shoulder	Diagnosis	ICD-10-CM
M08.812 Other juvenile arthritis, left shoulder	Diagnosis	ICD-10-CM
M08.819 Other juvenile arthritis, unspecified shoulder	Diagnosis	ICD-10-CM
M08.821 Other juvenile arthritis, right elbow	Diagnosis	ICD-10-CM
M08.822 Other juvenile arthritis, left elbow	Diagnosis	ICD-10-CM
M08.829 Other juvenile arthritis, unspecified elbow	Diagnosis	ICD-10-CM
M08.831 Other juvenile arthritis, right wrist	Diagnosis	ICD-10-CM
M08.832 Other juvenile arthritis, left wrist	Diagnosis	ICD-10-CM
M08.839 Other juvenile arthritis, unspecified wrist	Diagnosis	ICD-10-CM
M08.841 Other juvenile arthritis, right hand	Diagnosis	ICD-10-CM
M08.842 Other juvenile arthritis, left hand	Diagnosis	ICD-10-CM
M08.849 Other juvenile arthritis, unspecified hand	Diagnosis	ICD-10-CM
M08.851 Other juvenile arthritis, right hip	Diagnosis	ICD-10-CM
M08.852 Other juvenile arthritis, left hip	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
M08.859 Other juvenile arthritis, unspecified hip	Diagnosis	ICD-10-CM
M08.861 Other juvenile arthritis, right knee	Diagnosis	ICD-10-CM
M08.862 Other juvenile arthritis, left knee	Diagnosis	ICD-10-CM
M08.869 Other juvenile arthritis, unspecified knee	Diagnosis	ICD-10-CM
M08.871 Other juvenile arthritis, right ankle and foot	Diagnosis	ICD-10-CM
M08.872 Other juvenile arthritis, left ankle and foot	Diagnosis	ICD-10-CM
M08.879 Other juvenile arthritis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M08.88 Other juvenile arthritis, other specified site	Diagnosis	ICD-10-CM
M08.89 Other juvenile arthritis, multiple sites	Diagnosis	ICD-10-CM
M08.90 Juvenile arthritis, unspecified, unspecified site	Diagnosis	ICD-10-CM
M08.911 Juvenile arthritis, unspecified, right shoulder	Diagnosis	ICD-10-CM
M08.912 Juvenile arthritis, unspecified, left shoulder	Diagnosis	ICD-10-CM
M08.919 Juvenile arthritis, unspecified, unspecified shoulder	Diagnosis	ICD-10-CM
M08.921 Juvenile arthritis, unspecified, right elbow	Diagnosis	ICD-10-CM
M08.922 Juvenile arthritis, unspecified, left elbow	Diagnosis	ICD-10-CM
M08.929 Juvenile arthritis, unspecified, unspecified elbow	Diagnosis	ICD-10-CM
M08.931 Juvenile arthritis, unspecified, right wrist	Diagnosis	ICD-10-CM
M08.932 Juvenile arthritis, unspecified, left wrist	Diagnosis	ICD-10-CM
M08.939 Juvenile arthritis, unspecified, unspecified wrist	Diagnosis	ICD-10-CM
M08.941 Juvenile arthritis, unspecified, right hand	Diagnosis	ICD-10-CM
M08.942 Juvenile arthritis, unspecified, left hand	Diagnosis	ICD-10-CM
M08.949 Juvenile arthritis, unspecified, unspecified hand	Diagnosis	ICD-10-CM
M08.951 Juvenile arthritis, unspecified, right hip	Diagnosis	ICD-10-CM
M08.952 Juvenile arthritis, unspecified, left hip	Diagnosis	ICD-10-CM
M08.959 Juvenile arthritis, unspecified, unspecified hip	Diagnosis	ICD-10-CM
M08.961 Juvenile arthritis, unspecified, right knee	Diagnosis	ICD-10-CM
M08.962 Juvenile arthritis, unspecified, left knee	Diagnosis	ICD-10-CM
M08.969 Juvenile arthritis, unspecified, unspecified knee	Diagnosis	ICD-10-CM
M08.971 Juvenile arthritis, unspecified, right ankle and foot	Diagnosis	ICD-10-CM
M08.972 Juvenile arthritis, unspecified, left ankle and foot	Diagnosis	ICD-10-CM
M08.979 Juvenile arthritis, unspecified, unspecified ankle and foot	Diagnosis	ICD-10-CM
M08.98 Juvenile arthritis, unspecified, vertebrae	Diagnosis	ICD-10-CM
M08.99 Juvenile arthritis, unspecified, multiple sites	Diagnosis	ICD-10-CM
M08.9A Juvenile arthritis, unspecified, other specified site	Diagnosis	ICD-10-CM
M15.0 Primary generalized (osteo)arthritis	Diagnosis	ICD-10-CM
M15.1 Heberden's nodes (with arthropathy)	Diagnosis	ICD-10-CM
M15.2 Bouchard's nodes (with arthropathy)	Diagnosis	ICD-10-CM
M15.3 Secondary multiple arthritis	Diagnosis	ICD-10-CM
M15.4 Erosive (osteo)arthritis	Diagnosis	ICD-10-CM
M15.8 Other polyosteoarthritis	Diagnosis	ICD-10-CM
M15.9 Polyosteoarthritis, unspecified	Diagnosis	ICD-10-CM
M16.0 Bilateral primary osteoarthritis of hip	Diagnosis	ICD-10-CM
M16.10 Unilateral primary osteoarthritis, unspecified hip	Diagnosis	ICD-10-CM
M16.11 Unilateral primary osteoarthritis, right hip	Diagnosis	ICD-10-CM
M16.12 Unilateral primary osteoarthritis, left hip	Diagnosis	ICD-10-CM
M16.2 Bilateral osteoarthritis resulting from hip dysplasia	Diagnosis	ICD-10-CM
M16.30 Unilateral osteoarthritis resulting from hip dysplasia, unspecified hip	Diagnosis	ICD-10-CM
M16.31 Unilateral osteoarthritis resulting from hip dysplasia, right hip	Diagnosis	ICD-10-CM
M16.32 Unilateral osteoarthritis resulting from hip dysplasia, left hip	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
M16.4	Bilateral post-traumatic osteoarthritis of hip	Diagnosis ICD-10-CM
M16.50	Unilateral post-traumatic osteoarthritis, unspecified hip	Diagnosis ICD-10-CM
M16.51	Unilateral post-traumatic osteoarthritis, right hip	Diagnosis ICD-10-CM
M16.52	Unilateral post-traumatic osteoarthritis, left hip	Diagnosis ICD-10-CM
M16.6	Other bilateral secondary osteoarthritis of hip	Diagnosis ICD-10-CM
M16.7	Other unilateral secondary osteoarthritis of hip	Diagnosis ICD-10-CM
M16.9	Osteoarthritis of hip, unspecified	Diagnosis ICD-10-CM
M17.0	Bilateral primary osteoarthritis of knee	Diagnosis ICD-10-CM
M17.10	Unilateral primary osteoarthritis, unspecified knee	Diagnosis ICD-10-CM
M17.11	Unilateral primary osteoarthritis, right knee	Diagnosis ICD-10-CM
M17.12	Unilateral primary osteoarthritis, left knee	Diagnosis ICD-10-CM
M17.2	Bilateral post-traumatic osteoarthritis of knee	Diagnosis ICD-10-CM
M17.30	Unilateral post-traumatic osteoarthritis, unspecified knee	Diagnosis ICD-10-CM
M17.31	Unilateral post-traumatic osteoarthritis, right knee	Diagnosis ICD-10-CM
M17.32	Unilateral post-traumatic osteoarthritis, left knee	Diagnosis ICD-10-CM
M17.4	Other bilateral secondary osteoarthritis of knee	Diagnosis ICD-10-CM
M17.5	Other unilateral secondary osteoarthritis of knee	Diagnosis ICD-10-CM
M17.9	Osteoarthritis of knee, unspecified	Diagnosis ICD-10-CM
M18.0	Bilateral primary osteoarthritis of first carpometacarpal joints	Diagnosis ICD-10-CM
M18.10	Unilateral primary osteoarthritis of first carpometacarpal joint, unspecified hand	Diagnosis ICD-10-CM
M18.11	Unilateral primary osteoarthritis of first carpometacarpal joint, right hand	Diagnosis ICD-10-CM
M18.12	Unilateral primary osteoarthritis of first carpometacarpal joint, left hand	Diagnosis ICD-10-CM
M18.2	Bilateral post-traumatic osteoarthritis of first carpometacarpal joints	Diagnosis ICD-10-CM
M18.30	Unilateral post-traumatic osteoarthritis of first carpometacarpal joint, unspecified hand	Diagnosis ICD-10-CM
M18.31	Unilateral post-traumatic osteoarthritis of first carpometacarpal joint, right hand	Diagnosis ICD-10-CM
M18.32	Unilateral post-traumatic osteoarthritis of first carpometacarpal joint, left hand	Diagnosis ICD-10-CM
M18.4	Other bilateral secondary osteoarthritis of first carpometacarpal joints	Diagnosis ICD-10-CM
M18.50	Other unilateral secondary osteoarthritis of first carpometacarpal joint, unspecified hand	Diagnosis ICD-10-CM
M18.51	Other unilateral secondary osteoarthritis of first carpometacarpal joint, right hand	Diagnosis ICD-10-CM
M18.52	Other unilateral secondary osteoarthritis of first carpometacarpal joint, left hand	Diagnosis ICD-10-CM
M18.9	Osteoarthritis of first carpometacarpal joint, unspecified	Diagnosis ICD-10-CM
M19.011	Primary osteoarthritis, right shoulder	Diagnosis ICD-10-CM
M19.012	Primary osteoarthritis, left shoulder	Diagnosis ICD-10-CM
M19.019	Primary osteoarthritis, unspecified shoulder	Diagnosis ICD-10-CM
M19.021	Primary osteoarthritis, right elbow	Diagnosis ICD-10-CM
M19.022	Primary osteoarthritis, left elbow	Diagnosis ICD-10-CM
M19.029	Primary osteoarthritis, unspecified elbow	Diagnosis ICD-10-CM
M19.031	Primary osteoarthritis, right wrist	Diagnosis ICD-10-CM
M19.032	Primary osteoarthritis, left wrist	Diagnosis ICD-10-CM
M19.039	Primary osteoarthritis, unspecified wrist	Diagnosis ICD-10-CM
M19.041	Primary osteoarthritis, right hand	Diagnosis ICD-10-CM
M19.042	Primary osteoarthritis, left hand	Diagnosis ICD-10-CM
M19.049	Primary osteoarthritis, unspecified hand	Diagnosis ICD-10-CM
M19.071	Primary osteoarthritis, right ankle and foot	Diagnosis ICD-10-CM
M19.072	Primary osteoarthritis, left ankle and foot	Diagnosis ICD-10-CM
M19.079	Primary osteoarthritis, unspecified ankle and foot	Diagnosis ICD-10-CM
M19.09	Primary osteoarthritis, other specified site	Diagnosis ICD-10-CM
M19.111	Post-traumatic osteoarthritis, right shoulder	Diagnosis ICD-10-CM
M19.112	Post-traumatic osteoarthritis, left shoulder	Diagnosis ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
M19.119 Post-traumatic osteoarthritis, unspecified shoulder	Diagnosis	ICD-10-CM
M19.121 Post-traumatic osteoarthritis, right elbow	Diagnosis	ICD-10-CM
M19.122 Post-traumatic osteoarthritis, left elbow	Diagnosis	ICD-10-CM
M19.129 Post-traumatic osteoarthritis, unspecified elbow	Diagnosis	ICD-10-CM
M19.131 Post-traumatic osteoarthritis, right wrist	Diagnosis	ICD-10-CM
M19.132 Post-traumatic osteoarthritis, left wrist	Diagnosis	ICD-10-CM
M19.139 Post-traumatic osteoarthritis, unspecified wrist	Diagnosis	ICD-10-CM
M19.141 Post-traumatic osteoarthritis, right hand	Diagnosis	ICD-10-CM
M19.142 Post-traumatic osteoarthritis, left hand	Diagnosis	ICD-10-CM
M19.149 Post-traumatic osteoarthritis, unspecified hand	Diagnosis	ICD-10-CM
M19.171 Post-traumatic osteoarthritis, right ankle and foot	Diagnosis	ICD-10-CM
M19.172 Post-traumatic osteoarthritis, left ankle and foot	Diagnosis	ICD-10-CM
M19.179 Post-traumatic osteoarthritis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M19.19 Post-traumatic osteoarthritis, other specified site	Diagnosis	ICD-10-CM
M19.211 Secondary osteoarthritis, right shoulder	Diagnosis	ICD-10-CM
M19.212 Secondary osteoarthritis, left shoulder	Diagnosis	ICD-10-CM
M19.219 Secondary osteoarthritis, unspecified shoulder	Diagnosis	ICD-10-CM
M19.221 Secondary osteoarthritis, right elbow	Diagnosis	ICD-10-CM
M19.222 Secondary osteoarthritis, left elbow	Diagnosis	ICD-10-CM
M19.229 Secondary osteoarthritis, unspecified elbow	Diagnosis	ICD-10-CM
M19.231 Secondary osteoarthritis, right wrist	Diagnosis	ICD-10-CM
M19.232 Secondary osteoarthritis, left wrist	Diagnosis	ICD-10-CM
M19.239 Secondary osteoarthritis, unspecified wrist	Diagnosis	ICD-10-CM
M19.241 Secondary osteoarthritis, right hand	Diagnosis	ICD-10-CM
M19.242 Secondary osteoarthritis, left hand	Diagnosis	ICD-10-CM
M19.249 Secondary osteoarthritis, unspecified hand	Diagnosis	ICD-10-CM
M19.271 Secondary osteoarthritis, right ankle and foot	Diagnosis	ICD-10-CM
M19.272 Secondary osteoarthritis, left ankle and foot	Diagnosis	ICD-10-CM
M19.279 Secondary osteoarthritis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M19.29 Secondary osteoarthritis, other specified site	Diagnosis	ICD-10-CM
M19.90 Unspecified osteoarthritis, unspecified site	Diagnosis	ICD-10-CM
M19.91 Primary osteoarthritis, unspecified site	Diagnosis	ICD-10-CM
M19.92 Post-traumatic osteoarthritis, unspecified site	Diagnosis	ICD-10-CM
M19.93 Secondary osteoarthritis, unspecified site	Diagnosis	ICD-10-CM
M45.0 Ankylosing spondylitis of multiple sites in spine	Diagnosis	ICD-10-CM
M45.1 Ankylosing spondylitis of occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M45.2 Ankylosing spondylitis of cervical region	Diagnosis	ICD-10-CM
M45.3 Ankylosing spondylitis of cervicothoracic region	Diagnosis	ICD-10-CM
M45.4 Ankylosing spondylitis of thoracic region	Diagnosis	ICD-10-CM
M45.5 Ankylosing spondylitis of thoracolumbar region	Diagnosis	ICD-10-CM
M45.6 Ankylosing spondylitis lumbar region	Diagnosis	ICD-10-CM
M45.7 Ankylosing spondylitis of lumbosacral region	Diagnosis	ICD-10-CM
M45.8 Ankylosing spondylitis sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
M45.9 Ankylosing spondylitis of unspecified sites in spine	Diagnosis	ICD-10-CM
M47.011 Anterior spinal artery compression syndromes, occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M47.012 Anterior spinal artery compression syndromes, cervical region	Diagnosis	ICD-10-CM
M47.013 Anterior spinal artery compression syndromes, cervicothoracic region	Diagnosis	ICD-10-CM
M47.014 Anterior spinal artery compression syndromes, thoracic region	Diagnosis	ICD-10-CM
M47.015 Anterior spinal artery compression syndromes, thoracolumbar region	Diagnosis	ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

<b>Code</b>	<b>Code</b>	<b>Code Type</b>
	<b>Category</b>	
M47.016	Anterior spinal artery compression syndromes, lumbar region	Diagnosis ICD-10-CM
M47.019	Anterior spinal artery compression syndromes, site unspecified	Diagnosis ICD-10-CM
M47.021	Vertebral artery compression syndromes, occipito-atlanto-axial region	Diagnosis ICD-10-CM
M47.022	Vertebral artery compression syndromes, cervical region	Diagnosis ICD-10-CM
M47.029	Vertebral artery compression syndromes, site unspecified	Diagnosis ICD-10-CM
M47.10	Other spondylosis with myelopathy, site unspecified	Diagnosis ICD-10-CM
M47.11	Other spondylosis with myelopathy, occipito-atlanto-axial region	Diagnosis ICD-10-CM
M47.12	Other spondylosis with myelopathy, cervical region	Diagnosis ICD-10-CM
M47.13	Other spondylosis with myelopathy, cervicothoracic region	Diagnosis ICD-10-CM
M47.20	Other spondylosis with radiculopathy, site unspecified	Diagnosis ICD-10-CM
M47.21	Other spondylosis with radiculopathy, occipito-atlanto-axial region	Diagnosis ICD-10-CM
M47.22	Other spondylosis with radiculopathy, cervical region	Diagnosis ICD-10-CM
M47.23	Other spondylosis with radiculopathy, cervicothoracic region	Diagnosis ICD-10-CM
M47.24	Other spondylosis with radiculopathy, thoracic region	Diagnosis ICD-10-CM
M47.25	Other spondylosis with radiculopathy, thoracolumbar region	Diagnosis ICD-10-CM
M47.26	Other spondylosis with radiculopathy, lumbar region	Diagnosis ICD-10-CM
M47.27	Other spondylosis with radiculopathy, lumbosacral region	Diagnosis ICD-10-CM
M47.28	Other spondylosis with radiculopathy, sacral and sacrococcygeal region	Diagnosis ICD-10-CM
M47.811	Spondylosis without myelopathy or radiculopathy, occipito-atlanto-axial region	Diagnosis ICD-10-CM
M47.812	Spondylosis without myelopathy or radiculopathy, cervical region	Diagnosis ICD-10-CM
M47.813	Spondylosis without myelopathy or radiculopathy, cervicothoracic region	Diagnosis ICD-10-CM
M47.814	Spondylosis without myelopathy or radiculopathy, thoracic region	Diagnosis ICD-10-CM
M47.815	Spondylosis without myelopathy or radiculopathy, thoracolumbar region	Diagnosis ICD-10-CM
M47.816	Spondylosis without myelopathy or radiculopathy, lumbar region	Diagnosis ICD-10-CM
M47.817	Spondylosis without myelopathy or radiculopathy, lumbosacral region	Diagnosis ICD-10-CM
M47.818	Spondylosis without myelopathy or radiculopathy, sacral and sacrococcygeal region	Diagnosis ICD-10-CM
M47.819	Spondylosis without myelopathy or radiculopathy, site unspecified	Diagnosis ICD-10-CM
M47.891	Other spondylosis, occipito-atlanto-axial region	Diagnosis ICD-10-CM
M47.892	Other spondylosis, cervical region	Diagnosis ICD-10-CM
M47.893	Other spondylosis, cervicothoracic region	Diagnosis ICD-10-CM
M47.894	Other spondylosis, thoracic region	Diagnosis ICD-10-CM
M47.895	Other spondylosis, thoracolumbar region	Diagnosis ICD-10-CM
M47.896	Other spondylosis, lumbar region	Diagnosis ICD-10-CM
M47.897	Other spondylosis, lumbosacral region	Diagnosis ICD-10-CM
M47.898	Other spondylosis, sacral and sacrococcygeal region	Diagnosis ICD-10-CM
M47.899	Other spondylosis, site unspecified	Diagnosis ICD-10-CM
M47.9	Spondylosis, unspecified	Diagnosis ICD-10-CM
M48.8X1	Other specified spondylopathies, occipito-atlanto-axial region	Diagnosis ICD-10-CM
M48.8X2	Other specified spondylopathies, cervical region	Diagnosis ICD-10-CM
M48.8X3	Other specified spondylopathies, cervicothoracic region	Diagnosis ICD-10-CM
M48.8X4	Other specified spondylopathies, thoracic region	Diagnosis ICD-10-CM
M48.8X5	Other specified spondylopathies, thoracolumbar region	Diagnosis ICD-10-CM
M48.8X6	Other specified spondylopathies, lumbar region	Diagnosis ICD-10-CM
M48.8X7	Other specified spondylopathies, lumbosacral region	Diagnosis ICD-10-CM
M48.8X8	Other specified spondylopathies, sacral and sacrococcygeal region	Diagnosis ICD-10-CM
M48.8X9	Other specified spondylopathies, site unspecified	Diagnosis ICD-10-CM
<b>Osteoporosis</b>		
M81.0	Age-related osteoporosis without current pathological fracture	Diagnosis ICD-10-CM
M81.6	Localized osteoporosis [Lequesne]	Diagnosis ICD-10-CM

**Appendix D. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Covariates in this Request**

		<b>Code</b>	
<b>Code</b>		<b>Category</b>	<b>Code Type</b>
M81.8	Other osteoporosis without current pathological fracture	Diagnosis	ICD-10-CM
<b>Benign Prostatic Hyperplasia</b>			
N40.0	Benign prostatic hyperplasia without lower urinary tract symptoms	Diagnosis	ICD-10-CM
N40.1	Benign prostatic hyperplasia with lower urinary tract symptoms	Diagnosis	ICD-10-CM
N40.2	Nodular prostate without lower urinary tract symptoms	Diagnosis	ICD-10-CM
N40.3	Nodular prostate with lower urinary tract symptoms	Diagnosis	ICD-10-CM
N42.83	Cyst of prostate	Diagnosis	ICD-10-CM
<b>Cardiac Arrest</b>			
Z86.74	Personal history of sudden cardiac arrest	Diagnosis	ICD-10-CM
<b>Coronary Bypass</b>			
Z95.1	Presence of aortocoronary bypass graft	Diagnosis	ICD-10-CM
Z95.5	Presence of coronary angioplasty implant and graft	Diagnosis	ICD-10-CM
Z98.61	Coronary angioplasty status	Diagnosis	ICD-10-CM

**Appendix E. Generic and Brand Names of Medical Products Used to Define Covariates in this Request**

Generic Name	Brand Name
<b>Smoking</b>	
nicotine	Nicoderm CQ
nicotine	Nicotrol
nicotine	Nicotrol NS
nicotine	nicotine
nicotine bitartrate	Nicotine Tartrate
nicotine polacrilex	Nicorelief
nicotine polacrilex	Nicorette
nicotine polacrilex	Quit 2
nicotine polacrilex	Quit 4
nicotine polacrilex	Stop Smoking Aid
nicotine polacrilex	nicotine (polacrilex)
nicotine polacrilex	nicotine polacrilex (bulk)
varenicline tartrate	Chantix
varenicline tartrate	Chantix Continuing Month Box
varenicline tartrate	Chantix Starting Month Box
<b>Obesity</b>	
amino acids/multivit-minerals/dietary supplement/protein sup	Optifast 70
benzphetamine HCl	Regimex
benzphetamine HCl	benzphetamine
diethylpropion HCl	diethylpropion
diethylpropion HCl	diethylpropion HCl (bulk)
liraglutide	Saxenda
lorcaserin HCl	Belviq
lorcaserin HCl	Belviq XR
naltrexone HCl/bupropion HCl	Contrave
orlistat	Alli
orlistat	Xenical
phendimetrazine tartrate	phendimetrazine tartrate
phentermine HCl	Adipex-P
phentermine HCl	Lomaira
phentermine HCl	phentermine
phentermine HCl	phentermine HCl (bulk)
phentermine HCl/topiramate	Qsymia
resveratrol/chromium pico/green tea/EGCG/caffeine/digestive3	Resveratrol Diet
setmelanotide acetate	Imcivree

**Appendix F. Specifications for Type 1 Request: cder\_mpl1r\_wp215**

The Center for Drug Evaluation and Research (CDER) has requested execution of the Cohort Identification and Descriptive Analysis (CIDA) tool v10.4.0 to investigate follow-up time for patients treated with New Molecular Entities (NMEs) approved in year 2019.

**Query period:** January 1, 2019 - September 30, 2021  
**Coverage requirement:** \*Medical; \*Drug; or \*Medical & Drug Coverage  
**Pre-index enrollment requirement:** 365 days  
**Post-index enrollment requirement:** 0 days  
**Enrollment gap:** 45 days  
**Age groups:** 0-18, 19-64, 65+  
**Stratifications:** Age, sex, calendar year  
**Censor output categorization:** Follow up time intervals: 1-364, 365-729, 730+ days  
**Restrictions:** None  
**Distribution of index-defining codes:** No  
**Envelope macro:** No  
**Freeze data:** No

Scenario	Exposure/Event				Follow-up			Baseline characteristics	
	Index Exposure/Event	Cohort definition	Washout period	Incident with respect to:	Exclude evidence of days supply if exposure washout includes dispensings	Care setting	Follow-up Start	Censor enrollment at evidence of	Baseline characteristics
1	Padcev	First valid index date during query period	183	Padcev	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab
2	Piqray	First valid index date during query period	183	Piqray	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab

Appendix F. Specifications for Type 1 Request: cder_mpl1r_wp215									
Scenario	Exposure/Event					Follow-up		Baseline characteristics	
	Index Exposure/Event	Cohort definition	Washout period	Incident with respect to:	Exclude evidence of days supply if exposure washout includes dispensings	Care setting	Follow-up Start	Censor enrollment at evidence of	Baseline characteristics
3	Polivy	First valid index date during query period	183	Polivy	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab
4	pretomanid	First valid index date during query period	183	pretomanid	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab
5	Reblozyl	First valid index date during query period	183	Reblozyl	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab
6	Recarbrio	First valid index date during query period	183	Recarbrio	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab
7	Reyvow	First valid index date during query period	183	Reyvow	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab

Appendix F. Specifications for Type 1 Request: cder_mpl1r_wp215									
Scenario	Exposure/Event					Follow-up		Baseline characteristics	
	Index Exposure/Event	Cohort definition	Washout period	Incident with respect to:	Exclude evidence of days supply if exposure washout includes dispensings	Care setting	Follow-up Start	Censor enrollment at evidence of	Baseline characteristics
8	Rinvoq	First valid index date during query period	183	Rinvoq	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab
9	Rozlytrek	First valid index date during query period	183	Rozlytrek	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab
10	Scenesse	First valid index date during query period	183	Scenesse	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab
11	Skyrizi	First valid index date during query period	183	Skyrizi	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab
12	Sunosi	First valid index date during query period	183	Sunosi	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab

Appendix F. Specifications for Type 1 Request: cder_mpl1r_wp215									
Scenario	Exposure/Event					Follow-up		Baseline characteristics	
	Index Exposure/Event	Cohort definition	Washout period	Incident with respect to:	Exclude evidence of days supply if exposure washout includes dispensings	Care setting	Follow-up Start	Censor enrollment at evidence of	Baseline characteristics
13	TissueBlue	First valid index date during query period	183	TissueBlue	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab
14	Trikafta	First valid index date during query period	183	Trikafta	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab
15	Turalio	First valid index date during query period	183	Turalio	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab
16	Ubrelvy	First valid index date during query period	183	Ubrelvy	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab
17	Vyleesi	First valid index date during query period	183	Vyleesi	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab
18	Vyndaqel	First valid index date during query period	183	Vyndaqel	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab

Appendix F. Specifications for Type 1 Request: cder_mpl1r_wp215									
Scenario	Exposure/Event					Follow-up		Baseline characteristics	
	Index Exposure/Event	Cohort definition	Washout period	Incident with respect to:	Exclude evidence of days supply if exposure washout includes dispensings	Care setting	Follow-up Start	Censor enrollment at evidence of	Baseline characteristics
19	Vyondys 53	First valid index date during query period	183	Vyondys 53	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab
20	Wakix	First valid index date during query period	183	Wakix	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab
21	Xcopri	First valid index date during query period	183	Xcopri	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab
22	Xenleta	First valid index date during query period	183	Xenleta	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab
23	Xpovio	First valid index date during query period	183	Xpovio	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab
24	Zulresso	First valid index date during query period	183	Zulresso	Washout lookback period should search for evidence of days supply	Any	First exposure	Disenrollment, Death, Data Partner End Date, Query End Date	See Baseline Characteristics tab

ICD-9, ICD-10, HCPCS, and CPT codes are provided by Optum360.  
NDC codes are checked against First Data Bank's FDB MedKnowledge®.

**Appendix G. Baseline Characteristics for Request: cder\_mpl1r\_wp215**

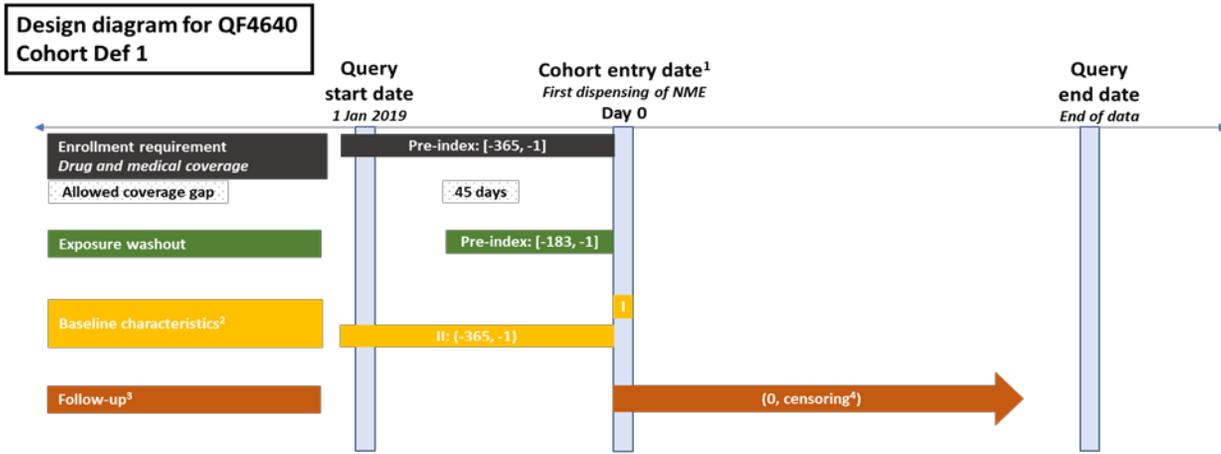
Covariates						
Covariate	Care setting/Principal diagnosis position	Evaluation period start	Evaluation period end	Exclude evidence of days supply if covariate includes dispensings	Number of instances the covariate should be found in evaluation period	Forced supply to attach to dispensings
<i>Chronic Conditions Data Warehouse</i>						
Acute Myocardial Infarction	IPP, IPS	-365	-1	n/a	1	n/a
Alzheimer's Disease and related conditions	Any	-365	-1	n/a	1	n/a
Atrial Fibrillation	IPP, IPS or	-365	-1	n/a	1	n/a
	AV*, ED*, OA*	-365	-1	n/a	2	n/a
Diabetes	IP*, IS*	-365	-1	n/a	1	n/a
	AV*, ED*, OA*	-365	-1	n/a	2	n/a
Heart Failure	IP*, AV*, ED*	-365	-1	n/a	1	n/a
Hyperlipidemia	IP*, IS*	-365	-1	n/a	1	n/a
	AV*, ED*, OA*	-365	-1	n/a	2	n/a
Hypertension	IP*, IS*	-365	-1	n/a	1	n/a
	AV*, ED*, OA*	-365	-1	n/a	2	n/a
Depression	Any	-365	-1	n/a	1	n/a
Ischemic Heart Disease	Any	-365	-1	n/a	1	n/a
Rheumatoid Arthritis/Osteoarthritis	Any	-365	-1	n/a	2	n/a
Stroke/TIA	IP*	-365	-1	n/a	1	n/a
	AV*, ED*, OA*	-365	-1	n/a	2	n/a
Breast Cancer	IP*, IS* or	-365	-1	n/a	1	n/a
	AV*, ED* OA*	-365	-1	n/a	2	n/a
Colorectal Cancer	IP*, IS* or	-365	-1	n/a	1	n/a
	AV*, ED* OA*	-365	-1	n/a	2	n/a
Prostate Cancer	IP*, IS* or	-365	-1	n/a	1	n/a
	AV*, ED* OA*	-365	-1	n/a	2	n/a
Lung Cancer	IP*, IS* or	-365	-1	n/a	1	n/a
	AV*, ED* OA*	-365	-1	n/a	2	n/a
Endometrial Cancer	IP*, IS* or	-365	-1	n/a	1	n/a
	AV*, ED* OA*	-365	-1	n/a	2	n/a
Acquired Hypothyroidism	IP*, IS*, or	-365	-1	n/a	1	n/a
	AV*, ED* OA*	-365	-1	n/a	2	n/a
Anemia	Any	-365	-1	n/a	1	n/a
Asthma	IP*, IS*, or	-365	-1	n/a	1	n/a
	AV*, ED* OA*	-365	-1	n/a	2	n/a
Benign Prostatic Hyperplasia	IP*, IS*, or	-365	-1	n/a	1	n/a
	AV*, ED* OA*	-365	-1	n/a	2	n/a
Chronic Kidney Disease	IP*, IS*, or	-365	-1	n/a	1	n/a
	AV*, ED* OA*	-365	-1	n/a	2	n/a
COPD and Bronchiectasis	IP*, IS*, or	-365	-1	n/a	1	n/a
	AV*, ED* OA*	-365	-1	n/a	2	n/a
Glaucoma	AV*, ED* OA*	-365	-1	n/a	1	n/a
Osteoporosis	IP*, IS*, or	-365	-1	n/a	1	n/a
	AV*, ED* OA*	-365	-1	n/a	2	n/a
<i>Other</i>						

Appendix G. Baseline Characteristics for Request: cder\_mpl1r\_wp215

Covariates

Covariate	Care setting/Principal diagnosis position	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	Forced supply to attach to dispensings
Obesity	Any	-365	-1	Evaluation period should search for	1	
Overweight	Any	-365	-1	n/a	1	n/a
Smoking	Any	-365	-1	Evaluation period should search for	1	
Alcohol Abuse or Dependence	Any	-365	-1	n/a	1	n/a
Drug Abuse or Dependence	Any	-365	-1	n/a	1	n/a
History of Cardiac Arrest	Any	-365	-1	n/a	1	n/a
History of Coronary Angioplasty or Bypass	Any	-365	-1	n/a	1	n/a

Appendix H. Design Diagrams for Type 1 Request: cder\_mpl1r\_wp215



<sup>1</sup>48 scenarios defined based on initiation of NMEs approved in 2019 (one scenario per NME); Cohort entry date = first dispensing date for qualifying NME

<sup>2</sup>Baseline characteristics:  
 Window I: Age, sex, year  
 Window II: Chronic conditions (CCW), alcohol abuse or dependence, drug abuse or dependence, history of cardiac arrest, history of coronary angioplasty or bypass, obesity, overweight, and smoking

<sup>3</sup>Follow-up intervals: 1-364, 365-729, 730+ days

<sup>4</sup>Censoring: earliest of death, disenrollment, data partner data end date, query end date