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

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

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

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

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Overview for Request: cder_mpl1p_wp042

Request ID: cder_mpl1p_wp042_nsdp_v01

Request Description: In this report, we examined counts of individuals with sodium glucose co-transporter 2 inhibitor (SGLT-2i) and sitagliptin dispensings in the Sentinel Distributed Database (SDD). Among cohorts, we determined concurrence between claims and electronic health records (EHR) data on the following measures during baseline: body mass index (BMI), tobacco use (defined as either a claims diagnosis or procedure code indicating tobacco use, or a smoking cessation medication), creatinine lab records, and hemoglobin A1C (HbA1c) lab records during baseline. We also examined baseline conditions and medication use.

Sentinel Routine Querying Module: Cohort Identification and Descriptive Analysis (CIDA) module, version 10.3.2, with custom programming.

Data Source: We distributed this request to seven Sentinel Data Partners on September 13, 2021. These seven Data Partners represents a subset of the SDD with access to both claims and EHR data - i.e., integrated delivery systems. The study period included data from March 1, 2013 through June 30, 2018. Please see Appendix A for the dates of available data for each Data Partner.

Study Design: We identified individuals with dispensings for SGLT-2is, canagliflozin, dapagliflozin, empagliflozin, ertugliflozin, and sitagliptin who were 20 years of age or older. Separate incident and prevalence cohorts were examined for each exposure. For all SGLT-2i cohorts we excluded patients with evidence of a same-day dispensing of any dipeptidyl peptidase 4 inhibitors (DPP-4i), including combination products that represent DPP-4i/SGLT-2i combination medications. For the sitagliptin cohorts, we excluded patients with evidence of a same-day dispensing of any SGLT-2i, including combination SGLT-2i/DPP-4i products. This is a Type 1 analysis in the Query Request Package (QRP) documentation.

Exposures of Interest: We defined the six exposures of interest as SGLT-2is, canagliflozin, dapagliflozin, empagliflozin, ertugliflozin, and sitagliptin using dispensing data and National Drug Codes (NDCs). Combination SGLT-2i/DPP-4i medications were not included in any of the exposure definitions. Only the first qualifying dispensing (index) was included; cohort re-entry was not allowed. Please see Appendix B for a list of generic and brand names of medical products used to define exposures in this request. Incident and prevalent cohorts were examined separately for each exposure of interest. For the six prevalent cohorts, we required no washout. For incident cohorts, we included a 365-day washout for the index drug of interest, including any SGLT-2i/DPP-4i combination products. For example, for the incident dapagliflozin cohorts, we did not include combination dapagliflozin/saxagliptin medications in our index definition, however these medications were included in the washout definition for incident cohorts. Please see Appendix C for a list of generic and brand names of medical products used to define incidence washout in this request.

Cohort Eligibility Criteria: We required members to be enrolled in health plans with medical and drug coverage for the 365 days prior to their index date in order to be included in the cohort; gaps in coverage up to 45 days were allowed and treated as continuous enrollment. The following age groups were included in the cohort: 20-44, 45-64 and 65+ years. For all cohorts, we excluded patients with evidence of a day's supply for the comparator drug class on the index date. For the SGLT-2i, canagliflozin, dapagliflozin, empagliflozin and ertugliflozin cohorts, we excluded patients with any DPP-4is (including combination SGLT-2i/DPP-4i medications) on the day of index. For the sitagliptin cohorts, we excluded patients with any SGLT-2is (including combination SGLT-2i/DPP-4i medications) on the day of index. Please see Appendix D for the list of generic and brand names of medical products used to define exclusion criteria in this request.

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Baseline Characteristics: We assessed the following characteristics on the date of index dispensing: age, year of dispensing, sex, race, and Hispanic ethnicity. For Tables 1a and 1b: We also assessed the following characteristics in the 365-days prior to and including index date: Charlson/Elixhauser combined comorbidity score, health service and drug utilization, diabetes complication (defined as either renal, neurologic, ocular, or peripheral vascular complications), stroke, malignancy, acute myocardial infarction, hypertension and hypertensive disorders, hypercholesterolemia and hyperlipidemia, alcohol consumption, chronic kidney disease, tobacco use (defined as either a claims diagnosis or procedure code indicating tobacco use, or a smoking cessation medication), occurrence of an HbA1c lab, and occurrence of a creatinine lab. During this same period, we assessed evidence of use of glucagon-like peptide-1 analogues (GLP-1s), thiazolidinediones, sulfonyleureas, biguanides, short/rapid-acting insulins, and long/intermediate-acting insulins based on days supply from outpatient dispensings. We also assessed evidence of use of any SGLT-2is and DPP-4is in the year prior to but not including index date. We defined baseline conditions using International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Ninth Revision, Procedure Coding System (ICD-9-PCS) codes, International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) codes, Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), and Healthcare Common Procedure Coding System, Level II (HCPCS) Codes. We defined medications using NDC codes. Please see Appendix E for a list of generic and brand names of medical products and Appendix F for a list of diagnosis and procedure codes used to define baseline characteristics in this request.

We used custom programming to identify "claims-based" (i.e., diagnosis and procedure code-based) BMI categories and obesity in the 365-days and 183-days prior to and including index. We created separate categories using the BMI-specific diagnosis codes: BMI<19, 19<=BMI<=24, 25<=BMI<=29, 30<=BMI<=39, 40<=BMI<=69, BMI 70+. We also created a separate variable of "other obesity" using diagnosis and procedure codes that indicated obesity but did not include BMI-specific information. Patients were categorized based on the code that occurred closest to their index event during the designated look-back period. In the event that multiple codes occurred on the same day closest to index, we prioritized higher BMI values over lower values and further prioritized BMI-specific codes over the 'other obesity' group. We counted patients who did not have any of the designated claims-based codes for BMI/obesity during the relevant periods into the "missing" category. Please see Appendix G for the list of ICD-9-CM, ICD-10-CM, ICD-9-PCS, and ICD-10-PCS codes used to define claims-based BMI/obesity.

We also used custom programming to assess EHR data from the Vital Signs and Laboratory Result tables of the Sentinel Common Data Model (SCDM) relative to a patient's index date to calculate "clinical" BMI and tobacco use and identify laboratory records with results. We selected the closest relevant vital sign or laboratory measure to index date during the look-back period of interest. In the case of multiple measures on the same day, we selected a random measure for inclusion. In the event that the measure closest to index had a result or value that fell outside of our pre-determined plausibility limits, we looked for the next closest measure. Patients who only had implausible measures during the look-back period would be counted as missing. We assessed the following vital signs or laboratory results during the 183-days and 365-days prior to and including index date: BMI, tobacco use, creatinine lab results, HbA1c lab results, and calculated glomerular filtration rate (eGFR). For the calculation of BMI, we selected the closest height and the closest weight to index and calculated BMI as $(\text{weight in pounds}/\text{height in inches}^2) * 703$. For the calculation of eGFR, we leveraged an algorithm developed by the Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI) to convert the patient's closest creatinine lab value to eGFR¹. The CKD-EPI algorithm factors in race and sex for this calculation. If a patient's race was not listed as 'Black', we counted them as 'White or other' for the purpose of these calculations. The result modifier in the SCDM labs table represents the relational operator used in the reporting of quantitative labs. For lab results in this request, we required that the result modifier be set to 'EQ' (equals) otherwise the record was not recognized as a valid lab.

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We also created categorical variables for "clinical" BMI and tobacco use and laboratory results examined, applying floor and ceiling cut-offs for implausible values. In the case that the closest measure to index was deemed implausible, we looked for the next closest measure to index. Please see Appendix H for the breakdown of included categories for clinical measures. "Clinical" missingness is defined as individuals who either did not have any record of in the Vital Signs or Laboratory Results tables during the look-back period, or individuals who only had evidence of implausible measures during the look-back period.

Concurrence/Misclassification Matrices: To evaluate "concordance" between the "clinical" and "claims" based identification of BMI, tobacco use, and the laboratory tests of interest we incorporated custom programming. For BMI, we cross stratified the "clinical" BMI categorical variable with the claims-based BMI/obesity categorical variable described above. For tobacco, HbA1c and creatinine, we cross stratified the "clinical" categorical variables with the corresponding binary variables indicating whether the patient did or did not have a diagnosis or procedure code for the measure of interest. We did not include a misclassification matrix for eGFR labs as our clinical designations had been derived from the patient's creatinine lab. Please see Tables 10a-10h for all of the misclassification matrices.

Please see Appendices I, J, K, and L for the specifications of parameters used in this request and a design diagram.

Limitations: Algorithms used to define baseline characteristics are imperfect; thus, it is possible that there may be misclassification. Therefore, data should be interpreted with these limitations in mind.

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

¹"Estimating Glomerular Filtration Rate." National Institute of Diabetes and Digestive and Kidney Diseases, U.S. Department of Health and Human Services, <https://www.niddk.nih.gov/health-information/professionals/clinical-tools-patient-management/kidney-disease/laboratory-evaluation/glomerular-filtration-rate/estimating#the-mdrd-equation>.

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**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 Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

Characteristic	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
	Number		Number		Number	
Number of episodes	3,155		756		322	
Number of unique patients	3,155		756		322	
Demographics	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Mean Age (years)	60.4	10.3	58.8	10.1	58	9.8
Age (years)	Number	Percent	Number	Percent	Number	Percent
20-44	239	7.6%	74	9.8%	33	10.2%
45-64	1,866	59.1%	467	61.8%	214	66.5%
65+	1,050	33.3%	215	28.4%	75	23.3%
Sex						
Female	1,411	44.7%	375	49.6%	146	45.3%
Male	1,744	55.3%	381	50.4%	176	54.7%
Race						
Unknown	776	24.6%	268	35.4%	133	41.3%
American Indian or Alaska Native	47	1.5%	7	0.9%	3	0.9%
Asian	379	12.0%	41	5.4%	12	3.7%
Black or African American	242	7.7%	30	4.0%	10	3.1%
Native Hawaiian or Other Pacific Islander	158	5.0%	15	2.0%	2	0.6%
White	1,553	49.2%	395	52.2%	162	50.3%
Hispanic Origin						
2013	258	8.2%	52	6.9%	16	5.0%
Year						
2013	95	3.0%	95	12.6%	0	0.0%
2014	284	9.0%	195	25.8%	85	26.4%
2015	322	10.2%	215	28.4%	84	26.1%
2016	456	14.5%	142	18.8%	59	18.3%
2017	989	31.3%	84	11.1%	61	18.9%
2018	1,009	32.0%	25	3.3%	33	10.2%
Recorded History of:	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Charlson/Elixhauser Combined Comorbidity Score	1.5	2.1	0.9	1.8	0.6	1.5
Recorded History of:	Number	Percent	Number	Percent	Number	Percent
GLP-1 Analogs	437	13.9%	149	19.7%	61	18.9%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
Thiazolidinediones	263	8.3%	79	10.4%	35	10.9%
Sulfonylureas	1,698	53.8%	394	52.1%	149	46.3%
Biguanides	2,639	83.6%	596	78.8%	267	82.9%
Short/Rapid-Acting Insulins	735	23.3%	173	22.9%	63	19.6%
Long/Intermediate-Acting Insulins	1,359	43.1%	296	39.2%	126	39.1%
Diabetes Complication	1,607	50.9%	352	46.6%	118	36.6%
Stroke	65	2.1%	8	1.1%	1	0.3%
Malignancy	301	9.5%	71	9.4%	32	9.9%
Acute Myocardial Infarction	106	3.4%	10	1.3%	3	0.9%
Hypertension/ Hypertensive Disorders	2,393	75.8%	579	76.6%	246	76.4%
Hypercholesterolemia/ Hyperlipidemia	2,387	75.7%	616	81.5%	256	79.5%
Alcohol Consumption	50	1.6%	9	1.2%	9	2.8%
Chronic Kidney Disease	461	14.6%	84	11.1%	15	4.7%
SGLT-2is ¹	0	0.0%	11	1.5%	33	10.2%
DPP-4is ¹	404	12.8%	162	21.4%	58	18.0%
Health Service Utilization Intensity:	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Mean number of ambulatory encounters	14.1	12.7	14.9	12.6	13.9	13.1
Mean number of emergency room encounters	0.4	1	0.4	0.9	0.3	1
Mean number of inpatient hospital encounters	0.1	0.5	0.1	0.6	0.1	0.3
Mean number of non-acute institutional encounters	0	0.5	0	0.5	0	0.1
Mean number of other ambulatory encounters	15.2	15.6	8.1	10.7	5.5	6.7
Drug Utilization Intensity:						
Mean number of unique drug classes	9.9	5.1	9.6	5.4	9.3	5
Mean number of generics	12.4	5.8	12.2	6.3	11.8	5.7
Mean number of filled prescriptions	39.8	25.1	43.2	28.8	41.4	24.7
Clinical and Laboratory Characteristics (365 days)						
Clinical BMI (365 days)	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (365 days)	3	0.1%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	130	4.1%	19	2.5%	5	1.6%
Clinical BMI 25<=BMI<30 (365 days)	463	14.7%	80	10.6%	20	6.2%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
Clinical BMI 30<=BMI<40 (365 days)	975	30.9%	159	21.0%	61	18.9%
Clinical BMI 40<=BMI<70 (365 days)	364	11.5%	80	10.6%	35	10.9%
Clinical BMI 70<=BMI<=90 (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	926	29.4%	389	51.5%	190	59.0%
Clinical BMI Ht Missing (365 days)	292	9.3%	29	3.8%	11	3.4%
Clinical BMI Wt Missing (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	1,219	38.6%	418	55.3%	201	62.4%
Clinical Tobacco Use (365 days)						
Clinical Tobacco Current User (365 days)	179	5.7%	32	4.2%	14	4.3%
Clinical Tobacco Never (365 days)	1,194	37.8%	217	28.7%	89	27.6%
Clinical Tobacco Quit/Former User (365 days)	786	24.9%	103	13.6%	23	7.1%
Clinical Tobacco Passive (365 days)	9	0.3%	4	0.5%	1	0.3%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	6	0.2%	2	0.3%	1	0.3%
Clinical Tobacco Conflicting (365 days)	31	1.0%	5	0.7%	4	1.2%
Clinical Tobacco Missing (365 days)	950	30.1%	393	52.0%	190	59.0%
Clinical HbA1c Laboratory Values (365 days)						
Clinical HbA1c 2.5<=HbA1c<5.7 (365 days)	8	0.3%	1	0.1%	1	0.3%
Clinical HbA1c 5.7<=HbA1c<6.5 (365 days)	74	2.3%	10	1.3%	13	4.0%
Clinical HbA1c 6.5<=HbA1c<8 (365 days)	577	18.3%	118	15.6%	53	16.5%
Clinical HbA1c 8<=HbA1c<9 (365 days)	664	21.0%	119	15.7%	36	11.2%
Clinical HbA1c 9<=HbA1c<10 (365 days)	421	13.3%	68	9.0%	21	6.5%
Clinical HbA1c 10<=HbA1c<12.5 (365 days)	379	12.0%	52	6.9%	19	5.9%
Clinical HbA1c 12.5<=HbA1c<15 (365 days)	53	1.7%	9	1.2%	3	0.9%
Clinical HbA1c 15<=HbA1c<=25 (365 days)	6	0.2%	1	0.1%	0	0.0%
Clinical HbA1c Missing (365 days)	973	30.8%	378	50.0%	176	54.7%
Clinical Creatinine Laboratory Values (365 days)						
	Number	Percent	Number	Percent	Number	Percent
Clinical Creatinine 0.3<=Creatinine<=0.8 (365 days)	877	27.8%	173	22.9%	65	20.2%
Clinical Creatinine 0.8<Creatinine<=0.9 (365 days)	373	11.8%	60	7.9%	37	11.5%
Clinical Creatinine 0.9<Creatinine<=1.0 (365 days)	351	11.1%	63	8.3%	20	6.2%
Clinical Creatinine 1.0<Creatinine<=1.2 (365 days)	404	12.8%	69	9.1%	24	7.5%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
Clinical Creatinine 1.2<Creatinine<=1.5 (365 days)	168	5.3%	29	3.8%	9	2.8%
Clinical Creatinine 1.5<Creatinine<=2.0 (365 days)	39	1.2%	8	1.1%	2	0.6%
Clinical Creatinine 2.0<Creatinine<=2.5 (365 days)	4	0.1%	0	0.0%	0	0.0%
Clinical Creatinine 2.5<Creatinine<=3.0 (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical Creatinine 3.0<Creatinine<=3.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Creatinine 3.5<Creatinine<=20 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Creatinine Missing (365 days)	938	29.7%	354	46.8%	165	51.2%
Clinical eGFR Laboratory Values (365 days)						
Clinical eGFR eGFR<15 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical eGFR 15<=eGFR<=29 (365 days)	3	0.1%	0	0.0%	0	0.0%
Clinical eGFR 30<=eGFR<=44 (365 days)	43	1.4%	9	1.2%	2	0.6%
Clinical eGFR 45<=eGFR<=59 (365 days)	249	7.9%	47	6.2%	13	4.0%
Clinical eGFR 60<=eGFR<=89 (365 days)	1,000	31.7%	181	23.9%	76	23.6%
Clinical eGFR 90<=eGFR<=200 (365 days)	922	29.2%	165	21.8%	66	20.5%
Clinical eGFR Missing (365 days)	938	29.7%	354	46.8%	165	51.2%
Claims BMI (365 days)						
Claims BMI BMI<19 (365 days)	1	0.0%	1	0.1%	0	0.0%
Claims BMI 19<=BMI<=24 (365 days)	6	0.2%	2	0.3%	0	0.0%
Claims BMI 25<=BMI<=29 (365 days)	25	0.8%	2	0.3%	4	1.2%
Claims BMI 30<=BMI<=39 (365 days)	230	7.3%	42	5.6%	17	5.3%
Claims BMI 40<=BMI<=69 (365 days)	184	5.8%	45	6.0%	19	5.9%
Claims BMI BMI>=70 (365 days)	1	0.0%	0	0.0%	0	0.0%
Claims BMI Other obesity (365 days)	905	28.7%	244	32.3%	102	31.7%
Claims BMI None (365 days)	1,803	57.1%	420	55.6%	180	55.9%
Presence of a Creatinine Laboratory Claim (365 days)						
	Number	Percent	Number	Percent	Number	Percent
Claims Creatinine (365 days)	2,927	92.8%	677	89.6%	278	86.3%
Claims Creatinine None (365 days)	228	7.2%	79	10.4%	44	13.7%
Presence of a HbA1c Laboratory Claim (365 days)						
Claims HbA1c (365 days)	3,029	96.0%	709	93.8%	302	93.8%
Claims HbA1c None (365 days)	126	4.0%	47	6.2%	20	6.2%
Presence of a Smoking Claim (365 days)						

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
Claims Smoking (365 days)	562	17.8%	104	13.8%	37	11.5%
Claims Smoking None (365 days)	2,593	82.2%	652	86.2%	285	88.5%
Clinical and Laboratory Characteristics (183 days)						
Clinical BMI (183 days)						
Clinical BMI 15<=BMI<18.5 (183 days)	2	0.1%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	105	3.3%	14	1.9%	3	0.9%
Clinical BMI 25<=BMI<30 (183 days)	389	12.3%	68	9.0%	15	4.7%
Clinical BMI 30<=BMI<40 (183 days)	832	26.4%	139	18.4%	51	15.8%
Clinical BMI 40<=BMI<70 (183 days)	316	10.0%	69	9.1%	31	9.6%
Clinical BMI 70<=BMI<=90 (183 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	1,053	33.4%	423	56.0%	207	64.3%
Clinical BMI Ht Missing (183 days)	452	14.3%	42	5.6%	15	4.7%
Clinical BMI Wt Missing (183 days)	5	0.2%	1	0.1%	0	0.0%
Clinical BMI Any Missing (183 days)	1,510	47.9%	466	61.6%	222	68.9%
Clinical Tobacco Use (183 days)						
Clinical Tobacco Current User (183 days)	161	5.1%	26	3.4%	9	2.8%
Clinical Tobacco Never (183 days)	1,087	34.5%	192	25.4%	78	24.2%
Clinical Tobacco Quit/Former User (183 days)	734	23.3%	93	12.3%	21	6.5%
Clinical Tobacco Passive (183 days)	7	0.2%	2	0.3%	1	0.3%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	4	0.1%	1	0.1%	1	0.3%
Clinical Tobacco Conflicting (183 days)	23	0.7%	4	0.5%	3	0.9%
Clinical Tobacco Missing (183 days)	1,139	36.1%	438	57.9%	209	64.9%
Clinical HbA1c Laboratory Values (183 days)						
	Number	Percent	Number	Percent	Number	Percent
Clinical HbA1c 2.5<=HbA1c<5.7 (183 days)	6	0.2%	1	0.1%	1	0.3%
Clinical HbA1c 5.7<=HbA1c<6.5 (183 days)	66	2.1%	10	1.3%	13	4.0%
Clinical HbA1c 6.5<=HbA1c<8 (183 days)	531	16.8%	109	14.4%	47	14.6%
Clinical HbA1c 8<=HbA1c<9 (183 days)	637	20.2%	114	15.1%	31	9.6%
Clinical HbA1c 9<=HbA1c<10 (183 days)	414	13.1%	68	9.0%	21	6.5%
Clinical HbA1c 10<=HbA1c<12 (183 days)	365	11.6%	48	6.3%	17	5.3%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
Clinical HbA1c 12.5<=HbA1c<15 (183 days)	50	1.6%	9	1.2%	3	0.9%
Clinical HbA1c 15<=HbA1c<=25 (183 days)	6	0.2%	1	0.1%	0	0.0%
Clinical HbA1c Missing (183 days)	1,080	34.2%	396	52.4%	189	58.7%
Clinical Creatinine Laboratory Values (183 days)						
Clinical Creatinine 0.3<=Creatinine<=0.8 (183 days)	760	24.1%	149	19.7%	54	16.8%
Clinical Creatinine 0.8<Creatinine<=0.9 (183 days)	323	10.2%	51	6.7%	36	11.2%
Clinical Creatinine 0.9<Creatinine<=1.0 (183 days)	311	9.9%	55	7.3%	17	5.3%
Clinical Creatinine 1.0<Creatinine<=1.2 (183 days)	340	10.8%	60	7.9%	22	6.8%
Clinical Creatinine 1.2<Creatinine<=1.5 (183 days)	147	4.7%	27	3.6%	7	2.2%
Clinical Creatinine 1.5<Creatinine<=2.0 (183 days)	37	1.2%	8	1.1%	1	0.3%
Clinical Creatinine 2.0<Creatinine<=2.5 (183 days)	3	0.1%	0	0.0%	0	0.0%
Clinical Creatinine 2.5<Creatinine<=3.0 (183 days)	1	0.0%	0	0.0%	0	0.0%
Clinical Creatinine 3.0<Creatinine<=3.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Creatinine 3.5<Creatinine<=20 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Creatinine Missing (183 days)	1,233	39.1%	406	53.7%	185	57.5%
Clinical eGFR Laboratory Values (183 days)						
Clinical eGFR eGFR<15 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical eGFR 15<=eGFR<=29 (183 days)	3	0.1%	0	0.0%	0	0.0%
Clinical eGFR 30<=eGFR<=44 (183 days)	40	1.3%	9	1.2%	1	0.3%
Clinical eGFR 45<=eGFR<=59 (183 days)	222	7.0%	41	5.4%	10	3.1%
Clinical eGFR 60<=eGFR<=89 (183 days)	859	27.2%	156	20.6%	69	21.4%
Clinical eGFR 90<=eGFR<=200 (183 days)	798	25.3%	144	19.0%	57	17.7%
Clinical eGFR Missing (183 days)	1,233	39.1%	406	53.7%	185	57.5%
Claims BMI (183 days)						
	Number	Percent	Number	Percent	Number	Percent
Claims BMI BMI<19 (183 days)	1	0.0%	1	0.1%	0	0.0%
Claims BMI 19<=BMI<=24 (183 days)	4	0.1%	2	0.3%	0	0.0%
Claims BMI 25<=BMI<=29 (183 days)	24	0.8%	2	0.3%	4	1.2%
Claims BMI 30<=BMI<=39 (183 days)	181	5.7%	33	4.4%	15	4.7%
Claims BMI 40<=BMI<=69 (183 days)	163	5.2%	40	5.3%	16	5.0%
Claims BMI BMI>=70 (183 days)	1	0.0%	0	0.0%	0	0.0%
Claims BMI Other obesity (183 days)	733	23.2%	195	25.8%	82	25.5%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
Claims BMI None (183 days)	2,048	64.9%	483	63.9%	205	63.7%
Presence of a Creatinine Laboratory Claim (183 days)						
Claims Creatinine (183 days)	2,623	83.1%	599	79.2%	239	74.2%
Claims Creatinine None (183 days)	532	16.9%	157	20.8%	83	25.8%
Presence of a HbA1c Laboratory Claim (183 days)						
Claims HbA1c (183 days)	2,912	92.3%	686	90.7%	290	90.1%
Claims HbA1c None (183 days)	243	7.7%	70	9.3%	32	9.9%
Presence of a Smoking Claim (183 days)						
Claims Smoking (183 days)	406	12.9%	66	8.7%	28	8.7%
Claims Smoking None (183 days)	2,749	87.1%	690	91.3%	294	91.3%

Clinical BMI (365 days) by Age Group

Clinical BMI (365 days) by Age Group (20 - 44 years of age)						
Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	6	2.5%	2	2.7%	1	3.0%
Clinical BMI 25<=BMI<30 (365 days)	20	8.4%	8	10.8%	1	3.0%
Clinical BMI 30<=BMI<40 (365 days)	80	33.5%	17	23.0%	7	21.2%
Clinical BMI 40<=BMI<70 (365 days)	39	16.3%	9	12.2%	3	9.1%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	82	34.3%	34	45.9%	20	60.6%
Clinical BMI Ht Missing (365 days)	12	5.0%	4	5.4%	1	3.0%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	94	39.3%	38	51.4%	21	63.6%

Clinical BMI (365 days) by Age Group (45 - 64 years of age)	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (365 days)	2	0.1%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	55	1.7%	7	1.5%	2	0.9%
Clinical BMI 25<=BMI<30 (365 days)	239	7.6%	38	8.1%	16	7.5%
Clinical BMI 30<=BMI<40 (365 days)	537	17.0%	91	19.5%	39	18.2%
Clinical BMI 40<=BMI<70 (365 days)	244	7.7%	52	11.1%	28	13.1%
Clinical BMI 70<=BMI<=90 (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	617	19.6%	260	55.7%	121	56.5%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
Clinical BMI Ht Missing (365 days)	170	5.4%	19	4.1%	8	3.7%
Clinical BMI Wt Missing (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	788	25.0%	279	59.7%	129	60.3%
Clinical BMI (365 days) by Age Group (65+ years of age)						
Clinical BMI 15<=BMI<18.5 (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	69	2.2%	10	4.7%	2	2.7%
Clinical BMI 25<=BMI<30 (365 days)	204	6.5%	34	15.8%	3	4.0%
Clinical BMI 30<=BMI<40 (365 days)	358	11.3%	51	23.7%	15	20.0%
Clinical BMI 40<=BMI<70 (365 days)	81	2.6%	19	8.8%	4	5.3%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	227	7.2%	95	44.2%	49	65.3%
Clinical BMI Ht Missing (365 days)	110	3.5%	6	2.8%	2	2.7%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	337	10.7%	101	47.0%	51	68.0%
Clinical BMI (365 days) by Sex						
Clinical BMI (365 days) by Sex (Female)						
Clinical BMI 15<=BMI<18.5 (365 days)	2	0.1%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	59	1.9%	10	2.7%	2	1.4%
Clinical BMI 25<=BMI<30 (365 days)	174	5.5%	39	10.4%	6	4.1%
Clinical BMI 30<=BMI<40 (365 days)	431	13.7%	79	21.1%	34	23.3%
Clinical BMI 40<=BMI<70 (365 days)	199	6.3%	47	12.5%	19	13.0%
Clinical BMI 70<=BMI<=90 (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI (365 days) by Sex (Female)	Number	Percent	Number	Percent	Number	Percent
Clinical BMI Ht AND Wt Missing (365 days)	418	0.132	186	0.496	80	0.548
Clinical BMI Ht Missing (365 days)	126	4.0%	14	3.7%	5	3.4%
Clinical BMI Wt Missing (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	545	17.3%	200	53.3%	85	58.2%
Clinical BMI (365 days) by Sex (Male)						
Clinical BMI 15<=BMI<18.5 (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	71	2.3%	9	2.4%	3	1.7%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
Clinical BMI 25<=BMI<30 (365 days)	289	9.2%	41	10.8%	14	8.0%
Clinical BMI 30<=BMI<40 (365 days)	544	17.2%	80	21.0%	27	15.3%
Clinical BMI 40<=BMI<70 (365 days)	165	5.2%	33	8.7%	16	9.1%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	508	16.1%	203	53.3%	110	62.5%
Clinical BMI Ht Missing (365 days)	166	5.3%	15	3.9%	6	3.4%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	674	21.4%	218	57.2%	116	65.9%

Clinical BMI (365 days) by Race

Clinical BMI (365 days) by Race (Unknown)

Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	12	1.5%	3	1.1%	0	0.0%
Clinical BMI 25<=BMI<30 (365 days)	38	4.9%	5	1.9%	2	1.5%
Clinical BMI 30<=BMI<40 (365 days)	100	12.9%	16	6.0%	7	5.3%
Clinical BMI 40<=BMI<70 (365 days)	44	5.7%	9	3.4%	3	2.3%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	568	73.2%	233	86.9%	121	91.0%
Clinical BMI Ht Missing (365 days)	14	1.8%	2	0.7%	0	0.0%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	582	75.0%	235	87.7%	121	91.0%

Clinical BMI (365 days) by Race (American Indian or Alaska Native)

	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 25<=BMI<30 (365 days)	8	17.0%	1	14.3%	1	33.3%
Clinical BMI 30<=BMI<40 (365 days)	20	42.6%	2	28.6%	0	0.0%
Clinical BMI 40<=BMI<70 (365 days)	5	10.6%	1	14.3%	0	0.0%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	8	17.0%	3	42.9%	2	66.7%
Clinical BMI Ht Missing (365 days)	6	12.8%	0	0.0%	0	0.0%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	14	29.8%	3	42.9%	2	66.7%
Clinical BMI (365 days) by Race (Asian)						
Clinical BMI 15<=BMI<18.5 (365 days)	2	0.5%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	55	14.5%	8	19.5%	2	16.7%
Clinical BMI 25<=BMI<30 (365 days)	121	31.9%	15	36.6%	3	25.0%
Clinical BMI 30<=BMI<40 (365 days)	94	24.8%	7	17.1%	2	16.7%
Clinical BMI 40<=BMI<70 (365 days)	21	5.5%	2	4.9%	1	8.3%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	21	5.5%	6	14.6%	3	25.0%
Clinical BMI Ht Missing (365 days)	65	17.2%	3	7.3%	1	8.3%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	86	22.7%	9	22.0%	4	33.3%
Clinical BMI (365 days) by Race (Black or African American)						
Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	14	5.8%	1	3.3%	0	0.0%
Clinical BMI 25<=BMI<30 (365 days)	45	18.6%	7	23.3%	2	20.0%
Clinical BMI 30<=BMI<40 (365 days)	101	41.7%	7	23.3%	3	30.0%
Clinical BMI 40<=BMI<70 (365 days)	43	17.8%	7	23.3%	2	20.0%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	20	8.3%	6	20.0%	2	20.0%
Clinical BMI (365 days) by Race (Black or African American)						
	Number	Percent	Number	Percent	Number	Percent
Clinical BMI Ht Missing (365 days)	19	7.90%	2	6.70%	1	10.00%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	39	16.1%	8	26.7%	3	30.0%
Clinical BMI (365 days) by Race (Native Hawaiian or Other Pacific Islander)						
Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	6	3.8%	0	0.0%	0	0.0%
Clinical BMI 25<=BMI<30 (365 days)	26	16.5%	5	33.3%	0	0.0%
Clinical BMI 30<=BMI<40 (365 days)	52	32.9%	1	6.7%	0	0.0%
Clinical BMI 40<=BMI<70 (365 days)	17	10.8%	2	13.3%	0	0.0%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	13	8.2%	7	46.7%	1	50.0%
Clinical BMI Ht Missing (365 days)	44	27.8%	0	0.0%	1	50.0%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	57	36.1%	7	46.7%	2	100.0%

Clinical BMI (365 days) by Race (White)

Clinical BMI 15<=BMI<18.5 (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	43	1.4%	7	1.8%	3	1.9%
Clinical BMI 25<=BMI<30 (365 days)	225	7.1%	47	11.9%	12	7.4%
Clinical BMI 30<=BMI<40 (365 days)	608	19.3%	126	31.9%	49	30.2%
Clinical BMI 40<=BMI<70 (365 days)	234	7.4%	59	14.9%	29	17.9%
Clinical BMI 70<=BMI<=90 (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	296	9.4%	134	33.9%	61	37.7%
Clinical BMI Ht Missing (365 days)	144	4.6%	22	5.6%	8	4.9%
Clinical BMI Wt Missing (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	441	14.0%	156	39.5%	69	42.6%

Clinical BMI (183 days) by Age Group

Clinical BMI (183 days) by Age Group (20 - 44 years of age)	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	4	1.7%	1	1.4%	1	3.0%
Clinical BMI 25<=BMI<30 (183 days)	16	6.7%	6	8.1%	1	3.0%
Clinical BMI 30<=BMI<40 (183 days)	70	29.3%	15	20.3%	5	15.2%
Clinical BMI 40<=BMI<70 (183 days)	31	13.0%	7	9.5%	3	9.1%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	90	37.7%	36	48.6%	22	66.7%
Clinical BMI Ht Missing (183 days)	28	11.7%	9	12.2%	1	3.0%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	118	49.4%	45	60.8%	23	69.7%

Clinical BMI (183 days) by Age Group (45 - 64 years of age)

Clinical BMI 15<=BMI<18.5 (183 days)	1	0.0%	0	0.0%	0	0.0%
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Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
Clinical BMI 18.5<=BMI<25 (183 days)	45	1.4%	4	0.9%	2	0.9%
Clinical BMI 25<=BMI<30 (183 days)	209	6.6%	31	6.6%	12	5.6%
Clinical BMI 30<=BMI<40 (183 days)	446	14.1%	76	16.3%	32	15.0%
Clinical BMI 40<=BMI<70 (183 days)	214	6.8%	45	9.6%	24	11.2%
Clinical BMI 70<=BMI<=90 (183 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	703	22.3%	285	61.0%	134	62.6%
Clinical BMI Ht Missing (183 days)	243	7.7%	25	5.4%	10	4.7%
Clinical BMI Wt Missing (183 days)	4	0.1%	1	0.2%	0	0.0%
Clinical BMI Any Missing (183 days)	950	30.1%	311	66.6%	144	67.3%
Clinical BMI (183 days) by Age Group (65+ years of age)						
Clinical BMI 15<=BMI<18.5 (183 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	56	1.8%	9	4.2%	0	0.0%
Clinical BMI 25<=BMI<30 (183 days)	164	5.2%	31	14.4%	2	2.7%
Clinical BMI 30<=BMI<40 (183 days)	316	10.0%	48	22.3%	14	18.7%
Clinical BMI 40<=BMI<70 (183 days)	71	2.3%	17	7.9%	4	5.3%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	260	8.2%	102	47.4%	51	68.0%
Clinical BMI (183 days) by Age Group (65+ years of age)						
	Number	Percent	Number	Percent	Number	Percent
Clinical BMI Ht Missing (183 days)	181	5.7%	8	3.7%	4	5.3%
Clinical BMI Wt Missing (183 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	442	14.0%	110	51.2%	55	73.3%
Clinical BMI (183 days) by Sex						
Clinical BMI (183 days) by Sex (Female)						
Clinical BMI 15<=BMI<18.5 (183 days)	2	0.1%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	48	1.5%	7	1.9%	1	0.7%
Clinical BMI 25<=BMI<30 (183 days)	150	4.8%	32	8.5%	5	3.4%
Clinical BMI 30<=BMI<40 (183 days)	375	11.9%	73	19.5%	30	20.5%
Clinical BMI 40<=BMI<70 (183 days)	177	5.6%	41	10.9%	16	11.0%
Clinical BMI 70<=BMI<=90 (183 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	467	14.8%	203	54.1%	87	59.6%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
Clinical BMI Ht Missing (183 days)	189	6.0%	18	4.8%	7	4.8%
Clinical BMI Wt Missing (183 days)	2	0.1%	1	0.3%	0	0.0%
Clinical BMI Any Missing (183 days)	658	20.9%	222	59.2%	94	64.4%
Clinical BMI (183 days) by Sex (Male)						
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	57	1.8%	7	1.8%	2	1.1%
Clinical BMI 25<=BMI<30 (183 days)	239	7.6%	36	9.4%	10	5.7%
Clinical BMI 30<=BMI<40 (183 days)	457	14.5%	66	17.3%	21	11.9%
Clinical BMI 40<=BMI<70 (183 days)	139	4.4%	28	7.3%	15	8.5%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	586	18.6%	220	57.7%	120	68.2%
Clinical BMI Ht Missing (183 days)	263	8.3%	24	6.3%	8	4.5%
Clinical BMI Wt Missing (183 days)	3	0.1%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	852	27.0%	244	64.0%	128	72.7%
Clinical BMI (183 days) by Race						
Clinical BMI (183 days) by Race (Unknown)						
	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	11	1.4%	3	1.1%	0	0.0%
Clinical BMI 25<=BMI<30 (183 days)	33	4.3%	4	1.5%	2	1.5%
Clinical BMI 30<=BMI<40 (183 days)	80	10.3%	12	4.5%	6	4.5%
Clinical BMI 40<=BMI<70 (183 days)	39	5.0%	8	3.0%	3	2.3%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	582	75.0%	236	88.1%	122	91.7%
Clinical BMI Ht Missing (183 days)	31	4.0%	5	1.9%	0	0.0%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	613	79.0%	241	89.9%	122	91.7%
Clinical BMI (183 days) by Race (American Indian or Alaska Native)						
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 25<=BMI<30 (183 days)	4	8.5%	0	0.0%	0	0.0%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
Clinical BMI 30<=BMI<40 (183 days)	15	31.9%	2	28.6%	0	0.0%
Clinical BMI 40<=BMI<70 (183 days)	5	10.6%	1	14.3%	0	0.0%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	13	27.7%	3	42.9%	3	100.0%
Clinical BMI Ht Missing (183 days)	10	21.3%	1	14.3%	0	0.0%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	23	48.9%	4	57.1%	3	100.0%
Clinical BMI (183 days) by Race (Asian)						
Clinical BMI 15<=BMI<18.5 (183 days)	2	0.5%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	45	11.9%	7	17.1%	1	8.3%
Clinical BMI 25<=BMI<30 (183 days)	103	27.2%	13	31.7%	2	16.7%
Clinical BMI 30<=BMI<40 (183 days)	76	20.1%	3	7.3%	2	16.7%
Clinical BMI 40<=BMI<70 (183 days)	17	4.5%	2	4.9%	0	0.0%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	42	11.1%	8	19.5%	6	50.0%
Clinical BMI (183 days) by Race (Asian)	Number	Percent	Number	Percent	Number	Percent
Clinical BMI Ht Missing (183 days)	93	24.5%	8	19.5%	1	8.3%
Clinical BMI Wt Missing (183 days)	1	0.3%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	136	35.9%	16	39.0%	7	58.3%
Clinical BMI (183 days) by Race (Black or African American)						
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	12	5.0%	0	0.0%	0	0.0%
Clinical BMI 25<=BMI<30 (183 days)	42	17.4%	7	23.3%	2	20.0%
Clinical BMI 30<=BMI<40 (183 days)	95	39.3%	7	23.3%	3	30.0%
Clinical BMI 40<=BMI<70 (183 days)	37	15.3%	7	23.3%	2	20.0%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	25	10.3%	6	20.0%	2	20.0%
Clinical BMI Ht Missing (183 days)	31	12.8%	3	10.0%	1	10.0%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	56	23.1%	9	30.0%	3	30.0%
Clinical BMI (183 days) by Race (Native Hawaiian or Other Pacific Islander)						

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	6	3.8%	0	0.0%	0	0.0%
Clinical BMI 25<=BMI<30 (183 days)	20	12.7%	3	20.0%	0	0.0%
Clinical BMI 30<=BMI<40 (183 days)	43	27.2%	1	6.7%	0	0.0%
Clinical BMI 40<=BMI<70 (183 days)	13	8.2%	2	13.3%	0	0.0%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	14	8.9%	7	46.7%	1	50.0%
Clinical BMI Ht Missing (183 days)	62	39.2%	2	13.3%	1	50.0%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	76	48.1%	9	60.0%	2	100.0%
Clinical BMI (183 days) by Race (White)						
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	31	1.0%	4	1.0%	2	1.2%
Clinical BMI 25<=BMI<30 (183 days)	187	5.9%	41	10.4%	9	5.6%
Clinical BMI 30<=BMI<40 (183 days)	523	16.6%	114	28.9%	40	24.7%
Clinical BMI (183 days) by Race (White)						
	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 40<=BMI<70 (183 days)	205	6.5%	49	12.4%	26	16.0%
Clinical BMI 70<=BMI<=90 (183 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	377	11.9%	163	41.3%	73	45.1%
Clinical BMI Ht Missing (183 days)	225	7.1%	23	5.8%	12	7.4%
Clinical BMI Wt Missing (183 days)	4	0.1%	1	0.3%	0	0.0%
Clinical BMI Any Missing (183 days)	606	19.2%	187	47.3%	85	52.5%
Clinical Tobacco Use (365 days) by Sex						
Clinical Tobacco Use (365 days) by Sex (Female)						
Clinical Tobacco Current User (365 days)	63	2.0%	13	3.5%	6	4.1%
Clinical Tobacco Never User (365 days)	612	19.4%	118	31.5%	46	31.5%
Clinical Tobacco Quit/Former User (365 days)	289	9.2%	51	13.6%	13	8.9%
Clinical Tobacco Passive Exposure (365 days)	3	0.1%	2	0.5%	0	0.0%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	3	0.1%	0	0.0%	0	0.0%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
Clinical Tobacco Conflicting (365 days)	12	0.4%	2	0.5%	2	1.4%
Clinical Tobacco Missing (365 days)	429	13.6%	189	50.4%	79	54.1%
Clinical Tobacco Use (365 days) by Sex (Male)						
Clinical Tobacco Current User (365 days)	116	3.7%	19	5.0%	8	4.5%
Clinical Tobacco Never User (365 days)	582	18.4%	99	26.0%	43	24.4%
Clinical Tobacco Quit/Former User (365 days)	497	15.8%	52	13.6%	10	5.7%
Clinical Tobacco Passive Exposure (365 days)	6	0.2%	2	0.5%	1	0.6%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	3	0.1%	2	0.5%	1	0.6%
Clinical Tobacco Conflicting (365 days)	19	0.6%	3	0.8%	2	1.1%
Clinical Tobacco Missing (365 days)	521	16.5%	204	53.5%	111	63.1%

Clinical Tobacco Use (365 days) by Race

Clinical Tobacco Use (365 days) by Race (Unknown)	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (365 days)	12	1.5%	2	0.7%	0	0.0%
Clinical Tobacco Never User (365 days)	133	17.1%	18	6.7%	9	6.8%
Clinical Tobacco Quit/Former User (365 days)	52	6.7%	9	3.4%	1	0.8%
Clinical Tobacco Passive Exposure (365 days)	1	0.1%	0	0.0%	1	0.8%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	4	0.5%	2	0.7%	0	0.0%
Clinical Tobacco Conflicting (365 days)	5	0.6%	1	0.4%	2	1.5%
Clinical Tobacco Missing (365 days)	569	73.3%	236	88.1%	120	90.2%

Clinical Tobacco Use (365 days) by Race (American Indian or Alaska Native)

Clinical Tobacco Current User (365 days)	3	6.4%	0	0.0%	1	33.3%
Clinical Tobacco Never User (365 days)	13	27.7%	2	28.6%	0	0.0%
Clinical Tobacco Quit/Former User (365 days)	23	48.9%	3	42.9%	0	0.0%
Clinical Tobacco Passive Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Missing (365 days)	8	17.0%	2	28.6%	2	66.7%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
Clinical Tobacco Use (365 days) by Race (Asian)						
Clinical Tobacco Current User (365 days)	32	8.4%	1	2.4%	1	8.3%
Clinical Tobacco Never User (365 days)	217	57.3%	24	58.5%	6	50.0%
Clinical Tobacco Quit/Former User (365 days)	99	26.1%	9	22.0%	1	8.3%
Clinical Tobacco Passive Exposure (365 days)	1	0.3%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (365 days)	6	1.6%	1	2.4%	1	8.3%
Clinical Tobacco Missing (365 days)	24	6.3%	6	14.6%	3	25.0%
Clinical Tobacco Use (365 days) by Race (Black or African American)						
	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (365 days)	18	7.4%	2	6.7%	1	10.0%
Clinical Tobacco Never User (365 days)	143	59.1%	15	50.0%	7	70.0%
Clinical Tobacco Quit/Former User (365 days)	57	23.6%	7	23.3%	0	0.0%
Clinical Tobacco Passive Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	1	0.4%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (365 days)	3	1.2%	0	0.0%	0	0.0%
Clinical Tobacco Missing (365 days)	20	8.3%	6	20.0%	2	20.0%
Clinical Tobacco Use (365 days) by Race (Native Hawaiian or Other Pacific Islander)						
Clinical Tobacco Current User (365 days)	12	7.6%	1	6.7%	0	0.0%
Clinical Tobacco Never User (365 days)	76	48.1%	6	40.0%	1	50.0%
Clinical Tobacco Quit/Former User (365 days)	53	33.5%	2	13.3%	0	0.0%
Clinical Tobacco Passive Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (365 days)	4	2.5%	0	0.0%	0	0.0%
Clinical Tobacco Missing (365 days)	13	8.2%	6	40.0%	1	50.0%
Clinical Tobacco Use (365 days) by Race (White)						
Clinical Tobacco Current User (365 days)	102	3.2%	26	6.6%	11	6.8%
Clinical Tobacco Never User (365 days)	612	19.4%	152	38.5%	66	40.7%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
Clinical Tobacco Quit/Former User (365 days)	502	15.9%	73	18.5%	21	13.0%
Clinical Tobacco Passive Exposure (365 days)	7	0.2%	4	1.0%	0	0.0%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	1	0.0%	0	0.0%	1	0.6%
Clinical Tobacco Conflicting (365 days)	13	0.4%	3	0.8%	1	0.6%
Clinical Tobacco Missing (365 days)	316	10.0%	137	34.7%	62	38.3%

Clinical Tobacco Use (183 days) by Sex

Clinical Tobacco Use (183 days) by Sex (Female)	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (183 days)	56	1.8%	10	2.7%	4	2.7%
Clinical Tobacco Never User (183 days)	561	17.8%	106	28.3%	41	28.1%
Clinical Tobacco Quit/Former User (183 days)	274	8.7%	48	12.8%	12	8.2%
Clinical Tobacco Passive Exposure (183 days)	3	0.1%	2	0.5%	0	0.0%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	2	0.1%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	9	0.3%	1	0.3%	2	1.4%
Clinical Tobacco Missing (183 days)	506	16.0%	208	55.5%	87	59.6%

Clinical Tobacco Use (183 days) by Sex (Male)

Clinical Tobacco Current User (183 days)	105	3.3%	16	4.2%	5	2.8%
Clinical Tobacco Never User (183 days)	526	16.7%	86	22.6%	37	21.0%
Clinical Tobacco Quit/Former User (183 days)	460	14.6%	45	11.8%	9	5.1%
Clinical Tobacco Passive Exposure (183 days)	4	0.1%	0	0.0%	1	0.6%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	2	0.1%	1	0.3%	1	0.6%
Clinical Tobacco Conflicting (183 days)	14	0.4%	3	0.8%	1	0.6%
Clinical Tobacco Missing (183 days)	633	20.1%	230	60.4%	122	69.3%

Clinical Tobacco Use (183 days) by Race

Clinical Tobacco Use (183 days) by Race (Unknown)	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (183 days)	12	1.5%	2	0.7%	0	0.0%
Clinical Tobacco Never User (183 days)	118	15.2%	16	6.0%	8	6.0%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
Clinical Tobacco Quit/Former User (183 days)	49	6.3%	8	3.0%	1	0.8%
Clinical Tobacco Passive Exposure (183 days)	1	0.1%	0	0.0%	1	0.8%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	2	0.3%	1	0.4%	0	0.0%
Clinical Tobacco Conflicting (183 days)	3	0.4%	1	0.4%	1	0.8%
Clinical Tobacco Missing (183 days)	591	76.2%	240	89.6%	122	91.7%
Clinical Tobacco Use (183 days) by Race (American Indian or Alaskan Native)						
	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (183 days)	1	2.1%	0	0.0%	0	0.0%
Clinical Tobacco Never User (183 days)	12	25.5%	2	28.6%	0	0.0%
Clinical Tobacco Quit/Former User (183 days)	19	40.4%	2	28.6%	0	0.0%
Clinical Tobacco Passive Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Missing (183 days)	15	31.9%	3	42.9%	3	100.0%
Clinical Tobacco Use (183 days) by Race (Asian)						
Clinical Tobacco Current User (183 days)	29	7.7%	0	0.0%	0	0.0%
Clinical Tobacco Never User (183 days)	205	54.1%	21	51.2%	6	50.0%
Clinical Tobacco Quit/Former User (183 days)	91	24.0%	8	19.5%	0	0.0%
Clinical Tobacco Passive Exposure (183 days)	1	0.3%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	6	1.6%	1	2.4%	1	8.3%
Clinical Tobacco Missing (183 days)	47	12.4%	11	26.8%	5	41.7%
Clinical Tobacco Use (183 days) by Race (Black or African American)						
Clinical Tobacco Current User (183 days)	17	7.0%	2	6.7%	1	10.0%
Clinical Tobacco Never User (183 days)	137	56.6%	15	50.0%	7	70.0%
Clinical Tobacco Quit/Former User (183 days)	54	22.3%	7	23.3%	0	0.0%
Clinical Tobacco Passive Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Incident SGLT-2 Inhibitors		Incident Canagliflozin		Incident Dapagliflozin	
Clinical Tobacco Not Asked (183 days)	1	0.4%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	2	0.8%	0	0.0%	0	0.0%
Clinical Tobacco Missing (183 days)	31	12.8%	6	20.0%	2	20.0%
Clinical Tobacco Use (183 days) by Race (Native Hawaiian or Other Pacific Islander)						
	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (183 days)	10	6.3%	1	6.7%	0	0.0%
Clinical Tobacco Never User (183 days)	73	46.2%	5	33.3%	1	50.0%
Clinical Tobacco Quit/Former User (183 days)	53	33.5%	2	13.3%	0	0.0%
Clinical Tobacco Passive Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	4	2.5%	0	0.0%	0	0.0%
Clinical Tobacco Missing (183 days)	18	11.4%	7	46.7%	1	50.0%
Clinical Tobacco Use (183 days) by Race (White)						
Clinical Tobacco Current User (183 days)	92	2.9%	21	5.3%	8	4.9%
Clinical Tobacco Never User (183 days)	542	17.2%	133	33.7%	56	34.6%
Clinical Tobacco Quit/Former User (183 days)	468	14.8%	66	16.7%	20	12.3%
Clinical Tobacco Passive Exposure (183 days)	5	0.2%	2	0.5%	0	0.0%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	1	0.0%	0	0.0%	1	0.6%
Clinical Tobacco Conflicting (183 days)	8	0.3%	2	0.5%	1	0.6%
Clinical Tobacco Missing (183 days)	437	13.9%	171	43.3%	76	46.9%

¹These baseline covariates were assessed from 365 days to 1 day before the index date.

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

Characteristic	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
	Number		Number		Number	
Number of episodes	2,375		0		2,169	
Number of unique patients	2,375		0		2,169	
Demographics	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Mean Age (years)	61.1	10.2	0	0	63.4	11.9
Age (years)	Number	Percent	Number	Percent	Number	Percent
20-44	152	6.4%	0	0.0%	148	6.8%
45-64	1,371	57.7%	0	0.0%	1,027	47.3%
65+	852	35.9%	0	0.0%	994	45.8%
Sex						
Female	1,018	42.9%	0	0.0%	1,021	47.1%
Male	1,357	57.1%	0	0.0%	1,148	52.9%
Race						
Unknown	483	20.3%	0	0.0%	436	20.1%
American Indian or Alaska Native	39	1.6%	0	0.0%	18	0.8%
Asian	353	14.9%	0	0.0%	296	13.6%
Black or African American	221	9.3%	0	0.0%	226	10.4%
Native Hawaiian or Other Pacific Islander	146	6.1%	0	0.0%	45	2.1%
White	1,133	47.7%	0	0.0%	1,148	52.9%
Hispanic Origin						
2013	215	9.1%	0	0.0%	190	8.8%
Year						
2013	0	0.0%	0	0.0%	743	34.3%
2014	10	0.4%	0	0.0%	320	14.8%
2015	41	1.7%	0	0.0%	345	15.9%
2016	360	15.2%	0	0.0%	291	13.4%
2017	975	41.1%	0	0.0%	321	14.8%
2018	989	41.6%	0	0.0%	149	6.9%
Recorded History of:	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Charlson/Elixhauser Combined Comorbidity Score	1.8	2.1	0	0	1.7	2.6
Recorded History of:	Number	Percent	Number	Percent	Number	Percent
GLP-1 Analogs	291	12.3%	0	0.0%	52	2.4%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
Thiazolidinediones	185	7.8%	0	0.0%	202	9.3%
Sulfonylureas	1,300	54.7%	0	0.0%	1,464	67.5%
Biguanides	2,016	84.9%	0	0.0%	1,731	79.8%
Short/Rapid-Acting Insulins	567	23.9%	0	0.0%	169	7.8%
Long/Intermediate-Acting Insulins	1,059	44.6%	0	0.0%	395	18.2%
Diabetes Complication	1,278	53.8%	0	0.0%	1,116	51.5%
Stroke	59	2.5%	0	0.0%	76	3.5%
Malignancy	228	9.6%	0	0.0%	235	10.8%
Acute Myocardial Infarction	98	4.1%	0	0.0%	55	2.5%
Hypertension/ Hypertensive Disorders	1,788	75.3%	0	0.0%	1,702	78.5%
Hypercholesterolemia/ Hyperlipidemia	1,739	73.2%	0	0.0%	1,735	80.0%
Alcohol Consumption	32	1.3%	0	0.0%	33	1.5%
Chronic Kidney Disease	402	16.9%	0	0.0%	553	25.5%
SGLT-2is ¹	238	10.0%	0	0.0%	19	0.9%
DPP-4is ¹	224	9.4%	0	0.0%	87	4.0%
Health Service Utilization Intensity:	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Mean number of ambulatory encounters	14	12.7	0	0	14.4	14
Mean number of emergency room encounters	0.4	1	0	0	0.5	1.2
Mean number of inpatient hospital encounters	0.2	0.5	0	0	0.4	1.4
Mean number of non-acute institutional encounters	0	0.5	0	0	0.4	3.7
Mean number of other ambulatory encounters	18.2	16.5	0	0	9.9	12
Drug Utilization Intensity:						
Mean number of unique drug classes	10	5	0	0	9.3	5.2
Mean number of generics	12.6	5.8	0	0	11.6	5.9
Mean number of filled prescriptions	39.1	24	0	0	35.5	26.2
Clinical and Laboratory Characteristics (365 days)						
Clinical BMI (365 days)	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (365 days)	5	0.2%	0	0.0%	5	0.2%
Clinical BMI 18.5<=BMI<25 (365 days)	117	4.9%	0	0.0%	175	8.1%
Clinical BMI 25<=BMI<30 (365 days)	398	16.8%	0	0.0%	421	19.4%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
Clinical BMI 30<=BMI<40 (365 days)	819	34.5%	0	0.0%	626	28.9%
Clinical BMI 40<=BMI<70 (365 days)	288	12.1%	0	0.0%	214	9.9%
Clinical BMI 70<=BMI<=90 (365 days)	1	0.0%	0	0.0%	1	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	476	20.0%	0	0.0%	618	28.5%
Clinical BMI Ht Missing (365 days)	270	11.4%	0	0.0%	104	4.8%
Clinical BMI Wt Missing (365 days)	1	0.0%	0	0.0%	5	0.2%
Clinical BMI Any Missing (365 days)	747	31.5%	0	0.0%	727	33.5%
Clinical Tobacco Use (365 days)						
Clinical Tobacco Current User (365 days)	143	6.0%	0	0.0%	113	5.2%
Clinical Tobacco Never (365 days)	983	41.4%	0	0.0%	899	41.4%
Clinical Tobacco Quit/Former User (365 days)	717	30.2%	0	0.0%	457	21.1%
Clinical Tobacco Passive (365 days)	6	0.3%	0	0.0%	16	0.7%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	3	0.1%	0	0.0%	4	0.2%
Clinical Tobacco Conflicting (365 days)	26	1.1%	0	0.0%	46	2.1%
Clinical Tobacco Missing (365 days)	497	20.9%	0	0.0%	634	29.2%
Clinical HbA1c Laboratory Values (365 days)						
Clinical HbA1c 2.5<=HbA1c<5.7 (365 days)	6	0.3%	0	0.0%	16	0.7%
Clinical HbA1c 5.7<=HbA1c<6.5 (365 days)	60	2.5%	0	0.0%	92	4.2%
Clinical HbA1c 6.5<=HbA1c<8 (365 days)	490	20.6%	0	0.0%	499	23.0%
Clinical HbA1c 8<=HbA1c<9 (365 days)	540	22.7%	0	0.0%	402	18.5%
Clinical HbA1c 9<=HbA1c<10 (365 days)	352	14.8%	0	0.0%	259	11.9%
Clinical HbA1c 10<=HbA1c<12.5 (365 days)	327	13.8%	0	0.0%	193	8.9%
Clinical HbA1c 12.5<=HbA1c<15 (365 days)	43	1.8%	0	0.0%	44	2.0%
Clinical HbA1c 15<=HbA1c<=25 (365 days)	5	0.2%	0	0.0%	6	0.3%
Clinical HbA1c Missing (365 days)	552	23.2%	0	0.0%	658	30.3%
Clinical Creatinine Laboratory Values (365 days)						
	Number	Percent	Number	Percent	Number	Percent
Clinical Creatinine 0.3<=Creatinine<=0.8 (365 days)	711	29.9%	0	0.0%	516	23.8%
Clinical Creatinine 0.8<Creatinine<=0.9 (365 days)	302	12.7%	0	0.0%	240	11.1%
Clinical Creatinine 0.9<Creatinine<=1.0 (365 days)	289	12.2%	0	0.0%	206	9.5%
Clinical Creatinine 1.0<Creatinine<=1.2 (365 days)	334	14.1%	0	0.0%	256	11.8%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
Clinical Creatinine 1.2<Creatinine<=1.5 (365 days)	151	6.4%	0	0.0%	193	8.9%
Clinical Creatinine 1.5<Creatinine<=2.0 (365 days)	31	1.3%	0	0.0%	93	4.3%
Clinical Creatinine 2.0<Creatinine<=2.5 (365 days)	4	0.2%	0	0.0%	23	1.1%
Clinical Creatinine 2.5<Creatinine<=3.0 (365 days)	1	0.0%	0	0.0%	8	0.4%
Clinical Creatinine 3.0<Creatinine<=3.5 (365 days)	0	0.0%	0	0.0%	2	0.1%
Clinical Creatinine 3.5<Creatinine<=20 (365 days)	0	0.0%	0	0.0%	18	0.8%
Clinical Creatinine Missing (365 days)	552	23.2%	0	0.0%	614	28.3%
Clinical eGFR Laboratory Values (365 days)						
Clinical eGFR eGFR<15 (365 days)	0	0.0%	0	0.0%	15	0.7%
Clinical eGFR 15<=eGFR<=29 (365 days)	3	0.1%	0	0.0%	46	2.1%
Clinical eGFR 30<=eGFR<=44 (365 days)	32	1.3%	0	0.0%	130	6.0%
Clinical eGFR 45<=eGFR<=59 (365 days)	212	8.9%	0	0.0%	236	10.9%
Clinical eGFR 60<=eGFR<=89 (365 days)	812	34.2%	0	0.0%	590	27.2%
Clinical eGFR 90<=eGFR<=200 (365 days)	764	32.2%	0	0.0%	538	24.8%
Clinical eGFR Missing (365 days)	552	23.2%	0	0.0%	614	28.3%
Claims BMI (365 days)						
Claims BMI BMI<19 (365 days)	0	0.0%	0	0.0%	1	0.0%
Claims BMI 19<=BMI<=24 (365 days)	5	0.2%	0	0.0%	7	0.3%
Claims BMI 25<=BMI<=29 (365 days)	21	0.9%	0	0.0%	17	0.8%
Claims BMI 30<=BMI<=39 (365 days)	193	8.1%	0	0.0%	133	6.1%
Claims BMI 40<=BMI<=69 (365 days)	144	6.1%	0	0.0%	89	4.1%
Claims BMI BMI>=70 (365 days)	1	0.0%	0	0.0%	1	0.0%
Claims BMI Other obesity (365 days)	652	27.5%	0	0.0%	520	24.0%
Claims BMI None (365 days)	1,359	57.2%	0	0.0%	1,401	64.6%
Presence of a Creatinine Laboratory Claim (365 days)						
	Number	Percent	Number	Percent	Number	Percent
Claims Creatinine (365 days)	2,237	94.2%	0	0.0%	1,996	92.0%
Claims Creatinine None (365 days)	138	5.8%	0	0.0%	173	8.0%
Presence of a HbA1c Laboratory Claim (365 days)						
Claims HbA1c (365 days)	2,303	97.0%	0	0.0%	2,056	94.8%
Claims HbA1c None (365 days)	72	3.0%	0	0.0%	113	5.2%
Presence of a Smoking Claim (365 days)						

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
Claims Smoking (365 days)	478	20.1%	0	0.0%	377	17.4%
Claims Smoking None (365 days)	1,897	79.9%	0	0.0%	1,792	82.6%
Clinical and Laboratory Characteristics (183 days)						
Clinical BMI (183 days)						
Clinical BMI 15<=BMI<18.5 (183 days)	3	0.1%	0	0.0%	5	0.2%
Clinical BMI 18.5<=BMI<25 (183 days)	98	4.1%	0	0.0%	153	7.1%
Clinical BMI 25<=BMI<30 (183 days)	331	13.9%	0	0.0%	364	16.8%
Clinical BMI 30<=BMI<40 (183 days)	691	29.1%	0	0.0%	546	25.2%
Clinical BMI 40<=BMI<70 (183 days)	250	10.5%	0	0.0%	191	8.8%
Clinical BMI 70<=BMI<=90 (183 days)	1	0.0%	0	0.0%	1	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	574	24.2%	0	0.0%	746	34.4%
Clinical BMI Ht Missing (183 days)	423	17.8%	0	0.0%	160	7.4%
Clinical BMI Wt Missing (183 days)	4	0.2%	0	0.0%	3	0.1%
Clinical BMI Any Missing (183 days)	1,001	42.1%	0	0.0%	909	41.9%
Clinical Tobacco Use (183 days)						
Clinical Tobacco Current User (183 days)	134	5.6%	0	0.0%	106	4.9%
Clinical Tobacco Never (183 days)	894	37.6%	0	0.0%	795	36.7%
Clinical Tobacco Quit/Former User (183 days)	666	28.0%	0	0.0%	404	18.6%
Clinical Tobacco Passive (183 days)	6	0.3%	0	0.0%	10	0.5%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	2	0.1%	0	0.0%	1	0.0%
Clinical Tobacco Conflicting (183 days)	20	0.8%	0	0.0%	39	1.8%
Clinical Tobacco Missing (183 days)	653	27.5%	0	0.0%	814	37.5%
Clinical HbA1c Laboratory Values (183 days)						
	Number	Percent	Number	Percent	Number	Percent
Clinical HbA1c 2.5<=HbA1c<5.7 (183 days)	4	0.2%	0	0.0%	13	0.6%
Clinical HbA1c 5.7<=HbA1c<6.5 (183 days)	52	2.2%	0	0.0%	77	3.6%
Clinical HbA1c 6.5<=HbA1c<8 (183 days)	446	18.8%	0	0.0%	447	20.6%
Clinical HbA1c 8<=HbA1c<9 (183 days)	519	21.9%	0	0.0%	393	18.1%
Clinical HbA1c 9<=HbA1c<10 (183 days)	345	14.5%	0	0.0%	247	11.4%
Clinical HbA1c 10<=HbA1c<12 (183 days)	314	13.2%	0	0.0%	186	8.6%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
Clinical HbA1c 12.5<=HbA1c<15 (183 days)	40	1.7%	0	0.0%	41	1.9%
Clinical HbA1c 15<=HbA1c<=25 (183 days)	5	0.2%	0	0.0%	5	0.2%
Clinical HbA1c Missing (183 days)	650	27.4%	0	0.0%	760	35.0%
Clinical Creatinine Laboratory Values (183 days)						
Clinical Creatinine 0.3<=Creatinine<=0.8 (183 days)	615	25.9%	0	0.0%	446	20.6%
Clinical Creatinine 0.8<Creatinine<=0.9 (183 days)	257	10.8%	0	0.0%	213	9.8%
Clinical Creatinine 0.9<Creatinine<=1.0 (183 days)	257	10.8%	0	0.0%	180	8.3%
Clinical Creatinine 1.0<Creatinine<=1.2 (183 days)	274	11.5%	0	0.0%	223	10.3%
Clinical Creatinine 1.2<Creatinine<=1.5 (183 days)	132	5.6%	0	0.0%	177	8.2%
Clinical Creatinine 1.5<Creatinine<=2.0 (183 days)	29	1.2%	0	0.0%	84	3.9%
Clinical Creatinine 2.0<Creatinine<=2.5 (183 days)	3	0.1%	0	0.0%	22	1.0%
Clinical Creatinine 2.5<Creatinine<=3.0 (183 days)	1	0.0%	0	0.0%	8	0.4%
Clinical Creatinine 3.0<Creatinine<=3.5 (183 days)	0	0.0%	0	0.0%	1	0.0%
Clinical Creatinine 3.5<Creatinine<=20 (183 days)	0	0.0%	0	0.0%	16	0.7%
Clinical Creatinine Missing (183 days)	807	34.0%	0	0.0%	799	36.8%
Clinical eGFR Laboratory Values (183 days)						
Clinical eGFR eGFR<15 (183 days)	0	0.0%	0	0.0%	13	0.6%
Clinical eGFR 15<=eGFR<=29 (183 days)	3	0.1%	0	0.0%	43	2.0%
Clinical eGFR 30<=eGFR<=44 (183 days)	30	1.3%	0	0.0%	122	5.6%
Clinical eGFR 45<=eGFR<=59 (183 days)	192	8.1%	0	0.0%	209	9.6%
Clinical eGFR 60<=eGFR<=89 (183 days)	689	29.0%	0	0.0%	509	23.5%
Clinical eGFR 90<=eGFR<=200 (183 days)	654	27.5%	0	0.0%	474	21.9%
Clinical eGFR Missing (183 days)	807	34.0%	0	0.0%	799	36.8%
Claims BMI (183 days)						
	Number	Percent	Number	Percent	Number	Percent
Claims BMI BMI<19 (183 days)	0	0.0%	0	0.0%	0	0.0%
Claims BMI 19<=BMI<=24 (183 days)	3	0.1%	0	0.0%	6	0.3%
Claims BMI 25<=BMI<=29 (183 days)	19	0.8%	0	0.0%	13	0.6%
Claims BMI 30<=BMI<=39 (183 days)	151	6.4%	0	0.0%	102	4.7%
Claims BMI 40<=BMI<=69 (183 days)	129	5.4%	0	0.0%	75	3.5%
Claims BMI BMI>=70 (183 days)	1	0.0%	0	0.0%	1	0.0%
Claims BMI Other obesity (183 days)	522	22.0%	0	0.0%	408	18.8%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
Claims BMI None (183 days)	1,550	65.3%	0	0.0%	1,564	72.1%
Presence of a Creatinine Laboratory Claim (183 days)						
Claims Creatinine (183 days)	2,005	84.4%	0	0.0%	1,793	82.7%
Claims Creatinine None (183 days)	370	15.6%	0	0.0%	376	17.3%
Presence of a HbA1c Laboratory Claim (183 days)						
Claims HbA1c (183 days)	2,194	92.4%	0	0.0%	1,964	90.5%
Claims HbA1c None (183 days)	181	7.6%	0	0.0%	205	9.5%
Presence of a Smoking Claim (183 days)						
Claims Smoking (183 days)	346	14.6%	0	0.0%	264	12.2%
Claims Smoking None (183 days)	2,029	85.4%	0	0.0%	1,905	87.8%

Clinical BMI (365 days) by Age Group

Clinical BMI (365 days) by Age Group (20 - 44 years of age)						
Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	3	2.0%	0	0.0%	5	3.4%
Clinical BMI 25<=BMI<30 (365 days)	12	7.9%	0	0.0%	16	10.8%
Clinical BMI 30<=BMI<40 (365 days)	58	38.2%	0	0.0%	43	29.1%
Clinical BMI 40<=BMI<70 (365 days)	29	19.1%	0	0.0%	24	16.2%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	41	27.0%	0	0.0%	54	36.5%
Clinical BMI Ht Missing (365 days)	9	5.9%	0	0.0%	6	4.1%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	50	32.9%	0	0.0%	60	40.5%

Clinical BMI (365 days) by Age Group (45 - 64 years of age)						
	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (365 days)	3	0.1%	0	0.0%	2	0.1%
Clinical BMI 18.5<=BMI<25 (365 days)	51	2.1%	0	0.0%	60	2.8%
Clinical BMI 25<=BMI<30 (365 days)	208	8.8%	0	0.0%	181	8.3%
Clinical BMI 30<=BMI<40 (365 days)	446	18.8%	0	0.0%	310	14.3%
Clinical BMI 40<=BMI<70 (365 days)	193	8.1%	0	0.0%	124	5.7%
Clinical BMI 70<=BMI<=90 (365 days)	1	0.0%	0	0.0%	1	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	317	13.3%	0	0.0%	296	13.6%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
Clinical BMI Ht Missing (365 days)	151	6.4%	0	0.0%	52	2.4%
Clinical BMI Wt Missing (365 days)	1	0.0%	0	0.0%	1	0.0%
Clinical BMI Any Missing (365 days)	469	19.7%	0	0.0%	349	16.1%
Clinical BMI (365 days) by Age Group (65+ years of age)						
Clinical BMI 15<=BMI<18.5 (365 days)	2	0.2%	0	0.0%	3	0.3%
Clinical BMI 18.5<=BMI<25 (365 days)	63	7.4%	0	0.0%	110	11.1%
Clinical BMI 25<=BMI<30 (365 days)	178	20.9%	0	0.0%	224	22.5%
Clinical BMI 30<=BMI<40 (365 days)	315	37.0%	0	0.0%	273	27.5%
Clinical BMI 40<=BMI<70 (365 days)	66	7.7%	0	0.0%	66	6.6%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	118	13.8%	0	0.0%	268	27.0%
Clinical BMI Ht Missing (365 days)	110	12.9%	0	0.0%	46	4.6%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	4	0.4%
Clinical BMI Any Missing (365 days)	228	26.8%	0	0.0%	318	32.0%
Clinical BMI (365 days) by Sex						
Clinical BMI (365 days) by Sex (Female)						
Clinical BMI 15<=BMI<18.5 (365 days)	3	0.1%	0	0.0%	3	0.1%
Clinical BMI 18.5<=BMI<25 (365 days)	52	2.2%	0	0.0%	82	3.8%
Clinical BMI 25<=BMI<30 (365 days)	148	6.2%	0	0.0%	172	7.9%
Clinical BMI 30<=BMI<40 (365 days)	348	14.7%	0	0.0%	289	13.3%
Clinical BMI 40<=BMI<70 (365 days)	147	6.2%	0	0.0%	125	5.8%
Clinical BMI 70<=BMI<=90 (365 days)	1	0.0%	0	0.0%	1	0.0%
Clinical BMI (365 days) by Sex (Female)	Number	Percent	Number	Percent	Number	Percent
Clinical BMI Ht AND Wt Missing (365 days)	204	0.086	0	0	306	0.141
Clinical BMI Ht Missing (365 days)	114	4.8%	0	0.0%	39	1.8%
Clinical BMI Wt Missing (365 days)	1	0.0%	0	0.0%	4	0.2%
Clinical BMI Any Missing (365 days)	319	13.4%	0	0.0%	349	16.1%
Clinical BMI (365 days) by Sex (Male)						
Clinical BMI 15<=BMI<18.5 (365 days)	2	0.1%	0	0.0%	2	0.1%
Clinical BMI 18.5<=BMI<25 (365 days)	65	2.7%	0	0.0%	93	4.3%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
Clinical BMI 25<=BMI<30 (365 days)	250	10.5%	0	0.0%	249	11.5%
Clinical BMI 30<=BMI<40 (365 days)	471	19.8%	0	0.0%	337	15.5%
Clinical BMI 40<=BMI<70 (365 days)	141	5.9%	0	0.0%	89	4.1%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	272	11.5%	0	0.0%	312	14.4%
Clinical BMI Ht Missing (365 days)	156	6.6%	0	0.0%	65	3.0%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	1	0.0%
Clinical BMI Any Missing (365 days)	428	18.0%	0	0.0%	378	17.4%

Clinical BMI (365 days) by Race

Clinical BMI (365 days) by Race (Unknown)						
Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	12	2.5%	0	0.0%	7	1.6%
Clinical BMI 25<=BMI<30 (365 days)	35	7.2%	0	0.0%	40	9.2%
Clinical BMI 30<=BMI<40 (365 days)	85	17.6%	0	0.0%	64	14.7%
Clinical BMI 40<=BMI<70 (365 days)	35	7.2%	0	0.0%	19	4.4%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	303	62.7%	0	0.0%	298	68.3%
Clinical BMI Ht Missing (365 days)	13	2.7%	0	0.0%	8	1.8%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	316	65.4%	0	0.0%	306	70.2%

Clinical BMI (365 days) by Race (American Indian or Alaska Native)						
	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 25<=BMI<30 (365 days)	6	15.4%	0	0.0%	5	27.8%
Clinical BMI 30<=BMI<40 (365 days)	19	48.7%	0	0.0%	11	61.1%
Clinical BMI 40<=BMI<70 (365 days)	4	10.3%	0	0.0%	1	5.6%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	4	10.3%	0	0.0%	1	5.6%
Clinical BMI Ht Missing (365 days)	6	15.4%	0	0.0%	0	0.0%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	10	25.6%	0	0.0%	1	5.6%
Clinical BMI (365 days) by Race (Asian)						
Clinical BMI 15<=BMI<18.5 (365 days)	3	0.8%	0	0.0%	3	1.0%
Clinical BMI 18.5<=BMI<25 (365 days)	50	14.2%	0	0.0%	78	26.4%
Clinical BMI 25<=BMI<30 (365 days)	111	31.4%	0	0.0%	103	34.8%
Clinical BMI 30<=BMI<40 (365 days)	89	25.2%	0	0.0%	57	19.3%
Clinical BMI 40<=BMI<70 (365 days)	19	5.4%	0	0.0%	1	0.3%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	16	4.5%	0	0.0%	30	10.1%
Clinical BMI Ht Missing (365 days)	65	18.4%	0	0.0%	23	7.8%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	1	0.3%
Clinical BMI Any Missing (365 days)	81	22.9%	0	0.0%	54	18.2%
Clinical BMI (365 days) by Race (Black or African American)						
Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	13	5.9%	0	0.0%	14	6.2%
Clinical BMI 25<=BMI<30 (365 days)	42	19.0%	0	0.0%	60	26.5%
Clinical BMI 30<=BMI<40 (365 days)	96	43.4%	0	0.0%	81	35.8%
Clinical BMI 40<=BMI<70 (365 days)	39	17.6%	0	0.0%	32	14.2%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	1	0.4%
Clinical BMI Ht AND Wt Missing (365 days)	14	6.3%	0	0.0%	21	9.3%
Clinical BMI (365 days) by Race (Black or African American)						
	Number	Percent	Number	Percent	Number	Percent
Clinical BMI Ht Missing (365 days)	17	7.70%	0	0.00%	16	7.10%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	1	0.4%
Clinical BMI Any Missing (365 days)	31	14.0%	0	0.0%	38	16.8%
Clinical BMI (365 days) by Race (Native Hawaiian or Other Pacific Islander)						
Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	6	4.1%	0	0.0%	1	2.2%
Clinical BMI 25<=BMI<30 (365 days)	21	14.4%	0	0.0%	6	13.3%
Clinical BMI 30<=BMI<40 (365 days)	52	35.6%	0	0.0%	17	37.8%
Clinical BMI 40<=BMI<70 (365 days)	16	11.0%	0	0.0%	8	17.8%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	6	4.1%	0	0.0%	3	6.7%
Clinical BMI Ht Missing (365 days)	45	30.8%	0	0.0%	10	22.2%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	51	34.9%	0	0.0%	13	28.9%

Clinical BMI (365 days) by Race (White)

Clinical BMI 15<=BMI<18.5 (365 days)	2	0.1%	0	0.0%	2	0.1%
Clinical BMI 18.5<=BMI<25 (365 days)	36	1.5%	0	0.0%	75	3.5%
Clinical BMI 25<=BMI<30 (365 days)	183	7.7%	0	0.0%	207	9.5%
Clinical BMI 30<=BMI<40 (365 days)	478	20.1%	0	0.0%	396	18.3%
Clinical BMI 40<=BMI<70 (365 days)	175	7.4%	0	0.0%	153	7.1%
Clinical BMI 70<=BMI<=90 (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	133	5.6%	0	0.0%	265	12.2%
Clinical BMI Ht Missing (365 days)	124	5.2%	0	0.0%	47	2.2%
Clinical BMI Wt Missing (365 days)	1	0.0%	0	0.0%	3	0.1%
Clinical BMI Any Missing (365 days)	258	10.9%	0	0.0%	315	14.5%

Clinical BMI (183 days) by Age Group

Clinical BMI (183 days) by Age Group (20 - 44 years of age)	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	2	1.3%	0	0.0%	5	3.4%
Clinical BMI 25<=BMI<30 (183 days)	9	5.9%	0	0.0%	16	10.8%
Clinical BMI 30<=BMI<40 (183 days)	51	33.6%	0	0.0%	36	24.3%
Clinical BMI 40<=BMI<70 (183 days)	23	15.1%	0	0.0%	22	14.9%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	46	30.3%	0	0.0%	61	41.2%
Clinical BMI Ht Missing (183 days)	21	13.8%	0	0.0%	8	5.4%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	67	44.1%	0	0.0%	69	46.6%

Clinical BMI (183 days) by Age Group (45 - 64 years of age)

Clinical BMI 15<=BMI<18.5 (183 days)	1	0.0%	0	0.0%	2	0.1%
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Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
Clinical BMI 18.5<=BMI<25 (183 days)	44	1.9%	0	0.0%	54	2.5%
Clinical BMI 25<=BMI<30 (183 days)	185	7.8%	0	0.0%	157	7.2%
Clinical BMI 30<=BMI<40 (183 days)	369	15.5%	0	0.0%	268	12.4%
Clinical BMI 40<=BMI<70 (183 days)	169	7.1%	0	0.0%	108	5.0%
Clinical BMI 70<=BMI<=90 (183 days)	1	0.0%	0	0.0%	1	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	379	16.0%	0	0.0%	354	16.3%
Clinical BMI Ht Missing (183 days)	220	9.3%	0	0.0%	83	3.8%
Clinical BMI Wt Missing (183 days)	3	0.1%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	602	25.3%	0	0.0%	437	20.1%
Clinical BMI (183 days) by Age Group (65+ years of age)						
Clinical BMI 15<=BMI<18.5 (183 days)	2	0.2%	0	0.0%	3	0.3%
Clinical BMI 18.5<=BMI<25 (183 days)	52	6.1%	0	0.0%	94	9.5%
Clinical BMI 25<=BMI<30 (183 days)	137	16.1%	0	0.0%	191	19.2%
Clinical BMI 30<=BMI<40 (183 days)	271	31.8%	0	0.0%	242	24.3%
Clinical BMI 40<=BMI<70 (183 days)	58	6.8%	0	0.0%	61	6.1%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	149	17.5%	0	0.0%	331	33.3%
Clinical BMI (183 days) by Age Group (65+ years of age)						
	Number	Percent	Number	Percent	Number	Percent
Clinical BMI Ht Missing (183 days)	182	21.4%	0	0.0%	69	6.9%
Clinical BMI Wt Missing (183 days)	1	0.1%	0	0.0%	3	0.3%
Clinical BMI Any Missing (183 days)	332	39.0%	0	0.0%	403	40.5%
Clinical BMI (183 days) by Sex						
Clinical BMI (183 days) by Sex (Female)						
Clinical BMI 15<=BMI<18.5 (183 days)	3	0.1%	0	0.0%	3	0.1%
Clinical BMI 18.5<=BMI<25 (183 days)	44	1.9%	0	0.0%	72	3.3%
Clinical BMI 25<=BMI<30 (183 days)	127	5.3%	0	0.0%	145	6.7%
Clinical BMI 30<=BMI<40 (183 days)	299	12.6%	0	0.0%	261	12.0%
Clinical BMI 40<=BMI<70 (183 days)	132	5.6%	0	0.0%	116	5.3%
Clinical BMI 70<=BMI<=90 (183 days)	1	0.0%	0	0.0%	1	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	233	9.8%	0	0.0%	358	16.5%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
Clinical BMI Ht Missing (183 days)	178	7.5%	0	0.0%	63	2.9%
Clinical BMI Wt Missing (183 days)	1	0.0%	0	0.0%	2	0.1%
Clinical BMI Any Missing (183 days)	412	17.3%	0	0.0%	423	19.5%
Clinical BMI (183 days) by Sex (Male)						
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	2	0.1%
Clinical BMI 18.5<=BMI<25 (183 days)	54	2.3%	0	0.0%	81	3.7%
Clinical BMI 25<=BMI<30 (183 days)	204	8.6%	0	0.0%	219	10.1%
Clinical BMI 30<=BMI<40 (183 days)	392	16.5%	0	0.0%	285	13.1%
Clinical BMI 40<=BMI<70 (183 days)	118	5.0%	0	0.0%	75	3.5%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	341	14.4%	0	0.0%	388	17.9%
Clinical BMI Ht Missing (183 days)	245	10.3%	0	0.0%	97	4.5%
Clinical BMI Wt Missing (183 days)	3	0.1%	0	0.0%	1	0.0%
Clinical BMI Any Missing (183 days)	589	24.8%	0	0.0%	486	22.4%
Clinical BMI (183 days) by Race						
Clinical BMI (183 days) by Race (Unknown)						
	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	11	2.3%	0	0.0%	7	1.6%
Clinical BMI 25<=BMI<30 (183 days)	30	6.2%	0	0.0%	32	7.3%
Clinical BMI 30<=BMI<40 (183 days)	66	13.7%	0	0.0%	52	11.9%
Clinical BMI 40<=BMI<70 (183 days)	30	6.2%	0	0.0%	15	3.4%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	316	65.4%	0	0.0%	317	72.7%
Clinical BMI Ht Missing (183 days)	30	6.2%	0	0.0%	13	3.0%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	346	71.6%	0	0.0%	330	75.7%
Clinical BMI (183 days) by Race (American Indian or Alaska Native)						
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 25<=BMI<30 (183 days)	4	10.3%	0	0.0%	5	27.8%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
Clinical BMI 30<=BMI<40 (183 days)	14	35.9%	0	0.0%	10	55.6%
Clinical BMI 40<=BMI<70 (183 days)	4	10.3%	0	0.0%	1	5.6%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	8	20.5%	0	0.0%	2	11.1%
Clinical BMI Ht Missing (183 days)	9	23.1%	0	0.0%	0	0.0%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	17	43.6%	0	0.0%	2	11.1%
Clinical BMI (183 days) by Race (Asian)						
Clinical BMI 15<=BMI<18.5 (183 days)	3	0.8%	0	0.0%	3	1.0%
Clinical BMI 18.5<=BMI<25 (183 days)	41	11.6%	0	0.0%	69	23.3%
Clinical BMI 25<=BMI<30 (183 days)	91	25.8%	0	0.0%	92	31.1%
Clinical BMI 30<=BMI<40 (183 days)	74	21.0%	0	0.0%	50	16.9%
Clinical BMI 40<=BMI<70 (183 days)	15	4.2%	0	0.0%	0	0.0%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	36	10.2%	0	0.0%	47	15.9%
Clinical BMI (183 days) by Race (Asian)	Number	Percent	Number	Percent	Number	Percent
Clinical BMI Ht Missing (183 days)	92	26.1%	0	0.0%	35	11.8%
Clinical BMI Wt Missing (183 days)	1	0.3%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	129	36.5%	0	0.0%	82	27.7%
Clinical BMI (183 days) by Race (Black or African American)						
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	12	5.4%	0	0.0%	11	4.9%
Clinical BMI 25<=BMI<30 (183 days)	38	17.2%	0	0.0%	52	23.0%
Clinical BMI 30<=BMI<40 (183 days)	88	39.8%	0	0.0%	74	32.7%
Clinical BMI 40<=BMI<70 (183 days)	32	14.5%	0	0.0%	29	12.8%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	1	0.4%
Clinical BMI Ht AND Wt Missing (183 days)	22	10.0%	0	0.0%	36	15.9%
Clinical BMI Ht Missing (183 days)	29	13.1%	0	0.0%	22	9.7%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	1	0.4%
Clinical BMI Any Missing (183 days)	51	23.1%	0	0.0%	59	26.1%
Clinical BMI (183 days) by Race (Native Hawaiian or Other Pacific Islander)						

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	6	4.1%	0	0.0%	1	2.2%
Clinical BMI 25<=BMI<30 (183 days)	17	11.6%	0	0.0%	4	8.9%
Clinical BMI 30<=BMI<40 (183 days)	43	29.5%	0	0.0%	14	31.1%
Clinical BMI 40<=BMI<70 (183 days)	12	8.2%	0	0.0%	5	11.1%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	7	4.8%	0	0.0%	6	13.3%
Clinical BMI Ht Missing (183 days)	61	41.8%	0	0.0%	15	33.3%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	68	46.6%	0	0.0%	21	46.7%
Clinical BMI (183 days) by Race (White)						
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	2	0.1%
Clinical BMI 18.5<=BMI<25 (183 days)	28	1.2%	0	0.0%	65	3.0%
Clinical BMI 25<=BMI<30 (183 days)	151	6.4%	0	0.0%	179	8.3%
Clinical BMI 30<=BMI<40 (183 days)	406	17.1%	0	0.0%	346	16.0%
Clinical BMI (183 days) by Race (White)	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 40<=BMI<70 (183 days)	157	6.6%	0	0.0%	141	6.5%
Clinical BMI 70<=BMI<=90 (183 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	185	7.8%	0	0.0%	338	15.6%
Clinical BMI Ht Missing (183 days)	202	8.5%	0	0.0%	75	3.5%
Clinical BMI Wt Missing (183 days)	3	0.1%	0	0.0%	2	0.1%
Clinical BMI Any Missing (183 days)	390	16.4%	0	0.0%	415	19.1%
Clinical Tobacco Use (365 days) by Sex						
Clinical Tobacco Use (365 days) by Sex (Female)						
Clinical Tobacco Current User (365 days)	46	1.9%	0	0.0%	47	2.2%
Clinical Tobacco Never User (365 days)	492	20.7%	0	0.0%	472	21.8%
Clinical Tobacco Quit/Former User (365 days)	252	10.6%	0	0.0%	176	8.1%
Clinical Tobacco Passive Exposure (365 days)	2	0.1%	0	0.0%	6	0.3%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	3	0.1%	0	0.0%	2	0.1%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
Clinical Tobacco Conflicting (365 days)	10	0.4%	0	0.0%	12	0.6%
Clinical Tobacco Missing (365 days)	213	9.0%	0	0.0%	306	14.1%
Clinical Tobacco Use (365 days) by Sex (Male)						
Clinical Tobacco Current User (365 days)	97	4.1%	0	0.0%	66	3.0%
Clinical Tobacco Never User (365 days)	491	20.7%	0	0.0%	427	19.7%
Clinical Tobacco Quit/Former User (365 days)	465	19.6%	0	0.0%	281	13.0%
Clinical Tobacco Passive Exposure (365 days)	4	0.2%	0	0.0%	10	0.5%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	0	0.0%	0	0.0%	2	0.1%
Clinical Tobacco Conflicting (365 days)	16	0.7%	0	0.0%	34	1.6%
Clinical Tobacco Missing (365 days)	284	12.0%	0	0.0%	328	15.1%

Clinical Tobacco Use (365 days) by Race

Clinical Tobacco Use (365 days) by Race (Unknown)	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (365 days)	12	2.5%	0	0.0%	8	1.8%
Clinical Tobacco Never User (365 days)	114	23.6%	0	0.0%	82	18.8%
Clinical Tobacco Quit/Former User (365 days)	50	10.4%	0	0.0%	33	7.6%
Clinical Tobacco Passive Exposure (365 days)	1	0.2%	0	0.0%	1	0.2%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	2	0.4%	0	0.0%	2	0.5%
Clinical Tobacco Conflicting (365 days)	3	0.6%	0	0.0%	10	2.3%
Clinical Tobacco Missing (365 days)	301	62.3%	0	0.0%	300	68.8%

Clinical Tobacco Use (365 days) by Race (American Indian or Alaska Native)

Clinical Tobacco Current User (365 days)	2	5.1%	0	0.0%	1	5.6%
Clinical Tobacco Never User (365 days)	11	28.2%	0	0.0%	9	50.0%
Clinical Tobacco Quit/Former User (365 days)	21	53.8%	0	0.0%	6	33.3%
Clinical Tobacco Passive Exposure (365 days)	0	0.0%	0	0.0%	1	5.6%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Missing (365 days)	5	12.8%	0	0.0%	1	5.6%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
Clinical Tobacco Use (365 days) by Race (Asian)						
Clinical Tobacco Current User (365 days)	31	8.8%	0	0.0%	11	3.7%
Clinical Tobacco Never User (365 days)	206	58.4%	0	0.0%	188	63.5%
Clinical Tobacco Quit/Former User (365 days)	91	25.8%	0	0.0%	64	21.6%
Clinical Tobacco Passive Exposure (365 days)	1	0.3%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (365 days)	4	1.1%	0	0.0%	7	2.4%
Clinical Tobacco Missing (365 days)	20	5.7%	0	0.0%	26	8.8%
Clinical Tobacco Use (365 days) by Race (Black or African American)						
	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (365 days)	16	7.2%	0	0.0%	17	7.5%
Clinical Tobacco Never User (365 days)	130	58.8%	0	0.0%	120	53.1%
Clinical Tobacco Quit/Former User (365 days)	57	25.8%	0	0.0%	57	25.2%
Clinical Tobacco Passive Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	1	0.5%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (365 days)	3	1.4%	0	0.0%	4	1.8%
Clinical Tobacco Missing (365 days)	14	6.3%	0	0.0%	28	12.4%
Clinical Tobacco Use (365 days) by Race (Native Hawaiian or Other Pacific Islander)						
Clinical Tobacco Current User (365 days)	11	7.5%	0	0.0%	5	11.1%
Clinical Tobacco Never User (365 days)	72	49.3%	0	0.0%	20	44.4%
Clinical Tobacco Quit/Former User (365 days)	52	35.6%	0	0.0%	16	35.6%
Clinical Tobacco Passive Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (365 days)	4	2.7%	0	0.0%	0	0.0%
Clinical Tobacco Missing (365 days)	7	4.8%	0	0.0%	4	8.9%
Clinical Tobacco Use (365 days) by Race (White)						
Clinical Tobacco Current User (365 days)	71	3.0%	0	0.0%	71	3.3%
Clinical Tobacco Never User (365 days)	450	18.9%	0	0.0%	480	22.1%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
Clinical Tobacco Quit/Former User (365 days)	446	18.8%	0	0.0%	281	13.0%
Clinical Tobacco Passive Exposure (365 days)	4	0.2%	0	0.0%	14	0.6%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	0	0.0%	0	0.0%	2	0.1%
Clinical Tobacco Conflicting (365 days)	12	0.5%	0	0.0%	25	1.2%
Clinical Tobacco Missing (365 days)	150	6.3%	0	0.0%	275	12.7%

Clinical Tobacco Use (183 days) by Sex

Clinical Tobacco Use (183 days) by Sex (Female)	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (183 days)	43	1.8%	0	0.0%	46	2.1%
Clinical Tobacco Never User (183 days)	451	19.0%	0	0.0%	422	19.5%
Clinical Tobacco Quit/Former User (183 days)	239	10.1%	0	0.0%	153	7.1%
Clinical Tobacco Passive Exposure (183 days)	2	0.1%	0	0.0%	4	0.2%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	2	0.1%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	8	0.3%	0	0.0%	11	0.5%
Clinical Tobacco Missing (183 days)	273	11.5%	0	0.0%	385	17.8%

Clinical Tobacco Use (183 days) by Sex (Male)

Clinical Tobacco Current User (183 days)	91	3.8%	0	0.0%	60	2.8%
Clinical Tobacco Never User (183 days)	443	18.7%	0	0.0%	373	17.2%
Clinical Tobacco Quit/Former User (183 days)	427	18.0%	0	0.0%	251	11.6%
Clinical Tobacco Passive Exposure (183 days)	4	0.2%	0	0.0%	6	0.3%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	0	0.0%	0	0.0%	1	0.0%
Clinical Tobacco Conflicting (183 days)	12	0.5%	0	0.0%	28	1.3%
Clinical Tobacco Missing (183 days)	380	16.0%	0	0.0%	429	19.8%

Clinical Tobacco Use (183 days) by Race

Clinical Tobacco Use (183 days) by Race (Unknown)	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (183 days)	11	2.3%	0	0.0%	7	1.6%
Clinical Tobacco Never User (183 days)	100	20.7%	0	0.0%	71	16.3%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
Clinical Tobacco Quit/Former User (183 days)	47	9.7%	0	0.0%	28	6.4%
Clinical Tobacco Passive Exposure (183 days)	1	0.2%	0	0.0%	1	0.2%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	1	0.2%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	2	0.4%	0	0.0%	7	1.6%
Clinical Tobacco Missing (183 days)	321	66.5%	0	0.0%	322	73.9%
Clinical Tobacco Use (183 days) by Race (American Indian or Alaskan Native)						
	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (183 days)	1	2.6%	0	0.0%	1	5.6%
Clinical Tobacco Never User (183 days)	10	25.6%	0	0.0%	8	44.4%
Clinical Tobacco Quit/Former User (183 days)	18	46.2%	0	0.0%	4	22.2%
Clinical Tobacco Passive Exposure (183 days)	0	0.0%	0	0.0%	1	5.6%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Missing (183 days)	10	25.6%	0	0.0%	4	22.2%
Clinical Tobacco Use (183 days) by Race (Asian)						
Clinical Tobacco Current User (183 days)	29	8.2%	0	0.0%	9	3.0%
Clinical Tobacco Never User (183 days)	192	54.4%	0	0.0%	166	56.1%
Clinical Tobacco Quit/Former User (183 days)	83	23.5%	0	0.0%	58	19.6%
Clinical Tobacco Passive Exposure (183 days)	1	0.3%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	4	1.1%	0	0.0%	6	2.0%
Clinical Tobacco Missing (183 days)	44	12.5%	0	0.0%	57	19.3%
Clinical Tobacco Use (183 days) by Race (Black or African American)						
Clinical Tobacco Current User (183 days)	15	6.8%	0	0.0%	16	7.1%
Clinical Tobacco Never User (183 days)	123	55.7%	0	0.0%	108	47.8%
Clinical Tobacco Quit/Former User (183 days)	52	23.5%	0	0.0%	50	22.1%
Clinical Tobacco Passive Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%

Table 1a. Aggregated Baseline Table for Incident SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Incident Empagliflozin		Incident Ertugliflozin		Incident Sitagliptin	
Clinical Tobacco Not Asked (183 days)	1	0.5%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	2	0.9%	0	0.0%	2	0.9%
Clinical Tobacco Missing (183 days)	28	12.7%	0	0.0%	50	22.1%
Clinical Tobacco Use (183 days) by Race (Native Hawaiian or Other Pacific Islander)						
	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (183 days)	9	6.2%	0	0.0%	4	8.9%
Clinical Tobacco Never User (183 days)	70	47.9%	0	0.0%	18	40.0%
Clinical Tobacco Quit/Former User (183 days)	51	34.9%	0	0.0%	15	33.3%
Clinical Tobacco Passive Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	4	2.7%	0	0.0%	0	0.0%
Clinical Tobacco Missing (183 days)	12	8.2%	0	0.0%	8	17.8%
Clinical Tobacco Use (183 days) by Race (White)						
Clinical Tobacco Current User (183 days)	69	2.9%	0	0.0%	69	3.2%
Clinical Tobacco Never User (183 days)	399	16.8%	0	0.0%	424	19.5%
Clinical Tobacco Quit/Former User (183 days)	415	17.5%	0	0.0%	249	11.5%
Clinical Tobacco Passive Exposure (183 days)	4	0.2%	0	0.0%	8	0.4%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	0	0.0%	0	0.0%	1	0.0%
Clinical Tobacco Conflicting (183 days)	8	0.3%	0	0.0%	24	1.1%
Clinical Tobacco Missing (183 days)	238	10.0%	0	0.0%	373	17.2%

¹These baseline covariates were assessed from 365 days to 1 day before the index date.

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

Characteristic	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
	Number		Number		Number	
Number of episodes	3,694		957		391	
Number of unique patients	3,694		957		391	
Demographics	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Mean Age (years)	59.7	10.4	58.2	10.2	57.4	9.9
Age (years)	Number	Percent	Number	Percent	Number	Percent
20-44	313	8.5%	103	10.8%	46	11.8%
45-64	2,241	60.7%	598	62.5%	262	67.0%
65+	1,140	30.9%	256	26.8%	83	21.2%
Sex						
Female	1,617	43.8%	458	47.9%	178	45.5%
Male	2,077	56.2%	499	52.1%	213	54.5%
Race						
Unknown	956	25.9%	334	34.9%	158	40.4%
American Indian or Alaska Native	51	1.4%	8	0.8%	3	0.8%
Asian	430	11.6%	55	5.7%	21	5.4%
Black or African American	269	7.3%	35	3.7%	14	3.6%
Native Hawaiian or Other Pacific Islander	169	4.6%	15	1.6%	4	1.0%
White	1,819	49.2%	510	53.3%	191	48.8%
Hispanic Origin						
Hispanic Origin	312	8.4%	72	7.5%	24	6.1%
Year						
2013	97	2.6%	97	10.1%	0	0.0%
2014	307	8.3%	214	22.4%	88	22.5%
2015	394	10.7%	270	28.2%	96	24.6%
2016	565	15.3%	203	21.2%	77	19.7%
2017	1,175	31.8%	131	13.7%	84	21.5%
2018	1,156	31.3%	42	4.4%	46	11.8%
Recorded History of:	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Charlson/Elixhauser Combined Comorbidity Score	1.4	2	0.9	1.8	0.7	1.6
Recorded History of:	Number	Percent	Number	Percent	Number	Percent
GLP-1 Analogs	549	14.9%	200	20.9%	74	18.9%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
Thiazolidinediones	308	8.3%	96	10.0%	38	9.7%
Sulfonylureas	1,943	52.6%	485	50.7%	180	46.0%
Biguanides	3,074	83.2%	760	79.4%	321	82.1%
Short/Rapid-Acting Insulins	845	22.9%	209	21.8%	78	19.9%
Long/Intermediate-Acting Insulins	1,570	42.5%	371	38.8%	152	38.9%
Diabetes Complication	1,836	49.7%	438	45.8%	151	38.6%
Stroke	70	1.9%	9	0.9%	2	0.5%
Malignancy	345	9.3%	84	8.8%	40	10.2%
Acute Myocardial Infarction	117	3.2%	15	1.6%	3	0.8%
Hypertension/ Hypertensive Disorders	2,760	74.7%	713	74.5%	297	76.0%
Hypercholesterolemia/ Hyperlipidemia	2,777	75.2%	764	79.8%	309	79.0%
Alcohol Consumption	54	1.5%	9	0.9%	9	2.3%
Chronic Kidney Disease	502	13.6%	101	10.6%	21	5.4%
SGLT-2is ¹	545	14.8%	213	22.3%	102	26.1%
DPP-4is ¹	492	13.3%	193	20.2%	77	19.7%
Health Service Utilization Intensity:	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Mean number of ambulatory encounters	13.9	12.7	14.4	12.3	13.7	12.5
Mean number of emergency room encounters	0.4	1	0.4	0.9	0.3	0.9
Mean number of inpatient hospital encounters	0.1	0.5	0.1	0.5	0.1	0.3
Mean number of non-acute institutional encounters	0	0.4	0	0.4	0	0.1
Mean number of other ambulatory encounters	14.3	15.2	8	10.3	5.7	7
Drug Utilization Intensity:						
Mean number of unique drug classes	9.8	5.1	9.5	5.3	9.2	4.9
Mean number of generics	12.3	5.8	12.1	6.2	11.7	5.6
Mean number of filled prescriptions	40.8	26.1	43.9	29.1	41.9	24.5
Clinical and Laboratory Characteristics (365 days)						
Clinical BMI (365 days)	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (365 days)	3	0.1%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	152	4.1%	25	2.6%	7	1.8%
Clinical BMI 25<=BMI<30 (365 days)	532	14.4%	100	10.4%	30	7.7%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
Clinical BMI 30<=BMI<40 (365 days)	1,124	30.4%	224	23.4%	74	18.9%
Clinical BMI 40<=BMI<70 (365 days)	429	11.6%	109	11.4%	43	11.0%
Clinical BMI 70<=BMI<=90 (365 days)	2	0.1%	0	0.0%	1	0.3%
Clinical BMI Ht AND Wt Missing (365 days)	1,135	30.7%	465	48.6%	221	56.5%
Clinical BMI Ht Missing (365 days)	314	8.5%	34	3.6%	15	3.8%
Clinical BMI Wt Missing (365 days)	3	0.1%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	1,452	39.3%	499	52.1%	236	60.4%
Clinical Tobacco Use (365 days)						
Clinical Tobacco Current User (365 days)	207	5.6%	44	4.6%	17	4.3%
Clinical Tobacco Never (365 days)	1,391	37.7%	293	30.6%	112	28.6%
Clinical Tobacco Quit/Former User (365 days)	887	24.0%	137	14.3%	35	9.0%
Clinical Tobacco Passive (365 days)	11	0.3%	5	0.5%	1	0.3%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	7	0.2%	2	0.2%	1	0.3%
Clinical Tobacco Conflicting (365 days)	41	1.1%	9	0.9%	6	1.5%
Clinical Tobacco Missing (365 days)	1,150	31.1%	467	48.8%	219	56.0%
Clinical HbA1c Laboratory Values (365 days)						
Clinical HbA1c 2.5<=HbA1c<5.7 (365 days)	12	0.3%	2	0.2%	1	0.3%
Clinical HbA1c 5.7<=HbA1c<6.5 (365 days)	106	2.9%	22	2.3%	16	4.1%
Clinical HbA1c 6.5<=HbA1c<8 (365 days)	764	20.7%	194	20.3%	77	19.7%
Clinical HbA1c 8<=HbA1c<9 (365 days)	726	19.7%	142	14.8%	44	11.3%
Clinical HbA1c 9<=HbA1c<10 (365 days)	442	12.0%	76	7.9%	24	6.1%
Clinical HbA1c 10<=HbA1c<12.5 (365 days)	407	11.0%	58	6.1%	24	6.1%
Clinical HbA1c 12.5<=HbA1c<15 (365 days)	53	1.4%	9	0.9%	3	0.8%
Clinical HbA1c 15<=HbA1c<=25 (365 days)	7	0.2%	2	0.2%	0	0.0%
Clinical HbA1c Missing (365 days)	1,177	31.9%	452	47.2%	202	51.7%
Clinical Creatinine Laboratory Values (365 days)						
Clinical Creatinine 0.3<=Creatinine<=0.8 (365 days)	1,003	27.2%	222	23.2%	78	19.9%
Clinical Creatinine 0.8<Creatinine<=0.9 (365 days)	436	11.8%	89	9.3%	46	11.8%
Clinical Creatinine 0.9<Creatinine<=1.0 (365 days)	405	11.0%	84	8.8%	25	6.4%
Clinical Creatinine 1.0<Creatinine<=1.2 (365 days)	456	12.3%	83	8.7%	32	8.2%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
Clinical Creatinine 1.2<Creatinine<=1.5 (365 days)	195	5.3%	39	4.1%	14	3.6%
Clinical Creatinine 1.5<Creatinine<=2.0 (365 days)	49	1.3%	12	1.3%	5	1.3%
Clinical Creatinine 2.0<Creatinine<=2.5 (365 days)	4	0.1%	0	0.0%	0	0.0%
Clinical Creatinine 2.5<Creatinine<=3.0 (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical Creatinine 3.0<Creatinine<=3.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Creatinine 3.5<Creatinine<=20 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Creatinine Missing (365 days)	1,145	31.0%	428	44.7%	191	48.8%
Clinical eGFR Laboratory Values (365 days)						
Clinical eGFR eGFR<15 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical eGFR 15<=eGFR<=29 (365 days)	3	0.1%	0	0.0%	0	0.0%
Clinical eGFR 30<=eGFR<=44 (365 days)	49	1.3%	12	1.3%	5	1.3%
Clinical eGFR 45<=eGFR<=59 (365 days)	280	7.6%	60	6.3%	19	4.9%
Clinical eGFR 60<=eGFR<=89 (365 days)	1,126	30.5%	222	23.2%	90	23.0%
Clinical eGFR 90<=eGFR<=200 (365 days)	1,091	29.5%	235	24.6%	86	22.0%
Clinical eGFR Missing (365 days)	1,145	31.0%	428	44.7%	191	48.8%
Claims BMI (365 days)						
Claims BMI BMI<19 (365 days)	1	0.0%	1	0.1%	0	0.0%
Claims BMI 19<=BMI<=24 (365 days)	7	0.2%	3	0.3%	0	0.0%
Claims BMI 25<=BMI<=29 (365 days)	31	0.8%	4	0.4%	4	1.0%
Claims BMI 30<=BMI<=39 (365 days)	267	7.2%	58	6.1%	20	5.1%
Claims BMI 40<=BMI<=69 (365 days)	215	5.8%	58	6.1%	24	6.1%
Claims BMI BMI>=70 (365 days)	3	0.1%	0	0.0%	1	0.3%
Claims BMI Other obesity (365 days)	1,057	28.6%	317	33.1%	120	30.7%
Claims BMI None (365 days)	2,113	57.2%	516	53.9%	222	56.8%
Presence of a Creatinine Laboratory Claim (365 days)						
	Number	Percent	Number	Percent	Number	Percent
Claims Creatinine (365 days)	3,406	92.2%	857	89.6%	340	87.0%
Claims Creatinine None (365 days)	288	7.8%	100	10.4%	51	13.0%
Presence of a HbA1c Laboratory Claim (365 days)						
Claims HbA1c (365 days)	3,542	95.9%	901	94.1%	368	94.1%
Claims HbA1c None (365 days)	152	4.1%	56	5.9%	23	5.9%
Presence of a Smoking Claim (365 days)						

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
Claims Smoking (365 days)	650	17.6%	131	13.7%	50	12.8%
Claims Smoking None (365 days)	3,044	82.4%	826	86.3%	341	87.2%
Clinical and Laboratory Characteristics (183 days)						
Clinical BMI (183 days)						
Clinical BMI 15<=BMI<18.5 (183 days)	2	0.1%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	119	3.2%	20	2.1%	4	1.0%
Clinical BMI 25<=BMI<30 (183 days)	439	11.9%	83	8.7%	22	5.6%
Clinical BMI 30<=BMI<40 (183 days)	940	25.4%	187	19.5%	60	15.3%
Clinical BMI 40<=BMI<70 (183 days)	361	9.8%	91	9.5%	36	9.2%
Clinical BMI 70<=BMI<=90 (183 days)	2	0.1%	0	0.0%	1	0.3%
Clinical BMI Ht AND Wt Missing (183 days)	1,322	35.8%	518	54.1%	245	62.7%
Clinical BMI Ht Missing (183 days)	503	13.6%	57	6.0%	23	5.9%
Clinical BMI Wt Missing (183 days)	6	0.2%	1	0.1%	0	0.0%
Clinical BMI Any Missing (183 days)	1,831	49.6%	576	60.2%	268	68.5%
Clinical Tobacco Use (183 days)						
Clinical Tobacco Current User (183 days)	182	4.9%	36	3.8%	10	2.6%
Clinical Tobacco Never (183 days)	1,243	33.6%	255	26.6%	95	24.3%
Clinical Tobacco Quit/Former User (183 days)	814	22.0%	121	12.6%	29	7.4%
Clinical Tobacco Passive (183 days)	8	0.2%	2	0.2%	1	0.3%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	4	0.1%	1	0.1%	1	0.3%
Clinical Tobacco Conflicting (183 days)	32	0.9%	7	0.7%	5	1.3%
Clinical Tobacco Missing (183 days)	1,411	38.2%	535	55.9%	250	63.9%
Clinical HbA1c Laboratory Values (183 days)						
	Number	Percent	Number	Percent	Number	Percent
Clinical HbA1c 2.5<=HbA1c<5.7 (183 days)	10	0.3%	2	0.2%	1	0.3%
Clinical HbA1c 5.7<=HbA1c<6.5 (183 days)	96	2.6%	22	2.3%	16	4.1%
Clinical HbA1c 6.5<=HbA1c<8 (183 days)	678	18.4%	169	17.7%	65	16.6%
Clinical HbA1c 8<=HbA1c<9 (183 days)	691	18.7%	137	14.3%	37	9.5%
Clinical HbA1c 9<=HbA1c<10 (183 days)	434	11.7%	75	7.8%	24	6.1%
Clinical HbA1c 10<=HbA1c<12 (183 days)	390	10.6%	54	5.6%	22	5.6%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
Clinical HbA1c 12.5<=HbA1c<15 (183 days)	50	1.4%	9	0.9%	3	0.8%
Clinical HbA1c 15<=HbA1c<=25 (183 days)	6	0.2%	1	0.1%	0	0.0%
Clinical HbA1c Missing (183 days)	1,339	36.2%	488	51.0%	223	57.0%
Clinical Creatinine Laboratory Values (183 days)						
Clinical Creatinine 0.3<=Creatinine<=0.8 (183 days)	845	22.9%	179	18.7%	66	16.9%
Clinical Creatinine 0.8<Creatinine<=0.9 (183 days)	364	9.9%	72	7.5%	40	10.2%
Clinical Creatinine 0.9<Creatinine<=1.0 (183 days)	351	9.5%	72	7.5%	20	5.1%
Clinical Creatinine 1.0<Creatinine<=1.2 (183 days)	379	10.3%	71	7.4%	28	7.2%
Clinical Creatinine 1.2<Creatinine<=1.5 (183 days)	170	4.6%	35	3.7%	12	3.1%
Clinical Creatinine 1.5<Creatinine<=2.0 (183 days)	46	1.2%	12	1.3%	4	1.0%
Clinical Creatinine 2.0<Creatinine<=2.5 (183 days)	3	0.1%	0	0.0%	0	0.0%
Clinical Creatinine 2.5<Creatinine<=3.0 (183 days)	1	0.0%	0	0.0%	0	0.0%
Clinical Creatinine 3.0<Creatinine<=3.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Creatinine 3.5<Creatinine<=20 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Creatinine Missing (183 days)	1,535	41.6%	516	53.9%	221	56.5%
Clinical eGFR Laboratory Values (183 days)						
Clinical eGFR eGFR<15 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical eGFR 15<=eGFR<=29 (183 days)	3	0.1%	0	0.0%	0	0.0%
Clinical eGFR 30<=eGFR<=44 (183 days)	46	1.2%	12	1.3%	4	1.0%
Clinical eGFR 45<=eGFR<=59 (183 days)	248	6.7%	52	5.4%	16	4.1%
Clinical eGFR 60<=eGFR<=89 (183 days)	949	25.7%	188	19.6%	76	19.4%
Clinical eGFR 90<=eGFR<=200 (183 days)	913	24.7%	189	19.7%	74	18.9%
Clinical eGFR Missing (183 days)	1,535	41.6%	516	53.9%	221	56.5%
Claims BMI (183 days)						
	Number	Percent	Number	Percent	Number	Percent
Claims BMI BMI<19 (183 days)	1	0.0%	1	0.1%	0	0.0%
Claims BMI 19<=BMI<=24 (183 days)	4	0.1%	2	0.2%	0	0.0%
Claims BMI 25<=BMI<=29 (183 days)	27	0.7%	3	0.3%	4	1.0%
Claims BMI 30<=BMI<=39 (183 days)	203	5.5%	45	4.7%	16	4.1%
Claims BMI 40<=BMI<=69 (183 days)	187	5.1%	51	5.3%	20	5.1%
Claims BMI BMI>=70 (183 days)	2	0.1%	0	0.0%	1	0.3%
Claims BMI Other obesity (183 days)	840	22.7%	249	26.0%	93	23.8%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
Claims BMI None (183 days)	2,430	65.8%	606	63.3%	257	65.7%
Presence of a Creatinine Laboratory Claim (183 days)						
Claims Creatinine (183 days)	2,986	80.8%	737	77.0%	287	73.4%
Claims Creatinine None (183 days)	708	19.2%	220	23.0%	104	26.6%
Presence of a HbA1c Laboratory Claim (183 days)						
Claims HbA1c (183 days)	3,360	91.0%	856	89.4%	347	88.7%
Claims HbA1c None (183 days)	334	9.0%	101	10.6%	44	11.3%
Presence of a Smoking Claim (183 days)						
Claims Smoking (183 days)	464	12.6%	82	8.6%	37	9.5%
Claims Smoking None (183 days)	3,230	87.4%	875	91.4%	354	90.5%

Clinical BMI (365 days) by Age Group

Clinical BMI (365 days) by Age Group (20 - 44 years of age)						
Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	10	3.2%	2	1.9%	2	4.3%
Clinical BMI 25<=BMI<30 (365 days)	27	8.6%	10	9.7%	2	4.3%
Clinical BMI 30<=BMI<40 (365 days)	92	29.4%	24	23.3%	8	17.4%
Clinical BMI 40<=BMI<70 (365 days)	55	17.6%	15	14.6%	7	15.2%
Clinical BMI 70<=BMI<=90 (365 days)	1	0.3%	0	0.0%	1	2.2%
Clinical BMI Ht AND Wt Missing (365 days)	116	37.1%	48	46.6%	25	54.3%
Clinical BMI Ht Missing (365 days)	12	3.8%	4	3.9%	1	2.2%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	128	40.9%	52	50.5%	26	56.5%

Clinical BMI (365 days) by Age Group (45 - 64 years of age)						
	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (365 days)	2	0.1%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	66	1.8%	10	1.7%	3	1.1%
Clinical BMI 25<=BMI<30 (365 days)	291	7.9%	53	8.9%	25	9.5%
Clinical BMI 30<=BMI<40 (365 days)	643	17.4%	134	22.4%	50	19.1%
Clinical BMI 40<=BMI<70 (365 days)	289	7.8%	71	11.9%	32	12.2%
Clinical BMI 70<=BMI<=90 (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	760	20.6%	308	51.5%	140	53.4%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
Clinical BMI Ht Missing (365 days)	187	5.1%	22	3.7%	12	4.6%
Clinical BMI Wt Missing (365 days)	2	0.1%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	949	25.7%	330	55.2%	152	58.0%
Clinical BMI (365 days) by Age Group (65+ years of age)						
Clinical BMI 15<=BMI<18.5 (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	76	2.1%	13	5.1%	2	2.4%
Clinical BMI 25<=BMI<30 (365 days)	214	5.8%	37	14.5%	3	3.6%
Clinical BMI 30<=BMI<40 (365 days)	389	10.5%	66	25.8%	16	19.3%
Clinical BMI 40<=BMI<70 (365 days)	85	2.3%	23	9.0%	4	4.8%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	259	7.0%	109	42.6%	56	67.5%
Clinical BMI Ht Missing (365 days)	115	3.1%	8	3.1%	2	2.4%
Clinical BMI Wt Missing (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	375	10.2%	117	45.7%	58	69.9%
Clinical BMI (365 days) by Sex						
Clinical BMI (365 days) by Sex (Female)						
Clinical BMI 15<=BMI<18.5 (365 days)	2	0.1%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	71	1.9%	14	3.1%	4	2.2%
Clinical BMI 25<=BMI<30 (365 days)	200	5.4%	49	10.7%	9	5.1%
Clinical BMI 30<=BMI<40 (365 days)	488	13.2%	103	22.5%	40	22.5%
Clinical BMI 40<=BMI<70 (365 days)	228	6.2%	59	12.9%	25	14.0%
Clinical BMI 70<=BMI<=90 (365 days)	2	0.1%	0	0.0%	1	0.6%
Clinical BMI (365 days) by Sex (Female)	Number	Percent	Number	Percent	Number	Percent
Clinical BMI Ht AND Wt Missing (365 days)	495	13.40%	218	47.60%	94	52.80%
Clinical BMI Ht Missing (365 days)	130	3.5%	15	3.3%	5	2.8%
Clinical BMI Wt Missing (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	626	16.9%	233	50.9%	99	55.6%
Clinical BMI (365 days) by Sex (Male)						
Clinical BMI 15<=BMI<18.5 (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	81	2.2%	11	2.2%	3	1.4%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
Clinical BMI 25<=BMI<30 (365 days)	332	9.0%	51	10.2%	21	9.9%
Clinical BMI 30<=BMI<40 (365 days)	636	17.2%	121	24.2%	34	16.0%
Clinical BMI 40<=BMI<70 (365 days)	201	5.4%	50	10.0%	18	8.5%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	640	17.3%	247	49.5%	127	59.6%
Clinical BMI Ht Missing (365 days)	184	5.0%	19	3.8%	10	4.7%
Clinical BMI Wt Missing (365 days)	2	0.1%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	826	22.4%	266	53.3%	137	64.3%

Clinical BMI (365 days) by Race

Clinical BMI (365 days) by Race (Unknown)						
Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	16	1.7%	4	1.2%	1	0.6%
Clinical BMI 25<=BMI<30 (365 days)	53	5.5%	12	3.6%	3	1.9%
Clinical BMI 30<=BMI<40 (365 days)	127	13.3%	26	7.8%	9	5.7%
Clinical BMI 40<=BMI<70 (365 days)	48	5.0%	11	3.3%	3	1.9%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	698	73.0%	279	83.5%	142	89.9%
Clinical BMI Ht Missing (365 days)	14	1.5%	2	0.6%	0	0.0%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	712	74.5%	281	84.1%	142	89.9%

Clinical BMI (365 days) by Race (American Indian or Alaska Native)						
	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 25<=BMI<30 (365 days)	8	15.7%	1	12.5%	1	33.3%
Clinical BMI 30<=BMI<40 (365 days)	22	43.1%	3	37.5%	0	0.0%
Clinical BMI 40<=BMI<70 (365 days)	7	13.7%	1	12.5%	0	0.0%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	8	15.7%	3	37.5%	2	66.7%
Clinical BMI Ht Missing (365 days)	6	11.8%	0	0.0%	0	0.0%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	14	27.5%	3	37.5%	2	66.7%
Clinical BMI (365 days) by Race (Asian)						
Clinical BMI 15<=BMI<18.5 (365 days)	2	0.5%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	60	14.0%	9	16.4%	2	9.5%
Clinical BMI 25<=BMI<30 (365 days)	135	31.4%	17	30.9%	7	33.3%
Clinical BMI 30<=BMI<40 (365 days)	106	24.7%	11	20.0%	4	19.0%
Clinical BMI 40<=BMI<70 (365 days)	23	5.3%	3	5.5%	1	4.8%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	33	7.7%	11	20.0%	5	23.8%
Clinical BMI Ht Missing (365 days)	71	16.5%	4	7.3%	2	9.5%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	104	24.2%	15	27.3%	7	33.3%
Clinical BMI (365 days) by Race (Black or African American)						
Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	15	5.6%	1	2.9%	0	0.0%
Clinical BMI 25<=BMI<30 (365 days)	51	19.0%	7	20.0%	4	28.6%
Clinical BMI 30<=BMI<40 (365 days)	115	42.8%	10	28.6%	5	35.7%
Clinical BMI 40<=BMI<70 (365 days)	46	17.1%	8	22.9%	2	14.3%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	21	7.8%	6	17.1%	2	14.3%
Clinical BMI (365 days) by Race (Black or African American)						
	Number	Percent	Number	Percent	Number	Percent
Clinical BMI Ht Missing (365 days)	21	7.80%	3	8.60%	1	7.10%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	42	15.6%	9	25.7%	3	21.4%
Clinical BMI (365 days) by Race (Native Hawaiian or Other Pacific Islander)						
Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	7	4.1%	0	0.0%	0	0.0%
Clinical BMI 25<=BMI<30 (365 days)	28	16.6%	5	33.3%	1	25.0%
Clinical BMI 30<=BMI<40 (365 days)	54	32.0%	1	6.7%	0	0.0%
Clinical BMI 40<=BMI<70 (365 days)	20	11.8%	2	13.3%	0	0.0%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	15	8.9%	7	46.7%	1	25.0%
Clinical BMI Ht Missing (365 days)	45	26.6%	0	0.0%	2	50.0%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	60	35.5%	7	46.7%	3	75.0%

Clinical BMI (365 days) by Race (White)

Clinical BMI 15<=BMI<18.5 (365 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	54	1.5%	11	2.2%	4	2.1%
Clinical BMI 25<=BMI<30 (365 days)	257	7.0%	58	11.4%	14	7.3%
Clinical BMI 30<=BMI<40 (365 days)	700	18.9%	173	33.9%	56	29.3%
Clinical BMI 40<=BMI<70 (365 days)	285	7.7%	84	16.5%	37	19.4%
Clinical BMI 70<=BMI<=90 (365 days)	2	0.1%	0	0.0%	1	0.5%
Clinical BMI Ht AND Wt Missing (365 days)	360	9.7%	159	31.2%	69	36.1%
Clinical BMI Ht Missing (365 days)	157	4.3%	25	4.9%	10	5.2%
Clinical BMI Wt Missing (365 days)	3	0.1%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	520	14.1%	184	36.1%	79	41.4%

Clinical BMI (183 days) by Age Group

Clinical BMI (183 days) by Age Group (20 - 44 years of age)	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	5	1.6%	1	1.0%	1	2.2%
Clinical BMI 25<=BMI<30 (183 days)	19	6.1%	6	5.8%	1	2.2%
Clinical BMI 30<=BMI<40 (183 days)	78	24.9%	19	18.4%	5	10.9%
Clinical BMI 40<=BMI<70 (183 days)	41	13.1%	11	10.7%	6	13.0%
Clinical BMI 70<=BMI<=90 (183 days)	1	0.3%	0	0.0%	1	2.2%
Clinical BMI Ht AND Wt Missing (183 days)	136	43.5%	54	52.4%	31	67.4%
Clinical BMI Ht Missing (183 days)	33	10.5%	12	11.7%	1	2.2%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	169	54.0%	66	64.1%	32	69.6%

Clinical BMI (183 days) by Age Group (45 - 64 years of age)

Clinical BMI 15<=BMI<18.5 (183 days)	1	0.0%	0	0.0%	0	0.0%
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Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
Clinical BMI 18.5<=BMI<25 (183 days)	53	1.4%	7	1.2%	3	1.1%
Clinical BMI 25<=BMI<30 (183 days)	249	6.7%	44	7.4%	19	7.3%
Clinical BMI 30<=BMI<40 (183 days)	524	14.2%	109	18.2%	40	15.3%
Clinical BMI 40<=BMI<70 (183 days)	245	6.6%	59	9.9%	26	9.9%
Clinical BMI 70<=BMI<=90 (183 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	888	24.0%	346	57.9%	156	59.5%
Clinical BMI Ht Missing (183 days)	276	7.5%	32	5.4%	18	6.9%
Clinical BMI Wt Missing (183 days)	4	0.1%	1	0.2%	0	0.0%
Clinical BMI Any Missing (183 days)	1,168	31.6%	379	63.4%	174	66.4%
Clinical BMI (183 days) by Age Group (65+ years of age)						
Clinical BMI 15<=BMI<18.5 (183 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	61	1.7%	12	4.7%	0	0.0%
Clinical BMI 25<=BMI<30 (183 days)	171	4.6%	33	12.9%	2	2.4%
Clinical BMI 30<=BMI<40 (183 days)	338	9.1%	59	23.0%	15	18.1%
Clinical BMI 40<=BMI<70 (183 days)	75	2.0%	21	8.2%	4	4.8%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	298	8.1%	118	46.1%	58	69.9%
Clinical BMI (183 days) by Age Group (65+ years of age)						
	Number	Percent	Number	Percent	Number	Percent
Clinical BMI Ht Missing (183 days)	194	5.3%	13	5.1%	4	4.8%
Clinical BMI Wt Missing (183 days)	2	0.1%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	494	13.4%	131	51.2%	62	74.7%
Clinical BMI (183 days) by Sex						
Clinical BMI (183 days) by Sex (Female)						
Clinical BMI 15<=BMI<18.5 (183 days)	2	0.1%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	55	1.5%	11	2.4%	2	1.1%
Clinical BMI 25<=BMI<30 (183 days)	171	4.6%	40	8.7%	8	4.5%
Clinical BMI 30<=BMI<40 (183 days)	418	11.3%	89	19.4%	34	19.1%
Clinical BMI 40<=BMI<70 (183 days)	199	5.4%	51	11.1%	19	10.7%
Clinical BMI 70<=BMI<=90 (183 days)	2	0.1%	0	0.0%	1	0.6%
Clinical BMI Ht AND Wt Missing (183 days)	565	15.3%	243	53.1%	105	59.0%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
Clinical BMI Ht Missing (183 days)	203	5.5%	23	5.0%	9	5.1%
Clinical BMI Wt Missing (183 days)	2	0.1%	1	0.2%	0	0.0%
Clinical BMI Any Missing (183 days)	770	20.8%	267	58.3%	114	64.0%
Clinical BMI (183 days) by Sex (Male)						
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	64	1.7%	9	1.8%	2	0.9%
Clinical BMI 25<=BMI<30 (183 days)	268	7.3%	43	8.6%	14	6.6%
Clinical BMI 30<=BMI<40 (183 days)	522	14.1%	98	19.6%	26	12.2%
Clinical BMI 40<=BMI<70 (183 days)	162	4.4%	40	8.0%	17	8.0%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	757	20.5%	275	55.1%	140	65.7%
Clinical BMI Ht Missing (183 days)	300	8.1%	34	6.8%	14	6.6%
Clinical BMI Wt Missing (183 days)	4	0.1%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	1,061	28.7%	309	61.9%	154	72.3%
Clinical BMI (183 days) by Race						
Clinical BMI (183 days) by Race (Unknown)						
	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	14	1.5%	4	1.2%	0	0.0%
Clinical BMI 25<=BMI<30 (183 days)	45	4.7%	10	3.0%	3	1.9%
Clinical BMI 30<=BMI<40 (183 days)	99	10.4%	18	5.4%	7	4.4%
Clinical BMI 40<=BMI<70 (183 days)	41	4.3%	10	3.0%	3	1.9%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	723	75.6%	286	85.6%	145	91.8%
Clinical BMI Ht Missing (183 days)	34	3.6%	6	1.8%	0	0.0%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	757	79.2%	292	87.4%	145	91.8%
Clinical BMI (183 days) by Race (American Indian or Alaska Native)						
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 25<=BMI<30 (183 days)	4	7.8%	0	0.0%	0	0.0%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
Clinical BMI 30<=BMI<40 (183 days)	16	31.4%	2	25.0%	0	0.0%
Clinical BMI 40<=BMI<70 (183 days)	7	13.7%	1	12.5%	0	0.0%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	14	27.5%	4	50.0%	3	100.0%
Clinical BMI Ht Missing (183 days)	10	19.6%	1	12.5%	0	0.0%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	24	47.1%	5	62.5%	3	100.0%
Clinical BMI (183 days) by Race (Asian)						
Clinical BMI 15<=BMI<18.5 (183 days)	2	0.5%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	47	10.9%	8	14.5%	1	4.8%
Clinical BMI 25<=BMI<30 (183 days)	112	26.0%	14	25.5%	5	23.8%
Clinical BMI 30<=BMI<40 (183 days)	82	19.1%	5	9.1%	3	14.3%
Clinical BMI 40<=BMI<70 (183 days)	17	4.0%	2	3.6%	0	0.0%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	65	15.1%	16	29.1%	10	47.6%
Clinical BMI (183 days) by Race (Asian)	Number	Percent	Number	Percent	Number	Percent
Clinical BMI Ht Missing (183 days)	104	24.2%	10	18.2%	2	9.5%
Clinical BMI Wt Missing (183 days)	1	0.2%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	170	39.5%	26	47.3%	12	57.1%
Clinical BMI (183 days) by Race (Black or African American)						
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	13	4.8%	0	0.0%	0	0.0%
Clinical BMI 25<=BMI<30 (183 days)	46	17.1%	7	20.0%	3	21.4%
Clinical BMI 30<=BMI<40 (183 days)	106	39.4%	9	25.7%	5	35.7%
Clinical BMI 40<=BMI<70 (183 days)	39	14.5%	7	20.0%	2	14.3%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	30	11.2%	7	20.0%	2	14.3%
Clinical BMI Ht Missing (183 days)	35	13.0%	5	14.3%	2	14.3%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	65	24.2%	12	34.3%	4	28.6%
Clinical BMI (183 days) by Race (Native Hawaiian or Other Pacific Islander)						

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	6	3.6%	0	0.0%	0	0.0%
Clinical BMI 25<=BMI<30 (183 days)	22	13.0%	3	20.0%	1	25.0%
Clinical BMI 30<=BMI<40 (183 days)	45	26.6%	1	6.7%	0	0.0%
Clinical BMI 40<=BMI<70 (183 days)	14	8.3%	2	13.3%	0	0.0%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	17	10.1%	7	46.7%	1	25.0%
Clinical BMI Ht Missing (183 days)	65	38.5%	2	13.3%	2	50.0%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	82	48.5%	9	60.0%	3	75.0%
Clinical BMI (183 days) by Race (White)						
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	39	1.1%	8	1.6%	3	1.6%
Clinical BMI 25<=BMI<30 (183 days)	210	5.7%	49	9.6%	10	5.2%
Clinical BMI 30<=BMI<40 (183 days)	592	16.0%	152	29.8%	45	23.6%
Clinical BMI (183 days) by Race (White)						
	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 40<=BMI<70 (183 days)	243	6.6%	69	13.5%	31	16.2%
Clinical BMI 70<=BMI<=90 (183 days)	2	0.1%	0	0.0%	1	0.5%
Clinical BMI Ht AND Wt Missing (183 days)	473	12.8%	198	38.8%	84	44.0%
Clinical BMI Ht Missing (183 days)	255	6.9%	33	6.5%	17	8.9%
Clinical BMI Wt Missing (183 days)	5	0.1%	1	0.2%	0	0.0%
Clinical BMI Any Missing (183 days)	733	19.8%	232	45.5%	101	52.9%
Clinical Tobacco Use (365 days) by Sex						
Clinical Tobacco Use (365 days) by Sex (Female)						
Clinical Tobacco Current User (365 days)	74	2.0%	18	3.9%	9	5.1%
Clinical Tobacco Never User (365 days)	692	18.7%	148	32.3%	56	31.5%
Clinical Tobacco Quit/Former User (365 days)	323	8.7%	64	14.0%	19	10.7%
Clinical Tobacco Passive Exposure (365 days)	5	0.1%	3	0.7%	0	0.0%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	4	0.1%	0	0.0%	0	0.0%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
Clinical Tobacco Conflicting (365 days)	17	0.5%	5	1.1%	2	1.1%
Clinical Tobacco Missing (365 days)	502	13.6%	220	48.0%	92	51.7%
Clinical Tobacco Use (365 days) by Sex (Male)						
Clinical Tobacco Current User (365 days)	133	3.6%	26	5.2%	8	3.8%
Clinical Tobacco Never User (365 days)	699	18.9%	145	29.1%	56	26.3%
Clinical Tobacco Quit/Former User (365 days)	564	15.3%	73	14.6%	16	7.5%
Clinical Tobacco Passive Exposure (365 days)	6	0.2%	2	0.4%	1	0.5%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	3	0.1%	2	0.4%	1	0.5%
Clinical Tobacco Conflicting (365 days)	24	0.6%	4	0.8%	4	1.9%
Clinical Tobacco Missing (365 days)	648	17.5%	247	49.5%	127	59.6%

Clinical Tobacco Use (365 days) by Race

Clinical Tobacco Use (365 days) by Race (Unknown)	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (365 days)	19	2.0%	7	2.1%	1	0.6%
Clinical Tobacco Never User (365 days)	165	17.3%	28	8.4%	10	6.3%
Clinical Tobacco Quit/Former User (365 days)	67	7.0%	14	4.2%	5	3.2%
Clinical Tobacco Passive Exposure (365 days)	1	0.1%	0	0.0%	1	0.6%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	5	0.5%	2	0.6%	0	0.0%
Clinical Tobacco Conflicting (365 days)	7	0.7%	3	0.9%	2	1.3%
Clinical Tobacco Missing (365 days)	692	72.4%	280	83.8%	139	88.0%

Clinical Tobacco Use (365 days) by Race (American Indian or Alaska Native)

Clinical Tobacco Current User (365 days)	3	5.9%	0	0.0%	1	33.3%
Clinical Tobacco Never User (365 days)	13	25.5%	2	25.0%	0	0.0%
Clinical Tobacco Quit/Former User (365 days)	27	52.9%	4	50.0%	0	0.0%
Clinical Tobacco Passive Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Missing (365 days)	8	15.7%	2	25.0%	2	66.7%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
Clinical Tobacco Use (365 days) by Race (Asian)						
Clinical Tobacco Current User (365 days)	33	7.7%	1	1.8%	1	4.8%
Clinical Tobacco Never User (365 days)	241	56.0%	31	56.4%	10	47.6%
Clinical Tobacco Quit/Former User (365 days)	110	25.6%	10	18.2%	3	14.3%
Clinical Tobacco Passive Exposure (365 days)	2	0.5%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (365 days)	8	1.9%	2	3.6%	2	9.5%
Clinical Tobacco Missing (365 days)	36	8.4%	11	20.0%	5	23.8%
Clinical Tobacco Use (365 days) by Race (Black or African American)						
	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (365 days)	19	7.1%	2	5.7%	1	7.1%
Clinical Tobacco Never User (365 days)	158	58.7%	16	45.7%	9	64.3%
Clinical Tobacco Quit/Former User (365 days)	65	24.2%	11	31.4%	1	7.1%
Clinical Tobacco Passive Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	1	0.4%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (365 days)	5	1.9%	0	0.0%	1	7.1%
Clinical Tobacco Missing (365 days)	21	7.8%	6	17.1%	2	14.3%
Clinical Tobacco Use (365 days) by Race (Native Hawaiian or Other Pacific Islander)						
Clinical Tobacco Current User (365 days)	12	7.1%	1	6.7%	0	0.0%
Clinical Tobacco Never User (365 days)	81	47.9%	6	40.0%	3	75.0%
Clinical Tobacco Quit/Former User (365 days)	57	33.7%	2	13.3%	0	0.0%
Clinical Tobacco Passive Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (365 days)	4	2.4%	0	0.0%	0	0.0%
Clinical Tobacco Missing (365 days)	15	8.9%	6	40.0%	1	25.0%
Clinical Tobacco Use (365 days) by Race (White)						
Clinical Tobacco Current User (365 days)	121	3.3%	33	6.5%	13	6.8%
Clinical Tobacco Never User (365 days)	733	19.8%	210	41.2%	80	41.9%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
Clinical Tobacco Quit/Former User (365 days)	561	15.2%	96	18.8%	26	13.6%
Clinical Tobacco Passive Exposure (365 days)	8	0.2%	5	1.0%	0	0.0%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	1	0.0%	0	0.0%	1	0.5%
Clinical Tobacco Conflicting (365 days)	17	0.5%	4	0.8%	1	0.5%
Clinical Tobacco Missing (365 days)	378	10.2%	162	31.8%	70	36.6%

Clinical Tobacco Use (183 days) by Sex

Clinical Tobacco Use (183 days) by Sex (Female)	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (183 days)	64	1.7%	15	3.3%	5	2.8%
Clinical Tobacco Never User (183 days)	629	17.0%	131	28.6%	49	27.5%
Clinical Tobacco Quit/Former User (183 days)	302	8.2%	60	13.1%	16	9.0%
Clinical Tobacco Passive Exposure (183 days)	4	0.1%	2	0.4%	0	0.0%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	2	0.1%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	13	0.4%	3	0.7%	2	1.1%
Clinical Tobacco Missing (183 days)	603	16.3%	247	53.9%	106	59.6%

Clinical Tobacco Use (183 days) by Sex (Male)

Clinical Tobacco Current User (183 days)	118	3.2%	21	4.2%	5	2.3%
Clinical Tobacco Never User (183 days)	614	16.6%	124	24.8%	46	21.6%
Clinical Tobacco Quit/Former User (183 days)	512	13.9%	61	12.2%	13	6.1%
Clinical Tobacco Passive Exposure (183 days)	4	0.1%	0	0.0%	1	0.5%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	2	0.1%	1	0.2%	1	0.5%
Clinical Tobacco Conflicting (183 days)	19	0.5%	4	0.8%	3	1.4%
Clinical Tobacco Missing (183 days)	808	21.9%	288	57.7%	144	67.6%

Clinical Tobacco Use (183 days) by Race

Clinical Tobacco Use (183 days) by Race (Unknown)	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (183 days)	16	1.7%	5	1.5%	0	0.0%
Clinical Tobacco Never User (183 days)	144	15.1%	25	7.5%	8	5.1%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
Clinical Tobacco Quit/Former User (183 days)	56	5.9%	10	3.0%	3	1.9%
Clinical Tobacco Passive Exposure (183 days)	1	0.1%	0	0.0%	1	0.6%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	2	0.2%	1	0.3%	0	0.0%
Clinical Tobacco Conflicting (183 days)	5	0.5%	3	0.9%	1	0.6%
Clinical Tobacco Missing (183 days)	732	76.6%	290	86.8%	145	91.8%
Clinical Tobacco Use (183 days) by Race (American Indian or Alaskan Native)						
	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (183 days)	1	2.0%	0	0.0%	0	0.0%
Clinical Tobacco Never User (183 days)	12	23.5%	2	25.0%	0	0.0%
Clinical Tobacco Quit/Former User (183 days)	22	43.1%	2	25.0%	0	0.0%
Clinical Tobacco Passive Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Missing (183 days)	16	31.4%	4	50.0%	3	100.0%
Clinical Tobacco Use (183 days) by Race (Asian)						
Clinical Tobacco Current User (183 days)	30	7.0%	0	0.0%	0	0.0%
Clinical Tobacco Never User (183 days)	223	51.9%	26	47.3%	9	42.9%
Clinical Tobacco Quit/Former User (183 days)	99	23.0%	9	16.4%	1	4.8%
Clinical Tobacco Passive Exposure (183 days)	2	0.5%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	8	1.9%	2	3.6%	2	9.5%
Clinical Tobacco Missing (183 days)	68	15.8%	18	32.7%	9	42.9%
Clinical Tobacco Use (183 days) by Race (Black or African American)						
Clinical Tobacco Current User (183 days)	18	6.7%	2	5.7%	1	7.1%
Clinical Tobacco Never User (183 days)	150	55.8%	16	45.7%	8	57.1%
Clinical Tobacco Quit/Former User (183 days)	61	22.7%	10	28.6%	1	7.1%
Clinical Tobacco Passive Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent SGLT-2 Inhibitors		Prevalent Canagliflozin		Prevalent Dapagliflozin	
Clinical Tobacco Not Asked (183 days)	1	0.4%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	4	1.5%	0	0.0%	1	7.1%
Clinical Tobacco Missing (183 days)	35	13.0%	7	20.0%	3	21.4%
Clinical Tobacco Use (183 days) by Race (Native Hawaiian or Other Pacific Islander)						
	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (183 days)	10	5.9%	1	6.7%	0	0.0%
Clinical Tobacco Never User (183 days)	77	45.6%	5	33.3%	3	75.0%
Clinical Tobacco Quit/Former User (183 days)	57	33.7%	2	13.3%	0	0.0%
Clinical Tobacco Passive Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	4	2.4%	0	0.0%	0	0.0%
Clinical Tobacco Missing (183 days)	21	12.4%	7	46.7%	1	25.0%
Clinical Tobacco Use (183 days) by Race (White)						
Clinical Tobacco Current User (183 days)	107	2.9%	28	5.5%	9	4.7%
Clinical Tobacco Never User (183 days)	637	17.2%	181	35.5%	67	35.1%
Clinical Tobacco Quit/Former User (183 days)	519	14.0%	88	17.3%	24	12.6%
Clinical Tobacco Passive Exposure (183 days)	5	0.1%	2	0.4%	0	0.0%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	1	0.0%	0	0.0%	1	0.5%
Clinical Tobacco Conflicting (183 days)	11	0.3%	2	0.4%	1	0.5%
Clinical Tobacco Missing (183 days)	539	14.6%	209	41.0%	89	46.6%

¹These baseline covariates were assessed from 365 days to 1 day before the index date.

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

Characteristic	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
	Number		Number		Number	
Number of episodes	2,636		0		5,162	
Number of unique patients	2,636		0		5,162	
Demographics	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Mean Age (years)	60.6	10.2	0	0	62.8	11.2
Age (years)	Number	Percent	Number	Percent	Number	Percent
20-44	183	6.9%	0	0.0%	319	6.2%
45-64	1,562	59.3%	0	0.0%	2,694	52.2%
65+	891	33.8%	0	0.0%	2,149	41.6%
Sex						
Female	1,104	41.9%	0	0.0%	2,393	46.4%
Male	1,532	58.1%	0	0.0%	2,769	53.6%
Race						
Unknown	572	21.7%	0	0.0%	1,045	20.2%
American Indian or Alaska Native	42	1.6%	0	0.0%	41	0.8%
Asian	375	14.2%	0	0.0%	888	17.2%
Black or African American	236	9.0%	0	0.0%	469	9.1%
Native Hawaiian or Other Pacific Islander	155	5.9%	0	0.0%	167	3.2%
White	1,256	47.6%	0	0.0%	2,552	49.4%
Hispanic Origin						
2013	241	9.1%	0	0.0%	460	8.9%
Year						
2013	0	0.0%	0	0.0%	3,112	60.3%
2014	11	0.4%	0	0.0%	479	9.3%
2015	46	1.7%	0	0.0%	483	9.4%
2016	388	14.7%	0	0.0%	424	8.2%
2017	1,087	41.2%	0	0.0%	429	8.3%
2018	1,104	41.9%	0	0.0%	235	4.6%
Recorded History of:	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Charlson/Elixhauser Combined Comorbidity Score	1.7	2.1	0	0	1.3	2.3
Recorded History of:	Number	Percent	Number	Percent	Number	Percent
GLP-1 Analogs	339	12.9%	0	0.0%	102	2.0%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
Thiazolidinediones	212	8.0%	0	0.0%	718	13.9%
Sulfonylureas	1,421	53.9%	0	0.0%	3,457	67.0%
Biguanides	2,228	84.5%	0	0.0%	4,065	78.7%
Short/Rapid-Acting Insulins	626	23.7%	0	0.0%	346	6.7%
Long/Intermediate-Acting Insulins	1,167	44.3%	0	0.0%	1,015	19.7%
Diabetes Complication	1,387	52.6%	0	0.0%	2,591	50.2%
Stroke	62	2.4%	0	0.0%	120	2.3%
Malignancy	249	9.4%	0	0.0%	480	9.3%
Acute Myocardial Infarction	103	3.9%	0	0.0%	84	1.6%
Hypertension/ Hypertensive Disorders	1,966	74.6%	0	0.0%	3,918	75.9%
Hypercholesterolemia/ Hyperlipidemia	1,923	73.0%	0	0.0%	4,081	79.1%
Alcohol Consumption	36	1.4%	0	0.0%	65	1.3%
Chronic Kidney Disease	420	15.9%	0	0.0%	1,193	23.1%
SGLT-2is ¹	499	18.9%	0	0.0%	60	1.2%
DPP-4is ¹	259	9.8%	0	0.0%	3,126	60.6%
Health Service Utilization Intensity:						
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Mean number of ambulatory encounters	13.9	12.9	0	0	13	13.9
Mean number of emergency room encounters	0.4	1	0	0	0.4	1.2
Mean number of inpatient hospital encounters	0.1	0.5	0	0	0.2	1
Mean number of non-acute institutional encounters	0	0.5	0	0	0.2	2.7
Mean number of other ambulatory encounters	17.4	16.3	0	0	9.5	10.4
Drug Utilization Intensity:						
Mean number of unique drug classes	9.9	5	0	0	9	4.9
Mean number of generics	12.6	5.8	0	0	11.2	5.6
Mean number of filled prescriptions	39.9	25.2	0	0	37.6	25.1
Clinical and Laboratory Characteristics (365 days)						
Clinical BMI (365 days)	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (365 days)	5	0.2%	0	0.0%	8	0.2%
Clinical BMI 18.5<=BMI<25 (365 days)	131	5.0%	0	0.0%	442	8.6%
Clinical BMI 25<=BMI<30 (365 days)	434	16.5%	0	0.0%	1,073	20.8%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
Clinical BMI 30<=BMI<40 (365 days)	890	33.8%	0	0.0%	1,512	29.3%
Clinical BMI 40<=BMI<70 (365 days)	313	11.9%	0	0.0%	506	9.8%
Clinical BMI 70<=BMI<=90 (365 days)	1	0.0%	0	0.0%	2	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	576	21.9%	0	0.0%	1,314	25.5%
Clinical BMI Ht Missing (365 days)	283	10.7%	0	0.0%	288	5.6%
Clinical BMI Wt Missing (365 days)	3	0.1%	0	0.0%	16	0.3%
Clinical BMI Any Missing (365 days)	862	32.7%	0	0.0%	1,618	31.3%
Clinical Tobacco Use (365 days)						
Clinical Tobacco Current User (365 days)	157	6.0%	0	0.0%	283	5.5%
Clinical Tobacco Never (365 days)	1,077	40.9%	0	0.0%	2,213	42.9%
Clinical Tobacco Quit/Former User (365 days)	769	29.2%	0	0.0%	1,104	21.4%
Clinical Tobacco Passive (365 days)	7	0.3%	0	0.0%	39	0.8%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	4	0.2%	0	0.0%	11	0.2%
Clinical Tobacco Conflicting (365 days)	30	1.1%	0	0.0%	111	2.2%
Clinical Tobacco Missing (365 days)	592	22.5%	0	0.0%	1,401	27.1%
Clinical HbA1c Laboratory Values (365 days)						
Clinical HbA1c 2.5<=HbA1c<5.7 (365 days)	9	0.3%	0	0.0%	36	0.7%
Clinical HbA1c 5.7<=HbA1c<6.5 (365 days)	77	2.9%	0	0.0%	331	6.4%
Clinical HbA1c 6.5<=HbA1c<8 (365 days)	572	21.7%	0	0.0%	1,638	31.7%
Clinical HbA1c 8<=HbA1c<9 (365 days)	572	21.7%	0	0.0%	809	15.7%
Clinical HbA1c 9<=HbA1c<10 (365 days)	362	13.7%	0	0.0%	454	8.8%
Clinical HbA1c 10<=HbA1c<12.5 (365 days)	341	12.9%	0	0.0%	373	7.2%
Clinical HbA1c 12.5<=HbA1c<15 (365 days)	43	1.6%	0	0.0%	74	1.4%
Clinical HbA1c 15<=HbA1c<=25 (365 days)	5	0.2%	0	0.0%	8	0.2%
Clinical HbA1c Missing (365 days)	655	24.8%	0	0.0%	1,439	27.9%
Clinical Creatinine Laboratory Values (365 days)						
	Number	Percent	Number	Percent	Number	Percent
Clinical Creatinine 0.3<=Creatinine<=0.8 (365 days)	771	29.2%	0	0.0%	1,221	23.7%
Clinical Creatinine 0.8<Creatinine<=0.9 (365 days)	328	12.4%	0	0.0%	617	12.0%
Clinical Creatinine 0.9<Creatinine<=1.0 (365 days)	316	12.0%	0	0.0%	486	9.4%
Clinical Creatinine 1.0<Creatinine<=1.2 (365 days)	362	13.7%	0	0.0%	632	12.2%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
Clinical Creatinine 1.2<Creatinine<=1.5 (365 days)	164	6.2%	0	0.0%	470	9.1%
Clinical Creatinine 1.5<Creatinine<=2.0 (365 days)	33	1.3%	0	0.0%	217	4.2%
Clinical Creatinine 2.0<Creatinine<=2.5 (365 days)	4	0.2%	0	0.0%	52	1.0%
Clinical Creatinine 2.5<Creatinine<=3.0 (365 days)	1	0.0%	0	0.0%	16	0.3%
Clinical Creatinine 3.0<Creatinine<=3.5 (365 days)	0	0.0%	0	0.0%	7	0.1%
Clinical Creatinine 3.5<Creatinine<=20 (365 days)	0	0.0%	0	0.0%	29	0.6%
Clinical Creatinine Missing (365 days)	657	24.9%	0	0.0%	1,415	27.4%
Clinical eGFR Laboratory Values (365 days)						
Clinical eGFR eGFR<15 (365 days)	0	0.0%	0	0.0%	25	0.5%
Clinical eGFR 15<=eGFR<=29 (365 days)	3	0.1%	0	0.0%	100	1.9%
Clinical eGFR 30<=eGFR<=44 (365 days)	32	1.2%	0	0.0%	317	6.1%
Clinical eGFR 45<=eGFR<=59 (365 days)	224	8.5%	0	0.0%	537	10.4%
Clinical eGFR 60<=eGFR<=89 (365 days)	881	33.4%	0	0.0%	1,458	28.2%
Clinical eGFR 90<=eGFR<=200 (365 days)	839	31.8%	0	0.0%	1,310	25.4%
Clinical eGFR Missing (365 days)	657	24.9%	0	0.0%	1,415	27.4%
Claims BMI (365 days)						
Claims BMI BMI<19 (365 days)	0	0.0%	0	0.0%	2	0.0%
Claims BMI 19<=BMI<=24 (365 days)	5	0.2%	0	0.0%	11	0.2%
Claims BMI 25<=BMI<=29 (365 days)	24	0.9%	0	0.0%	23	0.4%
Claims BMI 30<=BMI<=39 (365 days)	212	8.0%	0	0.0%	202	3.9%
Claims BMI 40<=BMI<=69 (365 days)	156	5.9%	0	0.0%	155	3.0%
Claims BMI BMI>=70 (365 days)	2	0.1%	0	0.0%	1	0.0%
Claims BMI Other obesity (365 days)	711	27.0%	0	0.0%	1,146	22.2%
Claims BMI None (365 days)	1,526	57.9%	0	0.0%	3,622	70.2%
Presence of a Creatinine Laboratory Claim (365 days)						
	Number	Percent	Number	Percent	Number	Percent
Claims Creatinine (365 days)	2,469	93.7%	0	0.0%	4,722	91.5%
Claims Creatinine None (365 days)	167	6.3%	0	0.0%	440	8.5%
Presence of a HbA1c Laboratory Claim (365 days)						
Claims HbA1c (365 days)	2,551	96.8%	0	0.0%	4,903	95.0%
Claims HbA1c None (365 days)	85	3.2%	0	0.0%	259	5.0%
Presence of a Smoking Claim (365 days)						

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
Claims Smoking (365 days)	523	19.8%	0	0.0%	743	14.4%
Claims Smoking None (365 days)	2,113	80.2%	0	0.0%	4,419	85.6%
Clinical and Laboratory Characteristics (183 days)						
Clinical BMI (183 days)						
Clinical BMI 15<=BMI<18.5 (183 days)	3	0.1%	0	0.0%	7	0.1%
Clinical BMI 18.5<=BMI<25 (183 days)	105	4.0%	0	0.0%	342	6.6%
Clinical BMI 25<=BMI<30 (183 days)	358	13.6%	0	0.0%	860	16.7%
Clinical BMI 30<=BMI<40 (183 days)	740	28.1%	0	0.0%	1,240	24.0%
Clinical BMI 40<=BMI<70 (183 days)	266	10.1%	0	0.0%	419	8.1%
Clinical BMI 70<=BMI<=90 (183 days)	1	0.0%	0	0.0%	1	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	707	26.8%	0	0.0%	1,808	35.0%
Clinical BMI Ht Missing (183 days)	451	17.1%	0	0.0%	473	9.2%
Clinical BMI Wt Missing (183 days)	5	0.2%	0	0.0%	11	0.2%
Clinical BMI Any Missing (183 days)	1,163	44.1%	0	0.0%	2,292	44.4%
Clinical Tobacco Use (183 days)						
Clinical Tobacco Current User (183 days)	145	5.5%	0	0.0%	253	4.9%
Clinical Tobacco Never (183 days)	968	36.7%	0	0.0%	1,843	35.7%
Clinical Tobacco Quit/Former User (183 days)	706	26.8%	0	0.0%	955	18.5%
Clinical Tobacco Passive (183 days)	7	0.3%	0	0.0%	29	0.6%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	2	0.1%	0	0.0%	4	0.1%
Clinical Tobacco Conflicting (183 days)	24	0.9%	0	0.0%	92	1.8%
Clinical Tobacco Missing (183 days)	784	29.7%	0	0.0%	1,986	38.5%
Clinical HbA1c Laboratory Values (183 days)						
	Number	Percent	Number	Percent	Number	Percent
Clinical HbA1c 2.5<=HbA1c<5.7 (183 days)	7	0.3%	0	0.0%	29	0.6%
Clinical HbA1c 5.7<=HbA1c<6.5 (183 days)	67	2.5%	0	0.0%	283	5.5%
Clinical HbA1c 6.5<=HbA1c<8 (183 days)	511	19.4%	0	0.0%	1,410	27.3%
Clinical HbA1c 8<=HbA1c<9 (183 days)	544	20.6%	0	0.0%	761	14.7%
Clinical HbA1c 9<=HbA1c<10 (183 days)	355	13.5%	0	0.0%	415	8.0%
Clinical HbA1c 10<=HbA1c<12 (183 days)	328	12.4%	0	0.0%	345	6.7%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
Clinical HbA1c 12.5<=HbA1c<15 (183 days)	40	1.5%	0	0.0%	67	1.3%
Clinical HbA1c 15<=HbA1c<=25 (183 days)	5	0.2%	0	0.0%	6	0.1%
Clinical HbA1c Missing (183 days)	779	29.6%	0	0.0%	1,846	35.8%
Clinical Creatinine Laboratory Values (183 days)						
Clinical Creatinine 0.3<=Creatinine<=0.8 (183 days)	658	25.0%	0	0.0%	996	19.3%
Clinical Creatinine 0.8<Creatinine<=0.9 (183 days)	273	10.4%	0	0.0%	503	9.7%
Clinical Creatinine 0.9<Creatinine<=1.0 (183 days)	276	10.5%	0	0.0%	393	7.6%
Clinical Creatinine 1.0<Creatinine<=1.2 (183 days)	295	11.2%	0	0.0%	529	10.2%
Clinical Creatinine 1.2<Creatinine<=1.5 (183 days)	142	5.4%	0	0.0%	422	8.2%
Clinical Creatinine 1.5<Creatinine<=2.0 (183 days)	31	1.2%	0	0.0%	193	3.7%
Clinical Creatinine 2.0<Creatinine<=2.5 (183 days)	3	0.1%	0	0.0%	50	1.0%
Clinical Creatinine 2.5<Creatinine<=3.0 (183 days)	1	0.0%	0	0.0%	16	0.3%
Clinical Creatinine 3.0<Creatinine<=3.5 (183 days)	0	0.0%	0	0.0%	5	0.1%
Clinical Creatinine 3.5<Creatinine<=20 (183 days)	0	0.0%	0	0.0%	27	0.5%
Clinical Creatinine Missing (183 days)	957	36.3%	0	0.0%	2,028	39.3%
Clinical eGFR Laboratory Values (183 days)						
Clinical eGFR eGFR<15 (183 days)	0	0.0%	0	0.0%	23	0.4%
Clinical eGFR 15<=eGFR<=29 (183 days)	3	0.1%	0	0.0%	92	1.8%
Clinical eGFR 30<=eGFR<=44 (183 days)	30	1.1%	0	0.0%	290	5.6%
Clinical eGFR 45<=eGFR<=59 (183 days)	201	7.6%	0	0.0%	468	9.1%
Clinical eGFR 60<=eGFR<=89 (183 days)	739	28.0%	0	0.0%	1,216	23.6%
Clinical eGFR 90<=eGFR<=200 (183 days)	706	26.8%	0	0.0%	1,045	20.2%
Clinical eGFR Missing (183 days)	957	36.3%	0	0.0%	2,028	39.3%
Claims BMI (183 days)						
	Number	Percent	Number	Percent	Number	Percent
Claims BMI BMI<19 (183 days)	0	0.0%	0	0.0%	1	0.0%
Claims BMI 19<=BMI<=24 (183 days)	3	0.1%	0	0.0%	8	0.2%
Claims BMI 25<=BMI<=29 (183 days)	21	0.8%	0	0.0%	17	0.3%
Claims BMI 30<=BMI<=39 (183 days)	161	6.1%	0	0.0%	147	2.8%
Claims BMI 40<=BMI<=69 (183 days)	137	5.2%	0	0.0%	128	2.5%
Claims BMI BMI>=70 (183 days)	1	0.0%	0	0.0%	1	0.0%
Claims BMI Other obesity (183 days)	565	21.4%	0	0.0%	813	15.7%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
Claims BMI None (183 days)	1,748	66.3%	0	0.0%	4,047	78.4%
Presence of a Creatinine Laboratory Claim (183 days)						
Claims Creatinine (183 days)	2,182	82.8%	0	0.0%	3,950	76.5%
Claims Creatinine None (183 days)	454	17.2%	0	0.0%	1,212	23.5%
Presence of a HbA1c Laboratory Claim (183 days)						
Claims HbA1c (183 days)	2,412	91.5%	0	0.0%	4,405	85.3%
Claims HbA1c None (183 days)	224	8.5%	0	0.0%	757	14.7%
Presence of a Smoking Claim (183 days)						
Claims Smoking (183 days)	378	14.3%	0	0.0%	492	9.5%
Claims Smoking None (183 days)	2,258	85.7%	0	0.0%	4,670	90.5%

Clinical BMI (365 days) by Age Group

Clinical BMI (365 days) by Age Group (20 - 44 years of age)						
Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	6	3.3%	0	0.0%	18	5.6%
Clinical BMI 25<=BMI<30 (365 days)	16	8.7%	0	0.0%	42	13.2%
Clinical BMI 30<=BMI<40 (365 days)	62	33.9%	0	0.0%	90	28.2%
Clinical BMI 40<=BMI<70 (365 days)	35	19.1%	0	0.0%	51	16.0%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	1	0.3%
Clinical BMI Ht AND Wt Missing (365 days)	55	30.1%	0	0.0%	103	32.3%
Clinical BMI Ht Missing (365 days)	9	4.9%	0	0.0%	13	4.1%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	1	0.3%
Clinical BMI Any Missing (365 days)	64	35.0%	0	0.0%	117	36.7%

Clinical BMI (365 days) by Age Group (45 - 64 years of age)						
	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (365 days)	3	0.1%	0	0.0%	4	0.1%
Clinical BMI 18.5<=BMI<25 (365 days)	58	2.2%	0	0.0%	170	3.3%
Clinical BMI 25<=BMI<30 (365 days)	234	8.9%	0	0.0%	507	9.8%
Clinical BMI 30<=BMI<40 (365 days)	500	19.0%	0	0.0%	802	15.5%
Clinical BMI 40<=BMI<70 (365 days)	212	8.0%	0	0.0%	312	6.0%
Clinical BMI 70<=BMI<=90 (365 days)	1	0.0%	0	0.0%	1	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	392	14.9%	0	0.0%	727	14.1%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
Clinical BMI Ht Missing (365 days)	160	6.1%	0	0.0%	166	3.2%
Clinical BMI Wt Missing (365 days)	2	0.1%	0	0.0%	5	0.1%
Clinical BMI Any Missing (365 days)	554	21.0%	0	0.0%	898	17.4%
Clinical BMI (365 days) by Age Group (65+ years of age)						
Clinical BMI 15<=BMI<18.5 (365 days)	2	0.2%	0	0.0%	4	0.1%
Clinical BMI 18.5<=BMI<25 (365 days)	67	7.5%	0	0.0%	254	4.9%
Clinical BMI 25<=BMI<30 (365 days)	184	20.7%	0	0.0%	524	10.2%
Clinical BMI 30<=BMI<40 (365 days)	328	36.8%	0	0.0%	620	12.0%
Clinical BMI 40<=BMI<70 (365 days)	66	7.4%	0	0.0%	143	2.8%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	129	14.5%	0	0.0%	484	9.4%
Clinical BMI Ht Missing (365 days)	114	12.8%	0	0.0%	109	2.1%
Clinical BMI Wt Missing (365 days)	1	0.1%	0	0.0%	10	0.2%
Clinical BMI Any Missing (365 days)	244	27.4%	0	0.0%	603	11.7%
Clinical BMI (365 days) by Sex						
Clinical BMI (365 days) by Sex (Female)						
Clinical BMI 15<=BMI<18.5 (365 days)	3	0.1%	0	0.0%	4	0.1%
Clinical BMI 18.5<=BMI<25 (365 days)	58	2.2%	0	0.0%	225	4.4%
Clinical BMI 25<=BMI<30 (365 days)	159	6.0%	0	0.0%	434	8.4%
Clinical BMI 30<=BMI<40 (365 days)	373	14.2%	0	0.0%	720	13.9%
Clinical BMI 40<=BMI<70 (365 days)	158	6.0%	0	0.0%	288	5.6%
Clinical BMI 70<=BMI<=90 (365 days)	1	0.0%	0	0.0%	2	0.0%
Clinical BMI (365 days) by Sex (Female)	Number	Percent	Number	Percent	Number	Percent
Clinical BMI Ht AND Wt Missing (365 days)	235	8.90%	0	0.00%	593	11.50%
Clinical BMI Ht Missing (365 days)	116	4.4%	0	0.0%	117	2.3%
Clinical BMI Wt Missing (365 days)	1	0.0%	0	0.0%	10	0.2%
Clinical BMI Any Missing (365 days)	352	13.4%	0	0.0%	720	13.9%
Clinical BMI (365 days) by Sex (Male)						
Clinical BMI 15<=BMI<18.5 (365 days)	2	0.1%	0	0.0%	4	0.1%
Clinical BMI 18.5<=BMI<25 (365 days)	73	2.8%	0	0.0%	217	4.2%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
Clinical BMI 25<=BMI<30 (365 days)	275	10.4%	0	0.0%	639	12.4%
Clinical BMI 30<=BMI<40 (365 days)	517	19.6%	0	0.0%	792	15.3%
Clinical BMI 40<=BMI<70 (365 days)	155	5.9%	0	0.0%	218	4.2%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	341	12.9%	0	0.0%	721	14.0%
Clinical BMI Ht Missing (365 days)	167	6.3%	0	0.0%	171	3.3%
Clinical BMI Wt Missing (365 days)	2	0.1%	0	0.0%	6	0.1%
Clinical BMI Any Missing (365 days)	510	19.3%	0	0.0%	898	17.4%

Clinical BMI (365 days) by Race

Clinical BMI (365 days) by Race (Unknown)

Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	14	2.4%	0	0.0%	36	0.7%
Clinical BMI 25<=BMI<30 (365 days)	41	7.2%	0	0.0%	101	2.0%
Clinical BMI 30<=BMI<40 (365 days)	101	17.7%	0	0.0%	169	3.3%
Clinical BMI 40<=BMI<70 (365 days)	37	6.5%	0	0.0%	55	1.1%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	366	64.0%	0	0.0%	660	12.8%
Clinical BMI Ht Missing (365 days)	13	2.3%	0	0.0%	20	0.4%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	3	0.1%
Clinical BMI Any Missing (365 days)	379	66.3%	0	0.0%	683	13.2%

Clinical BMI (365 days) by Race (American Indian or Alaska Native)

	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	0	0.0%	0	0.0%	1	2.4%
Clinical BMI 25<=BMI<30 (365 days)	6	14.3%	0	0.0%	9	22.0%
Clinical BMI 30<=BMI<40 (365 days)	20	47.6%	0	0.0%	18	43.9%
Clinical BMI 40<=BMI<70 (365 days)	6	14.3%	0	0.0%	4	9.8%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	4	9.5%	0	0.0%	6	14.6%
Clinical BMI Ht Missing (365 days)	6	14.3%	0	0.0%	3	7.3%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	10	23.8%	0	0.0%	9	22.0%
Clinical BMI (365 days) by Race (Asian)						
Clinical BMI 15<=BMI<18.5 (365 days)	3	0.8%	0	0.0%	3	0.3%
Clinical BMI 18.5<=BMI<25 (365 days)	54	14.4%	0	0.0%	221	24.9%
Clinical BMI 25<=BMI<30 (365 days)	118	31.5%	0	0.0%	322	36.3%
Clinical BMI 30<=BMI<40 (365 days)	94	25.1%	0	0.0%	167	18.8%
Clinical BMI 40<=BMI<70 (365 days)	19	5.1%	0	0.0%	15	1.7%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	19	5.1%	0	0.0%	74	8.3%
Clinical BMI Ht Missing (365 days)	68	18.1%	0	0.0%	85	9.6%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	1	0.1%
Clinical BMI Any Missing (365 days)	87	23.2%	0	0.0%	160	18.0%
Clinical BMI (365 days) by Race (Black or African American)						
Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	14	5.9%	0	0.0%	28	6.0%
Clinical BMI 25<=BMI<30 (365 days)	45	19.1%	0	0.0%	107	22.8%
Clinical BMI 30<=BMI<40 (365 days)	103	43.6%	0	0.0%	185	39.4%
Clinical BMI 40<=BMI<70 (365 days)	41	17.4%	0	0.0%	69	14.7%
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	1	0.2%
Clinical BMI Ht AND Wt Missing (365 days)	15	6.4%	0	0.0%	38	8.1%
Clinical BMI (365 days) by Race (Black or African American)						
	Number	Percent	Number	Percent	Number	Percent
Clinical BMI Ht Missing (365 days)	18	7.60%	0	0.00%	39	8.30%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	2	0.4%
Clinical BMI Any Missing (365 days)	33	14.0%	0	0.0%	79	16.8%
Clinical BMI (365 days) by Race (Native Hawaiian or Other Pacific Islander)						
Clinical BMI 15<=BMI<18.5 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (365 days)	7	4.5%	0	0.0%	15	9.0%
Clinical BMI 25<=BMI<30 (365 days)	22	14.2%	0	0.0%	31	18.6%
Clinical BMI 30<=BMI<40 (365 days)	54	34.8%	0	0.0%	51	30.5%
Clinical BMI 40<=BMI<70 (365 days)	19	12.3%	0	0.0%	22	13.2%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
Clinical BMI 70<=BMI<=90 (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	8	5.2%	0	0.0%	14	8.4%
Clinical BMI Ht Missing (365 days)	45	29.0%	0	0.0%	34	20.4%
Clinical BMI Wt Missing (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (365 days)	53	34.2%	0	0.0%	48	28.7%
Clinical BMI (365 days) by Race (White)						
Clinical BMI 15<=BMI<18.5 (365 days)	2	0.1%	0	0.0%	5	0.1%
Clinical BMI 18.5<=BMI<25 (365 days)	42	1.6%	0	0.0%	141	2.7%
Clinical BMI 25<=BMI<30 (365 days)	202	7.7%	0	0.0%	503	9.7%
Clinical BMI 30<=BMI<40 (365 days)	518	19.7%	0	0.0%	922	17.9%
Clinical BMI 40<=BMI<70 (365 days)	191	7.2%	0	0.0%	341	6.6%
Clinical BMI 70<=BMI<=90 (365 days)	1	0.0%	0	0.0%	1	0.0%
Clinical BMI Ht AND Wt Missing (365 days)	164	6.2%	0	0.0%	522	10.1%
Clinical BMI Ht Missing (365 days)	133	5.0%	0	0.0%	107	2.1%
Clinical BMI Wt Missing (365 days)	3	0.1%	0	0.0%	10	0.2%
Clinical BMI Any Missing (365 days)	300	11.4%	0	0.0%	639	12.4%

Clinical BMI (183 days) by Age Group

Clinical BMI (183 days) by Age Group (20 - 44 years of age)	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	3	1.6%	0	0.0%	15	4.7%
Clinical BMI 25<=BMI<30 (183 days)	12	6.6%	0	0.0%	37	11.6%
Clinical BMI 30<=BMI<40 (183 days)	55	30.1%	0	0.0%	72	22.6%
Clinical BMI 40<=BMI<70 (183 days)	26	14.2%	0	0.0%	46	14.4%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	64	35.0%	0	0.0%	126	39.5%
Clinical BMI Ht Missing (183 days)	23	12.6%	0	0.0%	22	6.9%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	1	0.3%
Clinical BMI Any Missing (183 days)	87	47.5%	0	0.0%	149	46.7%
Clinical BMI (183 days) by Age Group (45 - 64 years of age)						
Clinical BMI 15<=BMI<18.5 (183 days)	1	0.0%	0	0.0%	3	0.1%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
Clinical BMI 18.5<=BMI<25 (183 days)	48	1.8%	0	0.0%	137	2.7%
Clinical BMI 25<=BMI<30 (183 days)	204	7.7%	0	0.0%	401	7.8%
Clinical BMI 30<=BMI<40 (183 days)	405	15.4%	0	0.0%	633	12.3%
Clinical BMI 40<=BMI<70 (183 days)	182	6.9%	0	0.0%	256	5.0%
Clinical BMI 70<=BMI<=90 (183 days)	1	0.0%	0	0.0%	1	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	481	18.2%	0	0.0%	1,004	19.4%
Clinical BMI Ht Missing (183 days)	237	9.0%	0	0.0%	254	4.9%
Clinical BMI Wt Missing (183 days)	3	0.1%	0	0.0%	5	0.1%
Clinical BMI Any Missing (183 days)	721	27.4%	0	0.0%	1,263	24.5%
Clinical BMI (183 days) by Age Group (65+ years of age)						
Clinical BMI 15<=BMI<18.5 (183 days)	2	0.2%	0	0.0%	4	0.1%
Clinical BMI 18.5<=BMI<25 (183 days)	54	6.1%	0	0.0%	190	3.7%
Clinical BMI 25<=BMI<30 (183 days)	142	15.9%	0	0.0%	422	8.2%
Clinical BMI 30<=BMI<40 (183 days)	280	31.4%	0	0.0%	535	10.4%
Clinical BMI 40<=BMI<70 (183 days)	58	6.5%	0	0.0%	117	2.3%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	162	18.2%	0	0.0%	678	13.1%
Clinical BMI (183 days) by Age Group (65+ years of age)						
	Number	Percent	Number	Percent	Number	Percent
Clinical BMI Ht Missing (183 days)	191	21.4%	0	0.0%	197	3.8%
Clinical BMI Wt Missing (183 days)	2	0.2%	0	0.0%	5	0.1%
Clinical BMI Any Missing (183 days)	355	39.8%	0	0.0%	880	17.0%
Clinical BMI (183 days) by Sex						
Clinical BMI (183 days) by Sex (Female)						
Clinical BMI 15<=BMI<18.5 (183 days)	3	0.1%	0	0.0%	4	0.1%
Clinical BMI 18.5<=BMI<25 (183 days)	46	1.7%	0	0.0%	179	3.5%
Clinical BMI 25<=BMI<30 (183 days)	136	5.2%	0	0.0%	347	6.7%
Clinical BMI 30<=BMI<40 (183 days)	320	12.1%	0	0.0%	611	11.8%
Clinical BMI 40<=BMI<70 (183 days)	141	5.3%	0	0.0%	243	4.7%
Clinical BMI 70<=BMI<=90 (183 days)	1	0.0%	0	0.0%	1	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	272	10.3%	0	0.0%	785	15.2%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
Clinical BMI Ht Missing (183 days)	184	7.0%	0	0.0%	218	4.2%
Clinical BMI Wt Missing (183 days)	1	0.0%	0	0.0%	5	0.1%
Clinical BMI Any Missing (183 days)	457	17.3%	0	0.0%	1,008	19.5%
Clinical BMI (183 days) by Sex (Male)						
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	3	0.1%
Clinical BMI 18.5<=BMI<25 (183 days)	59	2.2%	0	0.0%	163	3.2%
Clinical BMI 25<=BMI<30 (183 days)	222	8.4%	0	0.0%	513	9.9%
Clinical BMI 30<=BMI<40 (183 days)	420	15.9%	0	0.0%	629	12.2%
Clinical BMI 40<=BMI<70 (183 days)	125	4.7%	0	0.0%	176	3.4%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	435	16.5%	0	0.0%	1,023	19.8%
Clinical BMI Ht Missing (183 days)	267	10.1%	0	0.0%	255	4.9%
Clinical BMI Wt Missing (183 days)	4	0.2%	0	0.0%	6	0.1%
Clinical BMI Any Missing (183 days)	706	26.8%	0	0.0%	1,284	24.9%
Clinical BMI (183 days) by Race						
Clinical BMI (183 days) by Race (Unknown)						
	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	13	2.3%	0	0.0%	29	0.6%
Clinical BMI 25<=BMI<30 (183 days)	35	6.1%	0	0.0%	79	1.5%
Clinical BMI 30<=BMI<40 (183 days)	78	13.6%	0	0.0%	126	2.4%
Clinical BMI 40<=BMI<70 (183 days)	30	5.2%	0	0.0%	42	0.8%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	384	67.1%	0	0.0%	734	14.2%
Clinical BMI Ht Missing (183 days)	32	5.6%	0	0.0%	33	0.6%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	1	0.0%
Clinical BMI Any Missing (183 days)	416	72.7%	0	0.0%	768	14.9%
Clinical BMI (183 days) by Race (American Indian or Alaska Native)						
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	0	0.0%	0	0.0%	1	2.4%
Clinical BMI 25<=BMI<30 (183 days)	4	9.5%	0	0.0%	7	17.1%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
Clinical BMI 30<=BMI<40 (183 days)	15	35.7%	0	0.0%	14	34.1%
Clinical BMI 40<=BMI<70 (183 days)	6	14.3%	0	0.0%	4	9.8%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	8	19.0%	0	0.0%	10	24.4%
Clinical BMI Ht Missing (183 days)	9	21.4%	0	0.0%	5	12.2%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Any Missing (183 days)	17	40.5%	0	0.0%	15	36.6%
Clinical BMI (183 days) by Race (Asian)						
Clinical BMI 15<=BMI<18.5 (183 days)	3	0.8%	0	0.0%	3	0.3%
Clinical BMI 18.5<=BMI<25 (183 days)	42	11.2%	0	0.0%	173	19.5%
Clinical BMI 25<=BMI<30 (183 days)	96	25.6%	0	0.0%	263	29.6%
Clinical BMI 30<=BMI<40 (183 days)	77	20.5%	0	0.0%	129	14.5%
Clinical BMI 40<=BMI<70 (183 days)	15	4.0%	0	0.0%	12	1.4%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	42	11.2%	0	0.0%	178	20.0%
Clinical BMI (183 days) by Race (Asian)	Number	Percent	Number	Percent	Number	Percent
Clinical BMI Ht Missing (183 days)	99	26.4%	0	0.0%	129	14.5%
Clinical BMI Wt Missing (183 days)	1	0.3%	0	0.0%	1	0.1%
Clinical BMI Any Missing (183 days)	142	37.9%	0	0.0%	308	34.7%
Clinical BMI (183 days) by Race (Black or African American)						
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	13	5.5%	0	0.0%	21	4.5%
Clinical BMI 25<=BMI<30 (183 days)	40	16.9%	0	0.0%	89	19.0%
Clinical BMI 30<=BMI<40 (183 days)	93	39.4%	0	0.0%	154	32.8%
Clinical BMI 40<=BMI<70 (183 days)	34	14.4%	0	0.0%	58	12.4%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	1	0.2%
Clinical BMI Ht AND Wt Missing (183 days)	26	11.0%	0	0.0%	85	18.1%
Clinical BMI Ht Missing (183 days)	30	12.7%	0	0.0%	59	12.6%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	2	0.4%
Clinical BMI Any Missing (183 days)	56	23.7%	0	0.0%	146	31.1%
Clinical BMI (183 days) by Race (Native Hawaiian or Other Pacific Islander)						

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI 18.5<=BMI<25 (183 days)	6	3.9%	0	0.0%	9	5.4%
Clinical BMI 25<=BMI<30 (183 days)	18	11.6%	0	0.0%	24	14.4%
Clinical BMI 30<=BMI<40 (183 days)	45	29.0%	0	0.0%	40	24.0%
Clinical BMI 40<=BMI<70 (183 days)	13	8.4%	0	0.0%	13	7.8%
Clinical BMI 70<=BMI<=90 (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	10	6.5%	0	0.0%	31	18.6%
Clinical BMI Ht Missing (183 days)	63	40.6%	0	0.0%	49	29.3%
Clinical BMI Wt Missing (183 days)	0	0.0%	0	0.0%	1	0.6%
Clinical BMI Any Missing (183 days)	73	47.1%	0	0.0%	81	48.5%
Clinical BMI (183 days) by Race (White)						
Clinical BMI 15<=BMI<18.5 (183 days)	0	0.0%	0	0.0%	4	0.1%
Clinical BMI 18.5<=BMI<25 (183 days)	31	1.2%	0	0.0%	109	2.1%
Clinical BMI 25<=BMI<30 (183 days)	165	6.3%	0	0.0%	398	7.7%
Clinical BMI 30<=BMI<40 (183 days)	432	16.4%	0	0.0%	777	15.1%
Clinical BMI (183 days) by Race (White)	Number	Percent	Number	Percent	Number	Percent
Clinical BMI 40<=BMI<70 (183 days)	168	6.4%	0	0.0%	290	5.6%
Clinical BMI 70<=BMI<=90 (183 days)	1	0.0%	0	0.0%	0	0.0%
Clinical BMI Ht AND Wt Missing (183 days)	237	9.0%	0	0.0%	770	14.9%
Clinical BMI Ht Missing (183 days)	218	8.3%	0	0.0%	198	3.8%
Clinical BMI Wt Missing (183 days)	4	0.2%	0	0.0%	6	0.1%
Clinical BMI Any Missing (183 days)	459	17.4%	0	0.0%	974	18.9%
Clinical Tobacco Use (365 days) by Sex						
Clinical Tobacco Use (365 days) by Sex (Female)						
Clinical Tobacco Current User (365 days)	49	1.9%	0	0.0%	112	2.2%
Clinical Tobacco Never User (365 days)	529	20.1%	0	0.0%	1,178	22.8%
Clinical Tobacco Quit/Former User (365 days)	266	10.1%	0	0.0%	420	8.1%
Clinical Tobacco Passive Exposure (365 days)	3	0.1%	0	0.0%	19	0.4%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	4	0.2%	0	0.0%	3	0.1%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
Clinical Tobacco Conflicting (365 days)	12	0.5%	0	0.0%	45	0.9%
Clinical Tobacco Missing (365 days)	241	9.1%	0	0.0%	616	11.9%
Clinical Tobacco Use (365 days) by Sex (Male)						
Clinical Tobacco Current User (365 days)	108	4.1%	0	0.0%	171	3.3%
Clinical Tobacco Never User (365 days)	548	20.8%	0	0.0%	1,035	20.1%
Clinical Tobacco Quit/Former User (365 days)	503	19.1%	0	0.0%	684	13.3%
Clinical Tobacco Passive Exposure (365 days)	4	0.2%	0	0.0%	20	0.4%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	0	0.0%	0	0.0%	8	0.2%
Clinical Tobacco Conflicting (365 days)	18	0.7%	0	0.0%	66	1.3%
Clinical Tobacco Missing (365 days)	351	13.3%	0	0.0%	785	15.2%

Clinical Tobacco Use (365 days) by Race

Clinical Tobacco Use (365 days) by Race (Unknown)	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (365 days)	13	2.3%	0	0.0%	18	0.3%
Clinical Tobacco Never User (365 days)	135	23.6%	0	0.0%	234	4.5%
Clinical Tobacco Quit/Former User (365 days)	56	9.8%	0	0.0%	83	1.6%
Clinical Tobacco Passive Exposure (365 days)	1	0.2%	0	0.0%	4	0.1%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	3	0.5%	0	0.0%	6	0.1%
Clinical Tobacco Conflicting (365 days)	3	0.5%	0	0.0%	17	0.3%
Clinical Tobacco Missing (365 days)	361	63.1%	0	0.0%	683	13.2%

Clinical Tobacco Use (365 days) by Race (American Indian or Alaska Native)

Clinical Tobacco Current User (365 days)	2	4.8%	0	0.0%	4	9.8%
Clinical Tobacco Never User (365 days)	11	26.2%	0	0.0%	13	31.7%
Clinical Tobacco Quit/Former User (365 days)	24	57.1%	0	0.0%	14	34.1%
Clinical Tobacco Passive Exposure (365 days)	0	0.0%	0	0.0%	2	4.9%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Missing (365 days)	5	11.9%	0	0.0%	8	19.5%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
Clinical Tobacco Use (365 days) by Race (Asian)						
Clinical Tobacco Current User (365 days)	32	8.5%	0	0.0%	34	3.8%
Clinical Tobacco Never User (365 days)	215	57.3%	0	0.0%	549	61.8%
Clinical Tobacco Quit/Former User (365 days)	99	26.4%	0	0.0%	205	23.1%
Clinical Tobacco Passive Exposure (365 days)	2	0.5%	0	0.0%	1	0.1%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	0	0.0%	0	0.0%	1	0.1%
Clinical Tobacco Conflicting (365 days)	4	1.1%	0	0.0%	23	2.6%
Clinical Tobacco Missing (365 days)	23	6.1%	0	0.0%	75	8.4%
Clinical Tobacco Use (365 days) by Race (Black or African American)						
	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (365 days)	17	7.2%	0	0.0%	30	6.4%
Clinical Tobacco Never User (365 days)	140	59.3%	0	0.0%	243	51.8%
Clinical Tobacco Quit/Former User (365 days)	59	25.0%	0	0.0%	123	26.2%
Clinical Tobacco Passive Exposure (365 days)	0	0.0%	0	0.0%	1	0.2%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	1	0.4%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (365 days)	4	1.7%	0	0.0%	15	3.2%
Clinical Tobacco Missing (365 days)	15	6.4%	0	0.0%	57	12.2%
Clinical Tobacco Use (365 days) by Race (Native Hawaiian or Other Pacific Islander)						
Clinical Tobacco Current User (365 days)	11	7.1%	0	0.0%	16	9.6%
Clinical Tobacco Never User (365 days)	75	48.4%	0	0.0%	70	41.9%
Clinical Tobacco Quit/Former User (365 days)	56	36.1%	0	0.0%	58	34.7%
Clinical Tobacco Passive Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (365 days)	4	2.6%	0	0.0%	6	3.6%
Clinical Tobacco Missing (365 days)	9	5.8%	0	0.0%	17	10.2%
Clinical Tobacco Use (365 days) by Race (White)						
Clinical Tobacco Current User (365 days)	82	3.1%	0	0.0%	181	3.5%
Clinical Tobacco Never User (365 days)	501	19.0%	0	0.0%	1,104	21.4%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
Clinical Tobacco Quit/Former User (365 days)	475	18.0%	0	0.0%	621	12.0%
Clinical Tobacco Passive Exposure (365 days)	4	0.2%	0	0.0%	31	0.6%
Clinical Tobacco Environmental Exposure (365 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (365 days)	0	0.0%	0	0.0%	4	0.1%
Clinical Tobacco Conflicting (365 days)	15	0.6%	0	0.0%	50	1.0%
Clinical Tobacco Missing (365 days)	179	6.8%	0	0.0%	561	10.9%

Clinical Tobacco Use (183 days) by Sex

Clinical Tobacco Use (183 days) by Sex (Female)	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (183 days)	45	1.7%	0	0.0%	105	2.0%
Clinical Tobacco Never User (183 days)	484	18.4%	0	0.0%	1,010	19.6%
Clinical Tobacco Quit/Former User (183 days)	249	9.4%	0	0.0%	370	7.2%
Clinical Tobacco Passive Exposure (183 days)	3	0.1%	0	0.0%	13	0.3%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	2	0.1%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	10	0.4%	0	0.0%	36	0.7%
Clinical Tobacco Missing (183 days)	311	11.8%	0	0.0%	859	16.6%

Clinical Tobacco Use (183 days) by Sex (Male)

Clinical Tobacco Current User (183 days)	100	3.8%	0	0.0%	148	2.9%
Clinical Tobacco Never User (183 days)	484	18.4%	0	0.0%	833	16.1%
Clinical Tobacco Quit/Former User (183 days)	457	17.3%	0	0.0%	585	11.3%
Clinical Tobacco Passive Exposure (183 days)	4	0.2%	0	0.0%	16	0.3%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	0	0.0%	0	0.0%	4	0.1%
Clinical Tobacco Conflicting (183 days)	14	0.5%	0	0.0%	56	1.1%
Clinical Tobacco Missing (183 days)	473	17.9%	0	0.0%	1,127	21.8%

Clinical Tobacco Use (183 days) by Race

Clinical Tobacco Use (183 days) by Race (Unknown)	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (183 days)	12	2.1%	0	0.0%	15	0.3%
Clinical Tobacco Never User (183 days)	117	20.5%	0	0.0%	186	3.6%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
Clinical Tobacco Quit/Former User (183 days)	50	8.7%	0	0.0%	70	1.4%
Clinical Tobacco Passive Exposure (183 days)	1	0.2%	0	0.0%	2	0.0%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	1	0.2%	0	0.0%	1	0.0%
Clinical Tobacco Conflicting (183 days)	2	0.3%	0	0.0%	14	0.3%
Clinical Tobacco Missing (183 days)	389	68.0%	0	0.0%	757	14.7%
Clinical Tobacco Use (183 days) by Race (American Indian or Alaskan Native)						
	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (183 days)	1	2.4%	0	0.0%	4	9.8%
Clinical Tobacco Never User (183 days)	10	23.8%	0	0.0%	10	24.4%
Clinical Tobacco Quit/Former User (183 days)	21	50.0%	0	0.0%	12	29.3%
Clinical Tobacco Passive Exposure (183 days)	0	0.0%	0	0.0%	1	2.4%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Missing (183 days)	10	23.8%	0	0.0%	14	34.1%
Clinical Tobacco Use (183 days) by Race (Asian)						
Clinical Tobacco Current User (183 days)	30	8.0%	0	0.0%	31	3.5%
Clinical Tobacco Never User (183 days)	201	53.6%	0	0.0%	454	51.1%
Clinical Tobacco Quit/Former User (183 days)	89	23.7%	0	0.0%	179	20.2%
Clinical Tobacco Passive Exposure (183 days)	2	0.5%	0	0.0%	1	0.1%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	0	0.0%	0	0.0%	1	0.1%
Clinical Tobacco Conflicting (183 days)	4	1.1%	0	0.0%	19	2.1%
Clinical Tobacco Missing (183 days)	49	13.1%	0	0.0%	203	22.9%
Clinical Tobacco Use (183 days) by Race (Black or African American)						
Clinical Tobacco Current User (183 days)	16	6.8%	0	0.0%	27	5.8%
Clinical Tobacco Never User (183 days)	132	55.9%	0	0.0%	207	44.1%
Clinical Tobacco Quit/Former User (183 days)	54	22.9%	0	0.0%	101	21.5%
Clinical Tobacco Passive Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%

Table 1b. Aggregated Baseline Table for Prevalent SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Prevalent Empagliflozin		Prevalent Ertugliflozin		Prevalent Sitagliptin	
Clinical Tobacco Not Asked (183 days)	1	0.4%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	3	1.3%	0	0.0%	11	2.3%
Clinical Tobacco Missing (183 days)	30	12.7%	0	0.0%	123	26.2%
Clinical Tobacco Use (183 days) by Race (Native Hawaiian or Other Pacific Islander)						
	Number	Percent	Number	Percent	Number	Percent
Clinical Tobacco Current User (183 days)	9	5.8%	0	0.0%	11	6.6%
Clinical Tobacco Never User (183 days)	72	46.5%	0	0.0%	64	38.3%
Clinical Tobacco Quit/Former User (183 days)	55	35.5%	0	0.0%	54	32.3%
Clinical Tobacco Passive Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Conflicting (183 days)	4	2.6%	0	0.0%	4	2.4%
Clinical Tobacco Missing (183 days)	15	9.7%	0	0.0%	34	20.4%
Clinical Tobacco Use (183 days) by Race (White)						
Clinical Tobacco Current User (183 days)	77	2.9%	0	0.0%	165	3.2%
Clinical Tobacco Never User (183 days)	436	16.5%	0	0.0%	922	17.9%
Clinical Tobacco Quit/Former User (183 days)	437	16.6%	0	0.0%	539	10.4%
Clinical Tobacco Passive Exposure (183 days)	4	0.2%	0	0.0%	25	0.5%
Clinical Tobacco Environmental Exposure (183 days)	0	0.0%	0	0.0%	0	0.0%
Clinical Tobacco Not Asked (183 days)	0	0.0%	0	0.0%	2	0.0%
Clinical Tobacco Conflicting (183 days)	11	0.4%	0	0.0%	44	0.9%
Clinical Tobacco Missing (183 days)	291	11.0%	0	0.0%	855	16.6%

¹These baseline covariates were assessed from 365 days to 1 day before the index date.

Table 2. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018

	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
Incident SGLT-2 Inhibitors	3,155	3,155	3,163	3,166	134,913	110,351	1,432,778	6,986,035	7,964,199,364	21,804,789.5
Incident Canagliflozin	756	756	756	757	30,645	32,560	674,921	6,986,425	7,965,113,695	21,807,292.8
Incident Dapagliflozin	322	322	322	322	12,188	12,858	227,319	6,986,567	7,965,685,247	21,808,857.6
Incident Empagliflozin	2,375	2,375	2,375	2,377	108,762	78,832	671,765	6,986,323	7,965,166,588	21,807,437.6
Incident Ertugliflozin	0	0	0	0	0	0	0	6,986,639	7,965,958,842	21,809,606.7
Incident Sitagliptin	2,169	2,169	2,172	2,175	111,533	119,673	2,076,562	6,985,279	7,960,262,045	21,794,009.7
Prevalent SGLT-2 Inhibitors	3,694	3,694	3,706	3,709	164,478	139,362	1,668,639	6,986,639	7,964,290,166	21,805,038.1
Prevalent Canagliflozin	957	957	957	958	41,637	44,892	802,849	6,986,639	7,965,152,926	21,807,400.2
Prevalent Dapagliflozin	391	391	391	391	15,211	16,122	256,260	6,986,639	7,965,703,291	21,808,907.0
Prevalent Empagliflozin	2,636	2,636	2,636	2,638	123,534	91,818	747,006	6,986,639	7,965,214,477	21,807,568.7
Prevalent Ertugliflozin	0	0	0	0	0	0	0	6,986,639	7,965,958,842	21,809,606.7
Prevalent Sitagliptin	5,162	5,162	5,167	5,171	311,391	345,766	6,148,686	6,986,515	7,958,904,897	21,790,294.0

¹Adjusted Dispensings contains outpatient pharmacy dispensings, but counts multiple dispensings that occur on the same day as one dispensing

²Raw Dispensing counts contains all outpatient pharmacy dispensings, even if multiple dispensings occur on the same day.

³Eligible Members, Member-Days, 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

Table 3. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Year

Year	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
<i>Incident SGLT-2 Inhibitors</i>										
2013	95	95	95	95	3,482	3,482	122,706	4,042,803	1,139,834,838	3,120,697.7
2014	284	284	284	284	10,515	10,780	319,151	4,161,964	1,367,131,672	3,743,002.5
2015	322	322	322	322	12,786	13,486	293,112	4,465,658	1,453,714,356	3,980,053.0
2016	456	456	459	460	20,312	19,334	295,051	4,992,880	1,542,245,002	4,222,436.7
2017	989	989	992	993	46,913	34,709	322,041	4,995,906	1,623,070,524	4,443,724.9
2018	1,009	1,009	1,011	1,012	40,905	28,561	80,717	4,895,552	838,202,972	2,294,874.7
<i>Incident Canagliflozin</i>										
2013	95	95	95	95	3,482	3,482	122,706	4,042,803	1,139,834,838	3,120,697.7
2014	195	195	195	195	7,372	7,592	225,700	4,161,968	1,367,144,190	3,743,036.8
2015	215	215	215	215	8,455	9,050	198,061	4,465,767	1,453,767,744	3,980,199.2
2016	142	142	142	143	6,176	6,886	93,714	4,993,198	1,542,372,506	4,222,785.8
2017	84	84	84	84	4,005	4,275	32,379	4,996,596	1,623,426,607	4,444,699.8
2018	25	25	25	25	1,155	1,275	2,361	4,897,180	838,567,810	2,295,873.5
<i>Incident Dapagliflozin</i>										
2013	0	0	0	0	0	0	0	4,042,805	1,139,846,633	3,120,730.0
2014	85	85	85	85	2,970	3,015	91,358	4,162,081	1,367,198,776	3,743,186.2
2015	84	84	84	84	3,182	3,407	75,170	4,466,023	1,453,876,924	3,980,498.1
2016	59	59	59	59	2,443	2,708	37,307	4,993,650	1,542,528,806	4,223,213.7
2017	61	61	61	61	2,317	2,407	20,132	4,997,033	1,623,592,981	4,445,155.3
2018	33	33	33	33	1,276	1,321	3,352	4,897,601	838,641,127	2,296,074.3
<i>Incident Empagliflozin</i>										
2013	0	0	0	0	0	0	0	4,042,805	1,139,846,633	3,120,730.0
2014	10	10	10	10	353	353	7,858	4,162,084	1,367,210,570	3,743,218.5
2015	41	41	41	41	2,049	1,864	34,939	4,466,109	1,453,914,536	3,980,601.1
2016	360	360	360	360	18,858	15,284	236,964	4,993,685	1,542,510,690	4,223,164.1
2017	975	975	975	976	47,309	33,775	313,589	4,996,688	1,623,348,395	4,444,485.7
2018	989	989	989	990	40,193	27,556	78,415	4,896,275	838,335,764	2,295,238.2
<i>Incident Ertugliflozin</i>										
2013	0	0	0	0	0	0	0	4,042,805	1,139,846,633	3,120,730.0
2014	0	0	0	0	0	0	0	4,162,085	1,367,211,303	3,743,220.5
2015	0	0	0	0	0	0	0	4,466,123	1,453,924,300	3,980,627.8
2016	0	0	0	0	0	0	0	4,993,852	1,542,599,134	4,223,406.3
2017	0	0	0	0	0	0	0	4,997,269	1,623,682,803	4,445,401.2
2018	0	0	0	0	0	0	0	4,897,868	838,694,669	2,296,220.9
<i>Incident Sitagliptin</i>										

Table 3. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Year

Year	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
2013	743	743	743	743	41,110	42,711	1,079,220	4,039,945	1,138,796,085	3,117,853.8
2014	320	320	323	323	14,966	16,839	365,072	4,159,284	1,366,030,157	3,739,986.7
2015	345	345	345	348	17,801	18,799	313,724	4,464,384	1,453,042,424	3,978,213.3
2016	291	291	291	291	14,513	16,063	195,419	4,991,640	1,541,738,642	4,221,050.4
2017	321	321	321	321	16,925	18,290	109,570	4,995,132	1,622,626,744	4,442,509.9
2018	149	149	149	149	6,218	6,971	13,557	4,895,211	838,027,993	2,294,395.6
<i>Prevalent SGLT-2 Inhibitors</i>										
2013	97	97	97	97	3,542	3,542	125,871	4,042,805	1,139,835,062	3,120,698.3
2014	307	307	307	307	11,415	11,830	339,922	4,161,994	1,367,134,148	3,743,009.3
2015	394	394	394	394	16,207	17,057	351,623	4,465,767	1,453,725,278	3,980,082.9
2016	565	565	568	569	26,343	25,635	362,431	4,993,180	1,542,266,972	4,222,496.8
2017	1,175	1,175	1,181	1,182	58,140	45,413	392,283	4,996,154	1,623,098,206	4,443,800.7
2018	1,156	1,156	1,159	1,160	48,831	35,885	96,509	4,895,783	838,230,500	2,294,950.0
<i>Prevalent Canagliflozin</i>										
2013	97	97	97	97	3,542	3,542	125,871	4,042,805	1,139,835,062	3,120,698.3
2014	214	214	214	214	8,092	8,462	242,826	4,161,994	1,367,146,324	3,743,042.6
2015	270	270	270	270	11,222	11,937	244,575	4,465,849	1,453,775,604	3,980,220.7
2016	203	203	203	204	9,617	10,687	133,531	4,993,363	1,542,387,288	4,222,826.3
2017	131	131	131	131	6,951	7,811	51,693	4,996,645	1,623,436,460	4,444,726.8
2018	42	42	42	42	2,213	2,453	4,353	4,897,192	838,572,188	2,295,885.5
<i>Prevalent Dapagliflozin</i>										
2013	0	0	0	0	0	0	0	4,042,805	1,139,846,633	3,120,730.0
2014	88	88	88	88	3,120	3,165	93,661	4,162,085	1,367,199,121	3,743,187.2
2015	96	96	96	96	3,632	3,887	82,854	4,466,045	1,453,879,221	3,980,504.4
2016	77	77	77	77	3,223	3,578	46,486	4,993,700	1,542,533,210	4,223,225.8
2017	84	84	84	84	3,447	3,622	28,580	4,997,072	1,623,599,001	4,445,171.8
2018	46	46	46	46	1,789	1,870	4,679	4,897,620	838,646,105	2,296,087.9
<i>Prevalent Empagliflozin</i>										
2013	0	0	0	0	0	0	0	4,042,805	1,139,846,633	3,120,730.0
2014	11	11	11	11	383	383	9,200	4,162,085	1,367,210,598	3,743,218.6
2015	46	46	46	46	2,253	2,068	39,252	4,466,115	1,453,915,486	3,980,603.7
2016	388	388	388	388	20,391	16,597	254,218	4,993,801	1,542,516,260	4,223,179.4
2017	1,087	1,087	1,087	1,088	54,068	39,724	353,653	4,996,858	1,623,367,274	4,444,537.4
2018	1,104	1,104	1,104	1,105	46,439	33,046	90,683	4,896,480	838,358,226	2,295,299.7
<i>Prevalent Ertugliflozin</i>										
2013	0	0	0	0	0	0	0	4,042,805	1,139,846,633	3,120,730.0

Table 3. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Year

Year	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
2014	0	0	0	0	0	0	0	4,162,085	1,367,211,303	3,743,220.5
2015	0	0	0	0	0	0	0	4,466,123	1,453,924,300	3,980,627.8
2016	0	0	0	0	0	0	0	4,993,852	1,542,599,134	4,223,406.3
2017	0	0	0	0	0	0	0	4,997,269	1,623,682,803	4,445,401.2
2018	0	0	0	0	0	0	0	4,897,868	838,694,669	2,296,220.9
<i>Prevalent Sitagliptin</i>										
2013	3,112	3,112	3,113	3,114	202,542	222,312	4,708,622	4,042,805	1,139,151,963	3,118,828.1
2014	479	479	482	482	24,675	27,998	549,130	4,159,147	1,366,060,260	3,740,069.2
2015	483	483	483	486	25,855	28,647	435,390	4,462,952	1,452,644,976	3,977,125.2
2016	424	424	425	425	23,087	26,334	283,349	4,990,316	1,541,197,794	4,219,569.6
2017	429	429	429	429	24,506	27,525	149,676	4,993,590	1,622,082,690	4,441,020.4
2018	235	235	235	235	10,726	12,951	22,519	4,893,744	837,767,214	2,293,681.6

¹Adjusted Dispensings contains outpatient pharmacy dispensings, but counts multiple dispensings that occur on the same day as one dispensing

²Raw Dispensing counts contains all outpatient pharmacy dispensings, even if multiple dispensings occur on the same day.

³Eligible Members, Member-Days, 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

Table 4. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Sex

Sex	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
<i>Incident SGLT-2 Inhibitors</i>										
Female	1,411	1,411	1,413	1,415	58,737	49,063	650,503	3,645,871	4,244,921,752	11,621,962.4
Male	1,744	1,744	1,750	1,751	76,176	61,288	782,275	3,340,164	3,719,277,612	10,182,827.1
<i>Incident Canagliflozin</i>										
Female	375	375	375	376	14,801	15,746	320,913	3,646,016	4,245,312,713	11,623,032.8
Male	381	381	381	381	15,844	16,814	354,008	3,340,409	3,719,800,982	10,184,260.0
<i>Incident Dapagliflozin</i>										
Female	146	146	146	146	5,701	5,731	99,184	3,646,073	4,245,587,712	11,623,785.7
Male	176	176	176	176	6,487	7,127	128,135	3,340,494	3,720,097,535	10,185,072.0
<i>Incident Empagliflozin</i>										
Female	1,018	1,018	1,018	1,019	45,143	33,549	288,592	3,645,997	4,245,373,162	11,623,198.3
Male	1,357	1,357	1,357	1,358	63,619	45,283	383,173	3,340,326	3,719,793,426	10,184,239.4
<i>Incident Ertugliflozin</i>										
Female	0	0	0	0	0	0	0	3,646,108	4,245,706,456	11,624,110.8
Male	0	0	0	0	0	0	0	3,340,531	3,720,252,386	10,185,495.9
<i>Incident Sitagliptin</i>										
Female	1,021	1,021	1,022	1,024	49,547	53,110	966,486	3,645,491	4,243,114,598	11,617,014.6
Male	1,148	1,148	1,150	1,151	61,986	66,563	1,110,076	3,339,788	3,717,147,447	10,176,995.1
<i>Prevalent SGLT-2 Inhibitors</i>										
Female	1,617	1,617	1,620	1,622	69,005	59,362	744,184	3,646,108	4,244,961,238	11,622,070.5
Male	2,077	2,077	2,086	2,087	95,473	80,001	924,455	3,340,531	3,719,328,928	10,182,967.6
<i>Prevalent Canagliflozin</i>										
Female	458	458	458	459	18,949	20,494	373,691	3,646,108	4,245,330,781	11,623,082.2
Male	499	499	499	499	22,688	24,398	429,158	3,340,531	3,719,822,145	10,184,318.0
<i>Prevalent Dapagliflozin</i>										
Female	178	178	178	178	7,150	7,201	112,417	3,646,108	4,245,594,226	11,623,803.5
Male	213	213	213	213	8,061	8,921	143,843	3,340,531	3,720,109,065	10,185,103.5
<i>Prevalent Empagliflozin</i>										
Female	1,104	1,104	1,104	1,105	49,474	37,395	314,138	3,646,108	4,245,393,131	11,623,252.9
Male	1,532	1,532	1,532	1,533	74,060	54,423	432,868	3,340,531	3,719,821,346	10,184,315.8
<i>Prevalent Ertugliflozin</i>										
Female	0	0	0	0	0	0	0	3,646,108	4,245,706,456	11,624,110.8
Male	0	0	0	0	0	0	0	3,340,531	3,720,252,386	10,185,495.9
<i>Prevalent Sitagliptin</i>										
Female	2,393	2,393	2,396	2,398	139,438	154,148	2,858,902	3,646,051	4,242,470,609	11,615,251.5
Male	2,769	2,769	2,771	2,773	171,953	191,618	3,289,784	3,340,464	3,716,434,288	10,175,042.5

¹Adjusted Dispensings contains outpatient pharmacy dispensings, but counts multiple dispensings that occur on the same day as one dispensing

²Raw Dispensing counts contains all outpatient pharmacy dispensings, even if multiple dispensings occur on the same day.

³Eligible Members, Member-Days, 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

Table 5. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Age Group

Age Group	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
<i>Incident SGLT-2 Inhibitors</i>										
20-44	239	239	239	240	10,322	8,834	122,847	3,569,160	3,114,363,949	8,526,663.8
45-64	1,866	1,866	1,871	1,872	80,374	67,930	872,921	2,778,687	3,010,772,299	8,243,045.3
65+	1,050	1,050	1,053	1,054	44,217	33,588	437,010	1,414,227	1,839,063,116	5,035,080.4
<i>Incident Canagliflozin</i>										
20-44	74	74	74	74	2,777	2,927	63,269	3,569,211	3,114,434,900	8,526,858.0
45-64	467	467	467	468	19,036	20,421	416,027	2,778,981	3,011,325,122	8,244,558.9
65+	215	215	215	215	8,832	9,212	195,625	1,414,387	1,839,353,673	5,035,875.9
<i>Incident Dapagliflozin</i>										
20-44	33	33	33	33	1,230	1,290	25,520	1,185,589	933,790,197	2,556,578.2
45-64	214	214	214	214	8,326	8,816	144,956	2,779,103	3,011,655,312	8,245,462.9
65+	75	75	75	75	2,632	2,752	56,843	1,414,459	1,839,550,387	5,036,414.5
<i>Incident Empagliflozin</i>										
20-44	152	152	152	153	7,300	5,402	43,337	3,270,644	2,865,695,887	7,845,847.7
45-64	1,371	1,371	1,371	1,371	63,302	47,283	398,086	2,778,924	3,011,352,544	8,244,633.9
65+	852	852	852	853	38,160	26,148	230,342	1,414,348	1,839,358,813	5,035,890.0
<i>Incident Ertugliflozin</i>										
20-44	0	0	0	0	0	0	0	3,569,249	3,114,507,015	8,527,055.5
45-64	0	0	0	0	0	0	0	2,779,164	3,011,826,614	8,245,931.9
65+	0	0	0	0	0	0	0	1,414,490	1,839,625,213	5,036,619.3
<i>Incident Sitagliptin</i>										
20-44	148	148	148	148	7,674	8,295	141,836	3,569,079	3,114,203,708	8,526,225.1
45-64	1,027	1,027	1,029	1,031	53,823	58,355	1,011,442	2,778,109	3,008,958,210	8,238,078.6
65+	994	994	995	996	50,036	53,023	923,284	1,413,729	1,837,100,127	5,029,706.0
<i>Prevalent SGLT-2 Inhibitors</i>										
20-44	313	313	313	314	14,101	12,588	154,335	3,569,249	3,114,376,671	8,526,698.6
45-64	2,241	2,241	2,249	2,250	100,817	88,338	1,029,497	2,779,108	3,010,835,722	8,243,219.0
65+	1,140	1,140	1,144	1,145	49,560	38,437	484,807	1,414,331	1,839,077,773	5,035,120.5
<i>Prevalent Canagliflozin</i>										
20-44	103	103	103	103	4,407	4,617	83,021	3,569,249	3,114,440,661	8,526,873.8
45-64	598	598	598	599	26,093	28,623	494,137	2,779,132	3,011,354,677	8,244,639.8
65+	256	256	256	256	11,137	11,652	225,691	1,414,417	1,839,357,588	5,035,886.6
<i>Prevalent Dapagliflozin</i>										
20-44	46	46	46	46	1,740	1,860	29,388	3,569,249	3,114,482,695	8,526,988.9
45-64	262	262	262	262	10,569	11,240	164,383	2,779,153	3,011,668,969	8,245,500.3
65+	83	83	83	83	2,902	3,022	62,489	1,414,463	1,839,551,627	5,036,417.9

Table 5. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Age Group

Age Group	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
<i>Prevalent Empagliflozin</i>										
20-44	183	183	183	184	8,849	6,851	50,702	3,270,679	2,865,701,651	7,845,863.5
45-64	1,562	1,562	1,562	1,562	73,911	56,822	454,873	2,779,146	3,011,383,694	8,244,719.2
65+	891	891	891	892	40,774	28,145	241,431	1,414,413	1,839,369,672	5,035,919.7
<i>Prevalent Ertugliflozin</i>										
20-44	0	0	0	0	0	0	0	3,569,249	3,114,507,015	8,527,055.5
45-64	0	0	0	0	0	0	0	2,779,164	3,011,826,614	8,245,931.9
65+	0	0	0	0	0	0	0	1,414,490	1,839,625,213	5,036,619.3
<i>Prevalent Sitagliptin</i>										
20-44	319	319	319	319	16,721	19,000	344,588	3,569,228	3,114,195,894	8,526,203.7
45-64	2,694	2,694	2,697	2,700	161,665	182,778	3,195,858	2,778,945	3,008,398,525	8,236,546.3
65+	2,149	2,149	2,151	2,152	133,005	143,988	2,608,240	1,413,823	1,836,310,478	5,027,544.1

¹Adjusted Dispensings contains outpatient pharmacy dispensings, but counts multiple dispensings that occur on the same day as one dispensing

²Raw Dispensing counts contains all outpatient pharmacy dispensings, even if multiple dispensings occur on the same day.

³Eligible Members, Member-Days, 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

Table 6. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Sex and Age Group

Sex	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
<i>Incident SGLT-2 Inhibitors</i>										
<i>Aged 20-44</i>										
Female	130	130	130	131	5,329	4,702	74,071	1,823,647	1,629,627,870	4,461,677.9
Male	109	109	109	109	4,993	4,132	48,776	1,745,513	1,484,736,079	4,064,985.8
<i>Aged 45-64</i>										
Female	855	855	857	858	35,817	30,468	396,026	1,456,858	1,593,141,866	4,361,784.7
Male	1,011	1,011	1,014	1,014	44,557	37,463	476,895	1,321,829	1,417,630,433	3,881,260.6
<i>Aged 65+</i>										
Female	426	426	426	426	17,591	13,894	180,406	776,418	1,022,152,016	2,798,499.7
Male	624	624	627	628	26,626	19,694	256,604	637,809	816,911,100	2,236,580.7
<i>Incident Canagliflozin</i>										
<i>Aged 20-44</i>										
Female	48	48	48	48	1,667	1,787	43,320	1,823,674	1,629,664,801	4,461,779.1
Male	26	26	26	26	1,110	1,140	19,949	1,560,502	1,348,088,127	3,690,864.1
<i>Aged 45-64</i>										
Female	227	227	227	228	9,080	9,825	190,714	1,456,964	1,593,380,525	4,362,438.1
Male	240	240	240	240	9,956	10,596	225,313	1,322,017	1,417,944,597	3,882,120.7
<i>Aged 65+</i>										
Female	100	100	100	100	4,054	4,134	86,879	776,482	1,022,267,387	2,798,815.6
Male	115	115	115	115	4,778	5,078	108,746	637,905	817,086,286	2,237,060.3
<i>Incident Dapagliflozin</i>										
<i>Aged 20-44</i>										
Female	20	20	20	20	720	750	13,722	614,298	495,107,728	1,355,531.1
Male	13	13	13	13	510	540	11,798	331,533	253,896,574	695,130.9
<i>Aged 45-64</i>										
Female	96	96	96	96	3,965	3,965	63,116	1,457,015	1,593,538,073	4,362,869.5
Male	118	118	118	118	4,361	4,851	81,840	1,322,088	1,418,117,239	3,882,593.4
<i>Aged 65+</i>										
Female	30	30	30	30	1,016	1,016	22,346	748,802	985,590,119	2,698,398.7
Male	45	45	45	45	1,616	1,736	34,497	637,941	817,193,969	2,237,355.2
<i>Incident Empagliflozin</i>										
<i>Aged 20-44</i>										
Female	74	74	74	75	3,537	2,635	22,941	1,670,318	1,499,592,939	4,105,661.7
Male	78	78	78	78	3,763	2,767	20,396	1,600,326	1,366,102,948	3,740,186.0
<i>Aged 45-64</i>										
Female	613	613	613	613	26,826	20,047	176,883	1,456,961	1,593,408,062	4,362,513.5

Table 6. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Sex and Age Group

Sex	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
Male	758	758	758	758	36,476	27,236	221,203	1,321,963	1,417,944,482	3,882,120.4
<i>Aged 65+</i>										
Female	331	331	331	331	14,780	10,868	88,768	776,470	1,022,281,845	2,798,855.2
Male	521	521	521	522	23,380	15,280	141,574	637,878	817,076,968	2,237,034.8
<i>Incident Ertugliflozin</i>										
<i>Aged 20-44</i>										
Female	0	0	0	0	0	0	0	1,823,694	1,629,708,971	4,461,900.0
Male	0	0	0	0	0	0	0	1,745,555	1,484,798,044	4,065,155.5
<i>Aged 45-64</i>										
Female	0	0	0	0	0	0	0	1,457,042	1,593,611,321	4,363,070.0
Male	0	0	0	0	0	0	0	1,322,122	1,418,215,293	3,882,861.9
<i>Aged 65+</i>										
Female	0	0	0	0	0	0	0	776,530	1,022,386,164	2,799,140.8
Male	0	0	0	0	0	0	0	637,960	817,239,049	2,237,478.6
<i>Incident Sitagliptin</i>										
<i>Aged 20-44</i>										
Female	77	77	77	77	4,053	4,376	68,748	1,823,624	1,629,566,299	4,461,509.4
Male	71	71	71	71	3,621	3,919	73,088	1,745,455	1,484,637,409	4,064,715.7
<i>Aged 45-64</i>										
Female	476	476	477	479	24,180	26,304	467,871	1,456,570	1,592,337,342	4,359,582.0
Male	551	551	552	552	29,643	32,051	543,571	1,321,539	1,416,620,868	3,878,496.6
<i>Aged 65+</i>										
Female	468	468	468	468	21,314	22,430	429,867	776,167	1,021,210,957	2,795,923.2
Male	526	526	527	528	28,722	30,593	493,417	637,562	815,889,170	2,233,782.8
<i>Prevalent SGLT-2 Inhibitors</i>										
<i>Aged 20-44</i>										
Female	166	166	166	167	7,004	6,438	89,065	1,823,694	1,629,633,965	4,461,694.6
Male	147	147	147	147	7,097	6,150	65,270	1,745,555	1,484,742,706	4,065,004.0
<i>Aged 45-64</i>										
Female	992	992	995	996	42,480	37,150	455,371	1,457,012	1,593,167,707	4,361,855.5
Male	1,249	1,249	1,254	1,254	58,337	51,188	574,126	1,322,096	1,417,668,015	3,881,363.5
<i>Aged 65+</i>										
Female	459	459	459	459	19,521	15,774	199,748	776,458	1,022,159,566	2,798,520.4
Male	681	681	685	686	30,039	22,663	285,059	637,873	816,918,207	2,236,600.2
<i>Prevalent Canagliflozin</i>										
<i>Aged 20-44</i>										

Table 6. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Sex and Age Group

Sex	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
Female	61	61	61	61	2,367	2,517	52,941	1,823,694	1,629,667,908	4,461,787.6
Male	42	42	42	42	2,040	2,100	30,080	1,745,555	1,484,772,753	4,065,086.3
<i>Aged 45-64</i>										
Female	280	280	280	281	11,588	12,813	221,341	1,457,022	1,593,392,982	4,362,472.2
Male	318	318	318	318	14,505	15,810	272,796	1,322,110	1,417,961,695	3,882,167.5
<i>Aged 65+</i>										
Female	117	117	117	117	4,994	5,164	99,409	776,498	1,022,269,891	2,798,822.4
Male	139	139	139	139	6,143	6,488	126,282	637,919	817,087,697	2,237,064.2
<i>Prevalent Dapagliflozin</i>										
<i>Aged 20-44</i>										
Female	29	29	29	29	1,050	1,140	16,005	614,309	495,108,218	1,355,532.4
Male	17	17	17	17	690	720	13,383	1,505,796	1,300,002,302	3,559,212.3
<i>Aged 45-64</i>										
Female	116	116	116	116	4,994	4,955	71,549	1,457,037	1,593,543,522	4,362,884.4
Male	146	146	146	146	5,575	6,285	92,834	1,322,116	1,418,125,447	3,882,615.9
<i>Aged 65+</i>										
Female	33	33	33	33	1,106	1,106	24,863	748,803	985,590,311	2,698,399.2
Male	50	50	50	50	1,796	1,916	37,626	637,944	817,194,970	2,237,357.9
<i>Prevalent Empagliflozin</i>										
<i>Aged 20-44</i>										
Female	88	88	88	89	4,182	3,251	26,031	1,670,335	1,499,595,887	4,105,669.8
Male	95	95	95	95	4,667	3,600	24,671	1,600,344	1,366,105,764	3,740,193.7
<i>Aged 45-64</i>										
Female	673	673	673	673	29,712	22,616	195,776	1,457,033	1,593,419,637	4,362,545.2
Male	889	889	889	889	44,199	34,206	259,097	1,322,113	1,417,964,057	3,882,174.0
<i>Aged 65+</i>										
Female	343	343	343	343	15,580	11,528	92,331	776,494	1,022,287,175	2,798,869.7
Male	548	548	548	549	25,194	16,617	149,100	637,919	817,082,497	2,237,050.0
<i>Prevalent Ertugliflozin</i>										
<i>Aged 20-44</i>										
Female	0	0	0	0	0	0	0	1,823,694	1,629,708,971	4,461,900.0
Male	0	0	0	0	0	0	0	1,745,555	1,484,798,044	4,065,155.5
<i>Aged 45-64</i>										
Female	0	0	0	0	0	0	0	1,457,042	1,593,611,321	4,363,070.0
Male	0	0	0	0	0	0	0	1,322,122	1,418,215,293	3,882,861.9
<i>Aged 65+</i>										

Table 6. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Sex and Age Group

Sex	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
Female	0	0	0	0	0	0	0	776,530	1,022,386,164	2,799,140.8
Male	0	0	0	0	0	0	0	637,960	817,239,049	2,237,478.6
<i>Prevalent Sitagliptin</i>										
<i>Aged 20-44</i>										
Female	145	145	145	145	7,262	8,197	150,983	1,823,682	1,629,566,908	4,461,511.0
Male	174	174	174	174	9,459	10,803	193,605	1,745,546	1,484,628,986	4,064,692.6
<i>Aged 45-64</i>										
Female	1,217	1,217	1,219	1,221	71,088	79,834	1,455,262	1,456,945	1,592,089,409	4,358,903.2
Male	1,477	1,477	1,478	1,479	90,577	102,944	1,740,596	1,322,000	1,416,309,116	3,877,643.0
<i>Aged 65+</i>										
Female	1,031	1,031	1,032	1,032	61,088	66,117	1,252,657	776,198	1,020,814,292	2,794,837.2
Male	1,118	1,118	1,119	1,120	71,917	77,871	1,355,583	637,625	815,496,186	2,232,706.9

¹Adjusted Dispensings contains outpatient pharmacy dispensings, but counts multiple dispensings that occur on the same day as one dispensing

²Raw Dispensing counts contains all outpatient pharmacy dispensings, even if multiple dispensings occur on the same day.

³Eligible Members, Member-Days, 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

Table 7. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Age Group and Year

Year	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
<i>Incident SGLT-2 Inhibitors</i>										
<i>Aged 20-44</i>										
2013	5	5	5	5	210	210	6,738	1,674,636	442,346,987	1,211,080.0
2014	33	33	33	33	1,195	1,195	36,111	1,734,511	525,973,901	1,440,038.1
2015	31	31	31	31	1,087	1,227	25,883	1,881,031	563,230,022	1,542,039.8
2016	49	49	49	49	2,277	2,212	31,413	2,157,835	604,356,400	1,654,637.6
2017	55	55	55	55	2,648	2,057	17,906	2,146,967	643,246,997	1,761,114.3
2018	66	66	66	67	2,905	1,933	4,796	2,033,317	335,209,642	917,754.0
<i>Aged 45-64</i>										
2013	70	70	70	70	2,508	2,508	85,956	1,584,317	442,276,681	1,210,887.6
2014	170	170	170	170	6,107	6,312	195,427	1,605,222	520,773,524	1,425,800.2
2015	199	199	199	199	8,199	8,604	176,725	1,722,360	553,314,475	1,514,892.5
2016	278	278	279	280	12,269	12,013	182,081	1,896,081	580,346,795	1,588,902.9
2017	562	562	564	564	27,213	21,190	184,907	1,879,470	603,899,923	1,653,387.9
2018	587	587	589	589	24,078	17,304	47,825	1,826,532	310,160,901	849,174.3
<i>Aged 65+</i>										
2013	20	20	20	20	764	764	30,012	892,184	255,211,170	698,730.1
2014	81	81	81	81	3,213	3,273	87,613	952,102	320,384,247	877,164.3
2015	92	92	92	92	3,500	3,655	90,504	1,001,956	337,169,859	923,120.8
2016	129	129	131	131	5,766	5,109	81,557	1,082,242	357,541,807	978,896.1
2017	372	372	373	374	17,052	11,463	119,228	1,118,257	375,923,604	1,029,222.7
2018	356	356	356	356	13,922	9,324	28,096	1,109,459	192,832,429	527,946.4
<i>Incident Canagliflozin</i>										
<i>Aged 20-44</i>										
2013	5	5	5	5	210	210	6,738	171,606	44,237,749	121,116.4
2014	25	25	25	25	895	895	26,650	1,579,686	479,091,511	1,311,681.1
2015	22	22	22	22	757	867	17,343	1,881,042	563,234,770	1,542,052.8
2016	16	16	16	16	735	775	10,019	1,986,480	556,165,876	1,522,699.2
2017	6	6	6	6	180	180	2,519	581,026	167,001,714	457,225.8
<i>Aged 45-64</i>										
2013	70	70	70	70	2,508	2,508	85,956	687,622	190,077,512	520,403.9
2014	116	116	116	116	4,247	4,437	135,566	1,605,226	520,781,450	1,425,821.9
2015	127	127	127	127	5,196	5,511	115,396	1,722,433	553,350,331	1,514,990.6
2016	92	92	92	93	3,941	4,491	60,264	1,896,294	580,428,063	1,589,125.4
2017	46	46	46	46	2,435	2,645	17,315	1,879,915	604,114,889	1,653,976.4
2018	16	16	16	16	709	829	1,530	1,764,927	299,724,646	820,601.4

Table 7. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Age Group and Year

Year	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
<i>Aged 65+</i>										
2013	20	20	20	20	764	764	30,012	203,452	57,688,516	157,942.5
2014	54	54	54	54	2,230	2,260	63,484	952,103	320,387,690	877,173.7
2015	66	66	66	66	2,502	2,672	65,322	1,001,985	337,182,643	923,155.8
2016	34	34	34	34	1,500	1,620	23,431	1,041,901	344,192,656	942,348.1
2017	32	32	32	32	1,390	1,450	12,545	1,118,472	376,036,846	1,029,532.8
2018	9	9	9	9	446	446	831	999,926	173,825,576	475,908.5
<i>Incident Dapagliflozin</i>										
<i>Aged 20-44</i>										
2014	8	8	8	8	240	240	9,532	299,216	88,643,099	242,691.6
2015	7	7	7	7	270	300	6,944	370,310	105,519,762	288,897.4
2016	10	10	10	10	420	450	7,116	379,806	102,195,670	279,796.5
2017	5	5	5	5	150	150	1,546	266,144	78,670,340	215,387.7
2018	3	3	3	3	150	150	382	202,552	31,338,995	85,801.5
<i>Aged 45-64</i>										
2014	52	52	52	52	1,800	1,815	56,815	1,605,303	520,815,002	1,425,913.8
2015	58	58	58	58	2,254	2,419	49,247	1,657,463	532,720,211	1,458,508.4
2016	34	34	34	34	1,477	1,652	21,778	1,677,637	513,054,254	1,404,666.0
2017	44	44	44	44	1,802	1,892	14,327	1,880,184	604,211,271	1,654,240.3
2018	26	26	26	26	993	1,038	2,789	589,937	98,079,985	268,528.4
<i>Aged 65+</i>										
2014	25	25	25	25	930	960	25,011	219,631	73,100,697	200,138.8
2015	19	19	19	19	658	688	18,979	1,002,061	337,219,267	923,256.0
2016	15	15	15	15	546	606	8,413	232,611	75,662,531	207,152.7
2017	12	12	12	12	365	365	4,259	965,435	324,906,142	889,544.5
2018	4	4	4	4	133	133	181	240,992	41,399,377	113,345.3
<i>Incident Empagliflozin</i>										
<i>Aged 20-44</i>										
2014	1	1	1	1	90	90	1,359	154,890	45,875,544	125,600.4
2015	2	2	2	2	60	60	1,596	181,533	53,406,343	146,218.6
2016	31	31	31	31	1,592	1,347	19,127	1,986,528	556,177,733	1,522,731.6
2017	53	53	53	53	2,768	2,102	16,672	1,978,510	593,509,744	1,624,941.1
2018	65	65	65	66	2,790	1,803	4,583	1,873,295	308,831,899	845,535.7
<i>Aged 45-64</i>										
2014	5	5	5	5	150	150	5,822	226,863	72,663,768	198,942.6
2015	25	25	25	25	1,099	1,054	20,469	1,498,642	481,832,429	1,319,185.3

Table 7. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Age Group and Year

Year	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
2016	219	219	219	219	11,480	9,333	146,400	1,746,720	534,588,993	1,463,624.9
2017	552	552	552	552	27,104	20,321	179,423	1,879,955	604,063,438	1,653,835.6
2018	570	570	570	570	23,469	16,425	45,972	1,826,961	310,238,981	849,388.0
<i>Aged 65+</i>										
2014	4	4	4	4	113	113	677	636,265	215,164,980	589,089.6
2015	14	14	14	14	890	750	12,874	881,559	297,106,940	813,434.5
2016	110	110	110	110	5,786	4,604	71,437	988,490	326,476,581	893,844.2
2017	370	370	370	371	17,437	11,353	117,494	1,118,509	376,013,189	1,029,468.0
2018	354	354	354	354	13,934	9,328	27,860	1,109,704	192,875,792	528,065.1
<i>Incident Ertugliflozin</i>										
<i>Aged 20-44</i>										
2013	0	0	0	0	0	0	0	1,674,636	442,347,484	1,211,081.4
2014	0	0	0	0	0	0	0	1,734,525	525,982,628	1,440,062.0
2015	0	0	0	0	0	0	0	1,881,082	563,250,470	1,542,095.7
2016	0	0	0	0	0	0	0	2,157,941	604,390,144	1,654,730.0
2017	0	0	0	0	0	0	0	2,147,101	643,294,217	1,761,243.6
2018	0	0	0	0	0	0	0	2,033,479	335,242,072	917,842.8
<i>Aged 45-64</i>										
2013	0	0	0	0	0	0	0	1,584,319	442,284,945	1,210,910.2
2014	0	0	0	0	0	0	0	1,605,307	520,822,834	1,425,935.2
2015	0	0	0	0	0	0	0	1,722,662	553,442,587	1,515,243.2
2016	0	0	0	0	0	0	0	1,896,698	580,563,272	1,589,495.6
2017	0	0	0	0	0	0	0	1,880,336	604,266,109	1,654,390.4
2018	0	0	0	0	0	0	0	1,827,912	310,446,867	849,957.2
<i>Aged 65+</i>										
2013	0	0	0	0	0	0	0	892,187	255,214,204	698,738.4
2014	0	0	0	0	0	0	0	952,139	320,405,841	877,223.4
2015	0	0	0	0	0	0	0	1,002,090	337,231,243	923,288.8
2016	0	0	0	0	0	0	0	1,082,530	357,645,718	979,180.6
2017	0	0	0	0	0	0	0	1,118,692	376,122,477	1,029,767.2
2018	0	0	0	0	0	0	0	1,110,301	193,005,730	528,420.9
<i>Incident Sitagliptin</i>										
<i>Aged 20-44</i>										
2013	67	67	67	67	3,432	3,525	93,104	1,537,412	406,478,917	1,112,878.6
2014	20	20	20	20	1,012	1,267	23,088	1,424,560	435,709,835	1,192,908.5
2015	17	17	17	17	772	865	10,656	1,657,662	496,542,122	1,359,458.2

Table 7. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Age Group and Year

Year	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
2016	16	16	16	16	703	703	8,698	1,948,301	550,486,177	1,507,149.0
2017	15	15	15	15	1,130	1,130	5,297	1,864,971	563,122,808	1,541,746.2
2018	13	13	13	13	625	805	993	1,689,484	280,604,047	768,252.0
<i>Aged 45-64</i>										
2013	409	409	409	409	22,123	23,422	578,984	1,582,729	441,733,189	1,209,399.6
2014	141	141	143	143	7,161	8,193	165,735	1,603,769	520,220,893	1,424,287.2
2015	142	142	142	144	7,475	7,690	123,925	1,721,770	553,007,323	1,514,051.5
2016	133	133	133	133	7,238	8,238	91,051	1,895,575	580,141,426	1,588,340.7
2017	139	139	139	139	7,292	8,082	45,800	1,879,301	603,742,762	1,652,957.6
2018	63	63	63	63	2,534	2,730	5,947	1,643,057	280,584,649	768,198.9
<i>Aged 65+</i>										
2013	267	267	267	267	15,555	15,764	407,132	890,944	254,771,932	697,527.5
2014	159	159	160	160	6,793	7,379	176,249	950,901	319,890,278	875,811.8
2015	186	186	186	187	9,554	10,244	179,143	1,001,283	336,833,935	922,201.1
2016	142	142	142	142	6,572	7,122	95,670	1,081,490	357,255,842	978,113.2
2017	167	167	167	167	8,503	9,078	58,473	1,117,598	375,642,914	1,028,454.2
2018	73	73	73	73	3,059	3,436	6,617	1,108,956	192,705,226	527,598.2
<i>Prevalent SGLT-2 Inhibitors</i>										
<i>Aged 20-44</i>										
2013	5	5	5	5	210	210	6,738	171,606	44,237,749	121,116.4
2014	39	39	39	39	1,375	1,375	41,654	1,579,694	479,090,668	1,311,678.8
2015	41	41	41	41	1,667	1,837	33,990	1,881,046	563,231,259	1,542,043.1
2016	63	63	63	63	3,127	3,092	39,114	2,157,880	604,359,776	1,654,646.9
2017	80	80	80	80	3,817	3,110	25,980	2,147,006	643,251,173	1,761,125.7
2018	85	85	85	86	3,905	2,964	6,859	1,873,264	308,824,663	845,515.8
<i>Aged 45-64</i>										
2013	72	72	72	72	2,568	2,568	89,121	687,624	190,077,582	520,404.1
2014	181	181	181	181	6,647	6,942	204,746	1,605,239	520,775,023	1,425,804.3
2015	248	248	248	248	10,180	10,720	212,659	1,722,441	553,322,344	1,514,914.0
2016	352	352	353	354	16,270	16,254	228,151	1,896,283	580,361,801	1,588,944.0
2017	691	691	695	695	35,107	29,054	235,065	1,879,650	603,919,739	1,653,442.1
2018	697	697	700	700	30,045	22,800	59,755	1,826,704	310,180,064	849,226.7
<i>Aged 65+</i>										
2013	20	20	20	20	764	764	30,012	203,453	57,688,670	157,943.0
2014	87	87	87	87	3,393	3,513	93,522	952,106	320,384,918	877,166.1
2015	105	105	105	105	4,360	4,500	104,974	1,001,970	337,171,675	923,125.7

Table 7. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Age Group and Year

Year	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
2016	150	150	152	152	6,946	6,289	95,166	1,082,298	357,545,395	978,905.9
2017	404	404	406	407	19,216	13,250	131,238	1,118,289	375,927,294	1,029,232.8
2018	374	374	374	374	14,881	10,121	29,895	1,109,490	192,837,167	527,959.4
<i>Prevalent Canagliflozin</i>										
<i>Aged 20-44</i>										
2013	5	5	5	5	210	210	6,738	171,606	44,237,749	121,116.4
2014	31	31	31	31	1,075	1,075	32,193	1,579,694	479,091,695	1,311,681.6
2015	30	30	30	30	1,277	1,417	24,270	1,881,052	563,235,467	1,542,054.7
2016	23	23	23	23	1,185	1,225	14,063	1,986,503	556,167,668	1,522,704.1
2017	13	13	13	13	570	600	5,601	1,852,108	557,863,019	1,527,345.7
2018	1	1	1	1	90	90	156	183,792	28,219,272	77,260.2
<i>Aged 45-64</i>										
2013	72	72	72	72	2,568	2,568	89,121	687,624	190,077,582	520,404.1
2014	124	124	124	124	4,637	4,917	142,746	1,605,240	520,782,759	1,425,825.5
2015	163	163	163	163	6,673	7,093	142,733	1,722,493	553,356,029	1,515,006.2
2016	132	132	132	133	6,152	6,972	86,019	1,896,404	580,437,797	1,589,152.1
2017	78	78	78	78	4,571	5,341	30,372	1,879,961	604,123,227	1,653,999.3
2018	29	29	29	29	1,492	1,732	3,146	1,764,947	299,728,997	820,613.3
<i>Aged 65+</i>										
2013	20	20	20	20	764	764	30,012	203,453	57,688,670	157,943.0
2014	59	59	59	59	2,380	2,470	67,887	952,107	320,388,331	877,175.4
2015	77	77	77	77	3,272	3,427	77,572	1,001,998	337,184,108	923,159.8
2016	48	48	48	48	2,280	2,490	33,449	1,082,357	357,577,605	978,994.1
2017	40	40	40	40	1,810	1,870	15,720	1,118,465	376,036,610	1,029,532.1
2018	12	12	12	12	631	631	1,051	999,914	173,824,316	475,905.0
<i>Prevalent Dapagliflozin</i>										
<i>Aged 20-44</i>										
2014	8	8	8	8	240	240	9,532	299,217	88,643,130	242,691.7
2015	9	9	9	9	330	360	8,124	370,313	105,520,179	288,898.5
2016	13	13	13	13	570	630	8,195	667,713	178,307,342	488,178.9
2017	10	10	10	10	360	360	2,826	484,311	141,356,135	387,012.0
2018	6	6	6	6	240	270	711	1,418,656	234,974,476	643,325.1
<i>Aged 45-64</i>										
2014	54	54	54	54	1,920	1,935	57,612	1,605,306	520,815,195	1,425,914.3
2015	66	66	66	66	2,554	2,749	53,531	1,657,479	532,721,701	1,458,512.5
2016	46	46	46	46	2,017	2,252	28,462	1,827,541	558,975,877	1,530,392.5

Table 7. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Age Group and Year

Year	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
2017	61	61	61	61	2,692	2,867	21,158	1,880,216	604,216,145	1,654,253.6
2018	35	35	35	35	1,386	1,437	3,620	1,620,598	275,269,355	753,646.4
<i>Aged 65+</i>										
2014	26	26	26	26	960	990	26,517	219,631	73,100,727	200,138.9
2015	21	21	21	21	748	778	21,199	1,002,062	337,219,534	923,256.8
2016	18	18	18	18	636	696	9,829	232,615	75,662,788	207,153.4
2017	13	13	13	13	395	395	4,596	965,436	324,906,657	889,545.9
2018	5	5	5	5	163	163	348	279,770	48,146,755	131,818.6
<i>Prevalent Empagliflozin</i>										
<i>Aged 20-44</i>										
2014	1	1	1	1	90	90	1,359	154,890	45,875,544	125,600.4
2015	2	2	2	2	60	60	1,596	181,533	53,406,343	146,218.6
2016	35	35	35	35	1,842	1,597	21,705	1,986,543	556,178,603	1,522,734.0
2017	65	65	65	65	3,247	2,480	19,881	1,978,532	593,512,530	1,624,948.7
2018	80	80	80	81	3,610	2,624	6,161	1,873,318	308,834,007	845,541.4
<i>Aged 45-64</i>										
2014	6	6	6	6	180	180	7,164	226,864	72,663,796	198,942.6
2015	30	30	30	30	1,303	1,258	24,782	1,563,782	502,524,497	1,375,837.1
2016	241	241	241	241	12,583	10,306	159,911	1,896,661	580,511,335	1,589,353.4
2017	629	629	629	629	31,694	24,566	207,766	1,880,068	604,075,270	1,653,868.0
2018	656	656	656	656	28,151	20,513	55,250	1,827,105	310,253,286	849,427.2
<i>Aged 65+</i>										
2014	4	4	4	4	113	113	677	636,265	215,164,980	589,089.6
2015	14	14	14	14	890	750	12,874	881,559	297,106,940	813,434.5
2016	112	112	112	112	5,966	4,694	72,602	988,516	326,477,162	893,845.8
2017	393	393	393	394	19,127	12,678	126,006	1,118,544	376,017,450	1,029,479.7
2018	368	368	368	368	14,678	9,910	29,272	1,109,745	192,881,725	528,081.4
<i>Prevalent Ertugliflozin</i>										
<i>Aged 20-44</i>										
2013	0	0	0	0	0	0	0	1,674,636	442,347,484	1,211,081.4
2014	0	0	0	0	0	0	0	1,734,525	525,982,628	1,440,062.0
2015	0	0	0	0	0	0	0	1,881,082	563,250,470	1,542,095.7
2016	0	0	0	0	0	0	0	2,157,941	604,390,144	1,654,730.0
2017	0	0	0	0	0	0	0	2,147,101	643,294,217	1,761,243.6
2018	0	0	0	0	0	0	0	2,033,479	335,242,072	917,842.8
<i>Aged 45-64</i>										

Table 7. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Age Group and Year

Year	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
2013	0	0	0	0	0	0	0	1,584,319	442,284,945	1,210,910.2
2014	0	0	0	0	0	0	0	1,605,307	520,822,834	1,425,935.2
2015	0	0	0	0	0	0	0	1,722,662	553,442,587	1,515,243.2
2016	0	0	0	0	0	0	0	1,896,698	580,563,272	1,589,495.6
2017	0	0	0	0	0	0	0	1,880,336	604,266,109	1,654,390.4
2018	0	0	0	0	0	0	0	1,827,912	310,446,867	849,957.2
<i>Aged 65+</i>										
2013	0	0	0	0	0	0	0	892,187	255,214,204	698,738.4
2014	0	0	0	0	0	0	0	952,139	320,405,841	877,223.4
2015	0	0	0	0	0	0	0	1,002,090	337,231,243	923,288.8
2016	0	0	0	0	0	0	0	1,082,530	357,645,718	979,180.6
2017	0	0	0	0	0	0	0	1,118,692	376,122,477	1,029,767.2
2018	0	0	0	0	0	0	0	1,110,301	193,005,730	528,420.9
<i>Prevalent Sitagliptin</i>										
<i>Aged 20-44</i>										
2013	184	184	184	184	10,045	11,389	261,705	1,674,636	442,313,172	1,210,987.5
2014	39	39	39	39	1,972	2,527	38,531	1,590,042	483,155,064	1,322,806.5
2015	29	29	29	29	1,262	1,415	20,504	1,810,082	542,354,635	1,484,886.1
2016	25	25	25	25	1,137	1,289	14,012	1,948,294	550,475,187	1,507,118.9
2017	26	26	26	26	1,598	1,583	8,659	1,864,956	563,115,845	1,541,727.2
2018	16	16	16	16	707	797	1,177	1,689,471	280,602,059	768,246.6
<i>Aged 45-64</i>										
2013	1,708	1,708	1,708	1,709	107,785	120,884	2,518,838	1,584,303	441,911,817	1,209,888.6
2014	221	221	223	223	12,117	13,799	255,807	1,603,735	520,238,066	1,424,334.2
2015	231	231	231	233	12,577	13,871	198,161	1,721,075	552,818,396	1,513,534.3
2016	218	218	219	219	12,518	14,655	143,491	1,894,985	579,896,685	1,587,670.6
2017	204	204	204	204	11,671	13,345	68,572	1,878,643	603,519,640	1,652,346.7
2018	112	112	112	112	4,997	6,225	10,989	1,826,091	310,013,921	848,771.9
<i>Aged 65+</i>										
2013	1,220	1,220	1,221	1,221	84,712	90,039	1,928,079	892,108	254,926,974	697,952.0
2014	219	219	220	220	10,586	11,672	254,792	950,784	319,899,441	875,836.9
2015	223	223	223	224	12,016	13,361	216,725	1,000,528	336,635,621	921,658.1
2016	181	181	181	181	9,432	10,390	125,846	1,080,706	356,971,598	977,335.0
2017	199	199	199	199	11,237	12,597	72,445	1,116,673	375,331,339	1,027,601.2
2018	107	107	107	107	5,022	5,929	10,353	1,108,032	192,545,505	527,160.9

¹Adjusted Dispensings contains outpatient pharmacy dispensings, but counts multiple dispensings that occur on the same day as one dispensing

²Raw Dispensing counts contains all outpatient pharmacy dispensings, even if multiple dispensings occur on the same day.

³Eligible Members, Member-Days, 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

Table 8. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Race

Race	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
<i>Incident SGLT-2 Inhibitors</i>										
American Indian or Alaska Native	47	47	48	48	1,965	1,532	19,112	51,602	58,905,163	161,273.5
Asian	379	379	379	379	18,151	13,550	115,581	1,000,897	1,188,439,966	3,253,771.3
Black or African American	242	242	242	243	11,652	8,461	69,816	602,542	706,736,502	1,934,939.1
Native Hawaiian or Other Pacific Islander	158	158	158	158	6,555	4,656	38,460	117,929	136,076,328	372,556.7
Unknown	776	776	780	781	29,755	28,867	458,771	1,593,331	1,410,396,880	3,861,456.2
White	1,553	1,553	1,556	1,557	66,835	53,287	731,038	3,619,734	4,463,644,525	12,220,792.7
<i>Incident Canagliflozin</i>										
American Indian or Alaska Native	7	7	7	7	390	390	5,768	51,606	58,919,199	161,312.0
Asian	41	41	41	41	2,035	2,065	36,411	1,000,937	1,188,536,243	3,254,034.9
Black or African American	30	30	30	30	1,488	1,578	25,309	602,568	706,790,799	1,935,087.7
Native Hawaiian or Other Pacific Islander	15	15	15	15	510	540	11,902	117,942	136,107,676	372,642.5
Unknown	268	268	268	268	9,680	10,770	252,936	1,593,464	1,410,657,465	3,862,169.7
White	395	395	395	396	16,542	17,217	342,595	3,619,908	4,464,102,313	12,222,046.0
<i>Incident Dapagliflozin</i>										
American Indian or Alaska Native	3	3	3	3	90	90	2,403	51,608	58,923,984	161,325.1
Asian	12	12	12	12	575	605	8,239	1,000,948	1,188,571,069	3,254,130.2
Black or African American	10	10	10	10	411	456	6,686	602,568	706,812,186	1,935,146.3
Native Hawaiian or Other Pacific Islander	2	2	2	2	60	60	705	117,942	136,119,859	372,675.9
Unknown	133	133	133	133	4,651	5,051	98,788	1,593,514	1,410,848,098	3,862,691.6
White	162	162	162	162	6,401	6,596	110,498	3,619,987	4,464,410,051	12,222,888.6
<i>Incident Empagliflozin</i>										
American Indian or Alaska Native	39	39	39	39	1,602	1,124	11,639	51,604	58,913,703	161,296.9

Table 8. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Race

Race	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
Asian	353	353	353	353	17,524	12,428	85,252	1,000,927	1,188,491,869	3,253,913.4
Black or African American	221	221	221	222	10,772	7,236	47,129	602,553	706,768,789	1,935,027.5
Native Hawaiian or Other Pacific Islander	146	146	146	146	6,195	4,266	28,689	117,932	136,088,049	372,588.8
Unknown	483	483	483	484	21,487	18,064	157,846	1,593,440	1,410,764,206	3,862,461.9
White	1,133	1,133	1,133	1,133	51,182	35,715	341,210	3,619,867	4,464,139,972	12,222,149.1
<i>Incident Ertugliflozin</i>										
American Indian or Alaska Native	0	0	0	0	0	0	0	51,608	58,926,384	161,331.6
Asian	0	0	0	0	0	0	0	1,000,958	1,188,586,997	3,254,173.8
Black or African American	0	0	0	0	0	0	0	602,573	706,822,523	1,935,174.6
Native Hawaiian or Other Pacific Islander	0	0	0	0	0	0	0	117,944	136,121,156	372,679.4
Unknown	0	0	0	0	0	0	0	1,593,543	1,410,963,457	3,863,007.4
White	0	0	0	0	0	0	0	3,620,013	4,464,538,325	12,223,239.8
<i>Incident Sitagliptin</i>										
American Indian or Alaska Native	18	18	18	18	1,040	1,040	17,977	51,594	58,877,646	161,198.2
Asian	296	296	296	296	18,310	20,240	339,347	1,000,774	1,187,641,777	3,251,586.0
Black or African American	226	226	226	226	11,516	12,770	221,460	602,474	706,346,778	1,933,872.1
Native Hawaiian or Other Pacific Islander	45	45	45	45	1,926	2,286	55,824	117,916	135,937,479	372,176.5
Unknown	436	436	438	438	19,036	20,854	401,365	1,593,188	1,409,772,469	3,859,746.7
White	1,148	1,148	1,149	1,152	59,705	62,483	1,040,589	3,619,333	4,461,685,896	12,215,430.2
<i>Prevalent SGLT-2 Inhibitors</i>										
American Indian or Alaska Native	51	51	52	52	2,175	1,742	20,280	51,608	58,906,156	161,276.3
Asian	430	430	430	430	21,329	16,588	137,149	1,000,958	1,188,450,409	3,253,799.9
Black or African American	269	269	269	270	13,020	9,739	79,082	602,573	706,743,176	1,934,957.4

Table 8. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Race

Race	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
Native Hawaiian or Other Pacific Islander	169	169	169	169	6,978	4,997	41,672	117,944	136,079,039	372,564.1
Unknown	956	956	962	963	39,062	38,554	537,857	1,593,543	1,410,425,576	3,861,534.8
White	1,819	1,819	1,824	1,825	81,914	67,744	852,599	3,620,013	4,463,685,810	12,220,905.7
<i>Prevalent Canagliflozin</i>										
American Indian or Alaska Native	8	8	8	8	450	450	6,437	51,608	58,919,950	161,314.0
Asian	55	55	55	55	2,765	2,885	46,717	1,000,958	1,188,540,358	3,254,046.2
Black or African American	35	35	35	35	1,758	1,848	29,247	602,573	706,792,773	1,935,093.1
Native Hawaiian or Other Pacific Islander	15	15	15	15	510	540	11,902	117,944	136,108,610	372,645.1
Unknown	334	334	334	334	13,112	14,882	293,281	1,593,543	1,410,669,819	3,862,203.5
White	510	510	510	511	23,042	24,287	415,265	3,620,013	4,464,121,416	12,222,098.3
<i>Prevalent Dapagliflozin</i>										
American Indian or Alaska Native	3	3	3	3	90	90	2,403	51,608	58,923,984	161,325.1
Asian	21	21	21	21	1,045	1,175	12,326	1,000,958	1,188,574,724	3,254,140.2
Black or African American	14	14	14	14	531	576	8,029	602,573	706,814,485	1,935,152.6
Native Hawaiian or Other Pacific Islander	4	4	4	4	154	154	1,177	117,944	136,119,984	372,676.2
Unknown	158	158	158	158	5,700	6,196	110,019	1,593,543	1,410,853,685	3,862,706.9
White	191	191	191	191	7,691	7,931	122,306	3,620,013	4,464,416,429	12,222,906.0
<i>Prevalent Empagliflozin</i>										
American Indian or Alaska Native	42	42	42	42	1,752	1,274	12,138	51,608	58,914,294	161,298.5
Asian	375	375	375	375	19,012	13,816	89,880	1,000,958	1,188,497,550	3,253,929.0
Black or African American	236	236	236	237	11,656	8,060	50,605	602,573	706,772,183	1,935,036.8
Native Hawaiian or Other Pacific Islander	155	155	155	155	6,524	4,513	31,429	117,944	136,089,932	372,593.9
Unknown	572	572	572	573	26,233	22,369	185,324	1,593,543	1,410,778,388	3,862,500.7

Table 8. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Race

Race	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
White	1,256	1,256	1,256	1,256	58,357	41,788	377,630	3,620,013	4,464,162,130	12,222,209.8
<i>Prevalent Ertugliflozin</i>										
American Indian or Alaska Native	0	0	0	0	0	0	0	51,608	58,926,384	161,331.6
Asian	0	0	0	0	0	0	0	1,000,958	1,188,586,997	3,254,173.8
Black or African American	0	0	0	0	0	0	0	602,573	706,822,523	1,935,174.6
Native Hawaiian or Other Pacific Islander	0	0	0	0	0	0	0	117,944	136,121,156	372,679.4
Unknown	0	0	0	0	0	0	0	1,593,543	1,410,963,457	3,863,007.4
White	0	0	0	0	0	0	0	3,620,013	4,464,538,325	12,223,239.8
<i>Prevalent Sitagliptin</i>										
American Indian or Alaska Native	41	41	41	41	2,310	2,580	42,403	51,607	58,872,796	161,184.9
Asian	888	888	889	889	64,380	71,164	1,211,822	1,000,946	1,187,287,706	3,250,616.6
Black or African American	469	469	469	469	27,871	31,639	570,149	602,569	706,212,298	1,933,503.9
Native Hawaiian or Other Pacific Islander	167	167	167	167	9,728	10,648	241,658	117,941	135,853,926	371,947.8
Unknown	1,045	1,045	1,047	1,048	52,448	61,511	1,138,125	1,593,502	1,409,557,682	3,859,158.6
White	2,552	2,552	2,554	2,557	154,654	168,225	2,944,529	3,619,950	4,461,120,489	12,213,882.2

¹Adjusted Dispensings contains outpatient pharmacy dispensings, but counts multiple dispensings that occur on the same day as one dispensing

²Raw Dispensing counts contains all outpatient pharmacy dispensings, even if multiple dispensings occur on the same day.

³Eligible Members, Member-Days, 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

Table 9. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Hispanic Origin

Hispanic	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
<i>Incident SGLT-2 Inhibitors</i>										
Hispanic Origin	258	258	258	258	11,582	9,652	109,151	989,133	1,097,223,001	3,004,032.9
Not Hispanic Origin	1,728	1,728	1,732	1,733	73,130	55,385	713,017	1,959,038	2,214,954,929	6,064,216.1
Unknown	1,169	1,169	1,173	1,175	50,201	45,315	610,610	4,037,864	4,652,021,434	12,736,540.5
<i>Incident Canagliflozin</i>										
Hispanic Origin	52	52	52	52	2,220	2,520	48,234	989,175	1,097,305,971	3,004,260.0
Not Hispanic Origin	367	367	367	368	14,913	15,498	314,515	1,959,179	2,215,412,872	6,065,469.9
Unknown	337	337	337	337	13,512	14,542	312,172	4,038,071	4,652,394,852	12,737,562.9
<i>Incident Dapagliflozin</i>										
Hispanic Origin	16	16	16	16	554	554	11,355	989,193	1,097,354,824	3,004,393.8
Not Hispanic Origin	162	162	162	162	6,111	6,276	107,547	1,959,231	2,215,673,626	6,066,183.8
Unknown	144	144	144	144	5,523	6,028	108,417	4,038,143	4,652,656,797	12,738,280.1
<i>Incident Empagliflozin</i>										
Hispanic Origin	215	215	215	215	10,398	7,768	65,557	989,164	1,097,290,955	3,004,218.9
Not Hispanic Origin	1,313	1,313	1,313	1,313	57,314	38,445	335,753	1,959,148	2,215,422,184	6,065,495.4
Unknown	847	847	847	849	41,050	32,619	270,455	4,038,011	4,652,453,449	12,737,723.3
<i>Incident Ertugliflozin</i>										
Hispanic Origin	0	0	0	0	0	0	0	989,200	1,097,372,674	3,004,442.6
Not Hispanic Origin	0	0	0	0	0	0	0	1,959,260	2,215,800,892	6,066,532.2
Unknown	0	0	0	0	0	0	0	4,038,179	4,652,785,276	12,738,631.8
<i>Incident Sitagliptin</i>										
Hispanic Origin	190	190	190	190	10,684	11,021	219,889	989,095	1,096,826,843	3,002,948.2
Not Hispanic Origin	979	979	979	982	46,556	50,171	837,865	1,958,665	2,213,411,111	6,059,989.4
Unknown	1,000	1,000	1,003	1,003	54,293	58,481	1,018,808	4,037,519	4,650,024,091	12,731,072.1
<i>Prevalent SGLT-2 Inhibitors</i>										
Hispanic Origin	312	312	312	312	14,857	13,000	131,262	989,200	1,097,241,377	3,004,083.2
Not Hispanic Origin	1,950	1,950	1,956	1,957	84,390	65,713	815,417	1,959,260	2,214,985,953	6,064,301.0
Unknown	1,432	1,432	1,438	1,440	65,231	60,649	721,960	4,038,179	4,652,062,836	12,736,653.9
<i>Prevalent Canagliflozin</i>										
Hispanic Origin	72	72	72	72	3,435	4,025	60,644	989,200	1,097,312,178	3,004,277.0
Not Hispanic Origin	452	452	452	453	19,203	20,028	373,537	1,959,260	2,215,425,956	6,065,505.7
Unknown	433	433	433	433	18,999	20,839	368,668	4,038,179	4,652,414,792	12,737,617.5
<i>Prevalent Dapagliflozin</i>										
Hispanic Origin	24	24	24	24	943	1,003	15,171	989,200	1,097,357,556	3,004,401.2
Not Hispanic Origin	195	195	195	195	7,521	7,716	120,741	1,959,260	2,215,680,519	6,066,202.7

Table 9. Summary of SGLT-2 Inhibitors and Sitagliptin in the Sentinel Distributed Database between March 1, 2013 and June 30, 2018, by Hispanic Origin

Hispanic	Number of Users	Number of Episodes	Adjusted Dispensings ¹	Raw Dispensings ²	Days Supplied	Amount Supplied	Time to Data End (Days)	Eligible Members ³	Eligible Member-Days ³	Eligible Member-Years ³
Unknown	172	172	172	172	6,747	7,403	120,348	4,038,179	4,652,665,216	12,738,303.1
<i>Prevalent Empagliflozin</i>										
Hispanic Origin	241	241	241	241	12,009	9,147	71,352	989,200	1,097,301,131	3,004,246.8
Not Hispanic Origin	1,412	1,412	1,412	1,412	62,466	42,529	364,018	1,959,260	2,215,438,457	6,065,539.9
Unknown	983	983	983	985	49,059	40,142	311,636	4,038,179	4,652,474,889	12,737,782.0
<i>Prevalent Ertugliflozin</i>										
Hispanic Origin	0	0	0	0	0	0	0	989,200	1,097,372,674	3,004,442.6
Not Hispanic Origin	0	0	0	0	0	0	0	1,959,260	2,215,800,892	6,066,532.2
Unknown	0	0	0	0	0	0	0	4,038,179	4,652,785,276	12,738,631.8
<i>Prevalent Sitagliptin</i>										
Hispanic Origin	460	460	460	460	29,121	32,676	600,220	989,189	1,096,698,852	3,002,597.8
Not Hispanic Origin	2,166	2,166	2,168	2,171	120,011	132,688	2,399,189	1,959,216	2,212,947,973	6,058,721.3
Unknown	2,536	2,536	2,539	2,540	162,259	180,402	3,149,277	4,038,110	4,649,258,072	12,728,974.9

¹Adjusted Dispensings contains outpatient pharmacy dispensings, but counts multiple dispensings that occur on the same day as one dispensing

²Raw Dispensing counts contains all outpatient pharmacy dispensings, even if multiple dispensings occur on the same day.

³Eligible Members, Member-Days, 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

Table 10a. Concurrence Matrix Comparing Clinical and Claims Evidence of BMI in the 365 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Claims BMI BMI<19 (365 days)	Claims BMI 19≤BMI≤24.9 (365 days)	Claims BMI 25≤BMI≤29.9 (365 days)	Claims BMI 30≤BMI≤39.9 (365 days)	Claims BMI 40≤BMI≤69.9 (365 days)	Claims BMI BMI≥70 (365 days)	Claims BMI Other obesity (365 days)	Claims BMI None (365 days)	Cohort Denominator
Incident SGLT-2 Inhibitors									
Clinical BMI_15≤BMI<18.5 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (100.0%)	3,155
Clinical BMI_18.5≤BMI<25 (365 days)	0 (0.0%)	2 (1.5%)	0 (0.0%)	1 (0.8%)	0 (0.0%)	0 (0.0%)	4 (3.1%)	123 (94.6%)	
Clinical BMI_25≤BMI<30 (365 days)	0 (0.0%)	0 (0.0%)	12 (2.6%)	3 (0.6%)	1 (0.2%)	0 (0.0%)	54 (11.7%)	393 (84.9%)	
Clinical BMI_30≤BMI<40 (365 days)	0 (0.0%)	0 (0.0%)	1 (0.1%)	141 (14.5%)	10 (1.0%)	0 (0.0%)	383 (39.3%)	440 (45.1%)	
Clinical BMI_40≤BMI<70 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (1.4%)	121 (33.2%)	0 (0.0%)	193 (53.0%)	45 (12.4%)	
Clinical BMI_70≤BMI≤90 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (365 days)	1 (0.1%)	4 (0.3%)	12 (1.0%)	80 (6.6%)	52 (4.3%)	0 (0.0%)	271 (22.2%)	799 (65.5%)	
Clinical BMI_Ht_AND_Wt_Missing (365 days)	1 (0.1%)	4 (0.4%)	11 (1.2%)	64 (6.9%)	38 (4.1%)	0 (0.0%)	202 (21.8%)	606 (65.4%)	
Clinical BMI_Ht_Missing (365 days)	0 (0.0%)	0 (0.0%)	1 (0.3%)	16 (5.5%)	14 (4.8%)	0 (0.0%)	68 (23.3%)	193 (66.1%)	
Clinical BMI_Wt_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	
Incident Canagliflozin									
Clinical BMI_15≤BMI<18.5 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	756
Clinical BMI_18.5≤BMI<25 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (10.5%)	17 (89.5%)	
Clinical BMI_25≤BMI<30 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (2.5%)	0 (0.0%)	0 (0.0%)	13 (16.3%)	65 (81.3%)	
Clinical BMI_30≤BMI<40 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	20 (12.6%)	3 (1.9%)	0 (0.0%)	75 (47.2%)	61 (38.4%)	
Clinical BMI_40≤BMI<70 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	25 (31.3%)	0 (0.0%)	47 (58.8%)	8 (10.0%)	
Clinical BMI_70≤BMI≤90 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (365 days)	1 (0.2%)	2 (0.5%)	2 (0.5%)	20 (4.8%)	17 (4.1%)	0 (0.0%)	107 (25.6%)	269 (64.4%)	
Clinical BMI_Ht_AND_Wt_Missing (365 days)	1 (0.3%)	2 (0.5%)	2 (0.5%)	19 (4.9%)	13 (3.3%)	0 (0.0%)	98 (25.2%)	254 (65.3%)	
Clinical BMI_Ht_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (3.4%)	4 (13.8%)	0 (0.0%)	9 (31.0%)	15 (51.7%)	
Clinical BMI_Wt_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Incident Dapagliflozin									
Clinical BMI_15≤BMI<18.5 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	322
Clinical BMI_18.5≤BMI<25 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (100.0%)	
Clinical BMI_25≤BMI<30 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (25.0%)	15 (75.0%)	
Clinical BMI_30≤BMI<40 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (6.6%)	4 (6.6%)	0 (0.0%)	32 (52.5%)	21 (34.4%)	

Table 10a. Concurrence Matrix Comparing Clinical and Claims Evidence of BMI in the 365 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Claims BMI BMI<19 (365 days)	Claims BMI 19≤BMI≤24.9 (365 days)	Claims BMI 25≤BMI≤29.9 (365 days)	Claims BMI 30≤BMI≤39.9 (365 days)	Claims BMI 40≤BMI≤69.9 (365 days)	Claims BMI BMI≥70 (365 days)	Claims BMI Other obesity (365 days)	Claims BMI None (365 days)	Cohort Denominator
Clinical BMI_40≤BMI<70 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (5.7%)	10 (28.6%)	0 (0.0%)	22 (62.9%)	1 (2.9%)	
Clinical BMI_70≤BMI≤90 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (365 days)	0 (0.0%)	0 (0.0%)	4 (2.0%)	11 (5.5%)	5 (2.5%)	0 (0.0%)	43 (21.4%)	138 (68.7%)	
Clinical BMI_Ht_AND_Wt_Missing (365 days)	0 (0.0%)	0 (0.0%)	4 (2.1%)	10 (5.3%)	5 (2.6%)	0 (0.0%)	39 (20.5%)	132 (69.5%)	
Clinical BMI_Ht_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (9.1%)	0 (0.0%)	0 (0.0%)	4 (36.4%)	6 (54.5%)	
Clinical BMI_Wt_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Incident Empagliflozin									
Clinical BMI_15≤BMI<18.5 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (100.0%)	2,375
Clinical BMI_18.5≤BMI<25 (365 days)	0 (0.0%)	2 (1.7%)	0 (0.0%)	1 (0.9%)	0 (0.0%)	0 (0.0%)	2 (1.7%)	112 (95.7%)	
Clinical BMI_25≤BMI<30 (365 days)	0 (0.0%)	0 (0.0%)	12 (3.0%)	1 (0.3%)	1 (0.3%)	0 (0.0%)	45 (11.3%)	339 (85.2%)	
Clinical BMI_30≤BMI<40 (365 days)	0 (0.0%)	0 (0.0%)	2 (0.2%)	123 (15.0%)	9 (1.1%)	0 (0.0%)	303 (37.0%)	382 (46.6%)	
Clinical BMI_40≤BMI<70 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (1.4%)	95 (33.0%)	0 (0.0%)	148 (51.4%)	41 (14.2%)	
Clinical BMI_70≤BMI≤90 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (365 days)	0 (0.0%)	3 (0.4%)	7 (0.9%)	64 (8.6%)	39 (5.2%)	0 (0.0%)	154 (20.6%)	480 (64.3%)	
Clinical BMI_Ht_AND_Wt_Missing (365 days)	0 (0.0%)	3 (0.6%)	6 (1.3%)	47 (9.9%)	28 (5.9%)	0 (0.0%)	96 (20.2%)	296 (62.2%)	
Clinical BMI_Ht_Missing (365 days)	0 (0.0%)	0 (0.0%)	1 (0.4%)	17 (6.3%)	11 (4.1%)	0 (0.0%)	57 (21.1%)	184 (68.1%)	
Clinical BMI_Wt_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	
Incident Ertugliflozin									
Clinical BMI_15≤BMI<18.5 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0
Clinical BMI_18.5≤BMI<25 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_25≤BMI<30 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_30≤BMI<40 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_40≤BMI<70 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_70≤BMI≤90 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Ht_AND_Wt_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	

Table 10a. Concurrence Matrix Comparing Clinical and Claims Evidence of BMI in the 365 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Claims BMI BMI<19 (365 days)	Claims BMI 19≤BMI≤24.9 (365 days)	Claims BMI 25≤BMI≤29.9 (365 days)	Claims BMI 30≤BMI≤39.9 (365 days)	Claims BMI 40≤BMI≤69.9 (365 days)	Claims BMI BMI≥70 (365 days)	Claims BMI Other obesity (365 days)	Claims BMI None (365 days)	Cohort Denominator
Clinical BMI_Ht_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Wt_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Incident Sitagliptin									
Clinical BMI_15≤BMI<18.5 (365 days)	1 (20.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (80.0%)	2,169
Clinical BMI_18.5≤BMI<25 (365 days)	0 (0.0%)	5 (2.9%)	0 (0.0%)	1 (0.6%)	0 (0.0%)	0 (0.0%)	1 (0.6%)	168 (96.0%)	
Clinical BMI_25≤BMI<30 (365 days)	0 (0.0%)	0 (0.0%)	8 (1.9%)	6 (1.4%)	0 (0.0%)	0 (0.0%)	46 (10.9%)	361 (85.7%)	
Clinical BMI_30≤BMI<40 (365 days)	0 (0.0%)	0 (0.0%)	1 (0.2%)	76 (12.1%)	7 (1.1%)	0 (0.0%)	213 (34.0%)	329 (52.6%)	
Clinical BMI_40≤BMI<70 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (1.9%)	58 (27.1%)	0 (0.0%)	112 (52.3%)	40 (18.7%)	
Clinical BMI_70≤BMI≤90 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (365 days)	0 (0.0%)	2 (0.3%)	8 (1.1%)	46 (6.3%)	23 (3.2%)	1 (0.1%)	148 (20.4%)	499 (68.6%)	
Clinical BMI_Ht_AND_Wt_Missing (365 days)	0 (0.0%)	2 (0.3%)	7 (1.1%)	41 (6.6%)	21 (3.4%)	1 (0.2%)	122 (19.7%)	424 (68.6%)	
Clinical BMI_Ht_Missing (365 days)	0 (0.0%)	0 (0.0%)	1 (1.0%)	4 (3.8%)	2 (1.9%)	0 (0.0%)	25 (24.0%)	72 (69.2%)	
Clinical BMI_Wt_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (20.0%)	0 (0.0%)	0 (0.0%)	1 (20.0%)	3 (60.0%)	
Prevalent SGLT-2 Inhibitors									
Clinical BMI_15≤BMI<18.5 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (100.0%)	3,694
Clinical BMI_18.5≤BMI<25 (365 days)	0 (0.0%)	2 (1.3%)	1 (0.7%)	1 (0.7%)	0 (0.0%)	0 (0.0%)	5 (3.3%)	143 (94.1%)	
Clinical BMI_25≤BMI<30 (365 days)	0 (0.0%)	1 (0.2%)	14 (2.6%)	3 (0.6%)	1 (0.2%)	0 (0.0%)	61 (11.5%)	452 (85.0%)	
Clinical BMI_30≤BMI<40 (365 days)	0 (0.0%)	0 (0.0%)	2 (0.2%)	159 (14.1%)	14 (1.2%)	0 (0.0%)	434 (38.6%)	515 (45.8%)	
Clinical BMI_40≤BMI<70 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	8 (1.9%)	135 (31.5%)	1 (0.2%)	232 (54.1%)	53 (12.4%)	
Clinical BMI_70≤BMI≤90 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (365 days)	1 (0.1%)	4 (0.3%)	14 (1.0%)	96 (6.6%)	65 (4.5%)	0 (0.0%)	325 (22.4%)	947 (65.2%)	
Clinical BMI_Ht_AND_Wt_Missing (365 days)	1 (0.1%)	4 (0.4%)	13 (1.1%)	80 (7.0%)	50 (4.4%)	0 (0.0%)	253 (22.3%)	734 (64.7%)	
Clinical BMI_Ht_Missing (365 days)	0 (0.0%)	0 (0.0%)	1 (0.3%)	16 (5.1%)	15 (4.8%)	0 (0.0%)	70 (22.3%)	212 (67.5%)	
Clinical BMI_Wt_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (66.7%)	1 (33.3%)	
Prevalent Canagliflozin									
Clinical BMI_15≤BMI<18.5 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	957
Clinical BMI_18.5≤BMI<25 (365 days)	0 (0.0%)	0 (0.0%)	1 (4.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (8.0%)	22 (88.0%)	

Table 10a. Concurrence Matrix Comparing Clinical and Claims Evidence of BMI in the 365 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Claims BMI BMI<19 (365 days)	Claims BMI 19≤BMI≤24.9 (365 days)	Claims BMI 25≤BMI≤29.9 (365 days)	Claims BMI 30≤BMI≤39.9 (365 days)	Claims BMI 40≤BMI≤69.9 (365 days)	Claims BMI BMI≥70 (365 days)	Claims BMI Other obesity (365 days)	Claims BMI None (365 days)	Cohort Denominator
Clinical BMI_25≤BMI<30 (365 days)	0 (0.0%)	1 (1.0%)	0 (0.0%)	2 (2.0%)	0 (0.0%)	0 (0.0%)	16 (16.0%)	81 (81.0%)	
Clinical BMI_30≤BMI<40 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	25 (11.2%)	4 (1.8%)	0 (0.0%)	104 (46.4%)	91 (40.6%)	
Clinical BMI_40≤BMI<70 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	36 (33.0%)	0 (0.0%)	62 (56.9%)	11 (10.1%)	
Clinical BMI_70≤BMI≤90 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (365 days)	1 (0.2%)	2 (0.4%)	3 (0.6%)	31 (6.2%)	18 (3.6%)	0 (0.0%)	133 (26.7%)	311 (62.3%)	
Clinical BMI_Ht_AND_Wt_Missing (365 days)	1 (0.2%)	2 (0.4%)	3 (0.6%)	30 (6.5%)	14 (3.0%)	0 (0.0%)	123 (26.5%)	292 (62.8%)	
Clinical BMI_Ht_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (2.9%)	4 (11.8%)	0 (0.0%)	10 (29.4%)	19 (55.9%)	
Clinical BMI_Wt_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Prevalent Dapagliflozin									
Clinical BMI_15≤BMI<18.5 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	391
Clinical BMI_18.5≤BMI<25 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	7 (100.0%)	
Clinical BMI_25≤BMI<30 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (16.7%)	25 (83.3%)	
Clinical BMI_30≤BMI<40 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (8.1%)	5 (6.8%)	0 (0.0%)	35 (47.3%)	28 (37.8%)	
Clinical BMI_40≤BMI<70 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (4.7%)	12 (27.9%)	0 (0.0%)	28 (65.1%)	1 (2.3%)	
Clinical BMI_70≤BMI≤90 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (365 days)	0 (0.0%)	0 (0.0%)	4 (1.7%)	12 (5.1%)	7 (3.0%)	0 (0.0%)	52 (22.0%)	161 (68.2%)	
Clinical BMI_Ht_AND_Wt_Missing (365 days)	0 (0.0%)	0 (0.0%)	4 (1.8%)	11 (5.0%)	7 (3.2%)	0 (0.0%)	47 (21.3%)	152 (68.8%)	
Clinical BMI_Ht_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (6.7%)	0 (0.0%)	0 (0.0%)	5 (33.3%)	9 (60.0%)	
Clinical BMI_Wt_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Prevalent Empagliflozin									
Clinical BMI_15≤BMI<18.5 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (100.0%)	2,636
Clinical BMI_18.5≤BMI<25 (365 days)	0 (0.0%)	2 (1.5%)	0 (0.0%)	1 (0.8%)	0 (0.0%)	0 (0.0%)	3 (2.3%)	125 (95.4%)	
Clinical BMI_25≤BMI<30 (365 days)	0 (0.0%)	0 (0.0%)	14 (3.2%)	1 (0.2%)	1 (0.2%)	0 (0.0%)	48 (11.1%)	370 (85.3%)	
Clinical BMI_30≤BMI<40 (365 days)	0 (0.0%)	0 (0.0%)	2 (0.2%)	135 (15.2%)	10 (1.1%)	0 (0.0%)	323 (36.3%)	420 (47.2%)	
Clinical BMI_40≤BMI<70 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	7 (2.2%)	96 (30.7%)	1 (0.3%)	164 (52.4%)	45 (14.4%)	
Clinical BMI_70≤BMI≤90 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (365 days)	0 (0.0%)	3 (0.3%)	8 (0.9%)	68 (7.9%)	49 (5.7%)	0 (0.0%)	173 (20.1%)	561 (65.1%)	

Table 10a. Concurrence Matrix Comparing Clinical and Claims Evidence of BMI in the 365 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Claims BMI BMI<19 (365 days)	Claims BMI 19≤BMI≤24.9 (365 days)	Claims BMI 25≤BMI≤29.9 (365 days)	Claims BMI 30≤BMI≤39.9 (365 days)	Claims BMI 40≤BMI≤69.9 (365 days)	Claims BMI BMI≥70 (365 days)	Claims BMI Other obesity (365 days)	Claims BMI None (365 days)	Cohort Denominator
Clinical BMI_Ht_AND_Wt_Missing (365 days)	0 (0.0%)	3 (0.5%)	7 (1.2%)	51 (8.9%)	37 (6.4%)	0 (0.0%)	113 (19.6%)	365 (63.4%)	
Clinical BMI_Ht_Missing (365 days)	0 (0.0%)	0 (0.0%)	1 (0.4%)	17 (6.0%)	12 (4.2%)	0 (0.0%)	58 (20.5%)	195 (68.9%)	
Clinical BMI_Wt_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (66.7%)	1 (33.3%)	
Prevalent Ertugliflozin									
Clinical BMI_15≤BMI<18.5 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0
Clinical BMI_18.5≤BMI<25 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_25≤BMI<30 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_30≤BMI<40 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_40≤BMI<70 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_70≤BMI≤90 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Ht_AND_Wt_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Ht_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Wt_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Prevalent Sitagliptin									
Clinical BMI_15≤BMI<18.5 (365 days)	1 (12.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	7 (87.5%)	5,162
Clinical BMI_18.5≤BMI<25 (365 days)	0 (0.0%)	6 (1.4%)	0 (0.0%)	1 (0.2%)	1 (0.2%)	0 (0.0%)	6 (1.4%)	428 (96.8%)	
Clinical BMI_25≤BMI<30 (365 days)	0 (0.0%)	0 (0.0%)	10 (0.9%)	15 (1.4%)	0 (0.0%)	0 (0.0%)	109 (10.2%)	939 (87.5%)	
Clinical BMI_30≤BMI<40 (365 days)	0 (0.0%)	0 (0.0%)	1 (0.1%)	126 (8.3%)	16 (1.1%)	0 (0.0%)	482 (31.9%)	887 (58.7%)	
Clinical BMI_40≤BMI<70 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	8 (1.6%)	105 (20.8%)	0 (0.0%)	278 (54.9%)	115 (22.7%)	
Clinical BMI_70≤BMI≤90 (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (365 days)	1 (0.1%)	5 (0.3%)	12 (0.7%)	52 (3.2%)	32 (2.0%)	1 (0.1%)	270 (16.7%)	1,245 (76.9%)	
Clinical BMI_Ht_AND_Wt_Missing (365 days)	1 (0.1%)	5 (0.4%)	9 (0.7%)	47 (3.6%)	30 (2.3%)	1 (0.1%)	223 (17.0%)	998 (76.0%)	
Clinical BMI_Ht_Missing (365 days)	0 (0.0%)	0 (0.0%)	3 (1.0%)	4 (1.4%)	2 (0.7%)	0 (0.0%)	46 (16.0%)	233 (80.9%)	
Clinical BMI_Wt_Missing (365 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (6.3%)	0 (0.0%)	0 (0.0%)	1 (6.3%)	14 (87.5%)	

¹"Claims" indicate whether a diagnosis or procedure code was identified; "clinical" data are from the Vital Signs and Laboratory Results tables of the Sentinel Distributed Database.

Table 10b. Concurrence Matrix Comparing Clinical and Claims Evidence of BMI in the 183 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Claims BMI BMI<19 (183 days)	Claims BMI 19≤BMI≤24.9 (183 days)	Claims BMI 25≤BMI≤29.9 (183 days)	Claims BMI 30≤BMI≤39.9 (183 days)	Claims BMI 40≤BMI≤69.9 (183 days)	Claims BMI BMI≥70 (183 days)	Claims BMI Other obesity (183 days)	Claims BMI None (183 days)	Cohort Denominator
Incident SGLT-2 Inhibitors									
Clinical BMI_15≤BMI<18.5 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)	3,155
Clinical BMI_18.5≤BMI<25 (183 days)	0 (0.0%)	1 (1.0%)	0 (0.0%)	1 (1.0%)	0 (0.0%)	0 (0.0%)	3 (2.9%)	100 (95.2%)	
Clinical BMI_25≤BMI<30 (183 days)	0 (0.0%)	0 (0.0%)	10 (2.6%)	1 (0.3%)	1 (0.3%)	0 (0.0%)	29 (7.5%)	348 (89.5%)	
Clinical BMI_30≤BMI<40 (183 days)	0 (0.0%)	0 (0.0%)	1 (0.1%)	97 (11.7%)	7 (0.8%)	0 (0.0%)	277 (33.3%)	450 (54.1%)	
Clinical BMI_40≤BMI<70 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (0.9%)	102 (32.3%)	0 (0.0%)	157 (49.7%)	54 (17.1%)	
Clinical BMI_70≤BMI≤90 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (183 days)	1 (0.1%)	3 (0.2%)	13 (0.9%)	79 (5.2%)	53 (3.5%)	0 (0.0%)	267 (17.7%)	1,094 (72.5%)	
Clinical BMI_Ht AND Wt Missing (183 days)	1 (0.1%)	3 (0.3%)	11 (1.0%)	58 (5.5%)	31 (2.9%)	0 (0.0%)	167 (15.9%)	782 (74.3%)	
Clinical BMI_Ht_Missing (183 days)	0 (0.0%)	0 (0.0%)	2 (0.4%)	21 (4.6%)	22 (4.9%)	0 (0.0%)	97 (21.5%)	310 (68.6%)	
Clinical BMI_Wt_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (60.0%)	2 (40.0%)	
Incident Canagliflozin									
Clinical BMI_15≤BMI<18.5 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	756
Clinical BMI_18.5≤BMI<25 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (7.1%)	13 (92.9%)	
Clinical BMI_25≤BMI<30 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (1.5%)	0 (0.0%)	0 (0.0%)	8 (11.8%)	59 (86.8%)	
Clinical BMI_30≤BMI<40 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	13 (9.4%)	2 (1.4%)	0 (0.0%)	54 (38.8%)	70 (50.4%)	
Clinical BMI_40≤BMI<70 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	22 (31.9%)	0 (0.0%)	39 (56.5%)	8 (11.6%)	
Clinical BMI_70≤BMI≤90 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (183 days)	1 (0.2%)	2 (0.4%)	2 (0.4%)	19 (4.1%)	16 (3.4%)	0 (0.0%)	93 (20.0%)	333 (71.5%)	
Clinical BMI_Ht AND Wt Missing (183 days)	1 (0.2%)	2 (0.5%)	2 (0.5%)	17 (4.0%)	13 (3.1%)	0 (0.0%)	83 (19.6%)	305 (72.1%)	
Clinical BMI_Ht_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (4.8%)	3 (7.1%)	0 (0.0%)	10 (23.8%)	27 (64.3%)	
Clinical BMI_Wt_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	
Incident Dapagliflozin									
Clinical BMI_15≤BMI<18.5 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	322
Clinical BMI_18.5≤BMI<25 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (100.0%)	
Clinical BMI_25≤BMI<30 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (6.7%)	14 (93.3%)	
Clinical BMI_30≤BMI<40 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (3.9%)	3 (5.9%)	0 (0.0%)	26 (51.0%)	20 (39.2%)	

Table 10b. Concurrence Matrix Comparing Clinical and Claims Evidence of BMI in the 183 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Claims BMI BMI<19 (183 days)	Claims BMI 19≤BMI≤24.9 (183 days)	Claims BMI 25≤BMI≤29.9 (183 days)	Claims BMI 30≤BMI≤39.9 (183 days)	Claims BMI 40≤BMI≤69.9 (183 days)	Claims BMI BMI≥70 (183 days)	Claims BMI Other obesity (183 days)	Claims BMI None (183 days)	Cohort Denominator
Clinical BMI_40≤BMI<70 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (3.2%)	9 (29.0%)	0 (0.0%)	19 (61.3%)	2 (6.5%)	
Clinical BMI_70≤BMI≤90 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (183 days)	0 (0.0%)	0 (0.0%)	4 (1.8%)	12 (5.4%)	4 (1.8%)	0 (0.0%)	36 (16.2%)	166 (74.8%)	
Clinical BMI_Ht AND Wt Missing (183 days)	0 (0.0%)	0 (0.0%)	4 (1.9%)	11 (5.3%)	4 (1.9%)	0 (0.0%)	32 (15.5%)	156 (75.4%)	
Clinical BMI_Ht_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (6.7%)	0 (0.0%)	0 (0.0%)	4 (26.7%)	10 (66.7%)	
Clinical BMI_Wt_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Incident Empagliflozin									
Clinical BMI_15≤BMI<18.5 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (100.0%)	2,375
Clinical BMI_18.5≤BMI<25 (183 days)	0 (0.0%)	1 (1.0%)	0 (0.0%)	1 (1.0%)	0 (0.0%)	0 (0.0%)	2 (2.0%)	94 (95.9%)	
Clinical BMI_25≤BMI<30 (183 days)	0 (0.0%)	0 (0.0%)	10 (3.0%)	0 (0.0%)	1 (0.3%)	0 (0.0%)	26 (7.9%)	294 (88.8%)	
Clinical BMI_30≤BMI<40 (183 days)	0 (0.0%)	0 (0.0%)	1 (0.1%)	85 (12.3%)	8 (1.2%)	0 (0.0%)	211 (30.5%)	386 (55.9%)	
Clinical BMI_40≤BMI<70 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (1.2%)	78 (31.2%)	0 (0.0%)	116 (46.4%)	53 (21.2%)	
Clinical BMI_70≤BMI≤90 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (183 days)	0 (0.0%)	2 (0.2%)	8 (0.8%)	62 (6.2%)	42 (4.2%)	0 (0.0%)	167 (16.7%)	720 (71.9%)	
Clinical BMI_Ht AND Wt Missing (183 days)	0 (0.0%)	2 (0.3%)	6 (1.0%)	41 (7.1%)	22 (3.8%)	0 (0.0%)	77 (13.4%)	426 (74.2%)	
Clinical BMI_Ht_Missing (183 days)	0 (0.0%)	0 (0.0%)	2 (0.5%)	21 (5.0%)	20 (4.7%)	0 (0.0%)	87 (20.6%)	293 (69.3%)	
Clinical BMI_Wt_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (75.0%)	1 (25.0%)	
Incident Ertugliflozin									
Clinical BMI_15≤BMI<18.5 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0
Clinical BMI_18.5≤BMI<25 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_25≤BMI<30 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_30≤BMI<40 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_40≤BMI<70 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_70≤BMI≤90 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Ht AND Wt Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	

Table 10b. Concurrence Matrix Comparing Clinical and Claims Evidence of BMI in the 183 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Claims BMI BMI<19 (183 days)	Claims BMI 19≤BMI≤24.9 (183 days)	Claims BMI 25≤BMI≤29.9 (183 days)	Claims BMI 30≤BMI≤39.9 (183 days)	Claims BMI 40≤BMI≤69.9 (183 days)	Claims BMI BMI≥70 (183 days)	Claims BMI Other obesity (183 days)	Claims BMI None (183 days)	Cohort Denominator
Clinical BMI_Ht_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Wt_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Incident Sitagliptin									
Clinical BMI_15≤BMI<18.5 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (100.0%)	2,169
Clinical BMI_18.5≤BMI<25 (183 days)	0 (0.0%)	3 (2.0%)	0 (0.0%)	1 (0.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	149 (97.4%)	
Clinical BMI_25≤BMI<30 (183 days)	0 (0.0%)	0 (0.0%)	5 (1.4%)	4 (1.1%)	0 (0.0%)	0 (0.0%)	28 (7.7%)	327 (89.8%)	
Clinical BMI_30≤BMI<40 (183 days)	0 (0.0%)	0 (0.0%)	1 (0.2%)	52 (9.5%)	6 (1.1%)	0 (0.0%)	163 (29.9%)	324 (59.3%)	
Clinical BMI_40≤BMI<70 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (1.0%)	46 (24.1%)	0 (0.0%)	90 (47.1%)	53 (27.7%)	
Clinical BMI_70≤BMI≤90 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (183 days)	0 (0.0%)	3 (0.3%)	7 (0.8%)	43 (4.7%)	22 (2.4%)	1 (0.1%)	127 (14.0%)	706 (77.7%)	
Clinical BMI_Ht AND Wt Missing (183 days)	0 (0.0%)	3 (0.4%)	7 (0.9%)	38 (5.1%)	18 (2.4%)	1 (0.1%)	101 (13.5%)	578 (77.5%)	
Clinical BMI_Ht_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (2.5%)	4 (2.5%)	0 (0.0%)	26 (16.3%)	126 (78.8%)	
Clinical BMI_Wt_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (33.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (66.7%)	
Prevalent SGLT-2 Inhibitors									
Clinical BMI_15≤BMI<18.5 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)	3,694
Clinical BMI_18.5≤BMI<25 (183 days)	0 (0.0%)	1 (0.8%)	0 (0.0%)	1 (0.8%)	0 (0.0%)	0 (0.0%)	3 (2.5%)	114 (95.8%)	
Clinical BMI_25≤BMI<30 (183 days)	0 (0.0%)	0 (0.0%)	11 (2.5%)	1 (0.2%)	1 (0.2%)	0 (0.0%)	34 (7.7%)	392 (89.3%)	
Clinical BMI_30≤BMI<40 (183 days)	0 (0.0%)	0 (0.0%)	1 (0.1%)	106 (11.3%)	10 (1.1%)	0 (0.0%)	308 (32.8%)	515 (54.8%)	
Clinical BMI_40≤BMI<70 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (0.8%)	111 (30.7%)	0 (0.0%)	180 (49.9%)	67 (18.6%)	
Clinical BMI_70≤BMI≤90 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (183 days)	1 (0.1%)	3 (0.2%)	15 (0.8%)	92 (5.0%)	65 (3.5%)	0 (0.0%)	315 (17.2%)	1,340 (73.2%)	
Clinical BMI_Ht AND Wt Missing (183 days)	1 (0.1%)	3 (0.2%)	13 (1.0%)	70 (5.3%)	41 (3.1%)	0 (0.0%)	206 (15.6%)	988 (74.7%)	
Clinical BMI_Ht_Missing (183 days)	0 (0.0%)	0 (0.0%)	2 (0.4%)	22 (4.4%)	24 (4.8%)	0 (0.0%)	106 (21.1%)	349 (69.4%)	
Clinical BMI_Wt_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (50.0%)	3 (50.0%)	
Prevalent Canagliflozin									
Clinical BMI_15≤BMI<18.5 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	957
Clinical BMI_18.5≤BMI<25 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (5.0%)	19 (95.0%)	

Table 10b. Concurrence Matrix Comparing Clinical and Claims Evidence of BMI in the 183 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Claims BMI BMI<19 (183 days)	Claims BMI 19≤BMI≤24.9 (183 days)	Claims BMI 25≤BMI≤29.9 (183 days)	Claims BMI 30≤BMI≤39.9 (183 days)	Claims BMI 40≤BMI≤69.9 (183 days)	Claims BMI BMI≥70 (183 days)	Claims BMI Other obesity (183 days)	Claims BMI None (183 days)	Cohort Denominator
Clinical BMI_25≤BMI<30 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (1.2%)	0 (0.0%)	0 (0.0%)	11 (13.3%)	71 (85.5%)	
Clinical BMI_30≤BMI<40 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	17 (9.1%)	2 (1.1%)	0 (0.0%)	71 (38.0%)	97 (51.9%)	
Clinical BMI_40≤BMI<70 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	29 (31.9%)	0 (0.0%)	48 (52.7%)	14 (15.4%)	
Clinical BMI_70≤BMI≤90 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (183 days)	1 (0.2%)	2 (0.3%)	3 (0.5%)	27 (4.7%)	20 (3.5%)	0 (0.0%)	118 (20.5%)	405 (70.3%)	
Clinical BMI_Ht AND Wt Missing (183 days)	1 (0.2%)	2 (0.4%)	3 (0.6%)	24 (4.6%)	15 (2.9%)	0 (0.0%)	104 (20.1%)	369 (71.2%)	
Clinical BMI_Ht_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (5.3%)	5 (8.8%)	0 (0.0%)	14 (24.6%)	35 (61.4%)	
Clinical BMI_Wt_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	
Prevalent Dapagliflozin									
Clinical BMI_15≤BMI<18.5 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	391
Clinical BMI_18.5≤BMI<25 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (100.0%)	
Clinical BMI_25≤BMI<30 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (4.5%)	21 (95.5%)	
Clinical BMI_30≤BMI<40 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (5.0%)	4 (6.7%)	0 (0.0%)	27 (45.0%)	26 (43.3%)	
Clinical BMI_40≤BMI<70 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (2.8%)	10 (27.8%)	0 (0.0%)	23 (63.9%)	2 (5.6%)	
Clinical BMI_70≤BMI≤90 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (183 days)	0 (0.0%)	0 (0.0%)	4 (1.5%)	12 (4.5%)	6 (2.2%)	0 (0.0%)	42 (15.7%)	204 (76.1%)	
Clinical BMI_Ht AND Wt Missing (183 days)	0 (0.0%)	0 (0.0%)	4 (1.6%)	11 (4.5%)	6 (2.4%)	0 (0.0%)	35 (14.3%)	189 (77.1%)	
Clinical BMI_Ht_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (4.3%)	0 (0.0%)	0 (0.0%)	7 (30.4%)	15 (65.2%)	
Clinical BMI_Wt_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Prevalent Empagliflozin									
Clinical BMI_15≤BMI<18.5 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (100.0%)	2,636
Clinical BMI_18.5≤BMI<25 (183 days)	0 (0.0%)	1 (1.0%)	0 (0.0%)	1 (1.0%)	0 (0.0%)	0 (0.0%)	2 (1.9%)	101 (96.2%)	
Clinical BMI_25≤BMI<30 (183 days)	0 (0.0%)	0 (0.0%)	11 (3.1%)	0 (0.0%)	1 (0.3%)	0 (0.0%)	27 (7.5%)	319 (89.1%)	
Clinical BMI_30≤BMI<40 (183 days)	0 (0.0%)	0 (0.0%)	1 (0.1%)	89 (12.0%)	9 (1.2%)	0 (0.0%)	227 (30.7%)	414 (55.9%)	
Clinical BMI_40≤BMI<70 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (1.1%)	79 (29.7%)	0 (0.0%)	126 (47.4%)	58 (21.8%)	
Clinical BMI_70≤BMI≤90 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (183 days)	0 (0.0%)	2 (0.2%)	9 (0.8%)	68 (5.8%)	48 (4.1%)	0 (0.0%)	183 (15.7%)	853 (73.3%)	

Table 10b. Concurrence Matrix Comparing Clinical and Claims Evidence of BMI in the 183 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Claims BMI BMI<19 (183 days)	Claims BMI 19≤BMI≤24.9 (183 days)	Claims BMI 25≤BMI≤29.9 (183 days)	Claims BMI 30≤BMI≤39.9 (183 days)	Claims BMI 40≤BMI≤69.9 (183 days)	Claims BMI BMI≥70 (183 days)	Claims BMI Other obesity (183 days)	Claims BMI None (183 days)	Cohort Denominator
Clinical BMI_Ht AND Wt Missing (183 days)	0 (0.0%)	2 (0.3%)	7 (1.0%)	47 (6.6%)	28 (4.0%)	0 (0.0%)	90 (12.7%)	533 (75.4%)	
Clinical BMI_Ht_Missing (183 days)	0 (0.0%)	0 (0.0%)	2 (0.4%)	21 (4.7%)	20 (4.4%)	0 (0.0%)	90 (20.0%)	318 (70.5%)	
Clinical BMI_Wt_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (60.0%)	2 (40.0%)	
Prevalent Ertugliflozin									
Clinical BMI_15≤BMI<18.5 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0
Clinical BMI_18.5≤BMI<25 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_25≤BMI<30 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_30≤BMI<40 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_40≤BMI<70 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_70≤BMI≤90 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Ht AND Wt Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Ht_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Wt_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Prevalent Sitagliptin									
Clinical BMI_15≤BMI<18.5 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	7 (100.0%)	5,162
Clinical BMI_18.5≤BMI<25 (183 days)	0 (0.0%)	3 (0.9%)	0 (0.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	3 (0.9%)	335 (98.0%)	
Clinical BMI_25≤BMI<30 (183 days)	0 (0.0%)	0 (0.0%)	6 (0.7%)	8 (0.9%)	0 (0.0%)	0 (0.0%)	56 (6.5%)	790 (91.9%)	
Clinical BMI_30≤BMI<40 (183 days)	0 (0.0%)	0 (0.0%)	1 (0.1%)	82 (6.6%)	14 (1.1%)	0 (0.0%)	326 (26.3%)	817 (65.9%)	
Clinical BMI_40≤BMI<70 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (1.4%)	81 (19.3%)	0 (0.0%)	191 (45.6%)	141 (33.7%)	
Clinical BMI_70≤BMI≤90 (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Clinical BMI_Any_Missing (183 days)	1 (0.0%)	5 (0.2%)	10 (0.4%)	50 (2.2%)	32 (1.4%)	1 (0.0%)	237 (10.3%)	1,956 (85.3%)	
Clinical BMI_Ht AND Wt Missing (183 days)	1 (0.1%)	5 (0.3%)	9 (0.5%)	44 (2.4%)	27 (1.5%)	1 (0.1%)	179 (9.9%)	1,542 (85.3%)	
Clinical BMI_Ht_Missing (183 days)	0 (0.0%)	0 (0.0%)	1 (0.2%)	5 (1.1%)	5 (1.1%)	0 (0.0%)	58 (12.3%)	404 (85.4%)	
Clinical BMI_Wt_Missing (183 days)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (9.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	10 (90.9%)	

¹“Claims” indicate whether a diagnosis or procedure code was identified; “clinical” data are from the Vital Signs and Laboratory Results tables of the Sentinel Distributed Database.

Table 10c. Concurrence Matrix Comparing Clinical and Claims Evidence of Creatinine Laboratory Records in the 365 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of Creatinine Lab in Claims (365 days)	No Evidence of Creatinine Lab in Claims (365 days)	Cohort Denominator
Incident SGLT-2 Inhibitors			
Clinical Creatinine_0.3≤Creatinine≤0.8 (365 days)	851 (97.0%)	26 (3.0%)	3,155
Clinical Creatinine_0.8<Creatinine≤0.9 (365 days)	364 (97.6%)	9 (2.4%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (365 days)	341 (97.2%)	10 (2.8%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (365 days)	395 (97.8%)	9 (2.2%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (365 days)	161 (95.8%)	7 (4.2%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (365 days)	38 (97.4%)	1 (2.6%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (365 days)	4 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (365 days)	0 (0.0%)	1 (100.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (365 days)	773 (82.4%)	165 (17.6%)	
Incident Canagliflozin			
Clinical Creatinine_0.3≤Creatinine≤0.8 (365 days)	173 (100.0%)	0 (0.0%)	756
Clinical Creatinine_0.8<Creatinine≤0.9 (365 days)	59 (98.3%)	1 (1.7%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (365 days)	62 (98.4%)	1 (1.6%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (365 days)	68 (98.6%)	1 (1.4%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (365 days)	28 (96.6%)	1 (3.4%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (365 days)	8 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (365 days)	279 (78.8%)	75 (21.2%)	
Incident Dapagliflozin			
Clinical Creatinine_0.3≤Creatinine≤0.8 (365 days)	64 (98.5%)	1 (1.5%)	322
Clinical Creatinine_0.8<Creatinine≤0.9 (365 days)	37 (100.0%)	0 (0.0%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (365 days)	20 (100.0%)	0 (0.0%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (365 days)	24 (100.0%)	0 (0.0%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (365 days)	9 (100.0%)	0 (0.0%)	

Table 10c. Concurrence Matrix Comparing Clinical and Claims Evidence of Creatinine Laboratory Records in the 365 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of Creatinine Lab in	No Evidence of Creatinine Lab in	Cohort Denominator
	Claims (365 days)	Claims (365 days)	
Clinical Creatinine_1.5<Creatinine≤2.0 (365 days)	2 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (365 days)	122 (73.9%)	43 (26.1%)	
Incident Empagliflozin			
Clinical Creatinine_0.3≤Creatinine≤0.8 (365 days)	686 (96.5%)	25 (3.5%)	2,375
Clinical Creatinine_0.8<Creatinine≤0.9 (365 days)	294 (97.4%)	8 (2.6%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (365 days)	280 (96.9%)	9 (3.1%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (365 days)	326 (97.6%)	8 (2.4%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (365 days)	145 (96.0%)	6 (4.0%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (365 days)	30 (96.8%)	1 (3.2%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (365 days)	4 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (365 days)	0 (0.0%)	1 (100.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (365 days)	472 (85.5%)	80 (14.5%)	
Incident Ertugliflozin			
Clinical Creatinine_0.8<Creatinine≤0.9 (365 days)	0 (0.0%)	0 (0.0%)	0
Clinical Creatinine_0.9<Creatinine≤1.0 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (365 days)	0 (0.0%)	0 (0.0%)	
Incident Sitagliptin			

Table 10c. Concurrence Matrix Comparing Clinical and Claims Evidence of Creatinine Laboratory Records in the 365 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of Creatinine Lab in		Cohort Denominator
	Claims (365 days)	No Evidence of Creatinine Lab in Claims (365 days)	
Clinical Creatinine_0.3≤Creatinine≤0.8 (365 days)	505 (97.9%)	11 (2.1%)	2,169
Clinical Creatinine_0.8<Creatinine≤0.9 (365 days)	237 (98.8%)	3 (1.3%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (365 days)	205 (99.5%)	1 (0.5%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (365 days)	251 (98.0%)	5 (2.0%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (365 days)	193 (100.0%)	0 (0.0%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (365 days)	93 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (365 days)	23 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (365 days)	8 (100.0%)	0 (0.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (365 days)	2 (100.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (365 days)	17 (94.4%)	1 (5.6%)	
Clinical Creatinine_Missing (365 days)	462 (75.2%)	152 (24.8%)	
Prevalent SGLT-2 Inhibitors			
Clinical Creatinine_0.3≤Creatinine≤0.8 (365 days)	977 (97.4%)	26 (2.6%)	3,694
Clinical Creatinine_0.8<Creatinine≤0.9 (365 days)	424 (97.2%)	12 (2.8%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (365 days)	395 (97.5%)	10 (2.5%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (365 days)	445 (97.6%)	11 (2.4%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (365 days)	188 (96.4%)	7 (3.6%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (365 days)	48 (98.0%)	1 (2.0%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (365 days)	4 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (365 days)	0 (0.0%)	1 (100.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (365 days)	925 (80.8%)	220 (19.2%)	
Prevalent Canagliflozin			
Clinical Creatinine_0.3≤Creatinine≤0.8 (365 days)	222 (100.0%)	0 (0.0%)	957
Clinical Creatinine_0.8<Creatinine≤0.9 (365 days)	88 (98.9%)	1 (1.1%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (365 days)	83 (98.8%)	1 (1.2%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (365 days)	82 (98.8%)	1 (1.2%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (365 days)	38 (97.4%)	1 (2.6%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (365 days)	12 (100.0%)	0 (0.0%)	

Table 10c. Concurrence Matrix Comparing Clinical and Claims Evidence of Creatinine Laboratory Records in the 365 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of Creatinine Lab in		Cohort Denominator
	Claims (365 days)	No Evidence of Creatinine Lab in Claims (365 days)	
Clinical Creatinine_2.0<Creatinine≤2.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (365 days)	332 (77.6%)	96 (22.4%)	
Prevalent Dapagliflozin			
Clinical Creatinine_0.3≤Creatinine≤0.8 (365 days)	77 (98.7%)	1 (1.3%)	391
Clinical Creatinine_0.8<Creatinine≤0.9 (365 days)	45 (97.8%)	1 (2.2%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (365 days)	25 (100.0%)	0 (0.0%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (365 days)	32 (100.0%)	0 (0.0%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (365 days)	14 (100.0%)	0 (0.0%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (365 days)	5 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (365 days)	142 (74.3%)	49 (25.7%)	
Prevalent Empagliflozin			
Clinical Creatinine_0.3≤Creatinine≤0.8 (365 days)	746 (96.8%)	25 (3.2%)	2,636
Clinical Creatinine_0.8<Creatinine≤0.9 (365 days)	318 (97.0%)	10 (3.0%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (365 days)	307 (97.2%)	9 (2.8%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (365 days)	352 (97.2%)	10 (2.8%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (365 days)	158 (96.3%)	6 (3.7%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (365 days)	32 (97.0%)	1 (3.0%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (365 days)	4 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (365 days)	0 (0.0%)	1 (100.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (365 days)	552 (84.0%)	105 (16.0%)	
Prevalent Ertugliflozin			

Table 10c. Concurrence Matrix Comparing Clinical and Claims Evidence of Creatinine Laboratory Records in the 365 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of Creatinine Lab in		Cohort Denominator
	Claims (365 days)	No Evidence of Creatinine Lab in Claims (365 days)	
Clinical Creatinine_0.8<Creatinine≤0.9 (365 days)	0 (0.0%)	0 (0.0%)	0
Clinical Creatinine_0.9<Creatinine≤1.0 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (365 days)	0 (0.0%)	0 (0.0%)	
Prevalent Sitagliptin			
Clinical Creatinine_0.3≤Creatinine≤0.8 (365 days)	1,195 (97.9%)	26 (2.1%)	5,162
Clinical Creatinine_0.8<Creatinine≤0.9 (365 days)	602 (97.6%)	15 (2.4%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (365 days)	476 (97.9%)	10 (2.1%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (365 days)	620 (98.1%)	12 (1.9%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (365 days)	465 (98.9%)	5 (1.1%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (365 days)	217 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (365 days)	52 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (365 days)	16 (100.0%)	0 (0.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (365 days)	7 (100.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (365 days)	27 (93.1%)	2 (6.9%)	
Clinical Creatinine_Missing (365 days)	1,045 (73.9%)	370 (26.1%)	

¹"Claims" indicate whether a diagnosis or procedure code was identified; "clinical" data are from the Vital Signs and Laboratory Results tables of the Sentinel Distributed Database.

Table 10d. Concurrence Matrix Comparing Clinical and Claims Evidence of Creatinine Laboratory Records in the 183 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of Creatinine Lab in Claims (183 days)	No Evidence of Creatinine Lab in Claims (183 days)	Cohort Denominator
Incident SGLT-2 Inhibitors			
Clinical Creatinine_0.3≤Creatinine≤0.8 (183 days)	718 (94.5%)	42 (5.5%)	3,155
Clinical Creatinine_0.8<Creatinine≤0.9 (183 days)	308 (95.4%)	15 (4.6%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (183 days)	292 (93.9%)	19 (6.1%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (183 days)	330 (97.1%)	10 (2.9%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (183 days)	140 (95.2%)	7 (4.8%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (183 days)	36 (97.3%)	1 (2.7%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (183 days)	3 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (183 days)	0 (0.0%)	1 (100.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (183 days)	796 (64.6%)	437 (35.4%)	
Incident Canagliflozin			
Clinical Creatinine_0.3≤Creatinine≤0.8 (183 days)	147 (98.7%)	2 (1.3%)	756
Clinical Creatinine_0.8<Creatinine≤0.9 (183 days)	49 (96.1%)	2 (3.9%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (183 days)	52 (94.5%)	3 (5.5%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (183 days)	60 (100.0%)	0 (0.0%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (183 days)	26 (96.3%)	1 (3.7%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (183 days)	8 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (183 days)	257 (63.3%)	149 (36.7%)	
Incident Dapagliflozin			
Clinical Creatinine_0.3≤Creatinine≤0.8 (183 days)	52 (96.3%)	2 (3.7%)	322
Clinical Creatinine_0.8<Creatinine≤0.9 (183 days)	36 (100.0%)	0 (0.0%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (183 days)	17 (100.0%)	0 (0.0%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (183 days)	22 (100.0%)	0 (0.0%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (183 days)	6 (85.7%)	1 (14.3%)	

Table 10d. Concurrence Matrix Comparing Clinical and Claims Evidence of Creatinine Laboratory Records in the 183 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of Creatinine Lab in	No Evidence of Creatinine Lab in	Cohort Denominator
	Claims (183 days)	Claims (183 days)	
Clinical Creatinine_1.5<Creatinine≤2.0 (183 days)	1 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (183 days)	105 (56.8%)	80 (43.2%)	
Incident Empagliflozin			
Clinical Creatinine_0.3≤Creatinine≤0.8 (183 days)	574 (93.3%)	41 (6.7%)	2,375
Clinical Creatinine_0.8<Creatinine≤0.9 (183 days)	244 (94.9%)	13 (5.1%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (183 days)	240 (93.4%)	17 (6.6%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (183 days)	264 (96.4%)	10 (3.6%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (183 days)	126 (95.5%)	6 (4.5%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (183 days)	28 (96.6%)	1 (3.4%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (183 days)	3 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (183 days)	0 (0.0%)	1 (100.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (183 days)	526 (65.2%)	281 (34.8%)	
Incident Ertugliflozin			
Clinical Creatinine_0.8<Creatinine≤0.9 (183 days)	0 (0.0%)	0 (0.0%)	0
Clinical Creatinine_0.9<Creatinine≤1.0 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (183 days)	0 (0.0%)	0 (0.0%)	
Incident Sitagliptin			

Table 10d. Concurrence Matrix Comparing Clinical and Claims Evidence of Creatinine Laboratory Records in the 183 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of Creatinine Lab in		Cohort Denominator
	Claims (183 days)	No Evidence of Creatinine Lab in Claims (183 days)	
Clinical Creatinine_0.3≤Creatinine≤0.8 (183 days)	435 (97.5%)	11 (2.5%)	2,169
Clinical Creatinine_0.8<Creatinine≤0.9 (183 days)	212 (99.5%)	1 (0.5%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (183 days)	177 (98.3%)	3 (1.7%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (183 days)	217 (97.3%)	6 (2.7%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (183 days)	175 (98.9%)	2 (1.1%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (183 days)	84 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (183 days)	22 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (183 days)	8 (100.0%)	0 (0.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (183 days)	1 (100.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (183 days)	14 (87.5%)	2 (12.5%)	
Clinical Creatinine_Missing (183 days)	448 (56.1%)	351 (43.9%)	
Prevalent SGLT-2 Inhibitors			
Clinical Creatinine_0.3≤Creatinine≤0.8 (183 days)	802 (94.9%)	43 (5.1%)	3,694
Clinical Creatinine_0.8<Creatinine≤0.9 (183 days)	346 (95.1%)	18 (4.9%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (183 days)	332 (94.6%)	19 (5.4%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (183 days)	366 (96.6%)	13 (3.4%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (183 days)	163 (95.9%)	7 (4.1%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (183 days)	45 (97.8%)	1 (2.2%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (183 days)	3 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (183 days)	0 (0.0%)	1 (100.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (183 days)	929 (60.5%)	606 (39.5%)	
Prevalent Canagliflozin			
Clinical Creatinine_0.3≤Creatinine≤0.8 (183 days)	177 (98.9%)	2 (1.1%)	957
Clinical Creatinine_0.8<Creatinine≤0.9 (183 days)	69 (95.8%)	3 (4.2%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (183 days)	69 (95.8%)	3 (4.2%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (183 days)	71 (100.0%)	0 (0.0%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (183 days)	34 (97.1%)	1 (2.9%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (183 days)	12 (100.0%)	0 (0.0%)	

Table 10d. Concurrence Matrix Comparing Clinical and Claims Evidence of Creatinine Laboratory Records in the 183 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of Creatinine Lab in		Cohort Denominator
	Claims (183 days)	No Evidence of Creatinine Lab in Claims (183 days)	
Clinical Creatinine_2.0<Creatinine≤2.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (183 days)	305 (59.1%)	211 (40.9%)	
Prevalent Dapagliflozin			
Clinical Creatinine_0.3≤Creatinine≤0.8 (183 days)	64 (97.0%)	2 (3.0%)	391
Clinical Creatinine_0.8<Creatinine≤0.9 (183 days)	40 (100.0%)	0 (0.0%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (183 days)	20 (100.0%)	0 (0.0%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (183 days)	28 (100.0%)	0 (0.0%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (183 days)	11 (91.7%)	1 (8.3%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (183 days)	4 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (183 days)	120 (54.3%)	101 (45.7%)	
Prevalent Empagliflozin			
Clinical Creatinine_0.3≤Creatinine≤0.8 (183 days)	616 (93.6%)	42 (6.4%)	2,636
Clinical Creatinine_0.8<Creatinine≤0.9 (183 days)	258 (94.5%)	15 (5.5%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (183 days)	259 (93.8%)	17 (6.2%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (183 days)	282 (95.6%)	13 (4.4%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (183 days)	136 (95.8%)	6 (4.2%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (183 days)	30 (96.8%)	1 (3.2%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (183 days)	3 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (183 days)	0 (0.0%)	1 (100.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (183 days)	598 (62.5%)	359 (37.5%)	
Prevalent Ertugliflozin			

Table 10d. Concurrence Matrix Comparing Clinical and Claims Evidence of Creatinine Laboratory Records in the 183 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of Creatinine Lab in		Cohort Denominator
	Claims (183 days)	No Evidence of Creatinine Lab in Claims (183 days)	
Clinical Creatinine_0.8<Creatinine≤0.9 (183 days)	0 (0.0%)	0 (0.0%)	0
Clinical Creatinine_0.9<Creatinine≤1.0 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Creatinine_Missing (183 days)	0 (0.0%)	0 (0.0%)	
Prevalent Sitagliptin			
Clinical Creatinine_0.3≤Creatinine≤0.8 (183 days)	960 (96.4%)	36 (3.6%)	5,162
Clinical Creatinine_0.8<Creatinine≤0.9 (183 days)	487 (96.8%)	16 (3.2%)	
Clinical Creatinine_0.9<Creatinine≤1.0 (183 days)	378 (96.2%)	15 (3.8%)	
Clinical Creatinine_1.0<Creatinine≤1.2 (183 days)	502 (94.9%)	27 (5.1%)	
Clinical Creatinine_1.2<Creatinine≤1.5 (183 days)	408 (96.7%)	14 (3.3%)	
Clinical Creatinine_1.5<Creatinine≤2.0 (183 days)	193 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.0<Creatinine≤2.5 (183 days)	50 (100.0%)	0 (0.0%)	
Clinical Creatinine_2.5<Creatinine≤3.0 (183 days)	16 (100.0%)	0 (0.0%)	
Clinical Creatinine_3.0<Creatinine≤3.5 (183 days)	5 (100.0%)	0 (0.0%)	
Clinical Creatinine_3.5<Creatinine≤20 (183 days)	24 (88.9%)	3 (11.1%)	
Clinical Creatinine_Missing (183 days)	927 (45.7%)	1,101 (54.3%)	

¹"Claims" indicate whether a diagnosis or procedure code was identified; "clinical" data are from the Vital Signs and Laboratory Results tables of the Sentinel Distributed Database.

Table 10e. Concurrence Matrix Comparing Clinical and Claims Evidence of HbA1c Laboratory Records in the 365 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of HbA1c Lab in Claims (365 days)	No Evidence of HbA1c Lab in Claims (365 days)	Cohort Denominator
Incident SGLT-2 Inhibitors			
Clinical HbA1c_2.5≤HbA1c<5.7 (365 days)	8 (100.0%)	0 (0.0%)	3,155
Clinical HbA1c_5.7≤HbA1c<6.5 (365 days)	73 (98.6%)	1 (1.4%)	
Clinical HbA1c_6.5≤HbA1c<8 (365 days)	573 (99.3%)	4 (0.7%)	
Clinical HbA1c_8≤HbA1c<9 (365 days)	658 (99.1%)	6 (0.9%)	
Clinical HbA1c_9≤HbA1c<10 (365 days)	410 (97.4%)	11 (2.6%)	
Clinical HbA1c_10≤HbA1c<12.5 (365 days)	371 (97.9%)	8 (2.1%)	
Clinical HbA1c_12.5≤HbA1c<15 (365 days)	53 (100.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c≤25 (365 days)	5 (83.3%)	1 (16.7%)	
Clinical HbA1c_Missing (365 days)	878 (90.2%)	95 (9.8%)	
Incident Canagliflozin			
Clinical HbA1c_2.5≤HbA1c<5.7 (365 days)	1 (100.0%)	0 (0.0%)	756
Clinical HbA1c_5.7≤HbA1c<6.5 (365 days)	9 (90.0%)	1 (10.0%)	
Clinical HbA1c_6.5≤HbA1c<8 (365 days)	118 (100.0%)	0 (0.0%)	
Clinical HbA1c_8≤HbA1c<9 (365 days)	119 (100.0%)	0 (0.0%)	
Clinical HbA1c_9≤HbA1c<10 (365 days)	67 (98.5%)	1 (1.5%)	
Clinical HbA1c_10≤HbA1c<12.5 (365 days)	52 (100.0%)	0 (0.0%)	
Clinical HbA1c_12.5≤HbA1c<15 (365 days)	9 (100.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c≤25 (365 days)	1 (100.0%)	0 (0.0%)	
Clinical HbA1c_Missing (365 days)	333 (88.1%)	45 (11.9%)	
Incident Dapagliflozin			
Clinical HbA1c_2.5≤HbA1c<5.7 (365 days)	1 (100.0%)	0 (0.0%)	322
Clinical HbA1c_5.7≤HbA1c<6.5 (365 days)	13 (100.0%)	0 (0.0%)	
Clinical HbA1c_6.5≤HbA1c<8 (365 days)	53 (100.0%)	0 (0.0%)	
Clinical HbA1c_8≤HbA1c<9 (365 days)	36 (100.0%)	0 (0.0%)	
Clinical HbA1c_9≤HbA1c<10 (365 days)	21 (100.0%)	0 (0.0%)	
Clinical HbA1c_10≤HbA1c<12.5 (365 days)	19 (100.0%)	0 (0.0%)	
Clinical HbA1c_12.5≤HbA1c<15 (365 days)	3 (100.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c≤25 (365 days)	0 (0.0%)	0 (0.0%)	

Table 10e. Concurrence Matrix Comparing Clinical and Claims Evidence of HbA1c Laboratory Records in the 365 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of HbA1c Lab in Claims (365 days)	No Evidence of HbA1c Lab in Claims (365 days)	Cohort Denominator
Clinical HbA1c_Missing (365 days)	156 (88.6%)	20 (11.4%)	
Incident Empagliflozin			
Clinical HbA1c_2.5≤HbA1c<5.7 (365 days)	6 (100.0%)	0 (0.0%)	2,375
Clinical HbA1c_5.7≤HbA1c<6.5 (365 days)	60 (100.0%)	0 (0.0%)	
Clinical HbA1c_6.5≤HbA1c<8 (365 days)	486 (99.2%)	4 (0.8%)	
Clinical HbA1c_8≤HbA1c<9 (365 days)	534 (98.9%)	6 (1.1%)	
Clinical HbA1c_9≤HbA1c<10 (365 days)	342 (97.2%)	10 (2.8%)	
Clinical HbA1c_10≤HbA1c<12.5 (365 days)	319 (97.6%)	8 (2.4%)	
Clinical HbA1c_12.5≤HbA1c<15 (365 days)	43 (100.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c≤25 (365 days)	4 (80.0%)	1 (20.0%)	
Clinical HbA1c_Missing (365 days)	509 (92.2%)	43 (7.8%)	
Incident Ertugliflozin			
Clinical HbA1c_2.5≤HbA1c<5.7 (365 days)	0 (0.0%)	0 (0.0%)	0
Clinical HbA1c_5.7≤HbA1c<6.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_6.5≤HbA1c<8 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_8≤HbA1c<9 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_9≤HbA1c<10 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_10≤HbA1c<12.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_12.5≤HbA1c<15 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c≤25 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_Missing (365 days)	0 (0.0%)	0 (0.0%)	
Incident Sitagliptin			
Clinical HbA1c_2.5≤HbA1c<5.7 (365 days)	16 (100.0%)	0 (0.0%)	2,169
Clinical HbA1c_5.7≤HbA1c<6.5 (365 days)	92 (100.0%)	0 (0.0%)	
Clinical HbA1c_6.5≤HbA1c<8 (365 days)	496 (99.4%)	3 (0.6%)	
Clinical HbA1c_8≤HbA1c<9 (365 days)	402 (100.0%)	0 (0.0%)	
Clinical HbA1c_9≤HbA1c<10 (365 days)	257 (99.2%)	2 (0.8%)	
Clinical HbA1c_10≤HbA1c<12.5 (365 days)	192 (99.5%)	1 (0.5%)	
Clinical HbA1c_12.5≤HbA1c<15 (365 days)	44 (100.0%)	0 (0.0%)	

Table 10e. Concurrence Matrix Comparing Clinical and Claims Evidence of HbA1c Laboratory Records in the 365 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of HbA1c Lab in Claims (365 days)	No Evidence of HbA1c Lab in Claims (365 days)	Cohort Denominator
Clinical HbA1c_15≤HbA1c≤25 (365 days)	6 (100.0%)	0 (0.0%)	
Clinical HbA1c_Missing (365 days)	551 (83.7%)	107 (16.3%)	
Prevalent SGLT-2 Inhibitors			
Clinical HbA1c_2.5≤HbA1c<5.7 (365 days)	12 (100.0%)	0 (0.0%)	3,694
Clinical HbA1c_5.7≤HbA1c<6.5 (365 days)	104 (98.1%)	2 (1.9%)	
Clinical HbA1c_6.5≤HbA1c<8 (365 days)	759 (99.3%)	5 (0.7%)	
Clinical HbA1c_8≤HbA1c<9 (365 days)	720 (99.2%)	6 (0.8%)	
Clinical HbA1c_9≤HbA1c<10 (365 days)	430 (97.3%)	12 (2.7%)	
Clinical HbA1c_10≤HbA1c<12.5 (365 days)	398 (97.8%)	9 (2.2%)	
Clinical HbA1c_12.5≤HbA1c<15 (365 days)	53 (100.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c≤25 (365 days)	6 (85.7%)	1 (14.3%)	
Clinical HbA1c_Missing (365 days)	1,060 (90.1%)	117 (9.9%)	
Prevalent Canagliflozin			
Clinical HbA1c_2.5≤HbA1c<5.7 (365 days)	2 (100.0%)	0 (0.0%)	957
Clinical HbA1c_5.7≤HbA1c<6.5 (365 days)	21 (95.5%)	1 (4.5%)	
Clinical HbA1c_6.5≤HbA1c<8 (365 days)	194 (100.0%)	0 (0.0%)	
Clinical HbA1c_8≤HbA1c<9 (365 days)	142 (100.0%)	0 (0.0%)	
Clinical HbA1c_9≤HbA1c<10 (365 days)	75 (98.7%)	1 (1.3%)	
Clinical HbA1c_10≤HbA1c<12.5 (365 days)	58 (100.0%)	0 (0.0%)	
Clinical HbA1c_12.5≤HbA1c<15 (365 days)	9 (100.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c≤25 (365 days)	2 (100.0%)	0 (0.0%)	
Clinical HbA1c_Missing (365 days)	398 (88.1%)	54 (11.9%)	
Prevalent Dapagliflozin			
Clinical HbA1c_2.5≤HbA1c<5.7 (365 days)	1 (100.0%)	0 (0.0%)	391
Clinical HbA1c_5.7≤HbA1c<6.5 (365 days)	16 (100.0%)	0 (0.0%)	
Clinical HbA1c_6.5≤HbA1c<8 (365 days)	77 (100.0%)	0 (0.0%)	
Clinical HbA1c_8≤HbA1c<9 (365 days)	44 (100.0%)	0 (0.0%)	
Clinical HbA1c_9≤HbA1c<10 (365 days)	24 (100.0%)	0 (0.0%)	
Clinical HbA1c_10≤HbA1c<12.5 (365 days)	24 (100.0%)	0 (0.0%)	

Table 10e. Concurrence Matrix Comparing Clinical and Claims Evidence of HbA1c Laboratory Records in the 365 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of HbA1c Lab in Claims (365 days)	No Evidence of HbA1c Lab in Claims (365 days)	Cohort Denominator
Clinical HbA1c_12.5≤HbA1c<15 (365 days)	3 (100.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c≤25 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_Missing (365 days)	179 (88.6%)	23 (11.4%)	
Prevalent Empagliflozin			
Clinical HbA1c_2.5≤HbA1c<5.7 (365 days)	9 (100.0%)	0 (0.0%)	2,636
Clinical HbA1c_5.7≤HbA1c<6.5 (365 days)	76 (98.7%)	1 (1.3%)	
Clinical HbA1c_6.5≤HbA1c<8 (365 days)	567 (99.1%)	5 (0.9%)	
Clinical HbA1c_8≤HbA1c<9 (365 days)	566 (99.0%)	6 (1.0%)	
Clinical HbA1c_9≤HbA1c<10 (365 days)	351 (97.0%)	11 (3.0%)	
Clinical HbA1c_10≤HbA1c<12.5 (365 days)	332 (97.4%)	9 (2.6%)	
Clinical HbA1c_12.5≤HbA1c<15 (365 days)	43 (100.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c≤25 (365 days)	4 (80.0%)	1 (20.0%)	
Clinical HbA1c_Missing (365 days)	603 (92.1%)	52 (7.9%)	
Prevalent Ertugliflozin			
Clinical HbA1c_2.5≤HbA1c<5.7 (365 days)	0 (0.0%)	0 (0.0%)	0
Clinical HbA1c_5.7≤HbA1c<6.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_6.5≤HbA1c<8 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_8≤HbA1c<9 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_9≤HbA1c<10 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_10≤HbA1c<12.5 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_12.5≤HbA1c<15 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c≤25 (365 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_Missing (365 days)	0 (0.0%)	0 (0.0%)	
Prevalent Sitagliptin			
Clinical HbA1c_2.5≤HbA1c<5.7 (365 days)	36 (100.0%)	0 (0.0%)	5,162
Clinical HbA1c_5.7≤HbA1c<6.5 (365 days)	328 (99.1%)	3 (0.9%)	
Clinical HbA1c_6.5≤HbA1c<8 (365 days)	1,625 (99.2%)	13 (0.8%)	
Clinical HbA1c_8≤HbA1c<9 (365 days)	808 (99.9%)	1 (0.1%)	
Clinical HbA1c_9≤HbA1c<10 (365 days)	448 (98.7%)	6 (1.3%)	
Clinical HbA1c_10≤HbA1c<12.5 (365 days)	371 (99.5%)	2 (0.5%)	
Clinical HbA1c_12.5≤HbA1c<15 (365 days)	73 (98.6%)	1 (1.4%)	
Clinical HbA1c_15≤HbA1c≤25 (365 days)	8 (100.0%)	0 (0.0%)	

Table 10e. Concurrence Matrix Comparing Clinical and Claims Evidence of HbA1c Laboratory Records in the 365 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of HbA1c Lab in Claims (365 days)	No Evidence of HbA1c Lab in Claims (365 days)	Cohort Denominator
Clinical HbA1c_Missing (365 days)	1,206 (83.8%)	233 (16.2%)	

¹"Claims" indicate whether a diagnosis or procedure code was identified; "clinical" data are from the Vital Signs and Laboratory Results tables of the Sentinel Distributed Database.

Table 10f. Concurrence Matrix Comparing Clinical and Claims Evidence of HbA1c Laboratory Records in the 183 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of HbA1c Lab in Claims (183 days)	No Evidence of HbA1c Lab in Claims (183 days)	Cohort Denominator
Incident SGLT-2 Inhibitors			
Clinical HbA1c_2.5≤HbA1c<5.7 (183 days)	6 (100.0%)	0 (0.0%)	3,155
Clinical HbA1c_5.7≤HbA1c<6.5 (183 days)	63 (95.5%)	3 (4.5%)	
Clinical HbA1c_6.5≤HbA1c<8 (183 days)	517 (97.4%)	14 (2.6%)	
Clinical HbA1c_8≤HbA1c<9 (183 days)	617 (96.9%)	20 (3.1%)	
Clinical HbA1c_9≤HbA1c<10 (183 days)	398 (96.1%)	16 (3.9%)	
Clinical HbA1c_10≤HbA1c<12 (183 days)	351 (96.2%)	14 (3.8%)	
Clinical HbA1c_12.5≤HbA1c<15 (183 days)	50 (100.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c≤25 (183 days)	5 (83.3%)	1 (16.7%)	
Clinical HbA1c_Missing (183 days)	905 (83.8%)	175 (16.2%)	
Incident Canagliflozin			
Clinical HbA1c_2.5≤HbA1c<5.7 (183 days)	1 (100.0%)	0 (0.0%)	756
Clinical HbA1c_5.7≤HbA1c<6.5 (183 days)	9 (90.0%)	1 (10.0%)	
Clinical HbA1c_6.5≤HbA1c<8 (183 days)	108 (99.1%)	1 (0.9%)	
Clinical HbA1c_8≤HbA1c<9 (183 days)	113 (99.1%)	1 (0.9%)	
Clinical HbA1c_9≤HbA1c<10 (183 days)	65 (95.6%)	3 (4.4%)	
Clinical HbA1c_10≤HbA1c<12 (183 days)	47 (97.9%)	1 (2.1%)	
Clinical HbA1c_12.5≤HbA1c<15 (183 days)	9 (100.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c≤25 (183 days)	1 (100.0%)	0 (0.0%)	
Clinical HbA1c_Missing (183 days)	333 (84.1%)	63 (15.9%)	
Incident Dapagliflozin			
Clinical HbA1c_2.5≤HbA1c<5.7 (183 days)	1 (100.0%)	0 (0.0%)	322
Clinical HbA1c_5.7≤HbA1c<6.5 (183 days)	13 (100.0%)	0 (0.0%)	
Clinical HbA1c_6.5≤HbA1c<8 (183 days)	47 (100.0%)	0 (0.0%)	
Clinical HbA1c_8≤HbA1c<9 (183 days)	31 (100.0%)	0 (0.0%)	
Clinical HbA1c_9≤HbA1c<10 (183 days)	21 (100.0%)	0 (0.0%)	
Clinical HbA1c_10≤HbA1c<12 (183 days)	17 (100.0%)	0 (0.0%)	
Clinical HbA1c_12.5≤HbA1c<15 (183 days)	3 (100.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c≤25 (183 days)	0 (0.0%)	0 (0.0%)	

Table 10f. Concurrence Matrix Comparing Clinical and Claims Evidence of HbA1c Laboratory Records in the 183 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of HbA1c Lab in Claims (183 days)	No Evidence of HbA1c Lab in Claims (183 days)	Cohort Denominator
Clinical HbA1c_Missing (183 days)	157 (83.1%)	32 (16.9%)	
Incident Empagliflozin			
Clinical HbA1c_2.5≤HbA1c<5.7 (183 days)	4 (100.0%)	0 (0.0%)	2,375
Clinical HbA1c_5.7≤HbA1c<6.5 (183 days)	50 (96.2%)	2 (3.8%)	
Clinical HbA1c_6.5≤HbA1c<8 (183 days)	432 (96.9%)	14 (3.1%)	
Clinical HbA1c_8≤HbA1c<9 (183 days)	500 (96.3%)	19 (3.7%)	
Clinical HbA1c_9≤HbA1c<10 (183 days)	331 (95.9%)	14 (4.1%)	
Clinical HbA1c_10≤HbA1c<12 (183 days)	301 (95.9%)	13 (4.1%)	
Clinical HbA1c_12.5≤HbA1c<15 (183 days)	40 (100.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c≤25 (183 days)	4 (80.0%)	1 (20.0%)	
Clinical HbA1c_Missing (183 days)	532 (81.8%)	118 (18.2%)	
Incident Ertugliflozin			
Clinical HbA1c_2.5≤HbA1c<5.7 (183 days)	0 (0.0%)	0 (0.0%)	0
Clinical HbA1c_5.7≤HbA1c<6.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_6.5≤HbA1c<8 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_8≤HbA1c<9 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_9≤HbA1c<10 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_10≤HbA1c<12 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_12.5≤HbA1c<15 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c≤25 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_Missing (183 days)	0 (0.0%)	0 (0.0%)	
Incident Sitagliptin			
Clinical HbA1c_2.5≤HbA1c<5.7 (183 days)	13 (100.0%)	0 (0.0%)	2,169
Clinical HbA1c_5.7≤HbA1c<6.5 (183 days)	75 (97.4%)	2 (2.6%)	
Clinical HbA1c_6.5≤HbA1c<8 (183 days)	442 (98.9%)	5 (1.1%)	
Clinical HbA1c_8≤HbA1c<9 (183 days)	390 (99.2%)	3 (0.8%)	
Clinical HbA1c_9≤HbA1c<10 (183 days)	245 (99.2%)	2 (0.8%)	
Clinical HbA1c_10≤HbA1c<12 (183 days)	184 (98.9%)	2 (1.1%)	
Clinical HbA1c_12.5≤HbA1c<15 (183 days)	41 (100.0%)	0 (0.0%)	

Table 10f. Concurrence Matrix Comparing Clinical and Claims Evidence of HbA1c Laboratory Records in the 183 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of HbA1c Lab in Claims (183 days)	No Evidence of HbA1c Lab in Claims (183 days)	Cohort Denominator
Clinical HbA1c_15≤HbA1c<25 (183 days)	5 (100.0%)	0 (0.0%)	
Clinical HbA1c_Missing (183 days)	569 (74.9%)	191 (25.1%)	
Prevalent SGLT-2 Inhibitors			
Clinical HbA1c_2.5≤HbA1c<5.7 (183 days)	9 (90.0%)	1 (10.0%)	3,694
Clinical HbA1c_5.7≤HbA1c<6.5 (183 days)	92 (95.8%)	4 (4.2%)	
Clinical HbA1c_6.5≤HbA1c<8 (183 days)	661 (97.5%)	17 (2.5%)	
Clinical HbA1c_8≤HbA1c<9 (183 days)	671 (97.1%)	20 (2.9%)	
Clinical HbA1c_9≤HbA1c<10 (183 days)	417 (96.1%)	17 (3.9%)	
Clinical HbA1c_10≤HbA1c<12 (183 days)	375 (96.2%)	15 (3.8%)	
Clinical HbA1c_12.5≤HbA1c<15 (183 days)	50 (100.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c<25 (183 days)	5 (83.3%)	1 (16.7%)	
Clinical HbA1c_Missing (183 days)	1,080 (80.7%)	259 (19.3%)	
Prevalent Canagliflozin			
Clinical HbA1c_2.5≤HbA1c<5.7 (183 days)	2 (100.0%)	0 (0.0%)	957
Clinical HbA1c_5.7≤HbA1c<6.5 (183 days)	21 (95.5%)	1 (4.5%)	
Clinical HbA1c_6.5≤HbA1c<8 (183 days)	167 (98.8%)	2 (1.2%)	
Clinical HbA1c_8≤HbA1c<9 (183 days)	136 (99.3%)	1 (0.7%)	
Clinical HbA1c_9≤HbA1c<10 (183 days)	72 (96.0%)	3 (4.0%)	
Clinical HbA1c_10≤HbA1c<12 (183 days)	53 (98.1%)	1 (1.9%)	
Clinical HbA1c_12.5≤HbA1c<15 (183 days)	9 (100.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c<25 (183 days)	1 (100.0%)	0 (0.0%)	
Clinical HbA1c_Missing (183 days)	395 (80.9%)	93 (19.1%)	
Prevalent Dapagliflozin			
Clinical HbA1c_2.5≤HbA1c<5.7 (183 days)	1 (100.0%)	0 (0.0%)	391
Clinical HbA1c_5.7≤HbA1c<6.5 (183 days)	16 (100.0%)	0 (0.0%)	
Clinical HbA1c_6.5≤HbA1c<8 (183 days)	65 (100.0%)	0 (0.0%)	
Clinical HbA1c_8≤HbA1c<9 (183 days)	37 (100.0%)	0 (0.0%)	
Clinical HbA1c_9≤HbA1c<10 (183 days)	24 (100.0%)	0 (0.0%)	
Clinical HbA1c_10≤HbA1c<12 (183 days)	22 (100.0%)	0 (0.0%)	

Table 10f. Concurrence Matrix Comparing Clinical and Claims Evidence of HbA1c Laboratory Records in the 183 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of HbA1c Lab in Claims (183 days)	No Evidence of HbA1c Lab in Claims (183 days)	Cohort Denominator
Clinical HbA1c_12.5≤HbA1c<15 (183 days)	3 (100.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c≤25 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_Missing (183 days)	179 (80.3%)	44 (19.7%)	
Prevalent Empagliflozin			
Clinical HbA1c_2.5≤HbA1c<5.7 (183 days)	6 (85.7%)	1 (14.3%)	2,636
Clinical HbA1c_5.7≤HbA1c<6.5 (183 days)	64 (95.5%)	3 (4.5%)	
Clinical HbA1c_6.5≤HbA1c<8 (183 days)	495 (96.9%)	16 (3.1%)	
Clinical HbA1c_8≤HbA1c<9 (183 days)	525 (96.5%)	19 (3.5%)	
Clinical HbA1c_9≤HbA1c<10 (183 days)	340 (95.8%)	15 (4.2%)	
Clinical HbA1c_10≤HbA1c<12 (183 days)	314 (95.7%)	14 (4.3%)	
Clinical HbA1c_12.5≤HbA1c<15 (183 days)	40 (100.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c≤25 (183 days)	4 (80.0%)	1 (20.0%)	
Clinical HbA1c_Missing (183 days)	624 (80.1%)	155 (19.9%)	
Prevalent Ertugliflozin			
Clinical HbA1c_2.5≤HbA1c<5.7 (183 days)	0 (0.0%)	0 (0.0%)	0
Clinical HbA1c_5.7≤HbA1c<6.5 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_6.5≤HbA1c<8 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_8≤HbA1c<9 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_9≤HbA1c<10 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_10≤HbA1c<12 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_12.5≤HbA1c<15 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_15≤HbA1c≤25 (183 days)	0 (0.0%)	0 (0.0%)	
Clinical HbA1c_Missing (183 days)	0 (0.0%)	0 (0.0%)	
Prevalent Sitagliptin			
Clinical HbA1c_2.5≤HbA1c<5.7 (183 days)	29 (100.0%)	0 (0.0%)	5,162
Clinical HbA1c_5.7≤HbA1c<6.5 (183 days)	274 (96.8%)	9 (3.2%)	
Clinical HbA1c_6.5≤HbA1c<8 (183 days)	1,373 (97.4%)	37 (2.6%)	
Clinical HbA1c_8≤HbA1c<9 (183 days)	751 (98.7%)	10 (1.3%)	
Clinical HbA1c_9≤HbA1c<10 (183 days)	403 (97.1%)	12 (2.9%)	
Clinical HbA1c_10≤HbA1c<12 (183 days)	336 (97.4%)	9 (2.6%)	
Clinical HbA1c_12.5≤HbA1c<15 (183 days)	65 (97.0%)	2 (3.0%)	
Clinical HbA1c_15≤HbA1c≤25 (183 days)	6 (100.0%)	0 (0.0%)	

Table 10f. Concurrence Matrix Comparing Clinical and Claims Evidence of HbA1c Laboratory Records in the 183 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of HbA1c Lab in Claims (183 days)	No Evidence of HbA1c Lab in Claims (183 days)	Cohort Denominator
Clinical HbA1c_Missing (183 days)	1,168 (63.3%)	678 (36.7%)	

¹"Claims" indicate whether a diagnosis or procedure code was identified; "clinical" data are from the Vital Signs and Laboratory Results tables of the Sentinel Distributed Database.

Table 10g. Concurrence Matrix Comparing Clinical and Claims Evidence of Tobacco Use in the 365 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of Tobacco Use in Claims (365 days)	No Evidence of Tobacco Use in Claims (365 days)	Cohort Denominator
Incident SGLT-2 Inhibitors			
Clinical Tobacco_Current User (365 days)	138 (77.1%)	41 (22.9%)	3,155
Clinical Tobacco_Never (365 days)	21 (1.8%)	1,173 (98.2%)	
Clinical Tobacco_Quit/Former User (365 days)	252 (32.1%)	534 (67.9%)	
Clinical Tobacco_Passive (365 days)	1 (11.1%)	8 (88.9%)	
Clinical Tobacco_Environmental Exposure (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (365 days)	0 (0.0%)	6 (100.0%)	
Clinical Tobacco_Conflicting (365 days)	7 (22.6%)	24 (77.4%)	
Clinical Tobacco_Missing (365 days)	143 (15.1%)	807 (84.9%)	
Incident Canagliflozin			
Clinical Tobacco_Current User (365 days)	22 (68.8%)	10 (31.3%)	756
Clinical Tobacco_Never (365 days)	4 (1.8%)	213 (98.2%)	
Clinical Tobacco_Quit/Former User (365 days)	30 (29.1%)	73 (70.9%)	
Clinical Tobacco_Passive (365 days)	0 (0.0%)	4 (100.0%)	
Clinical Tobacco_Environmental Exposure (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (365 days)	0 (0.0%)	2 (100.0%)	
Clinical Tobacco_Conflicting (365 days)	1 (20.0%)	4 (80.0%)	
Clinical Tobacco_Missing (365 days)	47 (12.0%)	346 (88.0%)	
Incident Dapagliflozin			
Clinical Tobacco_Current User (365 days)	11 (78.6%)	3 (21.4%)	322
Clinical Tobacco_Never (365 days)	2 (2.2%)	87 (97.8%)	
Clinical Tobacco_Quit/Former User (365 days)	2 (8.7%)	21 (91.3%)	
Clinical Tobacco_Passive (365 days)	0 (0.0%)	1 (100.0%)	
Clinical Tobacco_Environmental Exposure (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (365 days)	0 (0.0%)	1 (100.0%)	
Clinical Tobacco_Conflicting (365 days)	1 (25.0%)	3 (75.0%)	
Clinical Tobacco_Missing (365 days)	21 (11.1%)	169 (88.9%)	
Incident Empagliflozin			
Clinical Tobacco_Current User (365 days)	111 (77.6%)	32 (22.4%)	2,375

Table 10g. Concurrence Matrix Comparing Clinical and Claims Evidence of Tobacco Use in the 365 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of Tobacco Use in Claims (365 days)	No Evidence of Tobacco Use in Claims (365 days)	Cohort Denominator
Clinical Tobacco_Never (365 days)	18 (1.8%)	965 (98.2%)	
Clinical Tobacco_Quit/Former User (365 days)	234 (32.6%)	483 (67.4%)	
Clinical Tobacco_Passive (365 days)	1 (16.7%)	5 (83.3%)	
Clinical Tobacco_Environmental Exposure (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (365 days)	0 (0.0%)	3 (100.0%)	
Clinical Tobacco_Conflicting (365 days)	6 (23.1%)	20 (76.9%)	
Clinical Tobacco_Missing (365 days)	108 (21.7%)	389 (78.3%)	
Incident Ertugliflozin			
Clinical Tobacco_Current User (365 days)	0 (0.0%)	0 (0.0%)	0
Clinical Tobacco_Never (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Quit/Former User (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Passive (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Environmental Exposure (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Conflicting (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Missing (365 days)	0 (0.0%)	0 (0.0%)	
Incident Sitagliptin			
Clinical Tobacco_Current User (365 days)	74 (65.5%)	39 (34.5%)	2,169
Clinical Tobacco_Never (365 days)	34 (3.8%)	865 (96.2%)	
Clinical Tobacco_Quit/Former User (365 days)	159 (34.8%)	298 (65.2%)	
Clinical Tobacco_Passive (365 days)	5 (31.3%)	11 (68.8%)	
Clinical Tobacco_Environmental Exposure (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (365 days)	1 (25.0%)	3 (75.0%)	
Clinical Tobacco_Conflicting (365 days)	9 (19.6%)	37 (80.4%)	
Clinical Tobacco_Missing (365 days)	95 (15.0%)	539 (85.0%)	
Prevalent SGLT-2 Inhibitors			
Clinical Tobacco_Current User (365 days)	156 (75.4%)	51 (24.6%)	3,694
Clinical Tobacco_Never (365 days)	27 (1.9%)	1,364 (98.1%)	
Clinical Tobacco_Quit/Former User (365 days)	284 (32.0%)	603 (68.0%)	

Table 10g. Concurrence Matrix Comparing Clinical and Claims Evidence of Tobacco Use in the 365 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of Tobacco Use in Claims (365 days)	No Evidence of Tobacco Use in Claims (365 days)	Cohort Denominator
Clinical Tobacco_Passive (365 days)	1 (9.1%)	10 (90.9%)	
Clinical Tobacco_Environmental Exposure (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (365 days)	0 (0.0%)	7 (100.0%)	
Clinical Tobacco_Conflicting (365 days)	10 (24.4%)	31 (75.6%)	
Clinical Tobacco_Missing (365 days)	172 (15.0%)	978 (85.0%)	
Prevalent Canagliflozin			
Clinical Tobacco_Current User (365 days)	30 (68.2%)	14 (31.8%)	957
Clinical Tobacco_Never (365 days)	8 (2.7%)	285 (97.3%)	
Clinical Tobacco_Quit/Former User (365 days)	40 (29.2%)	97 (70.8%)	
Clinical Tobacco_Passive (365 days)	0 (0.0%)	5 (100.0%)	
Clinical Tobacco_Environmental Exposure (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (365 days)	0 (0.0%)	2 (100.0%)	
Clinical Tobacco_Conflicting (365 days)	2 (22.2%)	7 (77.8%)	
Clinical Tobacco_Missing (365 days)	51 (10.9%)	416 (89.1%)	
Prevalent Dapagliflozin			
Clinical Tobacco_Current User (365 days)	14 (82.4%)	3 (17.6%)	391
Clinical Tobacco_Never (365 days)	3 (2.7%)	109 (97.3%)	
Clinical Tobacco_Quit/Former User (365 days)	5 (14.3%)	30 (85.7%)	
Clinical Tobacco_Passive (365 days)	0 (0.0%)	1 (100.0%)	
Clinical Tobacco_Environmental Exposure (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (365 days)	0 (0.0%)	1 (100.0%)	
Clinical Tobacco_Conflicting (365 days)	3 (50.0%)	3 (50.0%)	
Clinical Tobacco_Missing (365 days)	25 (11.4%)	194 (88.6%)	
Prevalent Empagliflozin			
Clinical Tobacco_Current User (365 days)	119 (75.8%)	38 (24.2%)	2,636
Clinical Tobacco_Never (365 days)	19 (1.8%)	1,058 (98.2%)	
Clinical Tobacco_Quit/Former User (365 days)	252 (32.8%)	517 (67.2%)	
Clinical Tobacco_Passive (365 days)	1 (14.3%)	6 (85.7%)	
Clinical Tobacco_Environmental Exposure (365 days)	0 (0.0%)	0 (0.0%)	

Table 10g. Concurrence Matrix Comparing Clinical and Claims Evidence of Tobacco Use in the 365 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of Tobacco Use in Claims (365 days)	No Evidence of Tobacco Use in Claims (365 days)	Cohort Denominator
Clinical Tobacco_Not Asked (365 days)	0 (0.0%)	4 (100.0%)	
Clinical Tobacco_Conflicting (365 days)	6 (20.0%)	24 (80.0%)	
Clinical Tobacco_Missing (365 days)	126 (21.3%)	466 (78.7%)	
Prevalent Ertugliflozin			
Clinical Tobacco_Current User (365 days)	0 (0.0%)	0 (0.0%)	0
Clinical Tobacco_Never (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Quit/Former User (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Passive (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Environmental Exposure (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Conflicting (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Missing (365 days)	0 (0.0%)	0 (0.0%)	
Prevalent Sitagliptin			
Clinical Tobacco_Current User (365 days)	170 (60.1%)	113 (39.9%)	5,162
Clinical Tobacco_Never (365 days)	52 (2.3%)	2,161 (97.7%)	
Clinical Tobacco_Quit/Former User (365 days)	309 (28.0%)	795 (72.0%)	
Clinical Tobacco_Passive (365 days)	10 (25.6%)	29 (74.4%)	
Clinical Tobacco_Environmental Exposure (365 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (365 days)	1 (9.1%)	10 (90.9%)	
Clinical Tobacco_Conflicting (365 days)	32 (28.8%)	79 (71.2%)	
Clinical Tobacco_Missing (365 days)	169 (12.1%)	1,232 (87.9%)	

¹“Claims” indicate whether a diagnosis or procedure code was identified; “clinical” data are from the Vital Signs and Laboratory Results tables of the Sentinel Distributed Database.

Table 10h. Concurrence Matrix Comparing Clinical and Claims Evidence of Tobacco Use in the 183 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of Tobacco Use in Claims (183 days)	No Evidence of Tobacco Use in Claims (183 days)	Cohort Denominator
Incident SGLT-2 Inhibitors			
Clinical Tobacco_Current User (183 days)	107 (66.5%)	54 (33.5%)	3,155
Clinical Tobacco_Never (183 days)	15 (1.4%)	1,072 (98.6%)	
Clinical Tobacco_Quit/Former User (183 days)	170 (23.2%)	564 (76.8%)	
Clinical Tobacco_Passive (183 days)	1 (14.3%)	6 (85.7%)	
Clinical Tobacco_Environmental Exposure (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (183 days)	0 (0.0%)	4 (100.0%)	
Clinical Tobacco_Conflicting (183 days)	5 (21.7%)	18 (78.3%)	
Clinical Tobacco_Missing (183 days)	108 (9.5%)	1,031 (90.5%)	
Incident Canagliflozin			
Clinical Tobacco_Current User (183 days)	16 (61.5%)	10 (38.5%)	756
Clinical Tobacco_Never (183 days)	3 (1.6%)	189 (98.4%)	
Clinical Tobacco_Quit/Former User (183 days)	15 (16.1%)	78 (83.9%)	
Clinical Tobacco_Passive (183 days)	0 (0.0%)	2 (100.0%)	
Clinical Tobacco_Environmental Exposure (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (183 days)	0 (0.0%)	1 (100.0%)	
Clinical Tobacco_Conflicting (183 days)	1 (25.0%)	3 (75.0%)	
Clinical Tobacco_Missing (183 days)	31 (7.1%)	407 (92.9%)	
Incident Dapagliflozin			
Clinical Tobacco_Current User (183 days)	9 (100.0%)	0 (0.0%)	322
Clinical Tobacco_Never (183 days)	2 (2.6%)	76 (97.4%)	
Clinical Tobacco_Quit/Former User (183 days)	1 (4.8%)	20 (95.2%)	
Clinical Tobacco_Passive (183 days)	0 (0.0%)	1 (100.0%)	
Clinical Tobacco_Environmental Exposure (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (183 days)	0 (0.0%)	1 (100.0%)	
Clinical Tobacco_Conflicting (183 days)	0 (0.0%)	3 (100.0%)	
Clinical Tobacco_Missing (183 days)	16 (7.7%)	193 (92.3%)	
Incident Empagliflozin			
Clinical Tobacco_Current User (183 days)	87 (64.9%)	47 (35.1%)	2,375

Table 10h. Concurrence Matrix Comparing Clinical and Claims Evidence of Tobacco Use in the 183 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of Tobacco Use in Claims (183 days)	No Evidence of Tobacco Use in Claims (183 days)	Cohort Denominator
Clinical Tobacco_Never (183 days)	12 (1.3%)	882 (98.7%)	
Clinical Tobacco_Quit/Former User (183 days)	159 (23.9%)	507 (76.1%)	
Clinical Tobacco_Passive (183 days)	1 (16.7%)	5 (83.3%)	
Clinical Tobacco_Environmental Exposure (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (183 days)	0 (0.0%)	2 (100.0%)	
Clinical Tobacco_Conflicting (183 days)	5 (25.0%)	15 (75.0%)	
Clinical Tobacco_Missing (183 days)	82 (12.6%)	571 (87.4%)	
Incident Ertugliflozin			
Clinical Tobacco_Current User (183 days)	0 (0.0%)	0 (0.0%)	0
Clinical Tobacco_Never (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Quit/Former User (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Passive (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Environmental Exposure (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Conflicting (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Missing (183 days)	0 (0.0%)	0 (0.0%)	
Incident Sitagliptin			
Clinical Tobacco_Current User (183 days)	60 (56.6%)	46 (43.4%)	2,169
Clinical Tobacco_Never (183 days)	19 (2.4%)	776 (97.6%)	
Clinical Tobacco_Quit/Former User (183 days)	88 (21.8%)	316 (78.2%)	
Clinical Tobacco_Passive (183 days)	2 (20.0%)	8 (80.0%)	
Clinical Tobacco_Environmental Exposure (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (183 days)	0 (0.0%)	1 (100.0%)	
Clinical Tobacco_Conflicting (183 days)	5 (12.8%)	34 (87.2%)	
Clinical Tobacco_Missing (183 days)	90 (11.1%)	724 (88.9%)	
Prevalent SGLT-2 Inhibitors			
Clinical Tobacco_Current User (183 days)	115 (63.2%)	67 (36.8%)	3,694
Clinical Tobacco_Never (183 days)	18 (1.4%)	1,225 (98.6%)	
Clinical Tobacco_Quit/Former User (183 days)	186 (22.9%)	628 (77.1%)	

Table 10h. Concurrence Matrix Comparing Clinical and Claims Evidence of Tobacco Use in the 183 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of Tobacco Use in Claims (183 days)	No Evidence of Tobacco Use in Claims (183 days)	Cohort Denominator
Clinical Tobacco_Passive (183 days)	1 (12.5%)	7 (87.5%)	
Clinical Tobacco_Environmental Exposure (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (183 days)	0 (0.0%)	4 (100.0%)	
Clinical Tobacco_Conflicting (183 days)	8 (25.0%)	24 (75.0%)	
Clinical Tobacco_Missing (183 days)	136 (9.6%)	1,275 (90.4%)	
Prevalent Canagliflozin			
Clinical Tobacco_Current User (183 days)	19 (52.8%)	17 (47.2%)	957
Clinical Tobacco_Never (183 days)	5 (2.0%)	250 (98.0%)	
Clinical Tobacco_Quit/Former User (183 days)	21 (17.4%)	100 (82.6%)	
Clinical Tobacco_Passive (183 days)	0 (0.0%)	2 (100.0%)	
Clinical Tobacco_Environmental Exposure (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (183 days)	0 (0.0%)	1 (100.0%)	
Clinical Tobacco_Conflicting (183 days)	2 (28.6%)	5 (71.4%)	
Clinical Tobacco_Missing (183 days)	35 (6.5%)	500 (93.5%)	
Prevalent Dapagliflozin			
Clinical Tobacco_Current User (183 days)	10 (100.0%)	0 (0.0%)	391
Clinical Tobacco_Never (183 days)	2 (2.1%)	93 (97.9%)	
Clinical Tobacco_Quit/Former User (183 days)	3 (10.3%)	26 (89.7%)	
Clinical Tobacco_Passive (183 days)	0 (0.0%)	1 (100.0%)	
Clinical Tobacco_Environmental Exposure (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (183 days)	0 (0.0%)	1 (100.0%)	
Clinical Tobacco_Conflicting (183 days)	2 (40.0%)	3 (60.0%)	
Clinical Tobacco_Missing (183 days)	20 (8.0%)	230 (92.0%)	
Prevalent Empagliflozin			
Clinical Tobacco_Current User (183 days)	92 (63.4%)	53 (36.6%)	2,636
Clinical Tobacco_Never (183 days)	13 (1.3%)	955 (98.7%)	
Clinical Tobacco_Quit/Former User (183 days)	167 (23.7%)	539 (76.3%)	
Clinical Tobacco_Passive (183 days)	1 (14.3%)	6 (85.7%)	
Clinical Tobacco_Environmental Exposure (183 days)	0 (0.0%)	0 (0.0%)	

Table 10h. Concurrence Matrix Comparing Clinical and Claims Evidence of Tobacco Use in the 183 Days Prior to Index Drug Exposure¹ in the Sentinel Distributed Database (SDD) between March 1, 2013 and June 30, 2018

	Evidence of Tobacco Use in Claims (183 days)	No Evidence of Tobacco Use in Claims (183 days)	Cohort Denominator
Clinical Tobacco_Not Asked (183 days)	0 (0.0%)	2 (100.0%)	
Clinical Tobacco_Conflicting (183 days)	5 (20.8%)	19 (79.2%)	
Clinical Tobacco_Missing (183 days)	100 (12.8%)	684 (87.2%)	
Prevalent Ertugliflozin			
Clinical Tobacco_Current User (183 days)	0 (0.0%)	0 (0.0%)	0
Clinical Tobacco_Never (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Quit/Former User (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Passive (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Environmental Exposure (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Conflicting (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Missing (183 days)	0 (0.0%)	0 (0.0%)	
Prevalent Sitagliptin			
Clinical Tobacco_Current User (183 days)	126 (49.8%)	127 (50.2%)	5,162
Clinical Tobacco_Never (183 days)	30 (1.6%)	1,813 (98.4%)	
Clinical Tobacco_Quit/Former User (183 days)	172 (18.0%)	783 (82.0%)	
Clinical Tobacco_Passive (183 days)	5 (17.2%)	24 (82.8%)	
Clinical Tobacco_Environmental Exposure (183 days)	0 (0.0%)	0 (0.0%)	
Clinical Tobacco_Not Asked (183 days)	0 (0.0%)	4 (100.0%)	
Clinical Tobacco_Conflicting (183 days)	21 (22.8%)	71 (77.2%)	
Clinical Tobacco_Missing (183 days)	138 (6.9%)	1,848 (93.1%)	

¹“Claims” indicate whether a diagnosis or procedure code was identified; “clinical” data are from the Vital Signs and Laboratory Results tables of the Sentinel Distributed Database.

Appendix A. Dates of Available Data for Each Data Partner (DP) as of Request Distribution Date (September 13, 2021)

DP ID	Start Date¹	End Date¹
DP01	1/1/2000	6/30/2020
DP02	1/1/2005	10/31/2020
DP03	1/1/2000	2/28/2021
DP04	1/1/2004	5/31/2021
DP05	1/1/2000	7/31/2019
DP06	1/1/2000	4/30/2021
DP07	1/1/2000	5/31/2021

¹The 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
SGLT-2 Inhibitors	
canagliflozin	Invokana
canagliflozin/metformin HCl	Invokamet
canagliflozin/metformin HCl	Invokamet XR
dapagliflozin propanediol	Farxiga
dapagliflozin propanediol/metformin HCl	Xigduo XR
empagliflozin	Jardiance
empagliflozin/metformin HCl	Synjardy
empagliflozin/metformin HCl	Synjardy XR
ertugliflozin pidolate	Steglatro
ertugliflozin pidolate/metformin HCl	Segluromet
Canagliflozin	
canagliflozin	Invokana
canagliflozin/metformin HCl	Invokamet
canagliflozin/metformin HCl	Invokamet XR
Dapagliflozin	
dapagliflozin propanediol	Farxiga
dapagliflozin propanediol/metformin HCl	Xigduo XR
dapagliflozin propanediol/saxagliptin HCl	Qtern
Empagliflozin	
empagliflozin	Jardiance
empagliflozin/metformin HCl	Synjardy
empagliflozin/metformin HCl	Synjardy XR
Ertugliflozin	
ertugliflozin pidolate	Steglatro
ertugliflozin pidolate/metformin HCl	Segluromet
Sitagliptin	
sitagliptin phosphate	Januvia
sitagliptin phosphate/metformin HCl	Janumet
sitagliptin phosphate/metformin HCl	Janumet XR
sitagliptin phosphate/simvastatin	Juvisync

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

Generic Name	Brand Name
SGLT-2 Inhibitors	
canagliflozin	Invokana
canagliflozin/metformin HCl	Invokamet
canagliflozin/metformin HCl	Invokamet XR
dapagliflozin propanediol	Farxiga
dapagliflozin propanediol/metformin HCl	Xigduo XR
empagliflozin	Jardiance
empagliflozin/metformin HCl	Synjardy
empagliflozin/metformin HCl	Synjardy XR
ertugliflozin pidolate	Steglatro
ertugliflozin pidolate/metformin HCl	Segluromet
Canagliflozin	
canagliflozin	Invokana
canagliflozin/metformin HCl	Invokamet
canagliflozin/metformin HCl	Invokamet XR
Dapagliflozin	
dapagliflozin propanediol	Farxiga
dapagliflozin propanediol/metformin HCl	Xigduo XR
dapagliflozin propanediol/saxagliptin HCl	Qtern
Empagliflozin	
empagliflozin	Jardiance
empagliflozin/metformin HCl	Synjardy
empagliflozin/metformin HCl	Synjardy XR
Ertugliflozin	
ertugliflozin pidolate	Steglatro
ertugliflozin pidolate/metformin HCl	Segluromet
Sitagliptin	
sitagliptin phosphate	Januvia
sitagliptin phosphate/metformin HCl	Janumet
sitagliptin phosphate/metformin HCl	Janumet XR
sitagliptin phosphate/simvastatin	Juvisync

Appendix D. Generic and Brand Names of Medical Products Used to Define Exclusion Criteria in this Request

Generic Name	Brand Name
DPP-4 Inhibitors	
alogliptin benzoate	Nesina
alogliptin benzoate	alogliptin
alogliptin benzoate/metformin HCl	Kazano
alogliptin benzoate/metformin HCl	alogliptin-metformin
alogliptin benzoate/pioglitazone HCl	Oseni
alogliptin benzoate/pioglitazone HCl	alogliptin-pioglitazone
dapagliflozin propanediol/saxagliptin HCl	Qtern
empagliflozin/linagliptin	Glyxambi
ertugliflozin pidolate/sitagliptin phosphate	Steglujan
linagliptin	Tradjenta
linagliptin/metformin HCl	Jentadueto
linagliptin/metformin HCl	Jentadueto XR
saxagliptin HCl	Onglyza
saxagliptin HCl/metformin HCl	Kombiglyze XR
sitagliptin phosphate	Januvia
sitagliptin phosphate/metformin HCl	Janumet
sitagliptin phosphate/metformin HCl	Janumet XR
sitagliptin phosphate/simvastatin	Juvisync
SGLT-2 Inhibitors	
canagliflozin	Invokana
canagliflozin/metformin HCl	Invokamet
canagliflozin/metformin HCl	Invokamet XR
dapagliflozin propanediol	Farxiga
dapagliflozin propanediol/metformin HCl	Xigduo XR
dapagliflozin propanediol/saxagliptin HCl	Qtern
empagliflozin	Jardiance
empagliflozin/linagliptin	Glyxambi
empagliflozin/metformin HCl	Synjardy
empagliflozin/metformin HCl	Synjardy XR
ertugliflozin pidolate	Steglatro
ertugliflozin pidolate/metformin HCl	Segluromet
ertugliflozin pidolate/sitagliptin phosphate	Steglujan

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

Generic Name	Brand Name
GLP-1 Analogs	
albiglutide	Tanzeum
dulaglutide	Trulicity
exenatide	Byetta
exenatide microspheres	Bydureon
exenatide microspheres	Bydureon BCise
insulin degludec/liraglutide	Xultophy 100/3.6
insulin glargine, human recombinant analog/lixisenatide	Soliqua 100/33
liraglutide	Victoza 2-Pak
liraglutide	Victoza 3-Pak
lixisenatide	Adlyxin
semaglutide	Ozempic
semaglutide	Rybelsus
Thiazolidinediones	
alogliptin benzoate/pioglitazone HCl	Oseni
alogliptin benzoate/pioglitazone HCl	alogliptin-pioglitazone
pioglitazone HCl	Actos
pioglitazone HCl	pioglitazone
pioglitazone HCl/glimepiride	DUETACT
pioglitazone HCl/glimepiride	pioglitazone-glimepiride
pioglitazone HCl/metformin HCl	Actoplus MET
pioglitazone HCl/metformin HCl	Actoplus Met XR
pioglitazone HCl/metformin HCl	pioglitazone-metformin
rosiglitazone maleate	Avandia
rosiglitazone maleate/glimepiride	Avandaryl
rosiglitazone maleate/metformin HCl	Avandamet
Sulfonylureas	
chlorpropamide	chlorpropamide
glimepiride	Amaryl
glimepiride	glimepiride
glipizide	Glucotrol
glipizide	Glucotrol XL
glipizide	glipizide
glipizide	glipizide (bulk)
glipizide/metformin HCl	glipizide-metformin
glyburide	Diabeta
glyburide	glyburide
glyburide	glyburide (bulk)
glyburide, micronized	Glynase
glyburide, micronized	glyburide micronized
glyburide/metformin HCl	Glucoavance
glyburide/metformin HCl	glyburide-metformin
pioglitazone HCl/glimepiride	DUETACT
pioglitazone HCl/glimepiride	pioglitazone-glimepiride
rosiglitazone maleate/glimepiride	Avandaryl
tolazamide	tolazamide
tolbutamide	tolbutamide
Biguanides	
alogliptin benzoate/metformin HCl	Kazano
alogliptin benzoate/metformin HCl	alogliptin-metformin
canagliflozin/metformin HCl	Invokamet

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

Generic Name	Brand Name
canagliflozin/metformin HCl	Invokamet XR
dapagliflozin propanediol/metformin HCl	Xigduo XR
empagliflozin/metformin HCl	Synjardy
empagliflozin/metformin HCl	Synjardy XR
ertugliflozin pidolate/metformin HCl	Segluromet
glipizide/metformin HCl	glipizide-metformin
glyburide/metformin HCl	Glucovance
glyburide/metformin HCl	glyburide-metformin
linagliptin/metformin HCl	Jentadueto
linagliptin/metformin HCl	Jentadueto XR
metformin HCl	Fortamet
metformin HCl	Glucophage
metformin HCl	Glucophage XR
metformin HCl	Glumetza
metformin HCl	Riomet
metformin HCl	metformin
metformin HCl	metformin (bulk)
metformin HCl/blood sugar diagnostic	DM2
pioglitazone HCl/metformin HCl	Actoplus MET
pioglitazone HCl/metformin HCl	Actoplus Met XR
pioglitazone HCl/metformin HCl	pioglitazone-metformin
repaglinide/metformin HCl	Prandimet
repaglinide/metformin HCl	repaglinide-metformin
rosiglitazone maleate/metformin HCl	Avandamet
saxagliptin HCl/metformin HCl	Kombiglyze XR
sitagliptin phosphate/metformin HCl	Janumet
sitagliptin phosphate/metformin HCl	Janumet XR
Short/Rapid-Acting Insulins	
insulin aspart	Novolog Flexpen U-100 Insulin
insulin aspart	Novolog PenFill U-100 Insulin
insulin aspart	Novolog U-100 Insulin aspart
insulin aspart (niacinamide)	Fiasp FlexTouch U-100 Insulin
insulin aspart (niacinamide)	Fiasp Penfill U-100 Insulin
insulin aspart (niacinamide)	Fiasp U-100 Insulin
insulin glulisine	Apidra SoloStar U-100 Insulin
insulin glulisine	Apidra U-100 Insulin
insulin lispro	Admelog SoloStar U-100 Insulin
insulin lispro	Admelog U-100 Insulin lispro
insulin lispro	Humalog Junior KwikPen U-100
insulin lispro	Humalog KwikPen Insulin
insulin lispro	Humalog U-100 Insulin
insulin lispro	insulin lispro
insulin regular, human	Humulin R Regular U-100 Insulin
insulin regular, human	Humulin R U-500 (Conc) Insulin
insulin regular, human	Humulin R U-500 (Conc) Kwikpen
insulin regular, human	Novolin R Regular U-100 Insulin
insulin regular, human in 0.9 % sodium chloride	Myxredlin
Long/Intermediate-Acting Insulins	
insulin NPH human isophane	Humulin N NPH Insulin KwikPen
insulin NPH human isophane	Humulin N NPH U-100 Insulin
insulin NPH human isophane	Humulin N Pen

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

Generic Name	Brand Name
insulin NPH human isophane	Novolin N NPH U-100 Insulin
insulin NPH human isophane/insulin regular, human	Humulin 70/30 Insulin Pen
insulin NPH human isophane/insulin regular, human	Humulin 70/30 U-100 Insulin
insulin NPH human isophane/insulin regular, human	Humulin 70/30 U-100 KwikPen
insulin NPH human isophane/insulin regular, human	Novolin 70-30 FlexPen U-100
insulin NPH human isophane/insulin regular, human	Novolin 70/30 U-100 Insulin
insulin aspart protamine human/insulin aspart	Novolog Mix 70-30 U-100 Insulin
insulin aspart protamine human/insulin aspart	Novolog Mix 70-30 FlexPen U-100
insulin degludec	Tresiba FlexTouch U-100
insulin degludec	Tresiba FlexTouch U-200
insulin degludec	Tresiba U-100 Insulin
insulin degludec/liraglutide	Xultophy 100/3.6
insulin detemir	Levemir FlexTouch U-100 Insulin
insulin detemir	Levemir Flexpen
insulin detemir	Levemir U-100 Insulin
insulin glargine, human recombinant analog	Basaglar KwikPen U-100 Insulin
insulin glargine, human recombinant analog	Lantus Solostar U-100 Insulin
insulin glargine, human recombinant analog	Lantus U-100 Insulin
insulin glargine, human recombinant analog	Toujeo Max U-300 SoloStar
insulin glargine, human recombinant analog	Toujeo SoloStar U-300 Insulin
insulin glargine, human recombinant analog/lixisenatide	Soliqua 100/33
insulin lispro protamine and insulin lispro	Humalog Mix 50-50 Insulin U-100
insulin lispro protamine and insulin lispro	Humalog Mix 50-50 KwikPen
insulin lispro protamine and insulin lispro	Humalog Mix 75-25 KwikPen
insulin lispro protamine and insulin lispro	Humalog Mix 75-25 (U-100) Insulin
DPP-4 Inhibitors	
alogliptin benzoate	Nesina
alogliptin benzoate	alogliptin
alogliptin benzoate/metformin HCl	Kazano
alogliptin benzoate/metformin HCl	alogliptin-metformin
alogliptin benzoate/pioglitazone HCl	Oseni
alogliptin benzoate/pioglitazone HCl	alogliptin-pioglitazone
dapagliflozin propanediol/saxagliptin HCl	Qtern
empagliflozin/linagliptin	Glyxambi
ertugliflozin pidolate/sitagliptin phosphate	Steglujan
linagliptin	Tradjenta
linagliptin/metformin HCl	Jentadueto
linagliptin/metformin HCl	Jentadueto XR
saxagliptin HCl	Onglyza
saxagliptin HCl/metformin HCl	Kombiglyze XR
sitagliptin phosphate	Januvia
sitagliptin phosphate/metformin HCl	Janumet
sitagliptin phosphate/metformin HCl	Janumet XR
sitagliptin phosphate/simvastatin	Juvisync
SGLT-2 Inhibitors	
canagliflozin	Invokana
canagliflozin/metformin HCl	Invokamet
canagliflozin/metformin HCl	Invokamet XR
dapagliflozin propanediol	Farxiga
dapagliflozin propanediol/metformin HCl	Xigduo XR
dapagliflozin propanediol/saxagliptin HCl	Qtern

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

Generic Name	Brand Name
empagliflozin	Jardiance
empagliflozin/linagliptin	Glyxambi
empagliflozin/metformin HCl	Synjardy
empagliflozin/metformin HCl	Synjardy XR
ertugliflozin pidolate	Steglatro
ertugliflozin pidolate/metformin HCl	Segluromet
ertugliflozin pidolate/sitagliptin phosphate	Steglujan
Smoking Cessation Medications	
nicotine	Nicotrol NS
bupropion HCl	Buproban
bupropion HCl	Zyban
bupropion HCl	bupropion HCl (smoking deter)
nicotine	Nicotrol
nicotine	nicotine
nicotine	Nicoderm CQ
nicotine	NTS Step 1
nicotine	NTS Step 3
nicotine	NTS Step 2
nicotine	Habitrol
nicotine bitartrate	Nicotine Tartrate
nicotine polacrilex	Thrive Nicotine
nicotine polacrilex	nicotine (polacrilex)
nicotine polacrilex	Nicorette
nicotine polacrilex	Nicorette Refill
nicotine polacrilex	Commit
nicotine polacrilex	Nicorette Starter Kit
nicotine polacrilex	Nicorelief
nicotine polacrilex	Stop Smoking Aid
nicotine polacrilex	nicotine polacrilex (bulk)
nicotine polacrilex	Quit 2
nicotine polacrilex	Quit 4
silver nitrate	silver nitrate (bulk)
varenicline tartrate	Chantix
varenicline tartrate	Chantix Continuing Month Box
varenicline tartrate	Chantix Continuing Month Pak
varenicline tartrate	Chantix Starting Month Box
varenicline tartrate	Chantix Starting Month Pak

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

Code	Description	Code Category	Code Type
Diabetes Complication			
040.0	Gas gangrene	Diagnosis	ICD-10-CM
250.4	Diabetes with renal manifestations	Diagnosis	ICD-9-CM
250.40	Diabetes with renal manifestations, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.41	Diabetes with renal manifestations, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.42	Diabetes with renal manifestations, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.43	Diabetes with renal manifestations, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.5	Diabetes with ophthalmic manifestations	Diagnosis	ICD-9-CM
250.50	Diabetes with ophthalmic manifestations, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.51	Diabetes with ophthalmic manifestations, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.52	Diabetes with ophthalmic manifestations, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.53	Diabetes with ophthalmic manifestations, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.6	Diabetes with neurological manifestations	Diagnosis	ICD-9-CM
250.60	Diabetes with neurological manifestations, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.61	Diabetes with neurological manifestations, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.62	Diabetes with neurological manifestations, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.63	Diabetes with neurological manifestations, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.7	Diabetes with peripheral circulatory disorders	Diagnosis	ICD-9-CM
250.70	Diabetes with peripheral circulatory disorders, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.71	Diabetes with peripheral circulatory disorders, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.72	Diabetes with peripheral circulatory disorders, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.73	Diabetes with peripheral circulatory disorders, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
354.0	Carpal tunnel syndrome	Diagnosis	ICD-9-CM
354.1	Other lesion of median nerve	Diagnosis	ICD-9-CM
354.2	Lesion of ulnar nerve	Diagnosis	ICD-9-CM
354.3	Lesion of radial nerve	Diagnosis	ICD-9-CM
354.4	Causalgia of upper limb	Diagnosis	ICD-9-CM
354.5	Mononeuritis multiplex	Diagnosis	ICD-9-CM
354.8	Other mononeuritis of upper limb	Diagnosis	ICD-9-CM
354.9	Unspecified mononeuritis of upper limb	Diagnosis	ICD-9-CM
355.0	Lesion of sciatic nerve	Diagnosis	ICD-9-CM
355.1	Meralgia paresthetica	Diagnosis	ICD-9-CM
355.2	Other lesion of femoral nerve	Diagnosis	ICD-9-CM
355.3	Lesion of lateral popliteal nerve	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
355.4	Lesion of medial popliteal nerve	Diagnosis	ICD-9-CM
355.5	Tarsal tunnel syndrome	Diagnosis	ICD-9-CM
355.6	Lesion of plantar nerve	Diagnosis	ICD-9-CM
355.7	Other mononeuritis of lower limb	Diagnosis	ICD-9-CM
355.71	Causalgia of lower limb	Diagnosis	ICD-9-CM
355.79	Other mononeuritis of lower limb	Diagnosis	ICD-9-CM
355.8	Unspecified mononeuritis of lower limb	Diagnosis	ICD-9-CM
355.9	Mononeuritis of unspecified site	Diagnosis	ICD-9-CM
356.9	Unspecified hereditary and idiopathic peripheral neuropathy	Diagnosis	ICD-9-CM
357.2	Polyneuropathy in diabetes	Diagnosis	ICD-9-CM
358.1	Myasthenic syndromes in diseases classified elsewhere	Diagnosis	ICD-9-CM
361	Retinal detachments and defects	Diagnosis	ICD-9-CM
361.0	Retinal detachment with retinal defect	Diagnosis	ICD-9-CM
361.00	Retinal detachment with retinal defect, unspecified	Diagnosis	ICD-9-CM
361.01	Recent retinal detachment, partial, with single defect	Diagnosis	ICD-9-CM
361.02	Recent retinal detachment, partial, with multiple defects	Diagnosis	ICD-9-CM
361.03	Recent retinal detachment, partial, with giant tear	Diagnosis	ICD-9-CM
361.04	Recent retinal detachment, partial, with retinal dialysis	Diagnosis	ICD-9-CM
361.05	Recent retinal detachment, total or subtotal	Diagnosis	ICD-9-CM
361.06	Old retinal detachment, partial	Diagnosis	ICD-9-CM
361.07	Old retinal detachment, total or subtotal	Diagnosis	ICD-9-CM
361.1	Retinoschisis and retinal cysts	Diagnosis	ICD-9-CM
361.10	Unspecified retinoschisis	Diagnosis	ICD-9-CM
361.11	Flat retinoschisis	Diagnosis	ICD-9-CM
361.12	Bullous retinoschisis	Diagnosis	ICD-9-CM
361.13	Primary retinal cysts	Diagnosis	ICD-9-CM
361.14	Secondary retinal cysts	Diagnosis	ICD-9-CM
361.19	Other retinoschisis and retinal cysts	Diagnosis	ICD-9-CM
361.2	Serous retinal detachment	Diagnosis	ICD-9-CM
361.3	Retinal defects without detachment	Diagnosis	ICD-9-CM
361.30	Unspecified retinal defect	Diagnosis	ICD-9-CM
361.31	Round hole of retina without detachment	Diagnosis	ICD-9-CM
361.32	Horseshoe tear of retina without detachment	Diagnosis	ICD-9-CM
361.33	Multiple defects of retina without detachment	Diagnosis	ICD-9-CM
361.8	Other forms of retinal detachment	Diagnosis	ICD-9-CM
361.81	Traction detachment of retina	Diagnosis	ICD-9-CM
361.89	Other forms of retinal detachment	Diagnosis	ICD-9-CM
361.9	Unspecified retinal detachment	Diagnosis	ICD-9-CM
362.01	Background diabetic retinopathy	Diagnosis	ICD-9-CM
362.02	Proliferative diabetic retinopathy	Diagnosis	ICD-9-CM
362.1	Other background retinopathy and retinal vascular changes	Diagnosis	ICD-9-CM
362.10	Unspecified background retinopathy	Diagnosis	ICD-9-CM
362.11	Hypertensive retinopathy	Diagnosis	ICD-9-CM
362.12	Exudative retinopathy	Diagnosis	ICD-9-CM
362.13	Changes in vascular appearance of retina	Diagnosis	ICD-9-CM
362.14	Retinal microaneurysms NOS	Diagnosis	ICD-9-CM
362.15	Retinal telangiectasia	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
362.16	Retinal neovascularization NOS	Diagnosis	ICD-9-CM
362.17	Other intraretinal microvascular abnormalities	Diagnosis	ICD-9-CM
362.18	Retinal vasculitis	Diagnosis	ICD-9-CM
362.53	Cystoid macular degeneration of retina	Diagnosis	ICD-9-CM
362.81	Retinal hemorrhage	Diagnosis	ICD-9-CM
362.82	Retinal exudates and deposits	Diagnosis	ICD-9-CM
362.83	Retinal edema	Diagnosis	ICD-9-CM
369.0	Profound impairment, both eyes	Diagnosis	ICD-9-CM
369.00	Blindness of both eyes, impairment level not further specified	Diagnosis	ICD-9-CM
369.01	Better eye: total vision impairment; lesser eye: total vision impairment	Diagnosis	ICD-9-CM
369.02	Better eye: near-total vision impairment; lesser eye: not further specified	Diagnosis	ICD-9-CM
369.03	Better eye: near-total vision impairment; lesser eye: total vision impairment	Diagnosis	ICD-9-CM
369.04	Better eye: near-total vision impairment; lesser eye: near-total vision impairment	Diagnosis	ICD-9-CM
369.05	Better eye: profound vision impairment; lesser eye: not further specified	Diagnosis	ICD-9-CM
369.06	Better eye: profound vision impairment; lesser eye: total vision impairment	Diagnosis	ICD-9-CM
369.07	Better eye: profound vision impairment; lesser eye: near-total vision impairment	Diagnosis	ICD-9-CM
369.08	Better eye: profound vision impairment; lesser eye: profound vision impairment	Diagnosis	ICD-9-CM
369.1	Moderate or severe impairment, better eye; profound vision impairment of lesser eye	Diagnosis	ICD-9-CM
369.10	Profound, moderate or severe vision impairment, not further specified	Diagnosis	ICD-9-CM
369.11	Better eye: severe vision impairment; lesser eye: blind, not further specified	Diagnosis	ICD-9-CM
369.12	Better eye: severe vision impairment; lesser eye: total vision impairment	Diagnosis	ICD-9-CM
369.13	Better eye: severe vision impairment; lesser eye: near-total vision impairment	Diagnosis	ICD-9-CM
369.14	Better eye: severe vision impairment; lesser eye: profound vision impairment	Diagnosis	ICD-9-CM
369.15	Better eye: moderate vision impairment; lesser eye: blind, not further specified	Diagnosis	ICD-9-CM
369.16	Better eye: moderate vision impairment; lesser eye: total vision impairment	Diagnosis	ICD-9-CM
369.17	Better eye: moderate vision impairment; lesser eye: near-total vision impairment	Diagnosis	ICD-9-CM
369.18	Better eye: moderate vision impairment; lesser eye: profound vision impairment	Diagnosis	ICD-9-CM
369.2	Moderate or severe vision impairment, both eyes	Diagnosis	ICD-9-CM
369.20	Vision impairment, both eyes, impairment level not further specified	Diagnosis	ICD-9-CM
369.21	Better eye: severe vision impairment; lesser eye; impairment not further specified	Diagnosis	ICD-9-CM
369.22	Better eye: severe vision impairment; lesser eye: severe vision impairment	Diagnosis	ICD-9-CM
369.23	Better eye: moderate vision impairment; lesser eye: impairment not further specified	Diagnosis	ICD-9-CM
369.24	Better eye: moderate vision impairment; lesser eye: severe vision impairment	Diagnosis	ICD-9-CM
369.25	Better eye: moderate vision impairment; lesser eye: moderate vision impairment	Diagnosis	ICD-9-CM
369.3	Unqualified visual loss, both eyes	Diagnosis	ICD-9-CM
369.4	Legal blindness, as defined in USA	Diagnosis	ICD-9-CM
369.6	Profound vision impairment, one eye	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
369.60	Impairment level not further specified	Diagnosis	ICD-9-CM
369.61	One eye: total vision impairment; other eye: not specified	Diagnosis	ICD-9-CM
369.62	One eye: total vision impairment; other eye: near-normal vision	Diagnosis	ICD-9-CM
369.63	One eye: total vision impairment; other eye: normal vision	Diagnosis	ICD-9-CM
369.64	One eye: near-total vision impairment; other eye: vision not specified	Diagnosis	ICD-9-CM
369.65	One eye: near-total vision impairment; other eye: near-normal vision	Diagnosis	ICD-9-CM
369.66	One eye: near-total vision impairment; other eye: normal vision	Diagnosis	ICD-9-CM
369.67	One eye: profound vision impairment; other eye: vision not specified	Diagnosis	ICD-9-CM
369.68	One eye: profound vision impairment; other eye: near-normal vision	Diagnosis	ICD-9-CM
369.69	One eye: profound vision impairment; other eye: normal vision	Diagnosis	ICD-9-CM
369.7	Moderate or severe vision impairment, one eye	Diagnosis	ICD-9-CM
369.70	Low vision, one eye, not otherwise specified	Diagnosis	ICD-9-CM
369.71	One eye: severe vision impairment; other eye: vision not specified	Diagnosis	ICD-9-CM
369.72	One eye: severe vision impairment; other eye: near-normal vision	Diagnosis	ICD-9-CM
369.73	One eye: severe vision impairment; other eye: normal vision	Diagnosis	ICD-9-CM
369.74	One eye: moderate vision impairment; other eye: vision not specified	Diagnosis	ICD-9-CM
369.75	One eye: moderate vision impairment; other eye: near-normal vision	Diagnosis	ICD-9-CM
369.76	One eye: moderate vision impairment; other eye: normal vision	Diagnosis	ICD-9-CM
369.8	Unqualified visual loss, one eye	Diagnosis	ICD-9-CM
369.9	Unspecified visual loss	Diagnosis	ICD-9-CM
379.23	Vitreous hemorrhage	Diagnosis	ICD-9-CM
580	Acute glomerulonephritis	Diagnosis	ICD-9-CM
580.0	Acute glomerulonephritis with lesion of proliferative glomerulonephritis	Diagnosis	ICD-9-CM
580.4	Acute glomerulonephritis with lesion of rapidly progressive glomerulonephritis	Diagnosis	ICD-9-CM
580.8	Acute glomerulonephritis with other specified pathological lesion in kidney	Diagnosis	ICD-9-CM
580.81	Acute glomerulonephritis with other specified pathological lesion in kidney in disease classified elsewhere	Diagnosis	ICD-9-CM
580.89	Other acute glomerulonephritis with other specified pathological lesion in kidney	Diagnosis	ICD-9-CM
580.9	Acute glomerulonephritis with unspecified pathological lesion in kidney	Diagnosis	ICD-9-CM
581	Nephrotic syndrome	Diagnosis	ICD-9-CM
581.0	Nephrotic syndrome with lesion of proliferative glomerulonephritis	Diagnosis	ICD-9-CM
581.1	Nephrotic syndrome with lesion of membranous glomerulonephritis	Diagnosis	ICD-9-CM
581.2	Nephrotic syndrome with lesion of membranoproliferative glomerulonephritis	Diagnosis	ICD-9-CM
581.3	Nephrotic syndrome with lesion of minimal change glomerulonephritis	Diagnosis	ICD-9-CM
581.8	Nephrotic syndrome with other specified pathological lesion in kidney	Diagnosis	ICD-9-CM
581.81	Nephrotic syndrome with other specified pathological lesion in kidney in diseases classified elsewhere	Diagnosis	ICD-9-CM
581.89	Other nephrotic syndrome with specified pathological lesion in kidney	Diagnosis	ICD-9-CM
581.9	Nephrotic syndrome with unspecified pathological lesion in kidney	Diagnosis	ICD-9-CM
582	Chronic glomerulonephritis	Diagnosis	ICD-9-CM
582.0	Chronic glomerulonephritis with lesion of proliferative glomerulonephritis	Diagnosis	ICD-9-CM
582.1	Chronic glomerulonephritis with lesion of membranous glomerulonephritis	Diagnosis	ICD-9-CM
582.2	Chronic glomerulonephritis with lesion of membranoproliferative glomerulonephritis	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
582.4	Chronic glomerulonephritis with lesion of rapidly progressive glomerulonephritis	Diagnosis	ICD-9-CM
582.8	Chronic glomerulonephritis with other specified pathological lesion in kidney	Diagnosis	ICD-9-CM
582.81	Chronic glomerulonephritis with other specified pathological lesion in kidney in diseases classified elsewhere	Diagnosis	ICD-9-CM
582.89	Other chronic glomerulonephritis with specified pathological lesion in kidney	Diagnosis	ICD-9-CM
582.9	Chronic glomerulonephritis with unspecified pathological lesion in kidney	Diagnosis	ICD-9-CM
583	Nephritis and nephropathy, not specified as acute or chronic	Diagnosis	ICD-9-CM
583.0	Nephritis and nephropathy, not specified as acute or chronic, with lesion of proliferative glomerulonephritis	Diagnosis	ICD-9-CM
583.1	Nephritis and nephropathy, not specified as acute or chronic, with lesion of membranous glomerulonephritis	Diagnosis	ICD-9-CM
583.2	Nephritis and nephropathy, not specified as acute or chronic, with lesion of membranoproliferative glomerulonephritis	Diagnosis	ICD-9-CM
583.4	Nephritis and nephropathy, not specified as acute or chronic, with lesion of rapidly progressive glomerulonephritis	Diagnosis	ICD-9-CM
583.6	Nephritis and nephropathy, not specified as acute or chronic, with lesion of renal cortical necrosis	Diagnosis	ICD-9-CM
583.7	Nephritis and nephropathy, not specified as acute or chronic, with lesion of renal medullary necrosis	Diagnosis	ICD-9-CM
583.8	Nephritis and nephropathy, not specified as acute or chronic, with other specified pathological lesion in kidney	Diagnosis	ICD-9-CM
583.81	Nephritis and nephropathy, not specified as acute or chronic, with other specified pathological lesion in kidney, in diseases classified elsewhere	Diagnosis	ICD-9-CM
583.89	Other nephritis and nephropathy, not specified as acute or chronic, with specified pathological lesion in kidney	Diagnosis	ICD-9-CM
583.9	Nephritis and nephropathy, not specified as acute or chronic, with unspecified pathological lesion in kidney	Diagnosis	ICD-9-CM
585	Chronic kidney disease (CKD)	Diagnosis	ICD-9-CM
585.1	Chronic kidney disease, Stage I	Diagnosis	ICD-9-CM
585.2	Chronic kidney disease, Stage II (mild)	Diagnosis	ICD-9-CM
585.3	Chronic kidney disease, Stage III (moderate)	Diagnosis	ICD-9-CM
585.4	Chronic kidney disease, Stage IV (severe)	Diagnosis	ICD-9-CM
585.5	Chronic kidney disease, Stage V	Diagnosis	ICD-9-CM
585.6	End stage renal disease	Diagnosis	ICD-9-CM
585.9	Chronic kidney disease, unspecified	Diagnosis	ICD-9-CM
586	Unspecified renal failure	Diagnosis	ICD-9-CM
593.9	Unspecified disorder of kidney and ureter	Diagnosis	ICD-9-CM
713.5	Arthropathy associated with neurological disorders	Diagnosis	ICD-9-CM
951.0	Injury to oculomotor nerve	Diagnosis	ICD-9-CM
951.1	Injury to trochlear nerve	Diagnosis	ICD-9-CM
951.3	Injury to abducens nerve	Diagnosis	ICD-9-CM
A52.16	Charcot's arthropathy (tabetic)	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
B52.0	Plasmodium malariae malaria with nephropathy	Diagnosis	ICD-10-CM
D	Atherosclerosis of native arteries of right leg with ulceration of calf	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
E08.331	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E08.339	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E08.341	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E08.349	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E08.351	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E08.3511	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E08.3512	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E08.3513	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E08.3519	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E08.3521	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	Diagnosis	ICD-10-CM
E08.3522	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	Diagnosis	ICD-10-CM
E08.3523	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	Diagnosis	ICD-10-CM
E08.3529	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E08.3531	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	Diagnosis	ICD-10-CM
E08.3532	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
E08.3533	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	Diagnosis	ICD-10-CM
E08.3539	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E08.3541	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	Diagnosis	ICD-10-CM
E08.3542	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	Diagnosis	ICD-10-CM
E08.3543	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	Diagnosis	ICD-10-CM
E08.3549	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
E08.3551	Diabetes mellitus due to underlying condition with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E08.3552	Diabetes mellitus due to underlying condition with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM
E08.3553	Diabetes mellitus due to underlying condition with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E08.3559	Diabetes mellitus due to underlying condition with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E08.359	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E08.3591	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E08.3592	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E08.3593	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E08.3599	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E08.40	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
E08.610	Diabetes mellitus due to underlying condition with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
E08.621	Diabetes mellitus due to underlying condition with foot ulcer	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E08.622	Diabetes mellitus due to underlying condition with other skin ulcer	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
E09.331	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 edema	Diagnosis	ICD-10-CM
E09.341	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E09.349	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, right eye	Diagnosis	ICD-10-CM
E09.3512	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E09.3513	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E09.3519	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E09.3521	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	Diagnosis	ICD-10-CM
E09.3522	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	Diagnosis	ICD-10-CM
E09.3523	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	Diagnosis	ICD-10-CM
E09.3529	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E09.3531	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	Diagnosis	ICD-10-CM
E09.3532	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E09.3533	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	Diagnosis	ICD-10-CM
E09.3539	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E09.3541	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	Diagnosis	ICD-10-CM
E09.3542	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	Diagnosis	ICD-10-CM
E09.3543	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	Diagnosis	ICD-10-CM
E09.3549	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
E09.3551	Drug or chemical induced diabetes mellitus with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E09.3552	Drug or chemical induced diabetes mellitus with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM
E09.3553	Drug or chemical induced diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E09.3559	Drug or chemical induced diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E09.359	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E09.3591	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E09.3592	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E09.3593	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E09.3599	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E09.40	Drug or chemical induced diabetes mellitus with neurological complications with diabetic neuropathy, unspecified	Diagnosis	ICD-10-CM
E09.41	Drug or chemical induced diabetes mellitus with neurological complications with diabetic mononeuropathy	Diagnosis	ICD-10-CM
E09.42	Drug or chemical induced diabetes mellitus with neurological complications with diabetic polyneuropathy	Diagnosis	ICD-10-CM
E09.610	Drug or chemical induced diabetes mellitus with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
E09.621	Drug or chemical induced diabetes mellitus with foot ulcer	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E09.622	Drug or chemical induced diabetes mellitus with other skin ulcer	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 eye	Diagnosis	ICD-10-CM
E10.329	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E10.3291	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E10.3292	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E10.3293	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3299	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.331	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E10.3311	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E10.3312	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E10.3313	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3319	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.339	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E10.3391	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E10.3392	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E10.3393	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3399	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
E10.341	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E10.3411	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E10.3412	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E10.3413	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3419	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.349	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E10.3491	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E10.3492	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E10.3493	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3499	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.351	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, right eye	Diagnosis	ICD-10-CM
E10.3522	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	Diagnosis	ICD-10-CM
E10.3523	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	Diagnosis	ICD-10-CM
E10.3529	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E10.3531	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
E10.3532	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	Diagnosis	ICD-10-CM
E10.3533	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	Diagnosis	ICD-10-CM
E10.3539	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E10.3541	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	Diagnosis	ICD-10-CM
E10.3542	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	Diagnosis	ICD-10-CM
E10.3543	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	Diagnosis	ICD-10-CM
E10.3549	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
E10.3551	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E10.3552	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM
E10.3553	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E10.3559	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E10.359	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

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Code	Description	Code Category	Code Type
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
E10.610	Type 1 diabetes mellitus with diabetic neuropathic arthropathy	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
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 eye	Diagnosis	ICD-10-CM
E11.329	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E11.3291	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E11.3292	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E11.3293	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3299	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.331	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E11.3311	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E11.3312	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E11.3313	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3319	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E11.339	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E11.3391	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E11.3392	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E11.3393	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3399	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.341	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E11.3411	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E11.3412	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E11.3413	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3419	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.349	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E11.3491	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E11.3492	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E11.3493	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3499	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.351	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, right eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E11.3522	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	Diagnosis	ICD-10-CM
E11.3523	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	Diagnosis	ICD-10-CM
E11.3529	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E11.3531	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	Diagnosis	ICD-10-CM
E11.3532	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	Diagnosis	ICD-10-CM
E11.3533	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	Diagnosis	ICD-10-CM
E11.3539	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E11.3541	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	Diagnosis	ICD-10-CM
E11.3542	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	Diagnosis	ICD-10-CM
E11.3543	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	Diagnosis	ICD-10-CM
E11.3549	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
E11.3551	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E11.3552	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM
E11.3553	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E11.3559	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E11.359	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E11.3591	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
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
E11.610	Type 2 diabetes mellitus with diabetic neuropathic arthropathy	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
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, right eye	Diagnosis	ICD-10-CM
E13.3212	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E13.3213	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3219	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.329	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E13.3291	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E13.3292	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
E13.3293	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3299	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.331	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E13.3311	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E13.3312	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E13.3313	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3319	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.339	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E13.3391	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E13.3392	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E13.3393	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3399	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.341	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E13.3411	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E13.3412	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E13.3413	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3419	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.349	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E13.3491	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye		

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Code	Description	Code Category	Code Type
E13.3492	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E13.3493	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3499	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.351	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, unspecified eye	Diagnosis	ICD-10-CM
E13.3521	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	Diagnosis	ICD-10-CM
E13.3522	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	Diagnosis	ICD-10-CM
E13.3523	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	Diagnosis	ICD-10-CM
E13.3529	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E13.3531	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	Diagnosis	ICD-10-CM
E13.3532	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	Diagnosis	ICD-10-CM
E13.3533	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	Diagnosis	ICD-10-CM
E13.3539	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E13.3541	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E13.3542	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	Diagnosis	ICD-10-CM
E13.3543	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	Diagnosis	ICD-10-CM
E13.3549	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
E13.3551	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E13.3552	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM
E13.3553	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E13.3559	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E13.359	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E13.3591	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E13.3592	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E13.3593	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3599	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.36	Other specified diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E13.37X1	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	Diagnosis	ICD-10-CM
E13.37X2	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	Diagnosis	ICD-10-CM
E13.37X3	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral	Diagnosis	ICD-10-CM
E13.37X9	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	Diagnosis	ICD-10-CM
E13.39	Other specified diabetes mellitus with other diabetic ophthalmic complication	Diagnosis	ICD-10-CM
E13.40	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
E13.610	Other specified diabetes mellitus with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
E13.621	Other specified diabetes mellitus with foot ulcer	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E13.622	Other specified diabetes mellitus with other skin ulcer	Diagnosis	ICD-10-CM
G56.00	Carpal tunnel syndrome, unspecified upper limb	Diagnosis	ICD-10-CM
G56.01	Carpal tunnel syndrome, right upper limb	Diagnosis	ICD-10-CM
G56.02	Carpal tunnel syndrome, left upper limb	Diagnosis	ICD-10-CM
G56.03	Carpal tunnel syndrome, bilateral upper limbs	Diagnosis	ICD-10-CM
G56.10	Other lesions of median nerve, unspecified upper limb	Diagnosis	ICD-10-CM
G56.11	Other lesions of median nerve, right upper limb	Diagnosis	ICD-10-CM
G56.12	Other lesions of median nerve, left upper limb	Diagnosis	ICD-10-CM
G56.13	Other lesions of median nerve, bilateral upper limbs	Diagnosis	ICD-10-CM
G56.20	Lesion of ulnar nerve, unspecified upper limb	Diagnosis	ICD-10-CM
G56.21	Lesion of ulnar nerve, right upper limb	Diagnosis	ICD-10-CM
G56.22	Lesion of ulnar nerve, left upper limb	Diagnosis	ICD-10-CM
G56.23	Lesion of ulnar nerve, bilateral upper limbs	Diagnosis	ICD-10-CM
G56.30	Lesion of radial nerve, unspecified upper limb	Diagnosis	ICD-10-CM
G56.31	Lesion of radial nerve, right upper limb	Diagnosis	ICD-10-CM
G56.32	Lesion of radial nerve, left upper limb	Diagnosis	ICD-10-CM
G56.33	Lesion of radial nerve, bilateral upper limbs	Diagnosis	ICD-10-CM
G56.40	Causalgia of unspecified upper limb	Diagnosis	ICD-10-CM
G56.41	Causalgia of right upper limb	Diagnosis	ICD-10-CM
G56.42	Causalgia of left upper limb	Diagnosis	ICD-10-CM
G56.43	Causalgia of bilateral upper limbs	Diagnosis	ICD-10-CM
G56.80	Other specified mononeuropathies of unspecified upper limb	Diagnosis	ICD-10-CM
G56.81	Other specified mononeuropathies of right upper limb	Diagnosis	ICD-10-CM
G56.82	Other specified mononeuropathies of left upper limb	Diagnosis	ICD-10-CM
G56.83	Other specified mononeuropathies of bilateral upper limbs	Diagnosis	ICD-10-CM
G56.90	Unspecified mononeuropathy of unspecified upper limb	Diagnosis	ICD-10-CM
G56.91	Unspecified mononeuropathy of right upper limb	Diagnosis	ICD-10-CM
G56.92	Unspecified mononeuropathy of left upper limb	Diagnosis	ICD-10-CM
G56.93	Unspecified mononeuropathy of bilateral upper limbs	Diagnosis	ICD-10-CM
G57.00	Lesion of sciatic nerve, unspecified lower limb	Diagnosis	ICD-10-CM
G57.01	Lesion of sciatic nerve, right lower limb	Diagnosis	ICD-10-CM
G57.02	Lesion of sciatic nerve, left lower limb	Diagnosis	ICD-10-CM
G57.03	Lesion of sciatic nerve, bilateral lower limbs	Diagnosis	ICD-10-CM
G57.10	Meralgia paresthetica, unspecified lower limb	Diagnosis	ICD-10-CM
G57.11	Meralgia paresthetica, right lower limb	Diagnosis	ICD-10-CM
G57.12	Meralgia paresthetica, left lower limb	Diagnosis	ICD-10-CM
G57.13	Meralgia paresthetica, bilateral lower limbs	Diagnosis	ICD-10-CM
G57.20	Lesion of femoral nerve, unspecified lower limb	Diagnosis	ICD-10-CM
G57.21	Lesion of femoral nerve, right lower limb	Diagnosis	ICD-10-CM
G57.22	Lesion of femoral nerve, left lower limb	Diagnosis	ICD-10-CM
G57.23	Lesion of femoral nerve, bilateral lower limbs	Diagnosis	ICD-10-CM
G57.30	Lesion of lateral popliteal nerve, unspecified lower limb	Diagnosis	ICD-10-CM
G57.31	Lesion of lateral popliteal nerve, right lower limb	Diagnosis	ICD-10-CM
G57.32	Lesion of lateral popliteal nerve, left lower limb	Diagnosis	ICD-10-CM
G57.40	Lesion of medial popliteal nerve, unspecified lower limb	Diagnosis	ICD-10-CM
G57.41	Lesion of medial popliteal nerve, right lower limb	Diagnosis	ICD-10-CM
G57.42	Lesion of medial popliteal nerve, left lower limb	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
G57.43	Lesion of medial popliteal nerve, bilateral lower limbs	Diagnosis	ICD-10-CM
G57.50	Tarsal tunnel syndrome, unspecified lower limb	Diagnosis	ICD-10-CM
G57.51	Tarsal tunnel syndrome, right lower limb	Diagnosis	ICD-10-CM
G57.52	Tarsal tunnel syndrome, left lower limb	Diagnosis	ICD-10-CM
G57.53	Tarsal tunnel syndrome, bilateral lower limbs	Diagnosis	ICD-10-CM
G57.60	Lesion of plantar nerve, unspecified lower limb	Diagnosis	ICD-10-CM
G57.61	Lesion of plantar nerve, right lower limb	Diagnosis	ICD-10-CM
G57.62	Lesion of plantar nerve, left lower limb	Diagnosis	ICD-10-CM
G57.63	Lesion of plantar nerve, bilateral lower limbs	Diagnosis	ICD-10-CM
G57.70	Causalgia of unspecified lower limb	Diagnosis	ICD-10-CM
G57.71	Causalgia of right lower limb	Diagnosis	ICD-10-CM
G57.72	Causalgia of left lower limb	Diagnosis	ICD-10-CM
G57.73	Causalgia of bilateral lower limbs	Diagnosis	ICD-10-CM
G57.80	Other specified mononeuropathies of unspecified lower limb	Diagnosis	ICD-10-CM
G57.81	Other specified mononeuropathies of right lower limb	Diagnosis	ICD-10-CM
G57.82	Other specified mononeuropathies of left lower limb	Diagnosis	ICD-10-CM
G57.83	Other specified mononeuropathies of bilateral lower limbs	Diagnosis	ICD-10-CM
G57.90	Unspecified mononeuropathy of unspecified lower limb	Diagnosis	ICD-10-CM
G57.91	Unspecified mononeuropathy of right lower limb	Diagnosis	ICD-10-CM
G57.92	Unspecified mononeuropathy of left lower limb	Diagnosis	ICD-10-CM
G57.93	Unspecified mononeuropathy of bilateral lower limbs	Diagnosis	ICD-10-CM
G58.0	Intercostal neuropathy	Diagnosis	ICD-10-CM
G58.7	Mononeuritis multiplex	Diagnosis	ICD-10-CM
G58.8	Other specified mononeuropathies	Diagnosis	ICD-10-CM
G58.9	Mononeuropathy, unspecified	Diagnosis	ICD-10-CM
G59	Mononeuropathy in diseases classified elsewhere	Diagnosis	ICD-10-CM
G60.9	Hereditary and idiopathic neuropathy, unspecified	Diagnosis	ICD-10-CM
G63	Polyneuropathy in diseases classified elsewhere	Diagnosis	ICD-10-CM
G73.3	Myasthenic syndromes in other diseases classified elsewhere	Diagnosis	ICD-10-CM
G99.0	Autonomic neuropathy in diseases classified elsewhere	Diagnosis	ICD-10-CM
H33.001	Unspecified retinal detachment with retinal break, right eye	Diagnosis	ICD-10-CM
H33.002	Unspecified retinal detachment with retinal break, left eye	Diagnosis	ICD-10-CM
H33.003	Unspecified retinal detachment with retinal break, bilateral	Diagnosis	ICD-10-CM
H33.009	Unspecified retinal detachment with retinal break, unspecified eye	Diagnosis	ICD-10-CM
H33.011	Retinal detachment with single break, right eye	Diagnosis	ICD-10-CM
H33.012	Retinal detachment with single break, left eye	Diagnosis	ICD-10-CM
H33.013	Retinal detachment with single break, bilateral	Diagnosis	ICD-10-CM
H33.019	Retinal detachment with single break, unspecified eye	Diagnosis	ICD-10-CM
H33.021	Retinal detachment with multiple breaks, right eye	Diagnosis	ICD-10-CM
H33.022	Retinal detachment with multiple breaks, left eye	Diagnosis	ICD-10-CM
H33.023	Retinal detachment with multiple breaks, bilateral	Diagnosis	ICD-10-CM
H33.029	Retinal detachment with multiple breaks, unspecified eye	Diagnosis	ICD-10-CM
H33.031	Retinal detachment with giant retinal tear, right eye	Diagnosis	ICD-10-CM
H33.032	Retinal detachment with giant retinal tear, left eye	Diagnosis	ICD-10-CM
H33.033	Retinal detachment with giant retinal tear, bilateral	Diagnosis	ICD-10-CM
H33.039	Retinal detachment with giant retinal tear, unspecified eye	Diagnosis	ICD-10-CM
H33.041	Retinal detachment with retinal dialysis, right eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H33.042	Retinal detachment with retinal dialysis, left eye	Diagnosis	ICD-10-CM
H33.043	Retinal detachment with retinal dialysis, bilateral	Diagnosis	ICD-10-CM
H33.049	Retinal detachment with retinal dialysis, unspecified eye	Diagnosis	ICD-10-CM
H33.051	Total retinal detachment, right eye	Diagnosis	ICD-10-CM
H33.052	Total retinal detachment, left eye	Diagnosis	ICD-10-CM
H33.053	Total retinal detachment, bilateral	Diagnosis	ICD-10-CM
H33.059	Total retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
H33.101	Unspecified retinoschisis, right eye	Diagnosis	ICD-10-CM
H33.102	Unspecified retinoschisis, left eye	Diagnosis	ICD-10-CM
H33.103	Unspecified retinoschisis, bilateral	Diagnosis	ICD-10-CM
H33.109	Unspecified retinoschisis, unspecified eye	Diagnosis	ICD-10-CM
H33.111	Cyst of ora serrata, right eye	Diagnosis	ICD-10-CM
H33.112	Cyst of ora serrata, left eye	Diagnosis	ICD-10-CM
H33.113	Cyst of ora serrata, bilateral	Diagnosis	ICD-10-CM
H33.119	Cyst of ora serrata, unspecified eye	Diagnosis	ICD-10-CM
H33.191	Other retinoschisis and retinal cysts, right eye	Diagnosis	ICD-10-CM
H33.192	Other retinoschisis and retinal cysts, left eye	Diagnosis	ICD-10-CM
H33.193	Other retinoschisis and retinal cysts, bilateral	Diagnosis	ICD-10-CM
H33.199	Other retinoschisis and retinal cysts, unspecified eye	Diagnosis	ICD-10-CM
H33.20	Serous retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
H33.21	Serous retinal detachment, right eye	Diagnosis	ICD-10-CM
H33.22	Serous retinal detachment, left eye	Diagnosis	ICD-10-CM
H33.23	Serous retinal detachment, bilateral	Diagnosis	ICD-10-CM
H33.301	Unspecified retinal break, right eye	Diagnosis	ICD-10-CM
H33.302	Unspecified retinal break, left eye	Diagnosis	ICD-10-CM
H33.303	Unspecified retinal break, bilateral	Diagnosis	ICD-10-CM
H33.309	Unspecified retinal break, unspecified eye	Diagnosis	ICD-10-CM
H33.311	Horseshoe tear of retina without detachment, right eye	Diagnosis	ICD-10-CM
H33.312	Horseshoe tear of retina without detachment, left eye	Diagnosis	ICD-10-CM
H33.313	Horseshoe tear of retina without detachment, bilateral	Diagnosis	ICD-10-CM
H33.319	Horseshoe tear of retina without detachment, unspecified eye	Diagnosis	ICD-10-CM
H33.321	Round hole, right eye	Diagnosis	ICD-10-CM
H33.322	Round hole, left eye	Diagnosis	ICD-10-CM
H33.323	Round hole, bilateral	Diagnosis	ICD-10-CM
H33.329	Round hole, unspecified eye	Diagnosis	ICD-10-CM
H33.331	Multiple defects of retina without detachment, right eye	Diagnosis	ICD-10-CM
H33.332	Multiple defects of retina without detachment, left eye	Diagnosis	ICD-10-CM
H33.333	Multiple defects of retina without detachment, bilateral	Diagnosis	ICD-10-CM
H33.339	Multiple defects of retina without detachment, unspecified eye	Diagnosis	ICD-10-CM
H33.40	Traction detachment of retina, unspecified eye	Diagnosis	ICD-10-CM
H33.41	Traction detachment of retina, right eye	Diagnosis	ICD-10-CM
H33.42	Traction detachment of retina, left eye	Diagnosis	ICD-10-CM
H33.43	Traction detachment of retina, bilateral	Diagnosis	ICD-10-CM
H33.8	Other retinal detachments	Diagnosis	ICD-10-CM
H35.00	Unspecified background retinopathy	Diagnosis	ICD-10-CM
H35.011	Changes in retinal vascular appearance, right eye	Diagnosis	ICD-10-CM
H35.012	Changes in retinal vascular appearance, left eye	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
H35.013	Changes in retinal vascular appearance, bilateral	Diagnosis	ICD-10-CM
H35.019	Changes in retinal vascular appearance, unspecified eye	Diagnosis	ICD-10-CM
H35.021	Exudative retinopathy, right eye	Diagnosis	ICD-10-CM
H35.022	Exudative retinopathy, left eye	Diagnosis	ICD-10-CM
H35.023	Exudative retinopathy, bilateral	Diagnosis	ICD-10-CM
H35.029	Exudative retinopathy, unspecified eye	Diagnosis	ICD-10-CM
H35.031	Hypertensive retinopathy, right eye	Diagnosis	ICD-10-CM
H35.032	Hypertensive retinopathy, left eye	Diagnosis	ICD-10-CM
H35.033	Hypertensive retinopathy, bilateral	Diagnosis	ICD-10-CM
H35.039	Hypertensive retinopathy, unspecified eye	Diagnosis	ICD-10-CM
H35.041	Retinal micro-aneurysms, unspecified, right eye	Diagnosis	ICD-10-CM
H35.042	Retinal micro-aneurysms, unspecified, left eye	Diagnosis	ICD-10-CM
H35.043	Retinal micro-aneurysms, unspecified, bilateral	Diagnosis	ICD-10-CM
H35.049	Retinal micro-aneurysms, unspecified, unspecified eye	Diagnosis	ICD-10-CM
H35.051	Retinal neovascularization, unspecified, right eye	Diagnosis	ICD-10-CM
H35.052	Retinal neovascularization, unspecified, left eye	Diagnosis	ICD-10-CM
H35.053	Retinal neovascularization, unspecified, bilateral	Diagnosis	ICD-10-CM
H35.059	Retinal neovascularization, unspecified, unspecified eye	Diagnosis	ICD-10-CM
H35.061	Retinal vasculitis, right eye	Diagnosis	ICD-10-CM
H35.062	Retinal vasculitis, left eye	Diagnosis	ICD-10-CM
H35.063	Retinal vasculitis, bilateral	Diagnosis	ICD-10-CM
H35.069	Retinal vasculitis, unspecified eye	Diagnosis	ICD-10-CM
H35.071	Retinal telangiectasis, right eye	Diagnosis	ICD-10-CM
H35.072	Retinal telangiectasis, left eye	Diagnosis	ICD-10-CM
H35.073	Retinal telangiectasis, bilateral	Diagnosis	ICD-10-CM
H35.079	Retinal telangiectasis, unspecified eye	Diagnosis	ICD-10-CM
H35.09	Other intraretinal microvascular abnormalities	Diagnosis	ICD-10-CM
H35.2	Other non-diabetic proliferative retinopathy	Diagnosis	ICD-10-CM
H35.20	Other non-diabetic proliferative retinopathy, unspecified eye	Diagnosis	ICD-10-CM
H35.21	Other non-diabetic proliferative retinopathy, right eye	Diagnosis	ICD-10-CM
H35.22	Other non-diabetic proliferative retinopathy, left eye	Diagnosis	ICD-10-CM
H35.23	Other non-diabetic proliferative retinopathy, bilateral	Diagnosis	ICD-10-CM
H35.351	Cystoid macular degeneration, right eye	Diagnosis	ICD-10-CM
H35.352	Cystoid macular degeneration, left eye	Diagnosis	ICD-10-CM
H35.353	Cystoid macular degeneration, bilateral	Diagnosis	ICD-10-CM
H35.359	Cystoid macular degeneration, unspecified eye	Diagnosis	ICD-10-CM
H35.60	Retinal hemorrhage, unspecified eye	Diagnosis	ICD-10-CM
H35.61	Retinal hemorrhage, right eye	Diagnosis	ICD-10-CM
H35.62	Retinal hemorrhage, left eye	Diagnosis	ICD-10-CM
H35.63	Retinal hemorrhage, bilateral	Diagnosis	ICD-10-CM
H35.81	Retinal edema	Diagnosis	ICD-10-CM
H35.82	Retinal ischemia	Diagnosis	ICD-10-CM
H35.89	Other specified retinal disorders	Diagnosis	ICD-10-CM
H43.10	Vitreous hemorrhage, unspecified eye	Diagnosis	ICD-10-CM
H43.11	Vitreous hemorrhage, right eye	Diagnosis	ICD-10-CM
H43.12	Vitreous hemorrhage, left eye	Diagnosis	ICD-10-CM
H43.13	Vitreous hemorrhage, bilateral	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
H49.0	Third [oculomotor] nerve palsy	Diagnosis	ICD-10-CM
H49.00	Third [oculomotor] nerve palsy, unspecified eye	Diagnosis	ICD-10-CM
H49.01	Third [oculomotor] nerve palsy, right eye	Diagnosis	ICD-10-CM
H49.02	Third [oculomotor] nerve palsy, left eye	Diagnosis	ICD-10-CM
H49.03	Third [oculomotor] nerve palsy, bilateral	Diagnosis	ICD-10-CM
H49.1	Fourth [trochlear] nerve palsy	Diagnosis	ICD-10-CM
H49.10	Fourth [trochlear] nerve palsy, unspecified eye	Diagnosis	ICD-10-CM
H49.11	Fourth [trochlear] nerve palsy, right eye	Diagnosis	ICD-10-CM
H49.12	Fourth [trochlear] nerve palsy, left eye	Diagnosis	ICD-10-CM
H49.13	Fourth [trochlear] nerve palsy, bilateral	Diagnosis	ICD-10-CM
H49.2	Sixth [abducent] nerve palsy	Diagnosis	ICD-10-CM
H49.20	Sixth [abducent] nerve palsy, unspecified eye	Diagnosis	ICD-10-CM
H49.21	Sixth [abducent] nerve palsy, right eye	Diagnosis	ICD-10-CM
H49.22	Sixth [abducent] nerve palsy, left eye	Diagnosis	ICD-10-CM
H49.23	Sixth [abducent] nerve palsy, bilateral	Diagnosis	ICD-10-CM
H54.0	Blindness, both eyes	Diagnosis	ICD-10-CM
H54.0X33	Blindness right eye category 3, blindness left eye category 3	Diagnosis	ICD-10-CM
H54.0X34	Blindness right eye category 3, blindness left eye category 4	Diagnosis	ICD-10-CM
H54.0X35	Blindness right eye category 3, blindness left eye category 5	Diagnosis	ICD-10-CM
H54.0X43	Blindness right eye category 4, blindness left eye category 3	Diagnosis	ICD-10-CM
H54.0X44	Blindness right eye category 4, blindness left eye category 4	Diagnosis	ICD-10-CM
H54.0X45	Blindness right eye category 4, blindness left eye category 5	Diagnosis	ICD-10-CM
H54.0X53	Blindness right eye category 5, blindness left eye category 3	Diagnosis	ICD-10-CM
H54.0X54	Blindness right eye category 5, blindness left eye category 4	Diagnosis	ICD-10-CM
H54.0X55	Blindness right eye category 5, blindness left eye category 5	Diagnosis	ICD-10-CM
H54.10	Blindness, one eye, low vision other eye, unspecified eyes	Diagnosis	ICD-10-CM
H54.11	Blindness, right eye, low vision left eye	Diagnosis	ICD-10-CM
H54.1131	Blindness right eye category 3, low vision left eye category 1	Diagnosis	ICD-10-CM
H54.1132	Blindness right eye category 3, low vision left eye category 2	Diagnosis	ICD-10-CM
H54.1141	Blindness right eye category 4, low vision left eye category 1	Diagnosis	ICD-10-CM
H54.1142	Blindness right eye category 4, low vision left eye category 2	Diagnosis	ICD-10-CM
H54.1151	Blindness right eye category 5, low vision left eye category 1	Diagnosis	ICD-10-CM
H54.1152	Blindness right eye category 5, low vision left eye category 2	Diagnosis	ICD-10-CM
H54.12	Blindness, left eye, low vision right eye	Diagnosis	ICD-10-CM
H54.1213	Low vision right eye category 1, blindness left eye category 3	Diagnosis	ICD-10-CM
H54.1214	Low vision right eye category 1, blindness left eye category 4	Diagnosis	ICD-10-CM
H54.1215	Low vision right eye category 1, blindness left eye category 5	Diagnosis	ICD-10-CM
H54.1223	Low vision right eye category 2, blindness left eye category 3	Diagnosis	ICD-10-CM
H54.1224	Low vision right eye category 2, blindness left eye category 4	Diagnosis	ICD-10-CM
H54.1225	Low vision right eye category 2, blindness left eye category 5	Diagnosis	ICD-10-CM
H54.2	Low vision, both eyes	Diagnosis	ICD-10-CM
H54.2X11	Low vision right eye category 1, low vision left eye category 1	Diagnosis	ICD-10-CM
H54.2X12	Low vision right eye category 1, low vision left eye category 2	Diagnosis	ICD-10-CM
H54.2X21	Low vision right eye category 2, low vision left eye category 1	Diagnosis	ICD-10-CM
H54.2X22	Low vision right eye category 2, low vision left eye category 2	Diagnosis	ICD-10-CM
H54.3	Unqualified visual loss, both eyes	Diagnosis	ICD-10-CM
H54.40	Blindness, one eye, unspecified eye	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
H54.41	Blindness, right eye, normal vision left eye	Diagnosis	ICD-10-CM
H54.413A	Blindness right eye category 3, normal vision left eye	Diagnosis	ICD-10-CM
H54.414A	Blindness right eye category 4, normal vision left eye	Diagnosis	ICD-10-CM
H54.415A	Blindness right eye category 5, normal vision left eye	Diagnosis	ICD-10-CM
H54.42	Blindness, left eye, normal vision right eye	Diagnosis	ICD-10-CM
H54.42A3	Blindness left eye category 3, normal vision right eye	Diagnosis	ICD-10-CM
H54.42A4	Blindness left eye category 4, normal vision right eye	Diagnosis	ICD-10-CM
H54.42A5	Blindness left eye category 5, normal vision right eye	Diagnosis	ICD-10-CM
H54.50	Low vision, one eye, unspecified eye	Diagnosis	ICD-10-CM
H54.51	Low vision, right eye, normal vision left eye	Diagnosis	ICD-10-CM
H54.511A	Low vision right eye category 1, normal vision left eye	Diagnosis	ICD-10-CM
H54.512A	Low vision right eye category 2, normal vision left eye	Diagnosis	ICD-10-CM
H54.52	Low vision, left eye, normal vision right eye	Diagnosis	ICD-10-CM
H54.52A1	Low vision left eye category 1, normal vision right eye	Diagnosis	ICD-10-CM
H54.52A2	Low vision left eye category 2, normal vision right eye	Diagnosis	ICD-10-CM
H54.60	Unqualified visual loss, one eye, unspecified	Diagnosis	ICD-10-CM
H54.61	Unqualified visual loss, right eye, normal vision left eye	Diagnosis	ICD-10-CM
H54.62	Unqualified visual loss, left eye, normal vision right eye	Diagnosis	ICD-10-CM
H54.7	Unspecified visual loss	Diagnosis	ICD-10-CM
H54.8	Legal blindness, as defined in USA	Diagnosis	ICD-10-CM
I70.23	Atherosclerosis of native arteries of right leg with ulceration	Diagnosis	ICD-10-CM
I70.231	Atherosclerosis of native arteries of right leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.233	Atherosclerosis of native arteries of right leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.234	Atherosclerosis of native arteries of right leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.235	Atherosclerosis of native arteries of right leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.238	Atherosclerosis of native arteries of right leg with ulceration of other part of lower right leg	Diagnosis	ICD-10-CM
I70.239	Atherosclerosis of native arteries of right leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.24	Atherosclerosis of native arteries of left leg with ulceration	Diagnosis	ICD-10-CM
I70.241	Atherosclerosis of native arteries of left leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.242	Atherosclerosis of native arteries of left leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.243	Atherosclerosis of native arteries of left leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.244	Atherosclerosis of native arteries of left leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.245	Atherosclerosis of native arteries of left leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.248	Atherosclerosis of native arteries of left leg with ulceration of other part of lower left leg	Diagnosis	ICD-10-CM
I70.249	Atherosclerosis of native arteries of left leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.25	Atherosclerosis of native arteries of other extremities with ulceration	Diagnosis	ICD-10-CM
I70.26	Atherosclerosis of native arteries of extremities with gangrene	Diagnosis	ICD-10-CM
I70.261	Atherosclerosis of native arteries of extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.262	Atherosclerosis of native arteries of extremities with gangrene, left leg	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
I70.263	Atherosclerosis of native arteries of extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM
I70.268	Atherosclerosis of native arteries of extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.269	Atherosclerosis of native arteries of extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I70.33	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration	Diagnosis	ICD-10-CM
I70.331	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.332	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.333	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.334	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.335	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.338	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.339	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.34	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration	Diagnosis	ICD-10-CM
I70.341	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.342	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.343	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.344	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.345	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.348	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.349	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.35	Atherosclerosis of unspecified type of bypass graft(s) of other extremity with ulceration	Diagnosis	ICD-10-CM
I70.36	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene	Diagnosis	ICD-10-CM
I70.361	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.362	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.363	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
I70.368	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.369	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I70.43	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration	Diagnosis	ICD-10-CM
I70.431	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.432	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.433	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.434	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.435	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.438	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.439	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.44	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration	Diagnosis	ICD-10-CM
I70.441	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.442	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.443	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.444	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.445	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.448	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.449	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.45	Atherosclerosis of autologous vein bypass graft(s) of other extremity with ulceration	Diagnosis	ICD-10-CM
I70.46	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene	Diagnosis	ICD-10-CM
I70.461	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.462	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.463	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
I70.468	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.469	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I70.53	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration	Diagnosis	ICD-10-CM
I70.531	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.532	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.533	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.534	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.535	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.538	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.539	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.54	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration	Diagnosis	ICD-10-CM
I70.541	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.542	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.543	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.544	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.545	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.548	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.549	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.55	Atherosclerosis of nonautologous biological bypass graft(s) of other extremity with ulceration	Diagnosis	ICD-10-CM
I70.56	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene	Diagnosis	ICD-10-CM
I70.561	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.562	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.563	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I70.568	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.569	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I70.63	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration	Diagnosis	ICD-10-CM
I70.631	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.632	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.633	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.634	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.635	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.638	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.639	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.64	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration	Diagnosis	ICD-10-CM
I70.641	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.642	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.643	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.644	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.645	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.648	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.649	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.65	Atherosclerosis of nonbiological bypass graft(s) of other extremity with ulceration	Diagnosis	ICD-10-CM
I70.66	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene	Diagnosis	ICD-10-CM
I70.661	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.662	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.663	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM
I70.668	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, other extremity	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
I70.669	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I70.73	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration	Diagnosis	ICD-10-CM
I70.731	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.732	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.733	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.734	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.735	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.738	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.739	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.74	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration	Diagnosis	ICD-10-CM
I70.741	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.742	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.743	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.744	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.745	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.748	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.749	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.75	Atherosclerosis of other type of bypass graft(s) of other extremity with ulceration	Diagnosis	ICD-10-CM
I70.76	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene	Diagnosis	ICD-10-CM
I70.761	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.762	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.763	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM
I70.768	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.769	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I72.4	Aneurysm of artery of lower extremity	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I73.01	Raynaud's syndrome with gangrene	Diagnosis	ICD-10-CM
I73.9	Peripheral vascular disease, unspecified	Diagnosis	ICD-10-CM
I74.3	Embolism and thrombosis of arteries of the lower extremities	Diagnosis	ICD-10-CM
I74.4	Embolism and thrombosis of arteries of extremities, unspecified	Diagnosis	ICD-10-CM
I79.1	Aortitis in diseases classified elsewhere	Diagnosis	ICD-10-CM
I79.8	Other disorders of arteries, arterioles and capillaries in diseases classified elsewhere	Diagnosis	ICD-10-CM
I96	Gangrene, not elsewhere classified	Diagnosis	ICD-10-CM
L97.101	Non-pressure chronic ulcer of unspecified thigh limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.102	Non-pressure chronic ulcer of unspecified thigh with fat layer exposed	Diagnosis	ICD-10-CM
L97.103	Non-pressure chronic ulcer of unspecified thigh with necrosis of muscle	Diagnosis	ICD-10-CM
L97.104	Non-pressure chronic ulcer of unspecified thigh with necrosis of bone	Diagnosis	ICD-10-CM
L97.105	Non-pressure chronic ulcer of unspecified thigh with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.106	Non-pressure chronic ulcer of unspecified thigh with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.108	Non-pressure chronic ulcer of unspecified thigh with other specified severity	Diagnosis	ICD-10-CM
L97.109	Non-pressure chronic ulcer of unspecified thigh with unspecified severity	Diagnosis	ICD-10-CM
L97.111	Non-pressure chronic ulcer of right thigh limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.112	Non-pressure chronic ulcer of right thigh with fat layer exposed	Diagnosis	ICD-10-CM
L97.113	Non-pressure chronic ulcer of right thigh with necrosis of muscle	Diagnosis	ICD-10-CM
L97.114	Non-pressure chronic ulcer of right thigh with necrosis of bone	Diagnosis	ICD-10-CM
L97.115	Non-pressure chronic ulcer of right thigh with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.116	Non-pressure chronic ulcer of right thigh with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.118	Non-pressure chronic ulcer of right thigh with other specified severity	Diagnosis	ICD-10-CM
L97.119	Non-pressure chronic ulcer of right thigh with unspecified severity	Diagnosis	ICD-10-CM
L97.121	Non-pressure chronic ulcer of left thigh limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.122	Non-pressure chronic ulcer of left thigh with fat layer exposed	Diagnosis	ICD-10-CM
L97.123	Non-pressure chronic ulcer of left thigh with necrosis of muscle	Diagnosis	ICD-10-CM
L97.124	Non-pressure chronic ulcer of left thigh with necrosis of bone	Diagnosis	ICD-10-CM
L97.125	Non-pressure chronic ulcer of left thigh with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.126	Non-pressure chronic ulcer of left thigh with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.128	Non-pressure chronic ulcer of left thigh with other specified severity	Diagnosis	ICD-10-CM
L97.129	Non-pressure chronic ulcer of left thigh with unspecified severity	Diagnosis	ICD-10-CM
L97.201	Non-pressure chronic ulcer of unspecified calf limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.202	Non-pressure chronic ulcer of unspecified calf with fat layer exposed	Diagnosis	ICD-10-CM
L97.203	Non-pressure chronic ulcer of unspecified calf with necrosis of muscle	Diagnosis	ICD-10-CM
L97.204	Non-pressure chronic ulcer of unspecified calf with necrosis of bone	Diagnosis	ICD-10-CM
L97.205	Non-pressure chronic ulcer of unspecified calf with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.206	Non-pressure chronic ulcer of unspecified calf with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.208	Non-pressure chronic ulcer of unspecified calf with other specified severity	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
L97.209	Non-pressure chronic ulcer of unspecified calf with unspecified severity	Diagnosis	ICD-10-CM
L97.211	Non-pressure chronic ulcer of right calf limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.212	Non-pressure chronic ulcer of right calf with fat layer exposed	Diagnosis	ICD-10-CM
L97.213	Non-pressure chronic ulcer of right calf with necrosis of muscle	Diagnosis	ICD-10-CM
L97.214	Non-pressure chronic ulcer of right calf with necrosis of bone	Diagnosis	ICD-10-CM
L97.215	Non-pressure chronic ulcer of right calf with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.216	Non-pressure chronic ulcer of right calf with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.218	Non-pressure chronic ulcer of right calf with other specified severity	Diagnosis	ICD-10-CM
L97.219	Non-pressure chronic ulcer of right calf with unspecified severity	Diagnosis	ICD-10-CM
L97.221	Non-pressure chronic ulcer of left calf limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.222	Non-pressure chronic ulcer of left calf with fat layer exposed	Diagnosis	ICD-10-CM
L97.223	Non-pressure chronic ulcer of left calf with necrosis of muscle	Diagnosis	ICD-10-CM
L97.224	Non-pressure chronic ulcer of left calf with necrosis of bone	Diagnosis	ICD-10-CM
L97.225	Non-pressure chronic ulcer of left calf with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.226	Non-pressure chronic ulcer of left calf with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.228	Non-pressure chronic ulcer of left calf with other specified severity	Diagnosis	ICD-10-CM
L97.229	Non-pressure chronic ulcer of left calf with unspecified severity	Diagnosis	ICD-10-CM
L97.301	Non-pressure chronic ulcer of unspecified ankle limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.302	Non-pressure chronic ulcer of unspecified ankle with fat layer exposed	Diagnosis	ICD-10-CM
L97.303	Non-pressure chronic ulcer of unspecified ankle with necrosis of muscle	Diagnosis	ICD-10-CM
L97.304	Non-pressure chronic ulcer of unspecified ankle with necrosis of bone	Diagnosis	ICD-10-CM
L97.305	Non-pressure chronic ulcer of unspecified ankle with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.306	Non-pressure chronic ulcer of unspecified ankle with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.308	Non-pressure chronic ulcer of unspecified ankle with other specified severity	Diagnosis	ICD-10-CM
L97.309	Non-pressure chronic ulcer of unspecified ankle with unspecified severity	Diagnosis	ICD-10-CM
L97.311	Non-pressure chronic ulcer of right ankle limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.312	Non-pressure chronic ulcer of right ankle with fat layer exposed	Diagnosis	ICD-10-CM
L97.313	Non-pressure chronic ulcer of right ankle with necrosis of muscle	Diagnosis	ICD-10-CM
L97.314	Non-pressure chronic ulcer of right ankle with necrosis of bone	Diagnosis	ICD-10-CM
L97.315	Non-pressure chronic ulcer of right ankle with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.316	Non-pressure chronic ulcer of right ankle with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.318	Non-pressure chronic ulcer of right ankle with other specified severity	Diagnosis	ICD-10-CM
L97.319	Non-pressure chronic ulcer of right ankle with unspecified severity	Diagnosis	ICD-10-CM
L97.321	Non-pressure chronic ulcer of left ankle limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.322	Non-pressure chronic ulcer of left ankle with fat layer exposed	Diagnosis	ICD-10-CM
L97.323	Non-pressure chronic ulcer of left ankle with necrosis of muscle	Diagnosis	ICD-10-CM
L97.324	Non-pressure chronic ulcer of left ankle with necrosis of bone	Diagnosis	ICD-10-CM
L97.325	Non-pressure chronic ulcer of left ankle with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
L97.326	Non-pressure chronic ulcer of left ankle with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.328	Non-pressure chronic ulcer of left ankle with other specified severity	Diagnosis	ICD-10-CM
L97.329	Non-pressure chronic ulcer of left ankle with unspecified severity	Diagnosis	ICD-10-CM
L97.401	Non-pressure chronic ulcer of unspecified heel and midfoot limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.402	Non-pressure chronic ulcer of unspecified heel and midfoot with fat layer exposed	Diagnosis	ICD-10-CM
L97.403	Non-pressure chronic ulcer of unspecified heel and midfoot with necrosis of muscle	Diagnosis	ICD-10-CM
L97.404	Non-pressure chronic ulcer of unspecified heel and midfoot with necrosis of bone	Diagnosis	ICD-10-CM
L97.405	Non-pressure chronic ulcer of unspecified heel and midfoot with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.406	Non-pressure chronic ulcer of unspecified heel and midfoot with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.408	Non-pressure chronic ulcer of unspecified heel and midfoot with other specified severity	Diagnosis	ICD-10-CM
L97.409	Non-pressure chronic ulcer of unspecified heel and midfoot with unspecified severity	Diagnosis	ICD-10-CM
L97.411	Non-pressure chronic ulcer of right heel and midfoot limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.412	Non-pressure chronic ulcer of right heel and midfoot with fat layer exposed	Diagnosis	ICD-10-CM
L97.413	Non-pressure chronic ulcer of right heel and midfoot with necrosis of muscle	Diagnosis	ICD-10-CM
L97.414	Non-pressure chronic ulcer of right heel and midfoot with necrosis of bone	Diagnosis	ICD-10-CM
L97.415	Non-pressure chronic ulcer of right heel and midfoot with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.416	Non-pressure chronic ulcer of right heel and midfoot with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.418	Non-pressure chronic ulcer of right heel and midfoot with other specified severity	Diagnosis	ICD-10-CM
L97.419	Non-pressure chronic ulcer of right heel and midfoot with unspecified severity	Diagnosis	ICD-10-CM
L97.421	Non-pressure chronic ulcer of left heel and midfoot limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.422	Non-pressure chronic ulcer of left heel and midfoot with fat layer exposed	Diagnosis	ICD-10-CM
L97.423	Non-pressure chronic ulcer of left heel and midfoot with necrosis of muscle	Diagnosis	ICD-10-CM
L97.424	Non-pressure chronic ulcer of left heel and midfoot with necrosis of bone	Diagnosis	ICD-10-CM
L97.425	Non-pressure chronic ulcer of left heel and midfoot with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.426	Non-pressure chronic ulcer of left heel and midfoot with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.428	Non-pressure chronic ulcer of left heel and midfoot with other specified severity	Diagnosis	ICD-10-CM
L97.429	Non-pressure chronic ulcer of left heel and midfoot with unspecified severity	Diagnosis	ICD-10-CM
L97.501	Non-pressure chronic ulcer of other part of unspecified foot limited to breakdown of skin	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
L97.502	Non-pressure chronic ulcer of other part of unspecified foot with fat layer exposed	Diagnosis	ICD-10-CM
L97.503	Non-pressure chronic ulcer of other part of unspecified foot with necrosis of muscle	Diagnosis	ICD-10-CM
L97.504	Non-pressure chronic ulcer of other part of unspecified foot with necrosis of bone	Diagnosis	ICD-10-CM
L97.505	Non-pressure chronic ulcer of other part of unspecified foot with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.506	Non-pressure chronic ulcer of other part of unspecified foot with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.508	Non-pressure chronic ulcer of other part of unspecified foot with other specified severity	Diagnosis	ICD-10-CM
L97.509	Non-pressure chronic ulcer of other part of unspecified foot with unspecified severity	Diagnosis	ICD-10-CM
L97.511	Non-pressure chronic ulcer of other part of right foot limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.512	Non-pressure chronic ulcer of other part of right foot with fat layer exposed	Diagnosis	ICD-10-CM
L97.513	Non-pressure chronic ulcer of other part of right foot with necrosis of muscle	Diagnosis	ICD-10-CM
L97.514	Non-pressure chronic ulcer of other part of right foot with necrosis of bone	Diagnosis	ICD-10-CM
L97.515	Non-pressure chronic ulcer of other part of right foot with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.516	Non-pressure chronic ulcer of other part of right foot with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.518	Non-pressure chronic ulcer of other part of right foot with other specified severity	Diagnosis	ICD-10-CM
L97.519	Non-pressure chronic ulcer of other part of right foot with unspecified severity	Diagnosis	ICD-10-CM
L97.521	Non-pressure chronic ulcer of other part of left foot limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.522	Non-pressure chronic ulcer of other part of left foot with fat layer exposed	Diagnosis	ICD-10-CM
L97.523	Non-pressure chronic ulcer of other part of left foot with necrosis of muscle	Diagnosis	ICD-10-CM
L97.524	Non-pressure chronic ulcer of other part of left foot with necrosis of bone	Diagnosis	ICD-10-CM
L97.525	Non-pressure chronic ulcer of other part of left foot with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.526	Non-pressure chronic ulcer of other part of left foot with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.528	Non-pressure chronic ulcer of other part of left foot with other specified severity	Diagnosis	ICD-10-CM
L97.529	Non-pressure chronic ulcer of other part of left foot with unspecified severity	Diagnosis	ICD-10-CM
L97.801	Non-pressure chronic ulcer of other part of unspecified lower leg limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.802	Non-pressure chronic ulcer of other part of unspecified lower leg with fat layer exposed	Diagnosis	ICD-10-CM
L97.803	Non-pressure chronic ulcer of other part of unspecified lower leg with necrosis of muscle	Diagnosis	ICD-10-CM
L97.804	Non-pressure chronic ulcer of other part of unspecified lower leg with necrosis of bone	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
L97.805	Non-pressure chronic ulcer of other part of unspecified lower leg with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.806	Non-pressure chronic ulcer of other part of unspecified lower leg with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.808	Non-pressure chronic ulcer of other part of unspecified lower leg with other specified severity	Diagnosis	ICD-10-CM
L97.809	Non-pressure chronic ulcer of other part of unspecified lower leg with unspecified severity	Diagnosis	ICD-10-CM
L97.811	Non-pressure chronic ulcer of other part of right lower leg limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.812	Non-pressure chronic ulcer of other part of right lower leg with fat layer exposed	Diagnosis	ICD-10-CM
L97.813	Non-pressure chronic ulcer of other part of right lower leg with necrosis of muscle	Diagnosis	ICD-10-CM
L97.814	Non-pressure chronic ulcer of other part of right lower leg with necrosis of bone	Diagnosis	ICD-10-CM
L97.815	Non-pressure chronic ulcer of other part of right lower leg with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.816	Non-pressure chronic ulcer of other part of right lower leg with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.818	Non-pressure chronic ulcer of other part of right lower leg with other specified severity	Diagnosis	ICD-10-CM
L97.819	Non-pressure chronic ulcer of other part of right lower leg with unspecified severity	Diagnosis	ICD-10-CM
L97.821	Non-pressure chronic ulcer of other part of left lower leg limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.822	Non-pressure chronic ulcer of other part of left lower leg with fat layer exposed	Diagnosis	ICD-10-CM
L97.823	Non-pressure chronic ulcer of other part of left lower leg with necrosis of muscle	Diagnosis	ICD-10-CM
L97.824	Non-pressure chronic ulcer of other part of left lower leg with necrosis of bone	Diagnosis	ICD-10-CM
L97.825	Non-pressure chronic ulcer of other part of left lower leg with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.826	Non-pressure chronic ulcer of other part of left lower leg with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.828	Non-pressure chronic ulcer of other part of left lower leg with other specified severity	Diagnosis	ICD-10-CM
L97.829	Non-pressure chronic ulcer of other part of left lower leg with unspecified severity	Diagnosis	ICD-10-CM
L97.901	Non-pressure chronic ulcer of unspecified part of unspecified lower leg limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.902	Non-pressure chronic ulcer of unspecified part of unspecified lower leg with fat layer exposed	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
L97.903	Non-pressure chronic ulcer of unspecified part of unspecified lower leg with necrosis of muscle	Diagnosis	ICD-10-CM
L97.904	Non-pressure chronic ulcer of unspecified part of unspecified lower leg with necrosis of bone	Diagnosis	ICD-10-CM
L97.905	Non-pressure chronic ulcer of unspecified part of unspecified lower leg with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.906	Non-pressure chronic ulcer of unspecified part of unspecified lower leg with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.908	Non-pressure chronic ulcer of unspecified part of unspecified lower leg with other specified severity	Diagnosis	ICD-10-CM
L97.909	Non-pressure chronic ulcer of unspecified part of unspecified lower leg with unspecified severity	Diagnosis	ICD-10-CM
L97.911	Non-pressure chronic ulcer of unspecified part of right lower leg limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.912	Non-pressure chronic ulcer of unspecified part of right lower leg with fat layer exposed	Diagnosis	ICD-10-CM
L97.913	Non-pressure chronic ulcer of unspecified part of right lower leg with necrosis of muscle	Diagnosis	ICD-10-CM
L97.914	Non-pressure chronic ulcer of unspecified part of right lower leg with necrosis of bone	Diagnosis	ICD-10-CM
L97.915	Non-pressure chronic ulcer of unspecified part of right lower leg with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.916	Non-pressure chronic ulcer of unspecified part of right lower leg with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.918	Non-pressure chronic ulcer of unspecified part of right lower leg with other specified severity	Diagnosis	ICD-10-CM
L97.919	Non-pressure chronic ulcer of unspecified part of right lower leg with unspecified severity	Diagnosis	ICD-10-CM
L97.921	Non-pressure chronic ulcer of unspecified part of left lower leg limited to breakdown of skin	Diagnosis	ICD-10-CM
L97.922	Non-pressure chronic ulcer of unspecified part of left lower leg with fat layer exposed	Diagnosis	ICD-10-CM
L97.923	Non-pressure chronic ulcer of unspecified part of left lower leg with necrosis of muscle	Diagnosis	ICD-10-CM
L97.924	Non-pressure chronic ulcer of unspecified part of left lower leg with necrosis of bone	Diagnosis	ICD-10-CM
L97.925	Non-pressure chronic ulcer of unspecified part of left lower leg with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L97.926	Non-pressure chronic ulcer of unspecified part of left lower leg with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
L97.928	Non-pressure chronic ulcer of unspecified part of left lower leg with other specified severity	Diagnosis	ICD-10-CM
L97.929	Non-pressure chronic ulcer of unspecified part of left lower leg with unspecified severity	Diagnosis	ICD-10-CM
L98.4	Non-pressure chronic ulcer of skin, not elsewhere classified	Diagnosis	ICD-10-CM
L98.41	Non-pressure chronic ulcer of buttock	Diagnosis	ICD-10-CM
L98.411	Non-pressure chronic ulcer of buttock limited to breakdown of skin	Diagnosis	ICD-10-CM
L98.412	Non-pressure chronic ulcer of buttock with fat layer exposed	Diagnosis	ICD-10-CM
L98.413	Non-pressure chronic ulcer of buttock with necrosis of muscle	Diagnosis	ICD-10-CM
L98.414	Non-pressure chronic ulcer of buttock with necrosis of bone	Diagnosis	ICD-10-CM
L98.415	Non-pressure chronic ulcer of buttock with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L98.416	Non-pressure chronic ulcer of buttock with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L98.418	Non-pressure chronic ulcer of buttock with other specified severity	Diagnosis	ICD-10-CM
L98.419	Non-pressure chronic ulcer of buttock with unspecified severity	Diagnosis	ICD-10-CM
L98.42	Non-pressure chronic ulcer of back	Diagnosis	ICD-10-CM
L98.421	Non-pressure chronic ulcer of back limited to breakdown of skin	Diagnosis	ICD-10-CM
L98.422	Non-pressure chronic ulcer of back with fat layer exposed	Diagnosis	ICD-10-CM
L98.423	Non-pressure chronic ulcer of back with necrosis of muscle	Diagnosis	ICD-10-CM
L98.424	Non-pressure chronic ulcer of back with necrosis of bone	Diagnosis	ICD-10-CM
L98.425	Non-pressure chronic ulcer of back with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L98.426	Non-pressure chronic ulcer of back with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L98.428	Non-pressure chronic ulcer of back with other specified severity	Diagnosis	ICD-10-CM
L98.429	Non-pressure chronic ulcer of back with unspecified severity	Diagnosis	ICD-10-CM
L98.49	Non-pressure chronic ulcer of skin of other sites	Diagnosis	ICD-10-CM
L98.491	Non-pressure chronic ulcer of skin of other sites limited to breakdown of skin	Diagnosis	ICD-10-CM
L98.492	Non-pressure chronic ulcer of skin of other sites with fat layer exposed	Diagnosis	ICD-10-CM
L98.493	Non-pressure chronic ulcer of skin of other sites with necrosis of muscle	Diagnosis	ICD-10-CM
L98.494	Non-pressure chronic ulcer of skin of other sites with necrosis of bone	Diagnosis	ICD-10-CM
L98.495	Non-pressure chronic ulcer of skin of other sites with muscle involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L98.496	Non-pressure chronic ulcer of skin of other sites with bone involvement without evidence of necrosis	Diagnosis	ICD-10-CM
L98.498	Non-pressure chronic ulcer of skin of other sites with other specified severity	Diagnosis	ICD-10-CM
L98.499	Non-pressure chronic ulcer of skin of other sites with unspecified severity	Diagnosis	ICD-10-CM
M14.60	Charcot's joint, unspecified site	Diagnosis	ICD-10-CM
M14.611	Charcot's joint, right shoulder	Diagnosis	ICD-10-CM
M14.612	Charcot's joint, left shoulder	Diagnosis	ICD-10-CM
M14.619	Charcot's joint, unspecified shoulder	Diagnosis	ICD-10-CM
M14.621	Charcot's joint, right elbow	Diagnosis	ICD-10-CM
M14.622	Charcot's joint, left elbow	Diagnosis	ICD-10-CM
M14.629	Charcot's joint, unspecified elbow	Diagnosis	ICD-10-CM
M14.631	Charcot's joint, right wrist	Diagnosis	ICD-10-CM
M14.632	Charcot's joint, left wrist	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
M14.639	Charcot's joint, unspecified wrist	Diagnosis	ICD-10-CM
M14.641	Charcot's joint, right hand	Diagnosis	ICD-10-CM
M14.642	Charcot's joint, left hand	Diagnosis	ICD-10-CM
M14.649	Charcot's joint, unspecified hand	Diagnosis	ICD-10-CM
M14.651	Charcot's joint, right hip	Diagnosis	ICD-10-CM
M14.652	Charcot's joint, left hip	Diagnosis	ICD-10-CM
M14.659	Charcot's joint, unspecified hip	Diagnosis	ICD-10-CM
M14.661	Charcot's joint, right knee	Diagnosis	ICD-10-CM
M14.662	Charcot's joint, left knee	Diagnosis	ICD-10-CM
M14.669	Charcot's joint, unspecified knee	Diagnosis	ICD-10-CM
M14.671	Charcot's joint, right ankle and foot	Diagnosis	ICD-10-CM
M14.672	Charcot's joint, left ankle and foot	Diagnosis	ICD-10-CM
M14.679	Charcot's joint, unspecified ankle and foot	Diagnosis	ICD-10-CM
M14.68	Charcot's joint, vertebrae	Diagnosis	ICD-10-CM
M14.69	Charcot's joint, multiple sites	Diagnosis	ICD-10-CM
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
N00.7	Acute nephritic syndrome with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N00.8	Acute nephritic syndrome with other morphologic changes	Diagnosis	ICD-10-CM
N00.9	Acute nephritic syndrome with unspecified morphologic changes	Diagnosis	ICD-10-CM
N01.0	Rapidly progressive nephritic syndrome with minor glomerular abnormality	Diagnosis	ICD-10-CM
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

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Code	Description	Code Category	Code Type
N04.6	Nephrotic syndrome with dense deposit disease	Diagnosis	ICD-10-CM
N04.7	Nephrotic syndrome with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N04.8	Nephrotic syndrome with other morphologic changes	Diagnosis	ICD-10-CM
N04.9	Nephrotic syndrome with unspecified morphologic changes	Diagnosis	ICD-10-CM
N05.0	Unspecified nephritic syndrome with minor glomerular abnormality	Diagnosis	ICD-10-CM
N05.1	Unspecified nephritic syndrome with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N05.2	Unspecified nephritic syndrome with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N05.3	Unspecified nephritic syndrome with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N05.4	Unspecified nephritic syndrome with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N05.5	Unspecified nephritic syndrome with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N05.6	Unspecified nephritic syndrome with dense deposit disease	Diagnosis	ICD-10-CM
N05.7	Unspecified nephritic syndrome with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N05.8	Unspecified nephritic syndrome with other morphologic changes	Diagnosis	ICD-10-CM
N05.9	Unspecified nephritic syndrome with unspecified morphologic changes	Diagnosis	ICD-10-CM
N06.0	Isolated proteinuria with minor glomerular abnormality	Diagnosis	ICD-10-CM
N06.1	Isolated proteinuria with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N06.2	Isolated proteinuria with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N06.3	Isolated proteinuria with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N06.4	Isolated proteinuria with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N06.5	Isolated proteinuria with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N06.6	Isolated proteinuria with dense deposit disease	Diagnosis	ICD-10-CM
N06.7	Isolated proteinuria with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N06.8	Isolated proteinuria with other morphologic lesion	Diagnosis	ICD-10-CM
N06.9	Isolated proteinuria with unspecified morphologic lesion	Diagnosis	ICD-10-CM
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

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Code	Description	Code Category	Code Type
N07.9	Hereditary nephropathy, not elsewhere classified with unspecified morphologic lesions	Diagnosis	ICD-10-CM
N08	Glomerular disorders in diseases classified elsewhere	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
N17.1	Acute kidney failure with acute cortical necrosis	Diagnosis	ICD-10-CM
N17.2	Acute kidney failure with medullary necrosis	Diagnosis	ICD-10-CM
N17.8	Other acute kidney failure	Diagnosis	ICD-10-CM
N17.9	Acute kidney failure, unspecified	Diagnosis	ICD-10-CM
N18.1	Chronic kidney disease, stage 1	Diagnosis	ICD-10-CM
N18.2	Chronic kidney disease, stage 2 (mild)	Diagnosis	ICD-10-CM
N18.3	Chronic kidney disease, stage 3 (moderate)	Diagnosis	ICD-10-CM
N18.4	Chronic kidney disease, stage 4 (severe)	Diagnosis	ICD-10-CM
N18.5	Chronic kidney disease, stage 5	Diagnosis	ICD-10-CM
N18.6	End stage renal disease	Diagnosis	ICD-10-CM
N18.9	Chronic kidney disease, unspecified	Diagnosis	ICD-10-CM
N19	Unspecified kidney failure	Diagnosis	ICD-10-CM
N28.9	Disorder of kidney and ureter, unspecified	Diagnosis	ICD-10-CM
N29	Other disorders of kidney and ureter in diseases classified elsewhere	Diagnosis	ICD-10-CM
S04.10XA	Injury of oculomotor nerve, unspecified side, initial encounter	Diagnosis	ICD-10-CM
S04.11XA	Injury of oculomotor nerve, right side, initial encounter	Diagnosis	ICD-10-CM
S04.12XA	Injury of oculomotor nerve, left side, initial encounter	Diagnosis	ICD-10-CM
S04.20XA	Injury of trochlear nerve, unspecified side, initial encounter	Diagnosis	ICD-10-CM
S04.21XA	Injury of trochlear nerve, right side, initial encounter	Diagnosis	ICD-10-CM
S04.22XA	Injury of trochlear nerve, left side, initial encounter	Diagnosis	ICD-10-CM
S04.40XA	Injury of abducent nerve, unspecified side, initial encounter	Diagnosis	ICD-10-CM
S04.41XA	Injury of abducent nerve, right side, initial encounter	Diagnosis	ICD-10-CM
S04.42XA	Injury of abducent nerve, left side, initial encounter	Diagnosis	ICD-10-CM
S91.321A	Laceration with foreign body, right foot, initial encounter	Diagnosis	ICD-10-CM
S91.322A	Laceration with foreign body, left foot, initial encounter	Diagnosis	ICD-10-CM
S91.329A	Laceration with foreign body, unspecified foot, initial encounter	Diagnosis	ICD-10-CM
S91.341A	Puncture wound with foreign body, right foot, initial encounter	Diagnosis	ICD-10-CM
S91.342A	Puncture wound with foreign body, left foot, initial encounter	Diagnosis	ICD-10-CM
S91.349A	Puncture wound with foreign body, unspecified foot, initial encounter	Diagnosis	ICD-10-CM
T82.4	Mechanical complication of vascular dialysis catheter	Diagnosis	ICD-10-CM
T82.41	Breakdown (mechanical) of vascular dialysis catheter	Diagnosis	ICD-10-CM
T82.41XA	Breakdown (mechanical) of vascular dialysis catheter, initial encounter	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
T82.41XD	Breakdown (mechanical) of vascular dialysis catheter, subsequent encounter	Diagnosis	ICD-10-CM
T82.41XS	Breakdown (mechanical) of vascular dialysis catheter, sequela	Diagnosis	ICD-10-CM
T82.42	Displacement of vascular dialysis catheter	Diagnosis	ICD-10-CM
T82.42XA	Displacement of vascular dialysis catheter, initial encounter	Diagnosis	ICD-10-CM
T82.42XD	Displacement of vascular dialysis catheter, subsequent encounter	Diagnosis	ICD-10-CM
T82.42XS	Displacement of vascular dialysis catheter, sequela	Diagnosis	ICD-10-CM
T82.43	Leakage of vascular dialysis catheter	Diagnosis	ICD-10-CM
T82.43XA	Leakage of vascular dialysis catheter, initial encounter	Diagnosis	ICD-10-CM
T82.43XD	Leakage of vascular dialysis catheter, subsequent encounter	Diagnosis	ICD-10-CM
T82.43XS	Leakage of vascular dialysis catheter, sequela	Diagnosis	ICD-10-CM
T82.49	Other complication of vascular dialysis catheter	Diagnosis	ICD-10-CM
T82.49XA	Other complication of vascular dialysis catheter, initial encounter	Diagnosis	ICD-10-CM
T82.49XD	Other complication of vascular dialysis catheter, subsequent encounter	Diagnosis	ICD-10-CM
T82.49XS	Other complication of vascular dialysis catheter, sequela	Diagnosis	ICD-10-CM
Z49	Encounter for care involving renal dialysis	Diagnosis	ICD-10-CM
Z49.0	Preparatory care for renal dialysis	Diagnosis	ICD-10-CM
Z49.01	Encounter for fitting and adjustment of extracorporeal dialysis catheter	Diagnosis	ICD-10-CM
Z49.02	Encounter for fitting and adjustment of peritoneal dialysis catheter	Diagnosis	ICD-10-CM
Z49.3	Encounter for adequacy testing for dialysis	Diagnosis	ICD-10-CM
Z49.31	Encounter for adequacy testing for hemodialysis	Diagnosis	ICD-10-CM
Z49.32	Encounter for adequacy testing for peritoneal dialysis	Diagnosis	ICD-10-CM
Z99.2	Dependence on renal dialysis	Diagnosis	ICD-10-CM
Stroke			
430	Subarachnoid hemorrhage	Diagnosis	ICD-9-CM
431	Intracerebral hemorrhage	Diagnosis	ICD-9-CM
433.01	Occlusion and stenosis of basilar artery with cerebral infarction	Diagnosis	ICD-9-CM
433.11	Occlusion and stenosis of carotid artery with cerebral infarction	Diagnosis	ICD-9-CM
433.21	Occlusion and stenosis of vertebral artery with cerebral infarction	Diagnosis	ICD-9-CM
433.31	Occlusion and stenosis of multiple and bilateral precerebral arteries with cerebral infarction	Diagnosis	ICD-9-CM
433.81	Occlusion and stenosis of other specified precerebral artery with cerebral infarction	Diagnosis	ICD-9-CM
433.91	Occlusion and stenosis of unspecified precerebral artery with cerebral infarction	Diagnosis	ICD-9-CM
434.01	Cerebral thrombosis with cerebral infarction	Diagnosis	ICD-9-CM
434.11	Cerebral embolism with cerebral infarction	Diagnosis	ICD-9-CM
434.91	Unspecified cerebral artery occlusion with cerebral infarction	Diagnosis	ICD-9-CM
436	Acute, but ill-defined, cerebrovascular disease	Diagnosis	ICD-9-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

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Code	Description	Code Category	Code Type
I60.12	Nontraumatic subarachnoid hemorrhage from left middle cerebral artery	Diagnosis	ICD-10-CM
I60.2	Nontraumatic subarachnoid hemorrhage from anterior communicating artery	Diagnosis	ICD-10-CM
I60.30	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
I63.033	Cerebral infarction due to thrombosis of bilateral carotid arteries	Diagnosis	ICD-10-CM
I63.039	Cerebral infarction due to thrombosis of unspecified carotid artery	Diagnosis	ICD-10-CM
I63.09	Cerebral infarction due to thrombosis of other precerebral artery	Diagnosis	ICD-10-CM
I63.10	Cerebral infarction due to embolism of unspecified precerebral artery	Diagnosis	ICD-10-CM
I63.111	Cerebral infarction due to embolism of right vertebral artery	Diagnosis	ICD-10-CM
I63.112	Cerebral infarction due to embolism of left vertebral artery	Diagnosis	ICD-10-CM
I63.113	Cerebral infarction due to embolism of bilateral vertebral arteries	Diagnosis	ICD-10-CM
I63.119	Cerebral infarction due to embolism of unspecified vertebral artery	Diagnosis	ICD-10-CM
I63.12	Cerebral infarction due to embolism of basilar artery	Diagnosis	ICD-10-CM
I63.131	Cerebral infarction due to embolism of right carotid artery	Diagnosis	ICD-10-CM
I63.132	Cerebral infarction due to embolism of left carotid artery	Diagnosis	ICD-10-CM
I63.133	Cerebral infarction due to embolism of bilateral carotid arteries	Diagnosis	ICD-10-CM
I63.139	Cerebral infarction due to embolism of unspecified carotid artery	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
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
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

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Code	Description	Code Category	Code Type
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
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

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

Code	Description	Code Category	Code Type
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
I67.89	Other cerebrovascular disease	Diagnosis	ICD-10-CM
Malignancy			
00.10	Implantation of chemotherapeutic agent	Procedure	ICD-9-CM
0073T	Compensator-based beam modulation treatment delivery of inverse planned treatment using 3 or more high resolution (milled or cast) compensator convergent beam modulated fields, per treatment session	Procedure	CPT-3
0182T	High dose rate electronic brachytherapy, per fraction	Procedure	CPT-3
0190T	Placement of intraocular radiation source applicator (List separately in addition to primary procedure)	Procedure	CPT-3
0347T	Placement of interstitial device(s) in bone for radiostereometric analysis (RSA)	Procedure	CPT-3
140	Malignant neoplasm of lip	Diagnosis	ICD-9-CM
140.0	Malignant neoplasm of upper lip, vermilion border	Diagnosis	ICD-9-CM
140.1	Malignant neoplasm of lower lip, vermilion border	Diagnosis	ICD-9-CM
140.3	Malignant neoplasm of upper lip, inner aspect	Diagnosis	ICD-9-CM
140.4	Malignant neoplasm of lower lip, inner aspect	Diagnosis	ICD-9-CM
140.5	Malignant neoplasm of lip, inner aspect, unspecified as to upper or lower	Diagnosis	ICD-9-CM
140.6	Malignant neoplasm of commissure of lip	Diagnosis	ICD-9-CM
140.8	Malignant neoplasm of other sites of lip	Diagnosis	ICD-9-CM
140.9	Malignant neoplasm of lip, vermilion border, unspecified as to upper or lower	Diagnosis	ICD-9-CM
141	Malignant neoplasm of tongue	Diagnosis	ICD-9-CM
141.0	Malignant neoplasm of base of tongue	Diagnosis	ICD-9-CM
141.1	Malignant neoplasm of dorsal surface of tongue	Diagnosis	ICD-9-CM
141.2	Malignant neoplasm of tip and lateral border of tongue	Diagnosis	ICD-9-CM
141.3	Malignant neoplasm of ventral surface of tongue	Diagnosis	ICD-9-CM
141.4	Malignant neoplasm of anterior two-thirds of tongue, part unspecified	Diagnosis	ICD-9-CM
141.5	Malignant neoplasm of junctional zone of tongue	Diagnosis	ICD-9-CM
141.6	Malignant neoplasm of lingual tonsil	Diagnosis	ICD-9-CM
141.8	Malignant neoplasm of other sites of tongue	Diagnosis	ICD-9-CM
141.9	Malignant neoplasm of tongue, unspecified site	Diagnosis	ICD-9-CM
142	Malignant neoplasm of major salivary glands	Diagnosis	ICD-9-CM
142.0	Malignant neoplasm of parotid gland	Diagnosis	ICD-9-CM
142.1	Malignant neoplasm of submandibular gland	Diagnosis	ICD-9-CM
142.2	Malignant neoplasm of sublingual gland	Diagnosis	ICD-9-CM
142.8	Malignant neoplasm of other major salivary glands	Diagnosis	ICD-9-CM
142.9	Malignant neoplasm of salivary gland, unspecified	Diagnosis	ICD-9-CM
143	Malignant neoplasm of gum	Diagnosis	ICD-9-CM
143.0	Malignant neoplasm of upper gum	Diagnosis	ICD-9-CM
143.1	Malignant neoplasm of lower gum	Diagnosis	ICD-9-CM
143.8	Malignant neoplasm of other sites of gum	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
143.9	Malignant neoplasm of gum, unspecified site	Diagnosis	ICD-9-CM
144	Malignant neoplasm of floor of mouth	Diagnosis	ICD-9-CM
144.0	Malignant neoplasm of anterior portion of floor of mouth	Diagnosis	ICD-9-CM
144.1	Malignant neoplasm of lateral portion of floor of mouth	Diagnosis	ICD-9-CM
144.8	Malignant neoplasm of other sites of floor of mouth	Diagnosis	ICD-9-CM
144.9	Malignant neoplasm of floor of mouth, part unspecified	Diagnosis	ICD-9-CM
145	Malignant neoplasm of other and unspecified parts of mouth	Diagnosis	ICD-9-CM
145.0	Malignant neoplasm of cheek mucosa	Diagnosis	ICD-9-CM
145.1	Malignant neoplasm of vestibule of mouth	Diagnosis	ICD-9-CM
145.2	Malignant neoplasm of hard palate	Diagnosis	ICD-9-CM
145.3	Malignant neoplasm of soft palate	Diagnosis	ICD-9-CM
145.4	Malignant neoplasm of uvula	Diagnosis	ICD-9-CM
145.5	Malignant neoplasm of palate, unspecified	Diagnosis	ICD-9-CM
145.6	Malignant neoplasm of retromolar area	Diagnosis	ICD-9-CM
145.8	Malignant neoplasm of other specified parts of mouth	Diagnosis	ICD-9-CM
145.9	Malignant neoplasm of mouth, unspecified site	Diagnosis	ICD-9-CM
146	Malignant neoplasm of oropharynx	Diagnosis	ICD-9-CM
146.0	Malignant neoplasm of tonsil	Diagnosis	ICD-9-CM
146.1	Malignant neoplasm of tonsillar fossa	Diagnosis	ICD-9-CM
146.2	Malignant neoplasm of tonsillar pillars (anterior) (posterior)	Diagnosis	ICD-9-CM
146.3	Malignant neoplasm of vallecula	Diagnosis	ICD-9-CM
146.4	Malignant neoplasm of anterior aspect of epiglottis	Diagnosis	ICD-9-CM
146.5	Malignant neoplasm of junctional region of oropharynx	Diagnosis	ICD-9-CM
146.6	Malignant neoplasm of lateral wall of oropharynx	Diagnosis	ICD-9-CM
146.7	Malignant neoplasm of posterior wall of oropharynx	Diagnosis	ICD-9-CM
146.8	Malignant neoplasm of other specified sites of oropharynx	Diagnosis	ICD-9-CM
146.9	Malignant neoplasm of oropharynx, unspecified site	Diagnosis	ICD-9-CM
147	Malignant neoplasm of nasopharynx	Diagnosis	ICD-9-CM
147.0	Malignant neoplasm of superior wall of nasopharynx	Diagnosis	ICD-9-CM
147.1	Malignant neoplasm of posterior wall of nasopharynx	Diagnosis	ICD-9-CM
147.2	Malignant neoplasm of lateral wall of nasopharynx	Diagnosis	ICD-9-CM
147.3	Malignant neoplasm of anterior wall of nasopharynx	Diagnosis	ICD-9-CM
147.8	Malignant neoplasm of other specified sites of nasopharynx	Diagnosis	ICD-9-CM
147.9	Malignant neoplasm of nasopharynx, unspecified site	Diagnosis	ICD-9-CM
148	Malignant neoplasm of hypopharynx	Diagnosis	ICD-9-CM
148.0	Malignant neoplasm of postcricoid region of hypopharynx	Diagnosis	ICD-9-CM
148.1	Malignant neoplasm of pyriform sinus	Diagnosis	ICD-9-CM
148.2	Malignant neoplasm of aryepiglottic fold, hypopharyngeal aspect	Diagnosis	ICD-9-CM
148.3	Malignant neoplasm of posterior hypopharyngeal wall	Diagnosis	ICD-9-CM
148.8	Malignant neoplasm of other specified sites of hypopharynx	Diagnosis	ICD-9-CM
148.9	Malignant neoplasm of hypopharynx, unspecified site	Diagnosis	ICD-9-CM
149	Malignant neoplasm of other and ill-defined sites within the lip, oral cavity, and pharynx	Diagnosis	ICD-9-CM
149.0	Malignant neoplasm of pharynx, unspecified	Diagnosis	ICD-9-CM
149.1	Malignant neoplasm of Waldeyer's ring	Diagnosis	ICD-9-CM
149.8	Malignant neoplasm of other sites within the lip and oral cavity	Diagnosis	ICD-9-CM
149.9	Malignant neoplasm of ill-defined sites of lip and oral cavity	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
150	Malignant neoplasm of esophagus	Diagnosis	ICD-9-CM
150.0	Malignant neoplasm of cervical esophagus	Diagnosis	ICD-9-CM
150.1	Malignant neoplasm of thoracic esophagus	Diagnosis	ICD-9-CM
150.2	Malignant neoplasm of abdominal esophagus	Diagnosis	ICD-9-CM
150.3	Malignant neoplasm of upper third of esophagus	Diagnosis	ICD-9-CM
150.4	Malignant neoplasm of middle third of esophagus	Diagnosis	ICD-9-CM
150.5	Malignant neoplasm of lower third of esophagus	Diagnosis	ICD-9-CM
150.8	Malignant neoplasm of other specified part of esophagus	Diagnosis	ICD-9-CM
150.9	Malignant neoplasm of esophagus, unspecified site	Diagnosis	ICD-9-CM
151	Malignant neoplasm of stomach	Diagnosis	ICD-9-CM
151.0	Malignant neoplasm of cardia	Diagnosis	ICD-9-CM
151.1	Malignant neoplasm of pylorus	Diagnosis	ICD-9-CM
151.2	Malignant neoplasm of pyloric antrum	Diagnosis	ICD-9-CM
151.3	Malignant neoplasm of fundus of stomach	Diagnosis	ICD-9-CM
151.4	Malignant neoplasm of body of stomach	Diagnosis	ICD-9-CM
151.5	Malignant neoplasm of lesser curvature of stomach, unspecified	Diagnosis	ICD-9-CM
151.6	Malignant neoplasm of greater curvature of stomach, unspecified	Diagnosis	ICD-9-CM
151.8	Malignant neoplasm of other specified sites of stomach	Diagnosis	ICD-9-CM
151.9	Malignant neoplasm of stomach, unspecified site	Diagnosis	ICD-9-CM
152	Malignant neoplasm of small intestine, including duodenum	Diagnosis	ICD-9-CM
152.0	Malignant neoplasm of duodenum	Diagnosis	ICD-9-CM
152.1	Malignant neoplasm of jejunum	Diagnosis	ICD-9-CM
152.2	Malignant neoplasm of ileum	Diagnosis	ICD-9-CM
152.3	Malignant neoplasm of Meckel's diverticulum	Diagnosis	ICD-9-CM
152.8	Malignant neoplasm of other specified sites of small intestine	Diagnosis	ICD-9-CM
152.9	Malignant neoplasm of small intestine, unspecified site	Diagnosis	ICD-9-CM
153	Malignant neoplasm of colon	Diagnosis	ICD-9-CM
153.0	Malignant neoplasm of hepatic flexure	Diagnosis	ICD-9-CM
153.1	Malignant neoplasm of transverse colon	Diagnosis	ICD-9-CM
153.2	Malignant neoplasm of descending colon	Diagnosis	ICD-9-CM
153.3	Malignant neoplasm of sigmoid colon	Diagnosis	ICD-9-CM
153.4	Malignant neoplasm of cecum	Diagnosis	ICD-9-CM
153.5	Malignant neoplasm of appendix	Diagnosis	ICD-9-CM
153.6	Malignant neoplasm of ascending colon	Diagnosis	ICD-9-CM
153.7	Malignant neoplasm of splenic flexure	Diagnosis	ICD-9-CM
153.8	Malignant neoplasm of other specified sites of large intestine	Diagnosis	ICD-9-CM
153.9	Malignant neoplasm of colon, unspecified site	Diagnosis	ICD-9-CM
154	Malignant neoplasm of rectum, rectosigmoid junction, and anus	Diagnosis	ICD-9-CM
154.0	Malignant neoplasm of rectosigmoid junction	Diagnosis	ICD-9-CM
154.1	Malignant neoplasm of rectum	Diagnosis	ICD-9-CM
154.2	Malignant neoplasm of anal canal	Diagnosis	ICD-9-CM
154.3	Malignant neoplasm of anus, unspecified site	Diagnosis	ICD-9-CM
154.8	Malignant neoplasm of other sites of rectum, rectosigmoid junction, and anus	Diagnosis	ICD-9-CM
155	Malignant neoplasm of liver and intrahepatic bile ducts	Diagnosis	ICD-9-CM
155.0	Malignant neoplasm of liver, primary	Diagnosis	ICD-9-CM
155.1	Malignant neoplasm of intrahepatic bile ducts	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
155.2	Malignant neoplasm of liver, not specified as primary or secondary	Diagnosis	ICD-9-CM
156	Malignant neoplasm of gallbladder and extrahepatic bile ducts	Diagnosis	ICD-9-CM
156.0	Malignant neoplasm of gallbladder	Diagnosis	ICD-9-CM
156.1	Malignant neoplasm of extrahepatic bile ducts	Diagnosis	ICD-9-CM
156.2	Malignant neoplasm of ampulla of Vater	Diagnosis	ICD-9-CM
156.8	Malignant neoplasm of other specified sites of gallbladder and extrahepatic bile ducts	Diagnosis	ICD-9-CM
156.9	Malignant neoplasm of biliary tract, part unspecified site	Diagnosis	ICD-9-CM
157	Malignant neoplasm of pancreas	Diagnosis	ICD-9-CM
157.0	Malignant neoplasm of head of pancreas	Diagnosis	ICD-9-CM
157.1	Malignant neoplasm of body of pancreas	Diagnosis	ICD-9-CM
157.2	Malignant neoplasm of tail of pancreas	Diagnosis	ICD-9-CM
157.3	Malignant neoplasm of pancreatic duct	Diagnosis	ICD-9-CM
157.4	Malignant neoplasm of islets of Langerhans	Diagnosis	ICD-9-CM
157.8	Malignant neoplasm of other specified sites of pancreas	Diagnosis	ICD-9-CM
157.9	Malignant neoplasm of pancreas, part unspecified	Diagnosis	ICD-9-CM
158	Malignant neoplasm of retroperitoneum and peritoneum	Diagnosis	ICD-9-CM
158.0	Malignant neoplasm of retroperitoneum	Diagnosis	ICD-9-CM
158.8	Malignant neoplasm of specified parts of peritoneum	Diagnosis	ICD-9-CM
158.9	Malignant neoplasm of peritoneum, unspecified	Diagnosis	ICD-9-CM
159	Malignant neoplasm of other and ill-defined sites within the digestive organs and peritoneum	Diagnosis	ICD-9-CM
159.0	Malignant neoplasm of intestinal tract, part unspecified	Diagnosis	ICD-9-CM
159.1	Malignant neoplasm of spleen, not elsewhere classified	Diagnosis	ICD-9-CM
159.8	Malignant neoplasm of other sites of digestive system and intra-abdominal organs	Diagnosis	ICD-9-CM
159.9	Malignant neoplasm of ill-defined sites of digestive organs and peritoneum	Diagnosis	ICD-9-CM
160	Malignant neoplasm of nasal cavities, middle ear, and accessory sinuses	Diagnosis	ICD-9-CM
160.0	Malignant neoplasm of nasal cavities	Diagnosis	ICD-9-CM
160.1	Malignant neoplasm of auditory tube, middle ear, and mastoid air cells	Diagnosis	ICD-9-CM
160.2	Malignant neoplasm of maxillary sinus	Diagnosis	ICD-9-CM
160.3	Malignant neoplasm of ethmoidal sinus	Diagnosis	ICD-9-CM
160.4	Malignant neoplasm of frontal sinus	Diagnosis	ICD-9-CM
160.5	Malignant neoplasm of sphenoidal sinus	Diagnosis	ICD-9-CM
160.8	Malignant neoplasm of other sites of nasal cavities, middle ear, and accessory sinuses	Diagnosis	ICD-9-CM
160.9	Malignant neoplasm of site of nasal cavities, middle ear, and accessory sinus, unspecified site	Diagnosis	ICD-9-CM
161	Malignant neoplasm of larynx	Diagnosis	ICD-9-CM
161.0	Malignant neoplasm of glottis	Diagnosis	ICD-9-CM
161.1	Malignant neoplasm of supraglottis	Diagnosis	ICD-9-CM
161.2	Malignant neoplasm of subglottis	Diagnosis	ICD-9-CM
161.3	Malignant neoplasm of laryngeal cartilages	Diagnosis	ICD-9-CM
161.8	Malignant neoplasm of other specified sites of larynx	Diagnosis	ICD-9-CM
161.9	Malignant neoplasm of larynx, unspecified site	Diagnosis	ICD-9-CM
162	Malignant neoplasm of trachea, bronchus, and lung	Diagnosis	ICD-9-CM
162.0	Malignant neoplasm of trachea	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
162.2	Malignant neoplasm of main bronchus	Diagnosis	ICD-9-CM
162.3	Malignant neoplasm of upper lobe, bronchus, or lung	Diagnosis	ICD-9-CM
162.4	Malignant neoplasm of middle lobe, bronchus, or lung	Diagnosis	ICD-9-CM
162.5	Malignant neoplasm of lower lobe, bronchus, or lung	Diagnosis	ICD-9-CM
162.8	Malignant neoplasm of other parts of bronchus or lung	Diagnosis	ICD-9-CM
162.9	Malignant neoplasm of bronchus and lung, unspecified site	Diagnosis	ICD-9-CM
163	Malignant neoplasm of pleura	Diagnosis	ICD-9-CM
163.0	Malignant neoplasm of parietal pleura	Diagnosis	ICD-9-CM
163.1	Malignant neoplasm of visceral pleura	Diagnosis	ICD-9-CM
163.8	Malignant neoplasm of other specified sites of pleura	Diagnosis	ICD-9-CM
163.9	Malignant neoplasm of pleura, unspecified site	Diagnosis	ICD-9-CM
164	Malignant neoplasm of thymus, heart, and mediastinum	Diagnosis	ICD-9-CM
164.0	Malignant neoplasm of thymus	Diagnosis	ICD-9-CM
164.1	Malignant neoplasm of heart	Diagnosis	ICD-9-CM
164.2	Malignant neoplasm of anterior mediastinum	Diagnosis	ICD-9-CM
164.3	Malignant neoplasm of posterior mediastinum	Diagnosis	ICD-9-CM
164.8	Malignant neoplasm of other parts of mediastinum	Diagnosis	ICD-9-CM
164.9	Malignant neoplasm of mediastinum, part unspecified	Diagnosis	ICD-9-CM
165	Malignant neoplasm of other and ill-defined sites within the respiratory system and intrathoracic organs	Diagnosis	ICD-9-CM
165.0	Malignant neoplasm of upper respiratory tract, part unspecified	Diagnosis	ICD-9-CM
165.8	Malignant neoplasm of other sites within the respiratory system and intrathoracic organs	Diagnosis	ICD-9-CM
165.9	Malignant neoplasm of ill-defined sites within the respiratory system	Diagnosis	ICD-9-CM
170	Malignant neoplasm of bone and articular cartilage	Diagnosis	ICD-9-CM
170.0	Malignant neoplasm of bones of skull and face, except mandible	Diagnosis	ICD-9-CM
170.1	Malignant neoplasm of mandible	Diagnosis	ICD-9-CM
170.2	Malignant neoplasm of vertebral column, excluding sacrum and coccyx	Diagnosis	ICD-9-CM
170.3	Malignant neoplasm of ribs, sternum, and clavicle	Diagnosis	ICD-9-CM
170.4	Malignant neoplasm of scapula and long bones of upper limb	Diagnosis	ICD-9-CM
170.5	Malignant neoplasm of short bones of upper limb	Diagnosis	ICD-9-CM
170.6	Malignant neoplasm of pelvic bones, sacrum, and coccyx	Diagnosis	ICD-9-CM
170.7	Malignant neoplasm of long bones of lower limb	Diagnosis	ICD-9-CM
170.8	Malignant neoplasm of short bones of lower limb	Diagnosis	ICD-9-CM
170.9	Malignant neoplasm of bone and articular cartilage, site unspecified	Diagnosis	ICD-9-CM
171	Malignant neoplasm of connective and other soft tissue	Diagnosis	ICD-9-CM
171.0	Malignant neoplasm of connective and other soft tissue of head, face, and neck	Diagnosis	ICD-9-CM
171.2	Malignant neoplasm of connective and other soft tissue of upper limb, including shoulder	Diagnosis	ICD-9-CM
171.3	Malignant neoplasm of connective and other soft tissue of lower limb, including hip	Diagnosis	ICD-9-CM
171.4	Malignant neoplasm of connective and other soft tissue of thorax	Diagnosis	ICD-9-CM
171.5	Malignant neoplasm of connective and other soft tissue of abdomen	Diagnosis	ICD-9-CM
171.6	Malignant neoplasm of connective and other soft tissue of pelvis	Diagnosis	ICD-9-CM
171.7	Malignant neoplasm of connective and other soft tissue of trunk, unspecified site	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
171.8	Malignant neoplasm of other specified sites of connective and other soft tissue	Diagnosis	ICD-9-CM
171.9	Malignant neoplasm of connective and other soft tissue, site unspecified	Diagnosis	ICD-9-CM
172	Malignant melanoma of skin	Diagnosis	ICD-9-CM
172.0	Malignant melanoma of skin of lip	Diagnosis	ICD-9-CM
172.1	Malignant melanoma of skin of eyelid, including canthus	Diagnosis	ICD-9-CM
172.2	Malignant melanoma of skin of ear and external auditory canal	Diagnosis	ICD-9-CM
172.3	Malignant melanoma of skin of other and unspecified parts of face	Diagnosis	ICD-9-CM
172.4	Malignant melanoma of skin of scalp and neck	Diagnosis	ICD-9-CM
172.5	Malignant melanoma of skin of trunk, except scrotum	Diagnosis	ICD-9-CM
172.6	Malignant melanoma of skin of upper limb, including shoulder	Diagnosis	ICD-9-CM
172.7	Malignant melanoma of skin of lower limb, including hip	Diagnosis	ICD-9-CM
172.8	Malignant melanoma of other specified sites of skin	Diagnosis	ICD-9-CM
172.9	Melanoma of skin, site unspecified	Diagnosis	ICD-9-CM
174	Malignant neoplasm of female breast	Diagnosis	ICD-9-CM
174.0	Malignant neoplasm of nipple and areola of female breast	Diagnosis	ICD-9-CM
174.1	Malignant neoplasm of central portion of female breast	Diagnosis	ICD-9-CM
174.2	Malignant neoplasm of upper-inner quadrant of female breast	Diagnosis	ICD-9-CM
174.3	Malignant neoplasm of lower-inner quadrant of female breast	Diagnosis	ICD-9-CM
174.4	Malignant neoplasm of upper-outer quadrant of female breast	Diagnosis	ICD-9-CM
174.5	Malignant neoplasm of lower-outer quadrant of female breast	Diagnosis	ICD-9-CM
174.6	Malignant neoplasm of axillary tail of female breast	Diagnosis	ICD-9-CM
174.8	Malignant neoplasm of other specified sites of female breast	Diagnosis	ICD-9-CM
174.9	Malignant neoplasm of breast (female), unspecified site	Diagnosis	ICD-9-CM
175	Malignant neoplasm of male breast	Diagnosis	ICD-9-CM
175.0	Malignant neoplasm of nipple and areola of male breast	Diagnosis	ICD-9-CM
175.9	Malignant neoplasm of other and unspecified sites of male breast	Diagnosis	ICD-9-CM
176	Kaposi's sarcoma	Diagnosis	ICD-9-CM
176.0	Kaposi's sarcoma of skin	Diagnosis	ICD-9-CM
176.1	Kaposi's sarcoma of soft tissue	Diagnosis	ICD-9-CM
176.2	Kaposi's sarcoma of palate	Diagnosis	ICD-9-CM
176.3	Kaposi's sarcoma of gastrointestinal sites	Diagnosis	ICD-9-CM
176.4	Kaposi's sarcoma of lung	Diagnosis	ICD-9-CM
176.5	Kaposi's sarcoma of lymph nodes	Diagnosis	ICD-9-CM
176.8	Kaposi's sarcoma of other specified sites	Diagnosis	ICD-9-CM
176.9	Kaposi's sarcoma of unspecified site	Diagnosis	ICD-9-CM
179	Malignant neoplasm of uterus, part unspecified	Diagnosis	ICD-9-CM
180	Malignant neoplasm of cervix uteri	Diagnosis	ICD-9-CM
180.0	Malignant neoplasm of endocervix	Diagnosis	ICD-9-CM
180.1	Malignant neoplasm of exocervix	Diagnosis	ICD-9-CM
180.8	Malignant neoplasm of other specified sites of cervix	Diagnosis	ICD-9-CM
180.9	Malignant neoplasm of cervix uteri, unspecified site	Diagnosis	ICD-9-CM
181	Malignant neoplasm of placenta	Diagnosis	ICD-9-CM
182	Malignant neoplasm of body of uterus	Diagnosis	ICD-9-CM
182.0	Malignant neoplasm of corpus uteri, except isthmus	Diagnosis	ICD-9-CM
182.1	Malignant neoplasm of isthmus	Diagnosis	ICD-9-CM
182.8	Malignant neoplasm of other specified sites of body of uterus	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
183	Malignant neoplasm of ovary and other uterine adnexa	Diagnosis	ICD-9-CM
183.0	Malignant neoplasm of ovary	Diagnosis	ICD-9-CM
183.2	Malignant neoplasm of fallopian tube	Diagnosis	ICD-9-CM
183.3	Malignant neoplasm of broad ligament of uterus	Diagnosis	ICD-9-CM
183.4	Malignant neoplasm of parametrium of uterus	Diagnosis	ICD-9-CM
183.5	Malignant neoplasm of round ligament of uterus	Diagnosis	ICD-9-CM
183.8	Malignant neoplasm of other specified sites of uterine adnexa	Diagnosis	ICD-9-CM
183.9	Malignant neoplasm of uterine adnexa, unspecified site	Diagnosis	ICD-9-CM
184	Malignant neoplasm of other and unspecified female genital organs	Diagnosis	ICD-9-CM
184.0	Malignant neoplasm of vagina	Diagnosis	ICD-9-CM
184.1	Malignant neoplasm of labia majora	Diagnosis	ICD-9-CM
184.2	Malignant neoplasm of labia minora	Diagnosis	ICD-9-CM
184.3	Malignant neoplasm of clitoris	Diagnosis	ICD-9-CM
184.4	Malignant neoplasm of vulva, unspecified site	Diagnosis	ICD-9-CM
184.8	Malignant neoplasm of other specified sites of female genital organs	Diagnosis	ICD-9-CM
184.9	Malignant neoplasm of female genital organ, site unspecified	Diagnosis	ICD-9-CM
185	Malignant neoplasm of prostate	Diagnosis	ICD-9-CM
186	Malignant neoplasm of testis	Diagnosis	ICD-9-CM
186.0	Malignant neoplasm of undescended testis	Diagnosis	ICD-9-CM
186.9	Malignant neoplasm of other and unspecified testis	Diagnosis	ICD-9-CM
187	Malignant neoplasm of penis and other male genital organs	Diagnosis	ICD-9-CM
187.1	Malignant neoplasm of prepuce	Diagnosis	ICD-9-CM
187.2	Malignant neoplasm of glans penis	Diagnosis	ICD-9-CM
187.3	Malignant neoplasm of body of penis	Diagnosis	ICD-9-CM
187.4	Malignant neoplasm of penis, part unspecified	Diagnosis	ICD-9-CM
187.5	Malignant neoplasm of epididymis	Diagnosis	ICD-9-CM
187.6	Malignant neoplasm of spermatic cord	Diagnosis	ICD-9-CM
187.7	Malignant neoplasm of scrotum	Diagnosis	ICD-9-CM
187.8	Malignant neoplasm of other specified sites of male genital organs	Diagnosis	ICD-9-CM
187.9	Malignant neoplasm of male genital organ, site unspecified	Diagnosis	ICD-9-CM
188	Malignant neoplasm of bladder	Diagnosis	ICD-9-CM
188.0	Malignant neoplasm of trigone of urinary bladder	Diagnosis	ICD-9-CM
188.1	Malignant neoplasm of dome of urinary bladder	Diagnosis	ICD-9-CM
188.2	Malignant neoplasm of lateral wall of urinary bladder	Diagnosis	ICD-9-CM
188.3	Malignant neoplasm of anterior wall of urinary bladder	Diagnosis	ICD-9-CM
188.4	Malignant neoplasm of posterior wall of urinary bladder	Diagnosis	ICD-9-CM
188.5	Malignant neoplasm of bladder neck	Diagnosis	ICD-9-CM
188.6	Malignant neoplasm of ureteric orifice	Diagnosis	ICD-9-CM
188.7	Malignant neoplasm of urachus	Diagnosis	ICD-9-CM
188.8	Malignant neoplasm of other specified sites of bladder	Diagnosis	ICD-9-CM
188.9	Malignant neoplasm of bladder, part unspecified	Diagnosis	ICD-9-CM
189	Malignant neoplasm of kidney and other and unspecified urinary organs	Diagnosis	ICD-9-CM
189.0	Malignant neoplasm of kidney, except pelvis	Diagnosis	ICD-9-CM
189.1	Malignant neoplasm of renal pelvis	Diagnosis	ICD-9-CM
189.2	Malignant neoplasm of ureter	Diagnosis	ICD-9-CM
189.3	Malignant neoplasm of urethra	Diagnosis	ICD-9-CM
189.4	Malignant neoplasm of paraurethral glands	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
189.8	Malignant neoplasm of other specified sites of urinary organs	Diagnosis	ICD-9-CM
189.9	Malignant neoplasm of urinary organ, site unspecified	Diagnosis	ICD-9-CM
190	Malignant neoplasm of eye	Diagnosis	ICD-9-CM
190.0	Malignant neoplasm of eyeball, except conjunctiva, cornea, retina, and choroid	Diagnosis	ICD-9-CM
190.1	Malignant neoplasm of orbit	Diagnosis	ICD-9-CM
190.2	Malignant neoplasm of lacrimal gland	Diagnosis	ICD-9-CM
190.3	Malignant neoplasm of conjunctiva	Diagnosis	ICD-9-CM
190.4	Malignant neoplasm of cornea	Diagnosis	ICD-9-CM
190.5	Malignant neoplasm of retina	Diagnosis	ICD-9-CM
190.6	Malignant neoplasm of choroid	Diagnosis	ICD-9-CM
190.7	Malignant neoplasm of lacrimal duct	Diagnosis	ICD-9-CM
190.8	Malignant neoplasm of other specified sites of eye	Diagnosis	ICD-9-CM
190.9	Malignant neoplasm of eye, part unspecified	Diagnosis	ICD-9-CM
191	Malignant neoplasm of brain	Diagnosis	ICD-9-CM
191.0	Malignant neoplasm of cerebrum, except lobes and ventricles	Diagnosis	ICD-9-CM
191.1	Malignant neoplasm of frontal lobe of brain	Diagnosis	ICD-9-CM
191.2	Malignant neoplasm of temporal lobe of brain	Diagnosis	ICD-9-CM
191.3	Malignant neoplasm of parietal lobe of brain	Diagnosis	ICD-9-CM
191.4	Malignant neoplasm of occipital lobe of brain	Diagnosis	ICD-9-CM
191.5	Malignant neoplasm of ventricles of brain	Diagnosis	ICD-9-CM
191.6	Malignant neoplasm of cerebellum NOS	Diagnosis	ICD-9-CM
191.7	Malignant neoplasm of brain stem	Diagnosis	ICD-9-CM
191.8	Malignant neoplasm of other parts of brain	Diagnosis	ICD-9-CM
191.9	Malignant neoplasm of brain, unspecified site	Diagnosis	ICD-9-CM
192	Malignant neoplasm of other and unspecified parts of nervous system	Diagnosis	ICD-9-CM
192.0	Malignant neoplasm of cranial nerves	Diagnosis	ICD-9-CM
192.1	Malignant neoplasm of cerebral meninges	Diagnosis	ICD-9-CM
192.2	Malignant neoplasm of spinal cord	Diagnosis	ICD-9-CM
192.3	Malignant neoplasm of spinal meninges	Diagnosis	ICD-9-CM
192.8	Malignant neoplasm of other specified sites of nervous system	Diagnosis	ICD-9-CM
192.9	Malignant neoplasm of nervous system, part unspecified	Diagnosis	ICD-9-CM
19296	Placement of radiotherapy afterloading expandable catheter (single or multichannel) into the breast for interstitial radioelement application following partial mastectomy, includes imaging guidance; on date separate from partial mastectomy	Procedure	CPT-4
19297	Placement of radiotherapy afterloading expandable catheter (single or multichannel) into the breast for interstitial radioelement application following partial mastectomy, includes imaging guidance; concurrent with partial mastectomy (list separately in addition to code for primary procedure)	Procedure	CPT-4
19298	Placement of radiotherapy after loading brachytherapy catheters (multiple tube and button type) into the breast for interstitial radioelement application following (at the time of or subsequent to) partial mastectomy, includes imaging guidance	Procedure	CPT-4

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Code	Description	Code Category	Code Type
193	Malignant neoplasm of thyroid gland	Diagnosis	ICD-9-CM
194	Malignant neoplasm of other endocrine glands and related structures	Diagnosis	ICD-9-CM
194.0	Malignant neoplasm of adrenal gland	Diagnosis	ICD-9-CM
194.1	Malignant neoplasm of parathyroid gland	Diagnosis	ICD-9-CM
194.3	Malignant neoplasm of pituitary gland and craniopharyngeal duct	Diagnosis	ICD-9-CM
194.4	Malignant neoplasm of pineal gland	Diagnosis	ICD-9-CM
194.5	Malignant neoplasm of carotid body	Diagnosis	ICD-9-CM
194.6	Malignant neoplasm of aortic body and other paraganglia	Diagnosis	ICD-9-CM
194.8	Malignant neoplasm of other endocrine glands and related structures	Diagnosis	ICD-9-CM
194.9	Malignant neoplasm of endocrine gland, site unspecified	Diagnosis	ICD-9-CM
195	Malignant neoplasm of other and ill-defined sites	Diagnosis	ICD-9-CM
195.0	Malignant neoplasm of head, face, and neck	Diagnosis	ICD-9-CM
195.1	Malignant neoplasm of thorax	Diagnosis	ICD-9-CM
195.2	Malignant neoplasm of abdomen	Diagnosis	ICD-9-CM
195.3	Malignant neoplasm of pelvis	Diagnosis	ICD-9-CM
195.4	Malignant neoplasm of upper limb	Diagnosis	ICD-9-CM
195.5	Malignant neoplasm of lower limb	Diagnosis	ICD-9-CM
195.8	Malignant neoplasm of other specified sites	Diagnosis	ICD-9-CM
196	Secondary and unspecified malignant neoplasm of lymph nodes	Diagnosis	ICD-9-CM
196.0	Secondary and unspecified malignant neoplasm of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
196.1	Secondary and unspecified malignant neoplasm of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
196.2	Secondary and unspecified malignant neoplasm of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
196.3	Secondary and unspecified malignant neoplasm of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
196.5	Secondary and unspecified malignant neoplasm of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
196.6	Secondary and unspecified malignant neoplasm of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
196.8	Secondary and unspecified malignant neoplasm of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
196.9	Secondary and unspecified malignant neoplasm of lymph nodes, site unspecified	Diagnosis	ICD-9-CM
197	Secondary malignant neoplasm of respiratory and digestive systems	Diagnosis	ICD-9-CM
197.0	Secondary malignant neoplasm of lung	Diagnosis	ICD-9-CM
197.1	Secondary malignant neoplasm of mediastinum	Diagnosis	ICD-9-CM
197.2	Secondary malignant neoplasm of pleura	Diagnosis	ICD-9-CM
197.3	Secondary malignant neoplasm of other respiratory organs	Diagnosis	ICD-9-CM
197.4	Secondary malignant neoplasm of small intestine including duodenum	Diagnosis	ICD-9-CM
197.5	Secondary malignant neoplasm of large intestine and rectum	Diagnosis	ICD-9-CM
197.6	Secondary malignant neoplasm of retroperitoneum and peritoneum	Diagnosis	ICD-9-CM
197.7	Secondary malignant neoplasm of liver	Diagnosis	ICD-9-CM
197.8	Secondary malignant neoplasm of other digestive organs and spleen	Diagnosis	ICD-9-CM
198	Secondary malignant neoplasm of other specified sites	Diagnosis	ICD-9-CM
198.0	Secondary malignant neoplasm of kidney	Diagnosis	ICD-9-CM
198.1	Secondary malignant neoplasm of other urinary organs	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
198.2	Secondary malignant neoplasm of skin	Diagnosis	ICD-9-CM
198.3	Secondary malignant neoplasm of brain and spinal cord	Diagnosis	ICD-9-CM
198.4	Secondary malignant neoplasm of other parts of nervous system	Diagnosis	ICD-9-CM
198.5	Secondary malignant neoplasm of bone and bone marrow	Diagnosis	ICD-9-CM
198.6	Secondary malignant neoplasm of ovary	Diagnosis	ICD-9-CM
198.7	Secondary malignant neoplasm of adrenal gland	Diagnosis	ICD-9-CM
198.8	Secondary malignant neoplasm of other specified sites	Diagnosis	ICD-9-CM
198.81	Secondary malignant neoplasm of breast	Diagnosis	ICD-9-CM
198.82	Secondary malignant neoplasm of genital organs	Diagnosis	ICD-9-CM
198.89	Secondary malignant neoplasm of other specified sites	Diagnosis	ICD-9-CM
199	Malignant neoplasm without specification of site	Diagnosis	ICD-9-CM
199.0	Disseminated malignant neoplasm	Diagnosis	ICD-9-CM
199.1	Other malignant neoplasm of unspecified site	Diagnosis	ICD-9-CM
199.2	Malignant neoplasm associated with transplanted organ	Diagnosis	ICD-9-CM
200	Lymphosarcoma and reticulosarcoma and other specified malignant tumors of lymphatic tissue	Diagnosis	ICD-9-CM
200.0	Reticulosarcoma	Diagnosis	ICD-9-CM
200.00	Reticulosarcoma, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
200.01	Reticulosarcoma of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
200.02	Reticulosarcoma of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
200.03	Reticulosarcoma of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
200.04	Reticulosarcoma of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
200.05	Reticulosarcoma of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
200.06	Reticulosarcoma of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
200.07	Reticulosarcoma of spleen	Diagnosis	ICD-9-CM
200.08	Reticulosarcoma of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
200.1	Lymphosarcoma	Diagnosis	ICD-9-CM
200.10	Lymphosarcoma, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
200.11	Lymphosarcoma of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
200.12	Lymphosarcoma of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
200.13	Lymphosarcoma of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
200.14	Lymphosarcoma of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
200.15	Lymphosarcoma of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
200.16	Lymphosarcoma of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
200.17	Lymphosarcoma of spleen	Diagnosis	ICD-9-CM
200.18	Lymphosarcoma of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
200.2	Burkitt's tumor or lymphoma	Diagnosis	ICD-9-CM
200.20	Burkitt's tumor or lymphoma, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
200.21	Burkitt's tumor or lymphoma of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
200.22	Burkitt's tumor or lymphoma of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
200.23	Burkitt's tumor or lymphoma of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
200.24	Burkitt's tumor or lymphoma of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
200.25	Burkitt's tumor or lymphoma of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
200.26	Burkitt's tumor or lymphoma of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
200.27	Burkitt's tumor or lymphoma of spleen	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
200.28	Burkitt's tumor or lymphoma of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
200.3	Marginal zone lymphoma	Diagnosis	ICD-9-CM
200.30	Marginal zone lymphoma, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
200.31	Marginal zone lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
200.32	Marginal zone lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-9-CM
200.33	Marginal zone lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
200.34	Marginal zone lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
200.35	Marginal zone lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
200.36	Marginal zone lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-9-CM
200.37	Marginal zone lymphoma, spleen	Diagnosis	ICD-9-CM
200.38	Marginal zone lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-9-CM
200.4	Mantle cell lymphoma	Diagnosis	ICD-9-CM
200.40	Mantle cell lymphoma, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
200.41	Mantle cell lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
200.42	Mantle cell lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-9-CM
200.43	Mantle cell lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
200.44	Mantle cell lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
200.45	Mantle cell lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
200.46	Mantle cell lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-9-CM
200.47	Mantle cell lymphoma, spleen	Diagnosis	ICD-9-CM
200.48	Mantle cell lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-9-CM
200.5	Primary central nervous system lymphoma	Diagnosis	ICD-9-CM
200.50	Primary central nervous system lymphoma, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
200.51	Primary central nervous system lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
200.52	Primary central nervous system lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-9-CM
200.53	Primary central nervous system lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
200.54	Primary central nervous system lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
200.55	Primary central nervous system lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
200.56	Primary central nervous system lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-9-CM
200.57	Primary central nervous system lymphoma, spleen	Diagnosis	ICD-9-CM
200.58	Primary central nervous system lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-9-CM
200.6	Anaplastic large cell lymphoma	Diagnosis	ICD-9-CM
200.60	Anaplastic large cell lymphoma, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
200.61	Anaplastic large cell lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
200.62	Anaplastic large cell lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-9-CM
200.63	Anaplastic large cell lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
200.64	Anaplastic large cell lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
200.65	Anaplastic large cell lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
200.66	Anaplastic large cell lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-9-CM
200.67	Anaplastic large cell lymphoma, spleen	Diagnosis	ICD-9-CM
200.68	Anaplastic large cell lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
200.7	Large cell lymphoma	Diagnosis	ICD-9-CM
200.70	Large cell lymphoma, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
200.71	Large cell lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
200.72	Large cell lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-9-CM
200.73	Large cell lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
200.74	Large cell lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
200.75	Large cell lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
200.76	Large cell lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-9-CM
200.77	Large cell lymphoma, spleen	Diagnosis	ICD-9-CM
200.78	Large cell lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-9-CM
200.8	Other named variants of lymphosarcoma and reticulosarcoma	Diagnosis	ICD-9-CM
200.80	Other named variants, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
200.81	Other named variants of lymphosarcoma and reticulosarcoma of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
200.82	Other named variants of lymphosarcoma and reticulosarcoma of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
200.83	Other named variants of lymphosarcoma and reticulosarcoma of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
200.84	Other named variants of lymphosarcoma and reticulosarcoma of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
200.85	Other named variants of lymphosarcoma and reticulosarcoma of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
200.86	Other named variants of lymphosarcoma and reticulosarcoma of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
200.87	Other named variants of lymphosarcoma and reticulosarcoma of spleen	Diagnosis	ICD-9-CM
200.88	Other named variants of lymphosarcoma and reticulosarcoma of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
201	Hodgkin's disease	Diagnosis	ICD-9-CM
201.0	Hodgkin's paraganuloma	Diagnosis	ICD-9-CM
201.00	Hodgkin's paraganuloma, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
201.01	Hodgkin's paraganuloma of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
201.02	Hodgkin's paraganuloma of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
201.03	Hodgkin's paraganuloma of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
201.04	Hodgkin's paraganuloma of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
201.05	Hodgkin's paraganuloma of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
201.06	Hodgkin's paraganuloma of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
201.07	Hodgkin's paraganuloma of spleen	Diagnosis	ICD-9-CM
201.08	Hodgkin's paraganuloma of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
201.1	Hodgkin's granuloma	Diagnosis	ICD-9-CM
201.10	Hodgkin's granuloma, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
201.11	Hodgkin's granuloma of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
201.12	Hodgkin's granuloma of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
201.13	Hodgkin's granuloma of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
201.14	Hodgkin's granuloma of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
201.15	Hodgkin's granuloma of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
201.16	Hodgkin's granuloma of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
201.17	Hodgkin's granuloma of spleen	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
201.18	Hodgkin's granuloma of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
201.2	Hodgkin's sarcoma	Diagnosis	ICD-9-CM
201.20	Hodgkin's sarcoma, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
201.21	Hodgkin's sarcoma of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
201.22	Hodgkin's sarcoma of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
201.23	Hodgkin's sarcoma of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
201.24	Hodgkin's sarcoma of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
201.25	Hodgkin's sarcoma of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
201.26	Hodgkin's sarcoma of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
201.27	Hodgkin's sarcoma of spleen	Diagnosis	ICD-9-CM
201.28	Hodgkin's sarcoma of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
201.4	Hodgkin's disease, lymphocytic-histiocytic predominance	Diagnosis	ICD-9-CM
201.40	Hodgkin's disease, lymphocytic-histiocytic predominance, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
201.41	Hodgkin's disease, lymphocytic-histiocytic predominance of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
201.42	Hodgkin's disease, lymphocytic-histiocytic predominance of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
201.43	Hodgkin's disease, lymphocytic-histiocytic predominance of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
201.44	Hodgkin's disease, lymphocytic-histiocytic predominance of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
201.45	Hodgkin's disease, lymphocytic-histiocytic predominance of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
201.46	Hodgkin's disease, lymphocytic-histiocytic predominance of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
201.47	Hodgkin's disease, lymphocytic-histiocytic predominance of spleen	Diagnosis	ICD-9-CM
201.48	Hodgkin's disease, lymphocytic-histiocytic predominance of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
201.5	Hodgkin's disease, nodular sclerosis	Diagnosis	ICD-9-CM
201.50	Hodgkin's disease, nodular sclerosis, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
201.51	Hodgkin's disease, nodular sclerosis, of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
201.52	Hodgkin's disease, nodular sclerosis, of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
201.53	Hodgkin's disease, nodular sclerosis, of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
201.54	Hodgkin's disease, nodular sclerosis, of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
201.55	Hodgkin's disease, nodular sclerosis, of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
201.56	Hodgkin's disease, nodular sclerosis, of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
201.57	Hodgkin's disease, nodular sclerosis, of spleen	Diagnosis	ICD-9-CM
201.58	Hodgkin's disease, nodular sclerosis, of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
201.6	Hodgkin's disease, mixed cellularity	Diagnosis	ICD-9-CM
201.60	Hodgkin's disease, mixed cellularity, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
201.61	Hodgkin's disease, mixed cellularity, involving lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
201.62	Hodgkin's disease, mixed cellularity, of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
201.63	Hodgkin's disease, mixed cellularity, of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
201.64	Hodgkin's disease, mixed cellularity, of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
201.65	Hodgkin's disease, mixed cellularity, of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
201.66	Hodgkin's disease, mixed cellularity, of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
201.67	Hodgkin's disease, mixed cellularity, of spleen	Diagnosis	ICD-9-CM
201.68	Hodgkin's disease, mixed cellularity, of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
201.7	Hodgkin's disease, lymphocytic depletion	Diagnosis	ICD-9-CM
201.70	Hodgkin's disease, lymphocytic depletion, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
201.71	Hodgkin's disease, lymphocytic depletion, of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
201.72	Hodgkin's disease, lymphocytic depletion, of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
201.73	Hodgkin's disease, lymphocytic depletion, of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
201.74	Hodgkin's disease, lymphocytic depletion, of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
201.75	Hodgkin's disease, lymphocytic depletion, of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
201.76	Hodgkin's disease, lymphocytic depletion, of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
201.77	Hodgkin's disease, lymphocytic depletion, of spleen	Diagnosis	ICD-9-CM
201.78	Hodgkin's disease, lymphocytic depletion, of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
201.9	Hodgkin's disease, unspecified type	Diagnosis	ICD-9-CM
201.90	Hodgkin's disease, unspecified type, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
201.91	Hodgkin's disease, unspecified type, of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
201.92	Hodgkin's disease, unspecified type, of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
201.93	Hodgkin's disease, unspecified type, of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
201.94	Hodgkin's disease, unspecified type, of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
201.95	Hodgkin's disease, unspecified type, of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
201.96	Hodgkin's disease, unspecified type, of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
201.97	Hodgkin's disease, unspecified type, of spleen	Diagnosis	ICD-9-CM
201.98	Hodgkin's disease, unspecified type, of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
202	Other malignant neoplasms of lymphoid and histiocytic tissue	Diagnosis	ICD-9-CM
202.0	Nodular lymphoma	Diagnosis	ICD-9-CM
202.00	Nodular lymphoma, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
202.01	Nodular lymphoma of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
202.02	Nodular lymphoma of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
202.03	Nodular lymphoma of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
202.04	Nodular lymphoma of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
202.05	Nodular lymphoma of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
202.06	Nodular lymphoma of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
202.07	Nodular lymphoma of spleen	Diagnosis	ICD-9-CM
202.08	Nodular lymphoma of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
202.1	Mycosis fungoides	Diagnosis	ICD-9-CM
202.10	Mycosis fungoides, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
202.11	Mycosis fungoides of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
202.12	Mycosis fungoides of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
202.13	Mycosis fungoides of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
202.14	Mycosis fungoides of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
202.15	Mycosis fungoides of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
202.16	Mycosis fungoides of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
202.17	Mycosis fungoides of spleen	Diagnosis	ICD-9-CM
202.18	Mycosis fungoides of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
202.2	Sezary's disease	Diagnosis	ICD-9-CM
202.20	Sezary's disease, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
202.21	Sezary's disease of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
202.22	Sezary's disease of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
202.23	Sezary's disease of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
202.24	Sezary's disease of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
202.25	Sezary's disease of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
202.26	Sezary's disease of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
202.27	Sezary's disease of spleen	Diagnosis	ICD-9-CM
202.28	Sezary's disease of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
202.3	Malignant histiocytosis	Diagnosis	ICD-9-CM
202.30	Malignant histiocytosis, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
202.31	Malignant histiocytosis of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
202.32	Malignant histiocytosis of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
202.33	Malignant histiocytosis of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
202.34	Malignant histiocytosis of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
202.35	Malignant histiocytosis of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
202.36	Malignant histiocytosis of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
202.37	Malignant histiocytosis of spleen	Diagnosis	ICD-9-CM
202.38	Malignant histiocytosis of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
202.4	Leukemic reticuloendotheliosis	Diagnosis	ICD-9-CM
202.40	Leukemic reticuloendotheliosis, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
202.41	Leukemic reticuloendotheliosis of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
202.42	Leukemic reticuloendotheliosis of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
202.43	Leukemic reticuloendotheliosis of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
202.44	Leukemic reticuloendotheliosis of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
202.45	Leukemic reticuloendotheliosis of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
202.46	Leukemic reticuloendotheliosis of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
202.47	Leukemic reticuloendotheliosis of spleen	Diagnosis	ICD-9-CM
202.48	Leukemic reticuloendotheliosis of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
202.5	Letterer-Siwe disease	Diagnosis	ICD-9-CM
202.50	Letterer-Siwe disease, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
202.51	Letterer-Siwe disease of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
202.52	Letterer-Siwe disease of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
202.53	Letterer-Siwe disease of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
202.54	Letterer-Siwe disease of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
202.55	Letterer-Siwe disease of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
202.56	Letterer-Siwe disease of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
202.57	Letterer-Siwe disease of spleen	Diagnosis	ICD-9-CM
202.58	Letterer-Siwe disease of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
202.6	Malignant mast cell tumors	Diagnosis	ICD-9-CM
202.60	Malignant mast cell tumors, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
202.61	Malignant mast cell tumors of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
202.62	Malignant mast cell tumors of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
202.63	Malignant mast cell tumors of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
202.64	Malignant mast cell tumors of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
202.65	Malignant mast cell tumors of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
202.66	Malignant mast cell tumors of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
202.67	Malignant mast cell tumors of spleen	Diagnosis	ICD-9-CM
202.68	Malignant mast cell tumors of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
202.7	Peripheral T-cell lymphoma	Diagnosis	ICD-9-CM
202.70	Peripheral T-cell lymphoma, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
202.71	Peripheral T-cell lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
202.72	Peripheral T-cell lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-9-CM
202.73	Peripheral T-cell lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
202.74	Peripheral T-cell lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
202.75	Peripheral T-cell lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
202.76	Peripheral T-cell lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-9-CM
202.77	Peripheral T-cell lymphoma, spleen	Diagnosis	ICD-9-CM
202.78	Peripheral T-cell lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-9-CM
202.8	Other malignant lymphomas	Diagnosis	ICD-9-CM
202.80	Other malignant lymphomas, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
202.81	Other malignant lymphomas of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
202.82	Other malignant lymphomas of intrathoracic lymph nodes	Diagnosis	ICD-9-CM
202.83	Other malignant lymphomas of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
202.84	Other malignant lymphomas of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
202.85	Other malignant lymphomas of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
202.86	Other malignant lymphomas of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
202.87	Other malignant lymphomas of spleen	Diagnosis	ICD-9-CM
202.88	Other malignant lymphomas of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
202.9	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue	Diagnosis	ICD-9-CM
202.90	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue, unspecified site, extranodal and solid organ sites	Diagnosis	ICD-9-CM
202.91	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of lymph nodes of head, face, and neck	Diagnosis	ICD-9-CM
202.92	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of intrathoracic lymph nodes	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
202.93	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of intra-abdominal lymph nodes	Diagnosis	ICD-9-CM
202.94	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of lymph nodes of axilla and upper limb	Diagnosis	ICD-9-CM
202.95	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of lymph nodes of inguinal region and lower limb	Diagnosis	ICD-9-CM
202.96	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of intrapelvic lymph nodes	Diagnosis	ICD-9-CM
202.97	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of spleen	Diagnosis	ICD-9-CM
202.98	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of lymph nodes of multiple sites	Diagnosis	ICD-9-CM
203	Multiple myeloma and immunoproliferative neoplasms	Diagnosis	ICD-9-CM
203.0	Multiple myeloma	Diagnosis	ICD-9-CM
203.00	Multiple myeloma, without mention of having achieved remission	Diagnosis	ICD-9-CM
203.01	Multiple myeloma in remission	Diagnosis	ICD-9-CM
203.02	Multiple myeloma, in relapse	Diagnosis	ICD-9-CM
203.1	Plasma cell leukemia	Diagnosis	ICD-9-CM
203.10	Plasma cell leukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM
203.11	Plasma cell leukemia in remission	Diagnosis	ICD-9-CM
203.12	Plasma cell leukemia, in relapse	Diagnosis	ICD-9-CM
203.8	Other immunoproliferative neoplasms	Diagnosis	ICD-9-CM
203.80	Other immunoproliferative neoplasms, without mention of having achieved remission	Diagnosis	ICD-9-CM
203.81	Other immunoproliferative neoplasms in remission	Diagnosis	ICD-9-CM
203.82	Other immunoproliferative neoplasms, in relapse	Diagnosis	ICD-9-CM
204	Lymphoid leukemia	Diagnosis	ICD-9-CM
204.0	Acute lymphoid leukemia	Diagnosis	ICD-9-CM
204.00	Acute lymphoid leukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM
204.01	Acute lymphoid leukemia in remission	Diagnosis	ICD-9-CM
204.02	Acute lymphoid leukemia, in relapse	Diagnosis	ICD-9-CM
204.1	Chronic lymphoid leukemia	Diagnosis	ICD-9-CM
204.10	Chronic lymphoid leukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM
204.11	Chronic lymphoid leukemia in remission	Diagnosis	ICD-9-CM
204.12	Chronic lymphoid leukemia, in relapse	Diagnosis	ICD-9-CM
204.2	Subacute lymphoid leukemia	Diagnosis	ICD-9-CM
204.20	Subacute lymphoid leukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM
204.21	Subacute lymphoid leukemia in remission	Diagnosis	ICD-9-CM
204.22	Subacute lymphoid leukemia, in relapse	Diagnosis	ICD-9-CM
204.8	Other lymphoid leukemia	Diagnosis	ICD-9-CM
204.80	Other lymphoid leukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM
204.81	Other lymphoid leukemia in remission	Diagnosis	ICD-9-CM
204.82	Other lymphoid leukemia, in relapse	Diagnosis	ICD-9-CM
204.9	Unspecified lymphoid leukemia	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
204.90	Unspecified lymphoid leukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM
204.91	Unspecified lymphoid leukemia in remission	Diagnosis	ICD-9-CM
204.92	Unspecified lymphoid leukemia, in relapse	Diagnosis	ICD-9-CM
205	Myeloid leukemia	Diagnosis	ICD-9-CM
205.0	Acute myeloid leukemia	Diagnosis	ICD-9-CM
205.00	Acute myeloid leukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM
205.01	Acute myeloid leukemia in remission	Diagnosis	ICD-9-CM
205.02	Acute myeloid leukemia, in relapse	Diagnosis	ICD-9-CM
205.1	Chronic myeloid leukemia	Diagnosis	ICD-9-CM
205.10	Chronic myeloid leukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM
205.11	Chronic myeloid leukemia in remission	Diagnosis	ICD-9-CM
205.12	Chronic myeloid leukemia, in relapse	Diagnosis	ICD-9-CM
205.2	Subacute myeloid leukemia	Diagnosis	ICD-9-CM
205.20	Subacute myeloid leukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM
205.21	Subacute myeloid leukemia in remission	Diagnosis	ICD-9-CM
205.22	Subacute myeloid leukemia, in relapse	Diagnosis	ICD-9-CM
205.3	Myeloid sarcoma	Diagnosis	ICD-9-CM
205.30	Myeloid sarcoma, without mention of having achieved remission	Diagnosis	ICD-9-CM
205.31	Myeloid sarcoma in remission	Diagnosis	ICD-9-CM
205.32	Myeloid sarcoma, in relapse	Diagnosis	ICD-9-CM
205.8	Other myeloid leukemia	Diagnosis	ICD-9-CM
205.80	Other myeloid leukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM
205.81	Other myeloid leukemia in remission	Diagnosis	ICD-9-CM
205.82	Other myeloid leukemia, in relapse	Diagnosis	ICD-9-CM
205.9	Unspecified myeloid leukemia	Diagnosis	ICD-9-CM
205.90	Unspecified myeloid leukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM
205.91	Unspecified myeloid leukemia in remission	Diagnosis	ICD-9-CM
205.92	Unspecified myeloid leukemia, in relapse	Diagnosis	ICD-9-CM
20555	Placement of needles or catheters into muscle and/or soft tissue for subsequent interstitial radioelement application (at the time of or subsequent to the procedure)	Procedure	CPT-4
206	Monocytic leukemia	Diagnosis	ICD-9-CM
206.0	Acute monocytic leukemia	Diagnosis	ICD-9-CM
206.00	Acute monocytic leukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM
206.01	Acute monocytic leukemia in remission	Diagnosis	ICD-9-CM
206.02	Acute monocytic leukemia, in relapse	Diagnosis	ICD-9-CM
206.1	Chronic monocytic leukemia	Diagnosis	ICD-9-CM
206.10	Chronic monocytic leukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM
206.11	Chronic monocytic leukemia in remission	Diagnosis	ICD-9-CM
206.12	Chronic monocytic leukemia, in relapse	Diagnosis	ICD-9-CM
206.2	Subacute monocytic leukemia	Diagnosis	ICD-9-CM
206.20	Subacute monocytic leukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM
206.21	Subacute monocytic leukemia in remission	Diagnosis	ICD-9-CM
206.22	Subacute monocytic leukemia, in relapse	Diagnosis	ICD-9-CM
206.8	Other monocytic leukemia	Diagnosis	ICD-9-CM
206.80	Other monocytic leukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
206.81	Other monocytic leukemia in remission	Diagnosis	ICD-9-CM
206.82	Other monocytic leukemia, in relapse	Diagnosis	ICD-9-CM
206.9	Unspecified monocytic leukemia	Diagnosis	ICD-9-CM
206.90	Unspecified monocytic leukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM
206.91	Unspecified monocytic leukemia in remission	Diagnosis	ICD-9-CM
206.92	Unspecified monocytic leukemia, in relapse	Diagnosis	ICD-9-CM
207	Other specified leukemia	Diagnosis	ICD-9-CM
207.0	Acute erythremia and erythroleukemia	Diagnosis	ICD-9-CM
207.00	Acute erythremia and erythroleukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM
207.01	Acute erythremia and erythroleukemia in remission	Diagnosis	ICD-9-CM
207.02	Acute erythremia and erythroleukemia, in relapse	Diagnosis	ICD-9-CM
207.1	Chronic erythremia	Diagnosis	ICD-9-CM
207.10	Chronic erythremia, without mention of having achieved remission	Diagnosis	ICD-9-CM
207.11	Chronic erythremia in remission	Diagnosis	ICD-9-CM
207.12	Chronic erythremia, in relapse	Diagnosis	ICD-9-CM
207.2	Megakaryocytic leukemia	Diagnosis	ICD-9-CM
207.20	Megakaryocytic leukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM
207.21	Megakaryocytic leukemia in remission	Diagnosis	ICD-9-CM
207.22	Megakaryocytic leukemia, in relapse	Diagnosis	ICD-9-CM
207.8	Other specified leukemia	Diagnosis	ICD-9-CM
207.80	Other specified leukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM
207.81	Other specified leukemia in remission	Diagnosis	ICD-9-CM
207.82	Other specified leukemia, in relapse	Diagnosis	ICD-9-CM
208	Leukemia of unspecified cell type	Diagnosis	ICD-9-CM
208.0	Acute leukemia of unspecified cell type	Diagnosis	ICD-9-CM
208.00	Acute leukemia of unspecified cell type, without mention of having achieved remission	Diagnosis	ICD-9-CM
208.01	Acute leukemia of unspecified cell type in remission	Diagnosis	ICD-9-CM
208.02	Acute leukemia of unspecified cell type, in relapse	Diagnosis	ICD-9-CM
208.1	Chronic leukemia of unspecified cell type	Diagnosis	ICD-9-CM
208.10	Chronic leukemia of unspecified cell type, without mention of having achieved remission	Diagnosis	ICD-9-CM
208.11	Chronic leukemia of unspecified cell type in remission	Diagnosis	ICD-9-CM
208.12	Chronic leukemia of unspecified cell type, in relapse	Diagnosis	ICD-9-CM
208.2	Subacute leukemia of unspecified cell type	Diagnosis	ICD-9-CM
208.20	Subacute leukemia of unspecified cell type, without mention of having achieved remission	Diagnosis	ICD-9-CM
208.21	Subacute leukemia of unspecified cell type in remission	Diagnosis	ICD-9-CM
208.22	Subacute leukemia of unspecified cell type, in relapse	Diagnosis	ICD-9-CM
208.8	Other leukemia of unspecified cell type	Diagnosis	ICD-9-CM
208.80	Other leukemia of unspecified cell type, without mention of having achieved remission	Diagnosis	ICD-9-CM
208.81	Other leukemia of unspecified cell type in remission	Diagnosis	ICD-9-CM
208.82	Other leukemia of unspecified cell type, in relapse	Diagnosis	ICD-9-CM
208.9	Unspecified leukemia	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
208.90	Unspecified leukemia, without mention of having achieved remission	Diagnosis	ICD-9-CM
208.91	Unspecified leukemia in remission	Diagnosis	ICD-9-CM
208.92	Unspecified leukemia, in relapse	Diagnosis	ICD-9-CM
209	Neuroendocrine tumors	Diagnosis	ICD-9-CM
209.0	Malignant carcinoid tumors of the small intestine	Diagnosis	ICD-9-CM
209.00	Malignant carcinoid tumor of the small intestine, unspecified portion	Diagnosis	ICD-9-CM
209.01	Malignant carcinoid tumor of the duodenum	Diagnosis	ICD-9-CM
209.02	Malignant carcinoid tumor of the jejunum	Diagnosis	ICD-9-CM
209.03	Malignant carcinoid tumor of the ileum	Diagnosis	ICD-9-CM
209.1	Malignant carcinoid tumors of the appendix, large intestine, and rectum	Diagnosis	ICD-9-CM
209.10	Malignant carcinoid tumor of the large intestine, unspecified portion	Diagnosis	ICD-9-CM
209.11	Malignant carcinoid tumor of the appendix	Diagnosis	ICD-9-CM
209.12	Malignant carcinoid tumor of the cecum	Diagnosis	ICD-9-CM
209.13	Malignant carcinoid tumor of the ascending colon	Diagnosis	ICD-9-CM
209.14	Malignant carcinoid tumor of the transverse colon	Diagnosis	ICD-9-CM
209.15	Malignant carcinoid tumor of the descending colon	Diagnosis	ICD-9-CM
209.16	Malignant carcinoid tumor of the sigmoid colon	Diagnosis	ICD-9-CM
209.17	Malignant carcinoid tumor of the rectum	Diagnosis	ICD-9-CM
209.2	Malignant carcinoid tumors of other and unspecified sites	Diagnosis	ICD-9-CM
209.20	Malignant carcinoid tumor of unknown primary site	Diagnosis	ICD-9-CM
209.21	Malignant carcinoid tumor of the bronchus and lung	Diagnosis	ICD-9-CM
209.22	Malignant carcinoid tumor of the thymus	Diagnosis	ICD-9-CM
209.23	Malignant carcinoid tumor of the stomach	Diagnosis	ICD-9-CM
209.24	Malignant carcinoid tumor of the kidney	Diagnosis	ICD-9-CM
209.25	Malignant carcinoid tumor of foregut, not otherwise specified	Diagnosis	ICD-9-CM
209.26	Malignant carcinoid tumor of midgut, not otherwise specified	Diagnosis	ICD-9-CM
209.27	Malignant carcinoid tumor of hindgut, not otherwise specified	Diagnosis	ICD-9-CM
209.29	Malignant carcinoid tumor of other sites	Diagnosis	ICD-9-CM
209.3	Malignant poorly differentiated neuroendocrine tumors	Diagnosis	ICD-9-CM
209.30	Malignant poorly differentiated neuroendocrine carcinoma, any site	Diagnosis	ICD-9-CM
209.31	Merkel cell carcinoma of the face	Diagnosis	ICD-9-CM
209.32	Merkel cell carcinoma of the scalp and neck	Diagnosis	ICD-9-CM
209.33	Merkel cell carcinoma of the upper limb	Diagnosis	ICD-9-CM
209.34	Merkel cell carcinoma of the lower limb	Diagnosis	ICD-9-CM
209.35	Merkel cell carcinoma of the trunk	Diagnosis	ICD-9-CM
209.36	Merkel cell carcinoma of other sites	Diagnosis	ICD-9-CM
209.4	Benign carcinoid tumors of the small intestine	Diagnosis	ICD-9-CM
209.40	Benign carcinoid tumor of the small intestine, unspecified portion	Diagnosis	ICD-9-CM
209.41	Benign carcinoid tumor of the duodenum	Diagnosis	ICD-9-CM
209.42	Benign carcinoid tumor of the jejunum	Diagnosis	ICD-9-CM
209.43	Benign carcinoid tumor of the ileum	Diagnosis	ICD-9-CM
209.5	Benign carcinoid tumors of the appendix, large intestine, and rectum	Diagnosis	ICD-9-CM
209.50	Benign carcinoid tumor of the large intestine, unspecified portion	Diagnosis	ICD-9-CM
209.51	Benign carcinoid tumor of the appendix	Diagnosis	ICD-9-CM
209.52	Benign carcinoid tumor of the cecum	Diagnosis	ICD-9-CM
209.53	Benign carcinoid tumor of the ascending colon	Diagnosis	ICD-9-CM
209.54	Benign carcinoid tumor of the transverse colon	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
209.55	Benign carcinoid tumor of the descending colon	Diagnosis	ICD-9-CM
209.56	Benign carcinoid tumor of the sigmoid colon	Diagnosis	ICD-9-CM
209.57	Benign carcinoid tumor of the rectum	Diagnosis	ICD-9-CM
209.6	Benign carcinoid tumors of other and unspecified sites	Diagnosis	ICD-9-CM
209.60	Benign carcinoid tumor of unknown primary site	Diagnosis	ICD-9-CM
209.61	Benign carcinoid tumor of the bronchus and lung	Diagnosis	ICD-9-CM
209.62	Benign carcinoid tumor of the thymus	Diagnosis	ICD-9-CM
209.63	Benign carcinoid tumor of the stomach	Diagnosis	ICD-9-CM
209.64	Benign carcinoid tumor of the kidney	Diagnosis	ICD-9-CM
209.65	Benign carcinoid tumor of foregut, not otherwise specified	Diagnosis	ICD-9-CM
209.66	Benign carcinoid tumor of midgut, not otherwise specified	Diagnosis	ICD-9-CM
209.67	Benign carcinoid tumor of hindgut, not otherwise specified	Diagnosis	ICD-9-CM
209.69	Benign carcinoid tumor of other sites	Diagnosis	ICD-9-CM
209.7	Secondary neuroendocrine tumors	Diagnosis	ICD-9-CM
209.70	Secondary neuroendocrine tumor, unspecified site	Diagnosis	ICD-9-CM
209.71	Secondary neuroendocrine tumor of distant lymph nodes	Diagnosis	ICD-9-CM
209.72	Secondary neuroendocrine tumor of liver	Diagnosis	ICD-9-CM
209.73	Secondary neuroendocrine tumor of bone	Diagnosis	ICD-9-CM
209.74	Secondary neuroendocrine tumor of peritoneum	Diagnosis	ICD-9-CM
209.75	Secondary Merkel cell carcinoma	Diagnosis	ICD-9-CM
209.79	Secondary neuroendocrine tumor of other sites	Diagnosis	ICD-9-CM
230	Carcinoma in situ of digestive organs	Diagnosis	ICD-9-CM
230.0	Carcinoma in situ of lip, oral cavity, and pharynx	Diagnosis	ICD-9-CM
230.1	Carcinoma in situ of esophagus	Diagnosis	ICD-9-CM
230.2	Carcinoma in situ of stomach	Diagnosis	ICD-9-CM
230.3	Carcinoma in situ of colon	Diagnosis	ICD-9-CM
230.4	Carcinoma in situ of rectum	Diagnosis	ICD-9-CM
230.5	Carcinoma in situ of anal canal	Diagnosis	ICD-9-CM
230.6	Carcinoma in situ of anus, unspecified	Diagnosis	ICD-9-CM
230.7	Carcinoma in situ of other and unspecified parts of intestine	Diagnosis	ICD-9-CM
230.8	Carcinoma in situ of liver and biliary system	Diagnosis	ICD-9-CM
230.9	Carcinoma in situ of other and unspecified digestive organs	Diagnosis	ICD-9-CM
231	Carcinoma in situ of respiratory system	Diagnosis	ICD-9-CM
231.0	Carcinoma in situ of larynx	Diagnosis	ICD-9-CM
231.1	Carcinoma in situ of trachea	Diagnosis	ICD-9-CM
231.2	Carcinoma in situ of bronchus and lung	Diagnosis	ICD-9-CM
231.8	Carcinoma in situ of other specified parts of respiratory system	Diagnosis	ICD-9-CM
231.9	Carcinoma in situ of respiratory system, part unspecified	Diagnosis	ICD-9-CM
233	Carcinoma in situ of breast and genitourinary system	Diagnosis	ICD-9-CM
233.0	Carcinoma in situ of breast	Diagnosis	ICD-9-CM
233.1	Carcinoma in situ of cervix uteri	Diagnosis	ICD-9-CM
233.2	Carcinoma in situ of other and unspecified parts of uterus	Diagnosis	ICD-9-CM
233.3	Carcinoma in situ, other and unspecified female genital organs	Diagnosis	ICD-9-CM
233.30	Carcinoma in situ, unspecified female genital organ	Diagnosis	ICD-9-CM
233.31	Carcinoma in situ, vagina	Diagnosis	ICD-9-CM
233.32	Carcinoma in situ, vulva	Diagnosis	ICD-9-CM
233.39	Carcinoma in situ, other female genital organ	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
233.4	Carcinoma in situ of prostate	Diagnosis	ICD-9-CM
233.5	Carcinoma in situ of penis	Diagnosis	ICD-9-CM
233.6	Carcinoma in situ of other and unspecified male genital organs	Diagnosis	ICD-9-CM
233.7	Carcinoma in situ of bladder	Diagnosis	ICD-9-CM
233.9	Carcinoma in situ of other and unspecified urinary organs	Diagnosis	ICD-9-CM
234	Carcinoma in situ of other and unspecified sites	Diagnosis	ICD-9-CM
234.0	Carcinoma in situ of eye	Diagnosis	ICD-9-CM
234.8	Carcinoma in situ of other specified sites	Diagnosis	ICD-9-CM
234.9	Carcinoma in situ, site unspecified	Diagnosis	ICD-9-CM
235	Neoplasm of uncertain behavior of digestive and respiratory systems	Diagnosis	ICD-9-CM
235.0	Neoplasm of uncertain behavior of major salivary glands	Diagnosis	ICD-9-CM
235.1	Neoplasm of uncertain behavior of lip, oral cavity, and pharynx	Diagnosis	ICD-9-CM
235.2	Neoplasm of uncertain behavior of stomach, intestines, and rectum	Diagnosis	ICD-9-CM
235.3	Neoplasm of uncertain behavior of liver and biliary passages	Diagnosis	ICD-9-CM
235.4	Neoplasm of uncertain behavior of retroperitoneum and peritoneum	Diagnosis	ICD-9-CM
235.5	Neoplasm of uncertain behavior of other and unspecified digestive organs	Diagnosis	ICD-9-CM
235.6	Neoplasm of uncertain behavior of larynx	Diagnosis	ICD-9-CM
235.7	Neoplasm of uncertain behavior of trachea, bronchus, and lung	Diagnosis	ICD-9-CM
235.8	Neoplasm of uncertain behavior of pleura, thymus, and mediastinum	Diagnosis	ICD-9-CM
235.9	Neoplasm of uncertain behavior of other and unspecified respiratory organs	Diagnosis	ICD-9-CM
236	Neoplasm of uncertain behavior of genitourinary organs	Diagnosis	ICD-9-CM
236.0	Neoplasm of uncertain behavior of uterus	Diagnosis	ICD-9-CM
236.1	Neoplasm of uncertain behavior of placenta	Diagnosis	ICD-9-CM
236.2	Neoplasm of uncertain behavior of ovary	Diagnosis	ICD-9-CM
236.3	Neoplasm of uncertain behavior of other and unspecified female genital organs	Diagnosis	ICD-9-CM
236.4	Neoplasm of uncertain behavior of testis	Diagnosis	ICD-9-CM
236.5	Neoplasm of uncertain behavior of prostate	Diagnosis	ICD-9-CM
236.6	Neoplasm of uncertain behavior of other and unspecified male genital organs	Diagnosis	ICD-9-CM
236.7	Neoplasm of uncertain behavior of bladder	Diagnosis	ICD-9-CM
236.9	Neoplasm of uncertain behavior of other and unspecified urinary organs	Diagnosis	ICD-9-CM
236.90	Neoplasm of uncertain behavior of urinary organ, unspecified	Diagnosis	ICD-9-CM
236.91	Neoplasm of uncertain behavior of kidney and ureter	Diagnosis	ICD-9-CM
236.99	Neoplasm of uncertain behavior of other and unspecified urinary organs	Diagnosis	ICD-9-CM
237	Neoplasm of uncertain behavior of endocrine glands and nervous system	Diagnosis	ICD-9-CM
237.0	Neoplasm of uncertain behavior of pituitary gland and craniopharyngeal duct	Diagnosis	ICD-9-CM
237.1	Neoplasm of uncertain behavior of pineal gland	Diagnosis	ICD-9-CM
237.2	Neoplasm of uncertain behavior of adrenal gland	Diagnosis	ICD-9-CM
237.3	Neoplasm of uncertain behavior of paraganglia	Diagnosis	ICD-9-CM
237.4	Neoplasm of uncertain behavior of other and unspecified endocrine glands	Diagnosis	ICD-9-CM
237.5	Neoplasm of uncertain behavior of brain and spinal cord	Diagnosis	ICD-9-CM
237.6	Neoplasm of uncertain behavior of meninges	Diagnosis	ICD-9-CM
237.7	Neurofibromatosis	Diagnosis	ICD-9-CM
237.70	Neurofibromatosis, unspecified	Diagnosis	ICD-9-CM
237.71	Neurofibromatosis, Type 1 (von Recklinghausen's disease)	Diagnosis	ICD-9-CM
237.72	Neurofibromatosis, Type 2 (acoustic neurofibromatosis)	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
237.73	Schwannomatosis	Diagnosis	ICD-9-CM
237.79	Other neurofibromatosis	Diagnosis	ICD-9-CM
237.9	Neoplasm of uncertain behavior of other and unspecified parts of nervous system	Diagnosis	ICD-9-CM
238	Neoplasm of uncertain behavior of other and unspecified sites and tissues	Diagnosis	ICD-9-CM
238.0	Neoplasm of uncertain behavior of bone and articular cartilage	Diagnosis	ICD-9-CM
238.1	Neoplasm of uncertain behavior of connective and other soft tissue	Diagnosis	ICD-9-CM
238.2	Neoplasm of uncertain behavior of skin	Diagnosis	ICD-9-CM
238.3	Neoplasm of uncertain behavior of breast	Diagnosis	ICD-9-CM
238.4	Neoplasm of uncertain behavior of polycythemia vera	Diagnosis	ICD-9-CM
238.5	Neoplasm of uncertain behavior of histiocytic and mast cells	Diagnosis	ICD-9-CM
238.6	Neoplasm of uncertain behavior of plasma cells	Diagnosis	ICD-9-CM
238.7	Other lymphatic and hematopoietic tissues	Diagnosis	ICD-9-CM
238.71	Essential thrombocythemia	Diagnosis	ICD-9-CM
238.72	Low grade myelodysplastic syndrome lesions	Diagnosis	ICD-9-CM
238.73	High grade myelodysplastic syndrome lesions	Diagnosis	ICD-9-CM
238.74	Myelodysplastic syndrome with 5q deletion	Diagnosis	ICD-9-CM
238.75	Myelodysplastic syndrome, unspecified	Diagnosis	ICD-9-CM
238.76	Myelofibrosis with myeloid metaplasia	Diagnosis	ICD-9-CM
238.77	Post-transplant lymphoproliferative disorder [PTLD]	Diagnosis	ICD-9-CM
238.79	Other lymphatic and hematopoietic tissues	Diagnosis	ICD-9-CM
238.8	Neoplasm of uncertain behavior of other specified sites	Diagnosis	ICD-9-CM
238.9	Neoplasm of uncertain behavior, site unspecified	Diagnosis	ICD-9-CM
239	Neoplasms of unspecified nature	Diagnosis	ICD-9-CM
239.0	Neoplasm of unspecified nature of digestive system	Diagnosis	ICD-9-CM
239.1	Neoplasm of unspecified nature of respiratory system	Diagnosis	ICD-9-CM
239.2	Neoplasms of unspecified nature of bone, soft tissue, and skin	Diagnosis	ICD-9-CM
239.3	Neoplasm of unspecified nature of breast	Diagnosis	ICD-9-CM
239.4	Neoplasm of unspecified nature of bladder	Diagnosis	ICD-9-CM
239.5	Neoplasm of unspecified nature of other genitourinary organs	Diagnosis	ICD-9-CM
239.6	Neoplasm of unspecified nature of brain	Diagnosis	ICD-9-CM
239.7	Neoplasm of unspecified nature of endocrine glands and other parts of nervous system	Diagnosis	ICD-9-CM
239.8	Neoplasm of unspecified nature of other specified sites	Diagnosis	ICD-9-CM
239.81	Neoplasms of unspecified nature, retina and choroid	Diagnosis	ICD-9-CM
239.89	Neoplasms of unspecified nature, other specified sites	Diagnosis	ICD-9-CM
239.9	Neoplasm of unspecified nature, site unspecified	Diagnosis	ICD-9-CM
30230G0	Transfusion of Autologous Bone Marrow into Peripheral Vein, Open Approach	Procedure	ICD-10-PCS
30233G0	Transfusion of Autologous Bone Marrow into Peripheral Vein, Percutaneous Approach	Procedure	ICD-10-PCS
30240G0	Transfusion of Autologous Bone Marrow into Central Vein, Open Approach	Procedure	ICD-10-PCS
30243G0	Transfusion of Autologous Bone Marrow into Central Vein, Percutaneous Approach	Procedure	ICD-10-PCS
30250G0	Transfusion of Autologous Bone Marrow into Peripheral Artery, Open Approach	Procedure	ICD-10-PCS
30253G0	Transfusion of Autologous Bone Marrow into Peripheral Artery, Percutaneous Approach	Procedure	ICD-10-PCS

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

Code	Description	Code Category	Code Type
30260G0	Transfusion of Autologous Bone Marrow into Central Artery, Open Approach	Procedure	ICD-10-PCS
30263G0	Transfusion of Autologous Bone Marrow into Central Artery, Percutaneous Approach	Procedure	ICD-10-PCS
32553	Placement of interstitial device(s) for radiation therapy guidance (eg, fiducial markers, dosimeter), percutaneous, intra-thoracic, single or multiple	Procedure	CPT-4
32701	Thoracic target(s) delineation for stereotactic body radiation therapy (SRS/SBRT), (photon or particle beam), entire course of treatment	Procedure	CPT-4
338.3	Neoplasm related pain (acute) (chronic)	Diagnosis	ICD-9-CM
3E00X05	Introduction of Other Antineoplastic into Skin and Mucous Membranes, External Approach	Procedure	ICD-10-PCS
3E01305	Introduction of Other Antineoplastic into Subcutaneous Tissue, Percutaneous Approach	Procedure	ICD-10-PCS
3E02305	Introduction of Other Antineoplastic into Muscle, Percutaneous Approach	Procedure	ICD-10-PCS
3E03005	Introduction of Other Antineoplastic into Peripheral Vein, Open Approach	Procedure	ICD-10-PCS
3E03305	Introduction of Other Antineoplastic into Peripheral Vein, Percutaneous Approach	Procedure	ICD-10-PCS
3E04005	Introduction of Other Antineoplastic into Central Vein, Open Approach	Procedure	ICD-10-PCS
3E04305	Introduction of Other Antineoplastic into Central Vein, Percutaneous Approach	Procedure	ICD-10-PCS
3E05005	Introduction of Other Antineoplastic into Peripheral Artery, Open Approach	Procedure	ICD-10-PCS
3E05305	Introduction of Other Antineoplastic into Peripheral Artery, Percutaneous Approach	Procedure	ICD-10-PCS
3E06005	Introduction of Other Antineoplastic into Central Artery, Open Approach	Procedure	ICD-10-PCS
3E06305	Introduction of Other Antineoplastic into Central Artery, Percutaneous Approach	Procedure	ICD-10-PCS
3E09305	Introduction of Other Antineoplastic into Nose, Percutaneous Approach	Procedure	ICD-10-PCS
3E09705	Introduction of Other Antineoplastic into Nose, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
3E09X05	Introduction of Other Antineoplastic into Nose, External Approach	Procedure	ICD-10-PCS
3E0A305	Introduction of Other Antineoplastic into Bone Marrow, Percutaneous Approach	Procedure	ICD-10-PCS
3E0B305	Introduction of Other Antineoplastic into Ear, Percutaneous Approach	Procedure	ICD-10-PCS
3E0B705	Introduction of Other Antineoplastic into Ear, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
3E0BX05	Introduction of Other Antineoplastic into Ear, External Approach	Procedure	ICD-10-PCS
3E0C305	Introduction of Other Antineoplastic into Eye, Percutaneous Approach	Procedure	ICD-10-PCS
3E0C705	Introduction of Other Antineoplastic into Eye, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
3E0CX05	Introduction of Other Antineoplastic into Eye, External Approach	Procedure	ICD-10-PCS
3E0D305	Introduction of Other Antineoplastic into Mouth and Pharynx, Percutaneous Approach	Procedure	ICD-10-PCS
3E0D705	Introduction of Other Antineoplastic into Mouth and Pharynx, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
3E0DX05	Introduction of Other Antineoplastic into Mouth and Pharynx, External Approach	Procedure	ICD-10-PCS

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Code	Description	Code Category	Code Type
3E0F305	Introduction of Other Antineoplastic into Respiratory Tract, Percutaneous Approach	Procedure	ICD-10-PCS
3E0F705	Introduction of Other Antineoplastic into Respiratory Tract, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
3E0F805	Introduction of Other Antineoplastic into Respiratory Tract, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
3E0G305	Introduction of Other Antineoplastic into Upper GI, Percutaneous Approach	Procedure	ICD-10-PCS
3E0G705	Introduction of Other Antineoplastic into Upper GI, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
3E0G805	Introduction of Other Antineoplastic into Upper GI, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
3E0H305	Introduction of Other Antineoplastic into Lower GI, Percutaneous Approach	Procedure	ICD-10-PCS
3E0H705	Introduction of Other Antineoplastic into Lower GI, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
3E0H805	Introduction of Other Antineoplastic into Lower GI, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
3E0J305	Introduction of Other Antineoplastic into Biliary and Pancreatic Tract, Percutaneous Approach	Procedure	ICD-10-PCS
3E0J705	Introduction of Other Antineoplastic into Biliary and Pancreatic Tract, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
3E0J805	Introduction of Other Antineoplastic into Biliary and Pancreatic Tract, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
3E0K305	Introduction of Other Antineoplastic into Genitourinary Tract, Percutaneous Approach	Procedure	ICD-10-PCS
3E0K705	Introduction of Other Antineoplastic into Genitourinary Tract, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
3E0K805	Introduction of Other Antineoplastic into Genitourinary Tract, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
3E0L305	Introduction of Other Antineoplastic into Pleural Cavity, Percutaneous Approach	Procedure	ICD-10-PCS
3E0L705	Introduction of Other Antineoplastic into Pleural Cavity, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
3E0M305	Introduction of Other Antineoplastic into Peritoneal Cavity, Percutaneous Approach	Procedure	ICD-10-PCS
3E0M705	Introduction of Other Antineoplastic into Peritoneal Cavity, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
3E0N305	Introduction of Other Antineoplastic into Male Reproductive, Percutaneous Approach	Procedure	ICD-10-PCS
3E0N705	Introduction of Other Antineoplastic into Male Reproductive, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
3E0N805	Introduction of Other Antineoplastic into Male Reproductive, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
3E0P305	Introduction of Other Antineoplastic into Female Reproductive, Percutaneous Approach	Procedure	ICD-10-PCS
3E0P705	Introduction of Other Antineoplastic into Female Reproductive, Via Natural or Artificial Opening	Procedure	ICD-10-PCS

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Code	Description	Code Category	Code Type
3E0P805	Introduction of Other Antineoplastic into Female Reproductive, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
3E0Q005	Introduction of Other Antineoplastic into Cranial Cavity and Brain, Open Approach	Procedure	ICD-10-PCS
3E0Q305	Introduction of Other Antineoplastic into Cranial Cavity and Brain, Percutaneous Approach	Procedure	ICD-10-PCS
3E0Q705	Introduction of Other Antineoplastic into Cranial Cavity and Brain, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
3E0R305	Introduction of Other Antineoplastic into Spinal Canal, Percutaneous Approach	Procedure	ICD-10-PCS
3E0S305	Introduction of Other Antineoplastic into Epidural Space, Percutaneous Approach	Procedure	ICD-10-PCS
3E0U305	Introduction of Other Antineoplastic into Joints, Percutaneous Approach	Procedure	ICD-10-PCS
3E0V305	Introduction of Other Antineoplastic into Bones, Percutaneous Approach	Procedure	ICD-10-PCS
3E0W305	Introduction of Other Antineoplastic into Lymphatics, Percutaneous Approach	Procedure	ICD-10-PCS
3E0Y305	Introduction of Other Antineoplastic into Pericardial Cavity, Percutaneous Approach	Procedure	ICD-10-PCS
3E0Y705	Introduction of Other Antineoplastic into Pericardial Cavity, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
41.09	Autologous bone marrow transplant with purging	Procedure	ICD-9-CM
49327	Laparoscopy, surgical; with placement of interstitial device(s) for radiation therapy guidance (eg, fiducial markers, dosimeter), intra-abdominal, intrapelvic, and/or retroperitoneum, including imaging guidance, if performed, single	Procedure	CPT-4
49411	Placement of interstitial device(s) for radiation therapy guidance (eg, fiducial markers, dosimeter), percutaneous, intra-abdominal, intra-pelvic (except prostate), and/or retroperitoneum, single or multiple (List separately in addition to code for primary procedure)	Procedure	CPT-4
49412	Placement of interstitial device(s) for radiation therapy guidance (eg, fiducial markers, dosimeter), open, intra-abdominal, intrapelvic, and/or retroperitoneum, including image guidance, if performed, single or multiple (List separately in addition to code for primary procedure)	Procedure	CPT-4
51720	Bladder instillation of anticarcinogenic agent (including retention time)	Procedure	CPT-4
53220	Excision or fulguration of carcinoma of urethra	Procedure	CPT-4
55860	Exposure of prostate, any approach, for insertion of radioactive substance;	Procedure	CPT-4
55862	Exposure of prostate, any approach, for insertion of radioactive substance; with lymph node biopsy(s) (limited pelvic lymphadenectomy)	Procedure	CPT-4
55865	Exposure of prostate, any approach, for insertion of radioactive substance; with bilateral pelvic lymphadenectomy, including external iliac, hypogastric and obturator nodes	Procedure	CPT-4

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Code	Description	Code Category	Code Type
55875	Transperineal placement of needles or catheters into prostate for interstitial radioelement application, with or without cystoscopy	Procedure	CPT-4
55876	Placement of interstitial device(s) for radiation therapy guidance (eg, fiducial markers, dosimeter), prostate (via needle, any approach), single or multiple	Procedure	CPT-4
55920	Placement of needles or catheters into pelvic organs and/or genitalia (except prostate) for subsequent interstitial radioelement application	Procedure	CPT-4
57155	Insertion of uterine tandem and/or vaginal ovoids for clinical brachytherapy	Procedure	CPT-4
58240	Pelvic exenteration for gynecologic malignancy, with total abdominal hysterectomy or cervicectomy, with or without removal of tube(s), with or without removal of ovary(s), with removal of bladder and ureteral transplantations, and/or abdominoperineal resection of rectum and colon and colostomy, or any combination thereof	Procedure	CPT-4
58346	Insertion of Heyman capsules for clinical brachytherapy	Procedure	CPT-4
58943	Oophorectomy, partial or total, unilateral or bilateral; for ovarian, tubal or primary peritoneal malignancy, with para-aortic and pelvic lymph node biopsies, peritoneal washings, peritoneal biopsies, diaphragmatic assessments, with or without salpingectomy(s) with or without omentectomy	Procedure	CPT-4
58950	Resection (initial) of ovarian, tubal or primary peritoneal malignancy with bilateral salpingo-oophorectomy and omentectomy;	Procedure	CPT-4
58951	Resection (initial) of ovarian, tubal or primary peritoneal malignancy with bilateral salpingo-oophorectomy and omentectomy; with total abdominal hysterectomy, pelvic and limited para-aortic lymphadenectomy	Procedure	CPT-4
58952	Resection (initial) of ovarian, tubal or primary peritoneal malignancy with bilateral salpingo-oophorectomy and omentectomy; with radical dissection for debulking (ie, radical excision or destruction, intra-abdominal or retroperitoneal tumors)	Procedure	CPT-4
58956	Bilateral salpingo-oophorectomy with total omentectomy, total abdominal hysterectomy for malignancy	Procedure	CPT-4
58957	Resection (tumor debulking) of recurrent ovarian, tubal, primary peritoneal, uterine malignancy (intra-abdominal, retroperitoneal tumors), with omentectomy, if performed;	Procedure	CPT-4
58958	Resection (tumor debulking) of recurrent ovarian, tubal, primary peritoneal, uterine malignancy (intra-abdominal, retroperitoneal tumors), with omentectomy, if performed; with pelvic lymphadenectomy and limited para-aortic lymphadenectomy	Procedure	CPT-4

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Code	Description	Code Category	Code Type
58960	Laparotomy, for staging or restaging of ovarian, tubal, or primary peritoneal malignancy (second look), with or without omentectomy, peritoneal washing, biopsy of abdominal and pelvic peritoneum, diaphragmatic assessment with pelvic and limited para-aortic lymphadenectomy	Procedure	CPT-4
60252	Thyroidectomy, total or subtotal for malignancy; with limited neck dissection	Procedure	CPT-4
60254	Thyroidectomy, total or subtotal for malignancy; with radical neck dissection	Procedure	CPT-4
61517	Implantation of brain intracavitary chemotherapy agent (List separately in addition to code for primary procedure)	Procedure	CPT-4
61770	Stereotactic localization, including burr hole(s), with insertion of catheter(s) or probe(s) for placement of radiation source	Procedure	CPT-4
61793	Stereotactic radiosurgery (particle beam, gamma ray or linear accelerator), one or more sessions	Procedure	CPT-4
67218	Destruction of localized lesion of retina (eg, macular edema, tumors), 1 or more sessions; radiation by implantation of source (includes removal of source)	Procedure	CPT-4
76873	Ultrasound, transrectal; prostate volume study for brachytherapy treatment planning (separate procedure)	Procedure	CPT-4
76950	Ultrasonic guidance for placement of radiation therapy fields	Procedure	CPT-4
76960	Ultrasonic guidance for placement of radiation therapy fields, except for B-scan echography	Procedure	CPT-4
76965	Ultrasonic guidance for interstitial radioelement application	Procedure	CPT-4
77014	Computed tomography guidance for placement of radiation therapy fields	Procedure	CPT-4
77261	Therapeutic radiology treatment planning; simple	Procedure	CPT-4
77262	Therapeutic radiology treatment planning; intermediate	Procedure	CPT-4
77263	Therapeutic radiology treatment planning; complex	Procedure	CPT-4
77280	Therapeutic radiology simulation-aided field setting; simple	Procedure	CPT-4
77285	Therapeutic radiology simulation-aided field setting; intermediate	Procedure	CPT-4
77290	Therapeutic radiology simulation-aided field setting; complex	Procedure	CPT-4
77295	3-dimensional radiotherapy plan, including dose-volume histograms	Procedure	CPT-4
77299	Unlisted procedure, therapeutic radiology clinical treatment planning	Procedure	CPT-4
77300	Basic radiation dosimetry calculation, central axis depth dose calculation, TDF, NSD, gap calculation, off axis factor, tissue inhomogeneity factors, calculation of non-ionizing radiation surface and depth dose, as required during course of treatment only when prescribed by the treating physician	Procedure	CPT-4
77301	Intensity modulated radiotherapy plan, including dose-volume histograms for target and critical structure partial tolerance specifications	Procedure	CPT-4
77305	Teletherapy, isodose plan (whether hand or computer calculated); simple (1 or 2 parallel opposed unmodified ports directed to a single area of interest)	Procedure	CPT-4
77306	Teletherapy isodose plan; simple (1 or 2 unmodified ports directed to a single area of interest), includes basic dosimetry calculation(s)	Procedure	CPT-4

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Code	Description	Code Category	Code Type
77307	Teletherapy isodose plan; complex (multiple treatment areas, tangential ports, the use of wedges, blocking, rotational beam, or special beam considerations), includes basic dosimetry calculation(s)	Procedure	CPT-4
77310	Teletherapy, isodose plan (whether hand or computer calculated); intermediate (3 or more treatment ports directed to a single area of interest)	Procedure	CPT-4
77315	Teletherapy, isodose plan (whether hand or computer calculated); complex (mantle or inverted Y, tangential ports, the use of wedges, compensators, complex blocking, rotational beam, or special beam considerations)	Procedure	CPT-4
77316	Brachytherapy isodose plan; simple (calculation[s] made from 1 to 4 sources, or remote afterloading brachytherapy, 1 channel), includes basic dosimetry calculation(s)	Procedure	CPT-4
77317	Brachytherapy isodose plan; intermediate (calculation[s] made from 5 to 10 sources, or remote afterloading brachytherapy, 2-12 channels), includes basic dosimetry calculation(s)	Procedure	CPT-4
77318	Brachytherapy isodose plan; complex (calculation[s] made from over 10 sources, or remote afterloading brachytherapy, over 12 channels), includes basic dosimetry calculation(s)	Procedure	CPT-4
77321	Special teletherapy port plan, particles, hemibody, total body	Procedure	CPT-4
77326	Brachytherapy isodose plan; simple (calculation made from single plane, 1 to 4 sources/ribbon application, remote afterloading brachytherapy, 1 to 8 sources)	Procedure	CPT-4
77327	Brachytherapy isodose plan; intermediate (multiplane dosage calculations, application involving 5 to 10 sources/ribbons, remote afterloading brachytherapy, 9 to 12 sources)	Procedure	CPT-4
77328	Brachytherapy isodose plan; complex (multiplane isodose plan, volume implant calculations, over 10 sources/ribbons used, special spatial reconstruction, remote afterloading brachytherapy, over 12 sources)	Procedure	CPT-4
77331	Special dosimetry (eg, TLD, microdosimetry) (specify), only when prescribed by the treating physician	Procedure	CPT-4
77332	Treatment devices, design and construction; simple (simple block, simple bolus)	Procedure	CPT-4
77333	Treatment devices, design and construction; intermediate (multiple blocks, stents, bite blocks, special bolus)	Procedure	CPT-4
77334	Treatment devices, design and construction; complex (irregular blocks, special shields, compensators, wedges, molds or casts)	Procedure	CPT-4
77336	Continuing medical physics consultation, including assessment of treatment parameters, quality assurance of dose delivery, and review of patient treatment documentation in support of the radiation oncologist, reported per week of therapy	Procedure	CPT-4

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Code	Description	Code Category	Code Type
77338	Multi-leaf collimator (MLC) device(s) for intensity modulated radiation therapy (IMRT), design and construction per IMRT plan	Procedure	CPT-4
77370	Special medical radiation physics consultation	Procedure	CPT-4
77371	Radiation treatment delivery, stereotactic radiosurgery (SRS), complete course of treatment of cranial lesion(s) consisting of 1 session; multi-source Cobalt 60 based	Procedure	CPT-4
77372	Radiation treatment delivery, stereotactic radiosurgery (SRS), complete course of treatment of cranial lesion(s) consisting of 1 session; linear accelerator based	Procedure	CPT-4
77373	Stereotactic body radiation therapy, treatment delivery, per fraction to 1 or more lesions, including image guidance, entire course not to exceed 5 fractions	Procedure	CPT-4
77380	Proton beam delivery to a single treatment area, single port, custom block, with or without compensation, with treatment set-up and verification images	Procedure	CPT-4
77381	Proton beam treatment to one or two treatment areas, two or more ports, two or more custom blocks, and two or more compensators, with treatment set-up and verification images	Procedure	CPT-4
77385	Intensity modulated radiation treatment delivery (IMRT), includes guidance and tracking, when performed; simple	Procedure	CPT-4
77386	Intensity modulated radiation treatment delivery (IMRT), includes guidance and tracking, when performed; complex	Procedure	CPT-4
77387	Guidance for localization of target volume for delivery of radiation treatment, includes intrafraction tracking, when performed	Procedure	CPT-4
77399	Unlisted procedure, medical radiation physics, dosimetry and treatment devices, and special services	Procedure	CPT-4
77401	Radiation treatment delivery, superficial and/or ortho voltage, per day	Procedure	CPT-4
77402	Radiation treatment delivery, => 1 MeV; simple	Procedure	CPT-4
77403	Radiation treatment delivery, single treatment area, single port or parallel opposed ports, simple blocks or no blocks; 6-10 MeV	Procedure	CPT-4
77404	Radiation treatment delivery, single treatment area, single port or parallel opposed ports, simple blocks or no blocks; 11-19 MeV	Procedure	CPT-4
77406	Radiation treatment delivery, single treatment area, single port or parallel opposed ports, simple blocks or no blocks; 20 MeV or greater	Procedure	CPT-4
77407	Radiation treatment delivery, => 1 MeV; intermediate	Procedure	CPT-4
77408	Radiation treatment delivery, 2 separate treatment areas, 3 or more ports on a single treatment area, use of multiple blocks; 6-10 MeV	Procedure	CPT-4
77409	Radiation treatment delivery, 2 separate treatment areas, 3 or more ports on a single treatment area, use of multiple blocks; 11-19 MeV	Procedure	CPT-4

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Code	Description	Code Category	Code Type
77411	Radiation treatment delivery, 2 separate treatment areas, 3 or more ports on a single treatment area, use of multiple blocks; 20 MeV or greater	Procedure	CPT-4
77412	Radiation treatment delivery, => 1 MeV; complex	Procedure	CPT-4
77413	Radiation treatment delivery, 3 or more separate treatment areas, custom blocking, tangential ports, wedges, rotational beam, compensators. electron beam; 6-10 MeV	Procedure	CPT-4
77414	Radiation treatment delivery, 3 or more separate treatment areas, custom blocking, tangential ports, wedges, rotational beam, compensators, electron beam; 11-19 MeV	Procedure	CPT-4
77416	Radiation treatment delivery, 3 or more separate treatment areas, custom blocking, tangential ports, wedges, rotational beam, compensators. electron beam; 20 MeV or greater	Procedure	CPT-4
77417	Therapeutic radiology port image(s)	Procedure	CPT-4
77418	Intensity modulated treatment delivery, single or multiple fields/arcs, via narrow spatially and temporally modulated beams, binary, dynamic MLC, per treatment session	Procedure	CPT-4
77419	Weekly radiation therapy management; conformal	Procedure	CPT-4
77420	WK RAD THERAP MGMT; SIMPL	Procedure	CPT-4
77421	Stereoscopic X-ray guidance for localization of target volume for the delivery of radiation therapy	Procedure	CPT-4
77422	High energy neutron radiation treatment delivery; single treatment area using a single port or parallel-opposed ports with no blocks or simple blocking	Procedure	CPT-4
77423	High energy neutron radiation treatment delivery, 1 or more isocenter(s) with coplanar or non-coplanar geometry with blocking and/or wedge, and/or compensator(s)	Procedure	CPT-4
77424	Intraoperative radiation treatment delivery, x-ray, single treatment session	Procedure	CPT-4
77425	Intraoperative radiation treatment delivery, electrons, single treatment session	Procedure	CPT-4
77427	Radiation treatment management, 5 treatments	Procedure	CPT-4
77430	WK RAD THERAP MGMT; COMPLX	Procedure	CPT-4
77431	Radiation therapy management with complete course of therapy consisting of 1 or 2 fractions only	Procedure	CPT-4
77432	Stereotactic radiation treatment management of cranial lesion(s) (complete course of treatment consisting of 1 session)	Procedure	CPT-4
77435	Stereotactic body radiation therapy, treatment management, per treatment course, to 1 or more lesions, including image guidance, entire course not to exceed 5 fractions	Procedure	CPT-4
77469	Intraoperative radiation treatment management	Procedure	CPT-4
77470	Special treatment procedure (eg, total body irradiation, hemibody radiation, per oral or endocavitary irradiation)	Procedure	CPT-4
77499	Unlisted procedure, therapeutic radiology treatment management	Procedure	CPT-4
77520	Proton treatment delivery; simple, without compensation	Procedure	CPT-4
77522	Proton treatment delivery; simple, with compensation	Procedure	CPT-4
77523	Proton treatment delivery; intermediate	Procedure	CPT-4

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Code	Description	Code Category	Code Type
77525	Proton treatment delivery; complex	Procedure	CPT-4
77600	Hyperthermia, externally generated; superficial (ie, heating to a depth of 4 cm or less)	Procedure	CPT-4
77605	Hyperthermia, externally generated; deep (ie, heating to depths greater than 4 cm)	Procedure	CPT-4
77610	Hyperthermia generated by interstitial probe(s); 5 or fewer interstitial applicators	Procedure	CPT-4
77615	Hyperthermia generated by interstitial probe(s); more than 5 interstitial applicators	Procedure	CPT-4
77620	Hyperthermia generated by intracavitary probe(s)	Procedure	CPT-4
77750	Infusion or instillation of radioelement solution (includes 3-month follow-up care)	Procedure	CPT-4
77761	Intracavitary radiation source application; simple	Procedure	CPT-4
77762	Intracavitary radiation source application; intermediate	Procedure	CPT-4
77763	Intracavitary radiation source application; complex	Procedure	CPT-4
77776	Interstitial radiation source application; simple	Procedure	CPT-4
77777	Interstitial radiation source application; intermediate	Procedure	CPT-4
77778	Interstitial radiation source application, complex, includes supervision, handling, loading of radiation source, when performed	Procedure	CPT-4
77781	Remote afterloading high intensity brachytherapy; 1-4 source positions or catheters	Procedure	CPT-4
77782	Remote afterloading high intensity brachytherapy; 5-8 source positions or catheters	Procedure	CPT-4
77783	Remote afterloading high intensity brachytherapy; 9-12 source positions or catheters	Procedure	CPT-4
77784	Remote afterloading high intensity brachytherapy; over 12 source positions or catheters	Procedure	CPT-4
77785	Remote afterloading high dose rate radionuclide brachytherapy; 1 channel	Procedure	CPT-4
77786	Remote afterloading high dose rate radionuclide brachytherapy; 2-12 channels	Procedure	CPT-4
77787	Remote afterloading high dose rate radionuclide brachytherapy; over 12 channels	Procedure	CPT-4
77789	Surface application of low dose rate radionuclide source	Procedure	CPT-4
77790	Supervision, handling, loading of radiation source	Procedure	CPT-4
77799	Unlisted procedure, clinical brachytherapy	Procedure	CPT-4
78015	Thyroid carcinoma metastases imaging; limited area (eg, neck and chest only)	Procedure	CPT-4
78016	Thyroid carcinoma metastases imaging; with additional studies (eg, urinary recovery)	Procedure	CPT-4
78018	Thyroid carcinoma metastases imaging; whole body	Procedure	CPT-4
78020	Thyroid carcinoma metastases uptake (List separately in addition to code for primary procedure)	Procedure	CPT-4
789.51	Malignant ascites	Diagnosis	ICD-9-CM
79200	Radiopharmaceutical therapy, by intracavitary administration	Procedure	CPT-4
79300	Radiopharmaceutical therapy, by interstitial radioactive colloid administration	Procedure	CPT-4
79440	Radiopharmaceutical therapy, by intra-articular administration	Procedure	CPT-4

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Code	Description	Code Category	Code Type
79999	Radiopharmaceutical therapy, unlisted procedure	Procedure	CPT-4
90586	Bacillus Calmette-Guerin vaccine (BCG) for bladder cancer, live, for intravesical use	Procedure	CPT-4
92974	Transcatheter placement of radiation delivery device for subsequent coronary intravascular brachytherapy (List separately in addition to code for primary procedure)	Procedure	CPT-4
96400	Chemotherapy administration, subcutaneous or intramuscular, with or without local anesthesia	Procedure	CPT-4
96401	Chemotherapy administration, subcutaneous or intramuscular; non-hormonal anti-neoplastic	Procedure	CPT-4
96402	Chemotherapy administration, subcutaneous or intramuscular; hormonal anti-neoplastic	Procedure	CPT-4
96405	Chemotherapy administration; intralesional, up to and including 7 lesions	Procedure	CPT-4
96406	Chemotherapy administration; intralesional, more than 7 lesions	Procedure	CPT-4
96408	Chemotherapy administration, intravenous; push technique	Procedure	CPT-4
96409	Chemotherapy administration; intravenous, push technique, single or initial substance/drug	Procedure	CPT-4
96410	Chemotherapy administration, intravenous; infusion technique, up to one hour	Procedure	CPT-4
96411	Chemotherapy administration; intravenous, push technique, each additional substance/drug (List separately in addition to code for primary procedure)	Procedure	CPT-4
96412	Chemotherapy administration, intravenous; infusion technique, one to 8 hours, each additional hour (List separately in addition to code for primary procedure)	Procedure	CPT-4
96413	Chemotherapy administration, intravenous infusion technique; up to 1 hour, single or initial substance/drug	Procedure	CPT-4
96414	Chemotherapy administration, intravenous; infusion technique, initiation of prolonged infusion (more than 8 hours), requiring the use of a portable or implantable pump	Procedure	CPT-4
96415	Chemotherapy administration, intravenous infusion technique; each additional hour (List separately in addition to code for primary procedure)	Procedure	CPT-4
96416	Chemotherapy administration, intravenous infusion technique; initiation of prolonged chemotherapy infusion (more than 8 hours), requiring use of a portable or implantable pump	Procedure	CPT-4
96417	Chemotherapy administration, intravenous infusion technique; each additional sequential infusion (different substance/drug), up to 1 hour (List separately in addition to code for primary procedure)	Procedure	CPT-4
96420	Chemotherapy administration, intra-arterial; push technique	Procedure	CPT-4
96422	Chemotherapy administration, intra-arterial; infusion technique, up to 1 hour	Procedure	CPT-4
96423	Chemotherapy administration, intra-arterial; infusion technique, each additional hour (List separately in addition to code for primary procedure)	Procedure	CPT-4

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Code	Description	Code Category	Code Type
96425	Chemotherapy administration, intra-arterial; infusion technique, initiation of prolonged infusion (more than 8 hours), requiring the use of a portable or implantable pump	Procedure	CPT-4
96440	Chemotherapy administration into pleural cavity, requiring and including thoracentesis	Procedure	CPT-4
96445	Chemotherapy administration into peritoneal cavity, requiring and including peritoneocentesis	Procedure	CPT-4
96446	Chemotherapy administration into the peritoneal cavity via indwelling port or catheter	Procedure	CPT-4
96450	Chemotherapy administration, into CNS (eg, intrathecal), requiring and including spinal puncture	Procedure	CPT-4
96520	Refilling and maintenance of portable pump	Procedure	CPT-4
96521	Refilling and maintenance of portable pump	Procedure	CPT-4
96522	Refilling and maintenance of implantable pump or reservoir for drug delivery, systemic (eg, intravenous, intra-arterial)	Procedure	CPT-4
96523	Irrigation of implanted venous access device for drug delivery systems	Procedure	CPT-4
96530	Refilling and maintenance of implantable pump or reservoir for drug delivery, systemic (eg, intravenous, intra-arterial)	Procedure	CPT-4
96542	Chemotherapy injection, subarachnoid or intraventricular via subcutaneous reservoir, single or multiple agents	Procedure	CPT-4
96545	Provision of chemotherapy agent	Procedure	CPT-4
96549	Unlisted chemotherapy procedure	Procedure	CPT-4
99.25	Injection or infusion of cancer chemotherapeutic substance	Procedure	ICD-9-CM
99.85	Hyperthermia for treatment of cancer	Procedure	ICD-9-CM
99555	Home infusion for chemotherapy, per visit	Procedure	CPT-4
A4555	Electrode/transducer for use with electrical stimulation device used for cancer treatment, replacement only	Procedure	HCPCS
A4650	Implantable radiation dosimeter, each	Procedure	HCPCS
C00.0	Malignant neoplasm of external upper lip	Diagnosis	ICD-10-CM
C00.1	Malignant neoplasm of external lower lip	Diagnosis	ICD-10-CM
C00.2	Malignant neoplasm of external lip, unspecified	Diagnosis	ICD-10-CM
C00.3	Malignant neoplasm of upper lip, inner aspect	Diagnosis	ICD-10-CM
C00.4	Malignant neoplasm of lower lip, inner aspect	Diagnosis	ICD-10-CM
C00.5	Malignant neoplasm of lip, unspecified, inner aspect	Diagnosis	ICD-10-CM
C00.6	Malignant neoplasm of commissure of lip, unspecified	Diagnosis	ICD-10-CM
C00.8	Malignant neoplasm of overlapping sites of lip	Diagnosis	ICD-10-CM
C00.9	Malignant neoplasm of lip, unspecified	Diagnosis	ICD-10-CM
C01	Malignant neoplasm of base of tongue	Diagnosis	ICD-10-CM
C02.0	Malignant neoplasm of dorsal surface of tongue	Diagnosis	ICD-10-CM
C02.1	Malignant neoplasm of border of tongue	Diagnosis	ICD-10-CM
C02.2	Malignant neoplasm of ventral surface of tongue	Diagnosis	ICD-10-CM
C02.3	Malignant neoplasm of anterior two-thirds of tongue, part unspecified	Diagnosis	ICD-10-CM
C02.4	Malignant neoplasm of lingual tonsil	Diagnosis	ICD-10-CM
C02.8	Malignant neoplasm of overlapping sites of tongue	Diagnosis	ICD-10-CM
C02.9	Malignant neoplasm of tongue, unspecified	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C03.0	Malignant neoplasm of upper gum	Diagnosis	ICD-10-CM
C03.1	Malignant neoplasm of lower gum	Diagnosis	ICD-10-CM
C03.9	Malignant neoplasm of gum, unspecified	Diagnosis	ICD-10-CM
C04.0	Malignant neoplasm of anterior floor of mouth	Diagnosis	ICD-10-CM
C04.1	Malignant neoplasm of lateral floor of mouth	Diagnosis	ICD-10-CM
C04.8	Malignant neoplasm of overlapping sites of floor of mouth	Diagnosis	ICD-10-CM
C04.9	Malignant neoplasm of floor of mouth, unspecified	Diagnosis	ICD-10-CM
C05.0	Malignant neoplasm of hard palate	Diagnosis	ICD-10-CM
C05.1	Malignant neoplasm of soft palate	Diagnosis	ICD-10-CM
C05.2	Malignant neoplasm of uvula	Diagnosis	ICD-10-CM
C05.8	Malignant neoplasm of overlapping sites of palate	Diagnosis	ICD-10-CM
C05.9	Malignant neoplasm of palate, unspecified	Diagnosis	ICD-10-CM
C06.0	Malignant neoplasm of cheek mucosa	Diagnosis	ICD-10-CM
C06.1	Malignant neoplasm of vestibule of mouth	Diagnosis	ICD-10-CM
C06.2	Malignant neoplasm of retromolar area	Diagnosis	ICD-10-CM
C06.80	Malignant neoplasm of overlapping sites of unspecified parts of mouth	Diagnosis	ICD-10-CM
C06.89	Malignant neoplasm of overlapping sites of other parts of mouth	Diagnosis	ICD-10-CM
C06.9	Malignant neoplasm of mouth, unspecified	Diagnosis	ICD-10-CM
C07	Malignant neoplasm of parotid gland	Diagnosis	ICD-10-CM
C08.0	Malignant neoplasm of submandibular gland	Diagnosis	ICD-10-CM
C08.1	Malignant neoplasm of sublingual gland	Diagnosis	ICD-10-CM
C08.9	Malignant neoplasm of major salivary gland, unspecified	Diagnosis	ICD-10-CM
C09.0	Malignant neoplasm of tonsillar fossa	Diagnosis	ICD-10-CM
C09.1	Malignant neoplasm of tonsillar pillar (anterior) (posterior)	Diagnosis	ICD-10-CM
C09.8	Malignant neoplasm of overlapping sites of tonsil	Diagnosis	ICD-10-CM
C09.9	Malignant neoplasm of tonsil, unspecified	Diagnosis	ICD-10-CM
C10.0	Malignant neoplasm of vallecula	Diagnosis	ICD-10-CM
C10.1	Malignant neoplasm of anterior surface of epiglottis	Diagnosis	ICD-10-CM
C10.2	Malignant neoplasm of lateral wall of oropharynx	Diagnosis	ICD-10-CM
C10.3	Malignant neoplasm of posterior wall of oropharynx	Diagnosis	ICD-10-CM
C10.4	Malignant neoplasm of branchial cleft	Diagnosis	ICD-10-CM
C10.8	Malignant neoplasm of overlapping sites of oropharynx	Diagnosis	ICD-10-CM
C10.9	Malignant neoplasm of oropharynx, unspecified	Diagnosis	ICD-10-CM
C11.0	Malignant neoplasm of superior wall of nasopharynx	Diagnosis	ICD-10-CM
C11.1	Malignant neoplasm of posterior wall of nasopharynx	Diagnosis	ICD-10-CM
C11.2	Malignant neoplasm of lateral wall of nasopharynx	Diagnosis	ICD-10-CM
C11.3	Malignant neoplasm of anterior wall of nasopharynx	Diagnosis	ICD-10-CM
C11.8	Malignant neoplasm of overlapping sites of nasopharynx	Diagnosis	ICD-10-CM
C11.9	Malignant neoplasm of nasopharynx, unspecified	Diagnosis	ICD-10-CM
C12	Malignant neoplasm of pyriform sinus	Diagnosis	ICD-10-CM
C13.0	Malignant neoplasm of postcricoid region	Diagnosis	ICD-10-CM
C13.1	Malignant neoplasm of aryepiglottic fold, hypopharyngeal aspect	Diagnosis	ICD-10-CM
C13.2	Malignant neoplasm of posterior wall of hypopharynx	Diagnosis	ICD-10-CM
C13.8	Malignant neoplasm of overlapping sites of hypopharynx	Diagnosis	ICD-10-CM
C13.9	Malignant neoplasm of hypopharynx, unspecified	Diagnosis	ICD-10-CM
C14.0	Malignant neoplasm of pharynx, unspecified	Diagnosis	ICD-10-CM
C14.2	Malignant neoplasm of Waldeyer's ring	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
C14.8	Malignant neoplasm of overlapping sites of lip, oral cavity and pharynx	Diagnosis	ICD-10-CM
C15.3	Malignant neoplasm of upper third of esophagus	Diagnosis	ICD-10-CM
C15.4	Malignant neoplasm of middle third of esophagus	Diagnosis	ICD-10-CM
C15.5	Malignant neoplasm of lower third of esophagus	Diagnosis	ICD-10-CM
C15.8	Malignant neoplasm of overlapping sites of esophagus	Diagnosis	ICD-10-CM
C15.9	Malignant neoplasm of esophagus, unspecified	Diagnosis	ICD-10-CM
C16.0	Malignant neoplasm of cardia	Diagnosis	ICD-10-CM
C16.1	Malignant neoplasm of fundus of stomach	Diagnosis	ICD-10-CM
C16.2	Malignant neoplasm of body of stomach	Diagnosis	ICD-10-CM
C16.3	Malignant neoplasm of pyloric antrum	Diagnosis	ICD-10-CM
C16.4	Malignant neoplasm of pylorus	Diagnosis	ICD-10-CM
C16.5	Malignant neoplasm of lesser curvature of stomach, unspecified	Diagnosis	ICD-10-CM
C16.6	Malignant neoplasm of greater curvature of stomach, unspecified	Diagnosis	ICD-10-CM
C16.8	Malignant neoplasm of overlapping sites of stomach	Diagnosis	ICD-10-CM
C16.9	Malignant neoplasm of stomach, unspecified	Diagnosis	ICD-10-CM
C17.0	Malignant neoplasm of duodenum	Diagnosis	ICD-10-CM
C17.1	Malignant neoplasm of jejunum	Diagnosis	ICD-10-CM
C17.2	Malignant neoplasm of ileum	Diagnosis	ICD-10-CM
C17.3	Meckel's diverticulum, malignant	Diagnosis	ICD-10-CM
C17.8	Malignant neoplasm of overlapping sites of small intestine	Diagnosis	ICD-10-CM
C17.9	Malignant neoplasm of small intestine, unspecified	Diagnosis	ICD-10-CM
C18.0	Malignant neoplasm of cecum	Diagnosis	ICD-10-CM
C18.1	Malignant neoplasm of appendix	Diagnosis	ICD-10-CM
C18.2	Malignant neoplasm of ascending colon	Diagnosis	ICD-10-CM
C18.3	Malignant neoplasm of hepatic flexure	Diagnosis	ICD-10-CM
C18.4	Malignant neoplasm of transverse colon	Diagnosis	ICD-10-CM
C18.5	Malignant neoplasm of splenic flexure	Diagnosis	ICD-10-CM
C18.6	Malignant neoplasm of descending colon	Diagnosis	ICD-10-CM
C18.7	Malignant neoplasm of sigmoid colon	Diagnosis	ICD-10-CM
C18.8	Malignant neoplasm of overlapping sites of colon	Diagnosis	ICD-10-CM
C18.9	Malignant neoplasm of colon, unspecified	Diagnosis	ICD-10-CM
C19	Malignant neoplasm of rectosigmoid junction	Diagnosis	ICD-10-CM
C20	Malignant neoplasm of rectum	Diagnosis	ICD-10-CM
C21.0	Malignant neoplasm of anus, unspecified	Diagnosis	ICD-10-CM
C21.1	Malignant neoplasm of anal canal	Diagnosis	ICD-10-CM
C21.2	Malignant neoplasm of cloacogenic zone	Diagnosis	ICD-10-CM
C21.8	Malignant neoplasm of overlapping sites of rectum, anus and anal canal	Diagnosis	ICD-10-CM
C22.0	Liver cell carcinoma	Diagnosis	ICD-10-CM
C22.1	Intrahepatic bile duct carcinoma	Diagnosis	ICD-10-CM
C22.2	Hepatoblastoma	Diagnosis	ICD-10-CM
C22.3	Angiosarcoma of liver	Diagnosis	ICD-10-CM
C22.4	Other sarcomas of liver	Diagnosis	ICD-10-CM
C22.7	Other specified carcinomas of liver	Diagnosis	ICD-10-CM
C22.8	Malignant neoplasm of liver, primary, unspecified as to type	Diagnosis	ICD-10-CM
C22.9	Malignant neoplasm of liver, not specified as primary or secondary	Diagnosis	ICD-10-CM
C23	Malignant neoplasm of gallbladder	Diagnosis	ICD-10-CM
C24.0	Malignant neoplasm of extrahepatic bile duct	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C24.1	Malignant neoplasm of ampulla of Vater	Diagnosis	ICD-10-CM
C24.8	Malignant neoplasm of overlapping sites of biliary tract	Diagnosis	ICD-10-CM
C24.9	Malignant neoplasm of biliary tract, unspecified	Diagnosis	ICD-10-CM
C25.0	Malignant neoplasm of head of pancreas	Diagnosis	ICD-10-CM
C25.1	Malignant neoplasm of body of pancreas	Diagnosis	ICD-10-CM
C25.2	Malignant neoplasm of tail of pancreas	Diagnosis	ICD-10-CM
C25.3	Malignant neoplasm of pancreatic duct	Diagnosis	ICD-10-CM
C25.4	Malignant neoplasm of endocrine pancreas	Diagnosis	ICD-10-CM
C25.7	Malignant neoplasm of other parts of pancreas	Diagnosis	ICD-10-CM
C25.8	Malignant neoplasm of overlapping sites of pancreas	Diagnosis	ICD-10-CM
C25.9	Malignant neoplasm of pancreas, unspecified	Diagnosis	ICD-10-CM
C26.0	Malignant neoplasm of intestinal tract, part unspecified	Diagnosis	ICD-10-CM
C26.1	Malignant neoplasm of spleen	Diagnosis	ICD-10-CM
C26.9	Malignant neoplasm of ill-defined sites within the digestive system	Diagnosis	ICD-10-CM
C30.0	Malignant neoplasm of nasal cavity	Diagnosis	ICD-10-CM
C30.1	Malignant neoplasm of middle ear	Diagnosis	ICD-10-CM
C31.0	Malignant neoplasm of maxillary sinus	Diagnosis	ICD-10-CM
C31.1	Malignant neoplasm of ethmoidal sinus	Diagnosis	ICD-10-CM
C31.2	Malignant neoplasm of frontal sinus	Diagnosis	ICD-10-CM
C31.3	Malignant neoplasm of sphenoid sinus	Diagnosis	ICD-10-CM
C31.8	Malignant neoplasm of overlapping sites of accessory sinuses	Diagnosis	ICD-10-CM
C31.9	Malignant neoplasm of accessory sinus, unspecified	Diagnosis	ICD-10-CM
C32.0	Malignant neoplasm of glottis	Diagnosis	ICD-10-CM
C32.1	Malignant neoplasm of supraglottis	Diagnosis	ICD-10-CM
C32.2	Malignant neoplasm of subglottis	Diagnosis	ICD-10-CM
C32.3	Malignant neoplasm of laryngeal cartilage	Diagnosis	ICD-10-CM
C32.8	Malignant neoplasm of overlapping sites of larynx	Diagnosis	ICD-10-CM
C32.9	Malignant neoplasm of larynx, unspecified	Diagnosis	ICD-10-CM
C33	Malignant neoplasm of trachea	Diagnosis	ICD-10-CM
C34.00	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
C37	Malignant neoplasm of thymus	Diagnosis	ICD-10-CM
C38.0	Malignant neoplasm of heart	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C38.1	Malignant neoplasm of anterior mediastinum	Diagnosis	ICD-10-CM
C38.2	Malignant neoplasm of posterior mediastinum	Diagnosis	ICD-10-CM
C38.3	Malignant neoplasm of mediastinum, part unspecified	Diagnosis	ICD-10-CM
C38.4	Malignant neoplasm of pleura	Diagnosis	ICD-10-CM
C38.8	Malignant neoplasm of overlapping sites of heart, mediastinum and pleura	Diagnosis	ICD-10-CM
C39.0	Malignant neoplasm of upper respiratory tract, part unspecified	Diagnosis	ICD-10-CM
C39.9	Malignant neoplasm of lower respiratory tract, part unspecified	Diagnosis	ICD-10-CM
C40.00	Malignant neoplasm of scapula and long bones of unspecified upper limb	Diagnosis	ICD-10-CM
C40.01	Malignant neoplasm of scapula and long bones of right upper limb	Diagnosis	ICD-10-CM
C40.02	Malignant neoplasm of scapula and long bones of left upper limb	Diagnosis	ICD-10-CM
C40.10	Malignant neoplasm of short bones of unspecified upper limb	Diagnosis	ICD-10-CM
C40.11	Malignant neoplasm of short bones of right upper limb	Diagnosis	ICD-10-CM
C40.12	Malignant neoplasm of short bones of left upper limb	Diagnosis	ICD-10-CM
C40.20	Malignant neoplasm of long bones of unspecified lower limb	Diagnosis	ICD-10-CM
C40.21	Malignant neoplasm of long bones of right lower limb	Diagnosis	ICD-10-CM
C40.22	Malignant neoplasm of long bones of left lower limb	Diagnosis	ICD-10-CM
C40.30	Malignant neoplasm of short bones of unspecified lower limb	Diagnosis	ICD-10-CM
C40.31	Malignant neoplasm of short bones of right lower limb	Diagnosis	ICD-10-CM
C40.32	Malignant neoplasm of short bones of left lower limb	Diagnosis	ICD-10-CM
C40.80	Malignant neoplasm of overlapping sites of bone and articular cartilage of unspecified limb	Diagnosis	ICD-10-CM
C40.81	Malignant neoplasm of overlapping sites of bone and articular cartilage of right limb	Diagnosis	ICD-10-CM
C40.82	Malignant neoplasm of overlapping sites of bone and articular cartilage of left limb	Diagnosis	ICD-10-CM
C40.90	Malignant neoplasm of unspecified bones and articular cartilage of unspecified limb	Diagnosis	ICD-10-CM
C40.91	Malignant neoplasm of unspecified bones and articular cartilage of right limb	Diagnosis	ICD-10-CM
C40.92	Malignant neoplasm of unspecified bones and articular cartilage of left limb	Diagnosis	ICD-10-CM
C41.0	Malignant neoplasm of bones of skull and face	Diagnosis	ICD-10-CM
C41.1	Malignant neoplasm of mandible	Diagnosis	ICD-10-CM
C41.2	Malignant neoplasm of vertebral column	Diagnosis	ICD-10-CM
C41.3	Malignant neoplasm of ribs, sternum and clavicle	Diagnosis	ICD-10-CM
C41.4	Malignant neoplasm of pelvic bones, sacrum and coccyx	Diagnosis	ICD-10-CM
C41.9	Malignant neoplasm of bone and articular cartilage, unspecified	Diagnosis	ICD-10-CM
C43.0	Malignant melanoma of lip	Diagnosis	ICD-10-CM
C43.10	Malignant melanoma of unspecified eyelid, including canthus	Diagnosis	ICD-10-CM
C43.11	Malignant melanoma of right eyelid, including canthus	Diagnosis	ICD-10-CM
C43.12	Malignant melanoma of left eyelid, including canthus	Diagnosis	ICD-10-CM
C43.20	Malignant melanoma of unspecified ear and external auricular canal	Diagnosis	ICD-10-CM
C43.21	Malignant melanoma of right ear and external auricular canal	Diagnosis	ICD-10-CM
C43.22	Malignant melanoma of left ear and external auricular canal	Diagnosis	ICD-10-CM
C43.30	Malignant melanoma of unspecified part of face	Diagnosis	ICD-10-CM
C43.31	Malignant melanoma of nose	Diagnosis	ICD-10-CM
C43.39	Malignant melanoma of other parts of face	Diagnosis	ICD-10-CM
C43.4	Malignant melanoma of scalp and neck	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C43.51	Malignant melanoma of anal skin	Diagnosis	ICD-10-CM
C43.52	Malignant melanoma of skin of breast	Diagnosis	ICD-10-CM
C43.59	Malignant melanoma of other part of trunk	Diagnosis	ICD-10-CM
C43.60	Malignant melanoma of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM
C43.61	Malignant melanoma of right upper limb, including shoulder	Diagnosis	ICD-10-CM
C43.62	Malignant melanoma of left upper limb, including shoulder	Diagnosis	ICD-10-CM
C43.70	Malignant melanoma of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
C43.71	Malignant melanoma of right lower limb, including hip	Diagnosis	ICD-10-CM
C43.72	Malignant melanoma of left lower limb, including hip	Diagnosis	ICD-10-CM
C43.8	Malignant melanoma of overlapping sites of skin	Diagnosis	ICD-10-CM
C43.9	Malignant melanoma of skin, unspecified	Diagnosis	ICD-10-CM
C45.0	Mesothelioma of pleura	Diagnosis	ICD-10-CM
C45.1	Mesothelioma of peritoneum	Diagnosis	ICD-10-CM
C45.2	Mesothelioma of pericardium	Diagnosis	ICD-10-CM
C45.7	Mesothelioma of other sites	Diagnosis	ICD-10-CM
C45.9	Mesothelioma, unspecified	Diagnosis	ICD-10-CM
C46.0	Kaposi's sarcoma of skin	Diagnosis	ICD-10-CM
C46.1	Kaposi's sarcoma of soft tissue	Diagnosis	ICD-10-CM
C46.2	Kaposi's sarcoma of palate	Diagnosis	ICD-10-CM
C46.3	Kaposi's sarcoma of lymph nodes	Diagnosis	ICD-10-CM
C46.4	Kaposi's sarcoma of gastrointestinal sites	Diagnosis	ICD-10-CM
C46.50	Kaposi's sarcoma of unspecified lung	Diagnosis	ICD-10-CM
C46.51	Kaposi's sarcoma of right lung	Diagnosis	ICD-10-CM
C46.52	Kaposi's sarcoma of left lung	Diagnosis	ICD-10-CM
C46.7	Kaposi's sarcoma of other sites	Diagnosis	ICD-10-CM
C46.9	Kaposi's sarcoma, unspecified	Diagnosis	ICD-10-CM
C47.0	Malignant neoplasm of peripheral nerves of head, face and neck	Diagnosis	ICD-10-CM
C47.10	Malignant neoplasm of peripheral nerves of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM
C47.11	Malignant neoplasm of peripheral nerves of right upper limb, including shoulder	Diagnosis	ICD-10-CM
C47.12	Malignant neoplasm of peripheral nerves of left upper limb, including shoulder	Diagnosis	ICD-10-CM
C47.20	Malignant neoplasm of peripheral nerves of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
C47.21	Malignant neoplasm of peripheral nerves of right lower limb, including hip	Diagnosis	ICD-10-CM
C47.22	Malignant neoplasm of peripheral nerves of left lower limb, including hip	Diagnosis	ICD-10-CM
C47.3	Malignant neoplasm of peripheral nerves of thorax	Diagnosis	ICD-10-CM
C47.4	Malignant neoplasm of peripheral nerves of abdomen	Diagnosis	ICD-10-CM
C47.5	Malignant neoplasm of peripheral nerves of pelvis	Diagnosis	ICD-10-CM
C47.6	Malignant neoplasm of peripheral nerves of trunk, unspecified	Diagnosis	ICD-10-CM
C47.8	Malignant neoplasm of overlapping sites of peripheral nerves and autonomic nervous system	Diagnosis	ICD-10-CM
C47.9	Malignant neoplasm of peripheral nerves and autonomic nervous system, unspecified	Diagnosis	ICD-10-CM
C48.0	Malignant neoplasm of retroperitoneum	Diagnosis	ICD-10-CM
C48.1	Malignant neoplasm of specified parts of peritoneum	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C48.2	Malignant neoplasm of peritoneum, unspecified	Diagnosis	ICD-10-CM
C48.8	Malignant neoplasm of overlapping sites of retroperitoneum and peritoneum	Diagnosis	ICD-10-CM
C49.0	Malignant neoplasm of connective and soft tissue of head, face and neck	Diagnosis	ICD-10-CM
C49.10	Malignant neoplasm of connective and soft tissue of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM
C49.11	Malignant neoplasm of connective and soft tissue of right upper limb, including shoulder	Diagnosis	ICD-10-CM
C49.12	Malignant neoplasm of connective and soft tissue of left upper limb, including shoulder	Diagnosis	ICD-10-CM
C49.20	Malignant neoplasm of connective and soft tissue of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
C49.21	Malignant neoplasm of connective and soft tissue of right lower limb, including hip	Diagnosis	ICD-10-CM
C49.22	Malignant neoplasm of connective and soft tissue of left lower limb, including hip	Diagnosis	ICD-10-CM
C49.3	Malignant neoplasm of connective and soft tissue of thorax	Diagnosis	ICD-10-CM
C49.4	Malignant neoplasm of connective and soft tissue of abdomen	Diagnosis	ICD-10-CM
C49.5	Malignant neoplasm of connective and soft tissue of pelvis	Diagnosis	ICD-10-CM
C49.6	Malignant neoplasm of connective and soft tissue of trunk, unspecified	Diagnosis	ICD-10-CM
C49.8	Malignant neoplasm of overlapping sites of connective and soft tissue	Diagnosis	ICD-10-CM
C49.9	Malignant neoplasm of connective and soft tissue, unspecified	Diagnosis	ICD-10-CM
C49.A0	Gastrointestinal stromal tumor, unspecified site	Diagnosis	ICD-10-CM
C49.A1	Gastrointestinal stromal tumor of esophagus	Diagnosis	ICD-10-CM
C49.A2	Gastrointestinal stromal tumor of stomach	Diagnosis	ICD-10-CM
C49.A3	Gastrointestinal stromal tumor of small intestine	Diagnosis	ICD-10-CM
C49.A4	Gastrointestinal stromal tumor of large intestine	Diagnosis	ICD-10-CM
C49.A5	Gastrointestinal stromal tumor of rectum	Diagnosis	ICD-10-CM
C49.A9	Gastrointestinal stromal tumor of other sites	Diagnosis	ICD-10-CM
C4A.0	Merkel cell carcinoma of lip	Diagnosis	ICD-10-CM
C4A.10	Merkel cell carcinoma of unspecified eyelid, including canthus	Diagnosis	ICD-10-CM
C4A.11	Merkel cell carcinoma of right eyelid, including canthus	Diagnosis	ICD-10-CM
C4A.12	Merkel cell carcinoma of left eyelid, including canthus	Diagnosis	ICD-10-CM
C4A.20	Merkel cell carcinoma of unspecified ear and external auricular canal	Diagnosis	ICD-10-CM
C4A.21	Merkel cell carcinoma of right ear and external auricular canal	Diagnosis	ICD-10-CM
C4A.22	Merkel cell carcinoma of left ear and external auricular canal	Diagnosis	ICD-10-CM
C4A.30	Merkel cell carcinoma of unspecified part of face	Diagnosis	ICD-10-CM
C4A.31	Merkel cell carcinoma of nose	Diagnosis	ICD-10-CM
C4A.39	Merkel cell carcinoma of other parts of face	Diagnosis	ICD-10-CM
C4A.4	Merkel cell carcinoma of scalp and neck	Diagnosis	ICD-10-CM
C4A.51	Merkel cell carcinoma of anal skin	Diagnosis	ICD-10-CM
C4A.52	Merkel cell carcinoma of skin of breast	Diagnosis	ICD-10-CM
C4A.59	Merkel cell carcinoma of other part of trunk	Diagnosis	ICD-10-CM
C4A.60	Merkel cell carcinoma of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM
C4A.61	Merkel cell carcinoma of right upper limb, including shoulder	Diagnosis	ICD-10-CM
C4A.62	Merkel cell carcinoma of left upper limb, including shoulder	Diagnosis	ICD-10-CM
C4A.70	Merkel cell carcinoma of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
C4A.71	Merkel cell carcinoma of right lower limb, including hip	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C4A.72	Merkel cell carcinoma of left lower limb, including hip	Diagnosis	ICD-10-CM
C4A.8	Merkel cell carcinoma of overlapping sites	Diagnosis	ICD-10-CM
C4A.9	Merkel cell carcinoma, unspecified	Diagnosis	ICD-10-CM
C50.011	Malignant neoplasm of nipple and areola, right female breast	Diagnosis	ICD-10-CM
C50.012	Malignant neoplasm of nipple and areola, left female breast	Diagnosis	ICD-10-CM
C50.019	Malignant neoplasm of nipple and areola, unspecified female breast	Diagnosis	ICD-10-CM
C50.021	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
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

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

Code	Description	Code Category	Code Type
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
C51.0	Malignant neoplasm of labium majus	Diagnosis	ICD-10-CM
C51.1	Malignant neoplasm of labium minus	Diagnosis	ICD-10-CM
C51.2	Malignant neoplasm of clitoris	Diagnosis	ICD-10-CM
C51.8	Malignant neoplasm of overlapping sites of vulva	Diagnosis	ICD-10-CM
C51.9	Malignant neoplasm of vulva, unspecified	Diagnosis	ICD-10-CM
C52	Malignant neoplasm of vagina	Diagnosis	ICD-10-CM
C53.0	Malignant neoplasm of endocervix	Diagnosis	ICD-10-CM
C53.1	Malignant neoplasm of exocervix	Diagnosis	ICD-10-CM
C53.8	Malignant neoplasm of overlapping sites of cervix uteri	Diagnosis	ICD-10-CM
C53.9	Malignant neoplasm of cervix uteri, unspecified	Diagnosis	ICD-10-CM
C54.0	Malignant neoplasm of isthmus uteri	Diagnosis	ICD-10-CM
C54.1	Malignant neoplasm of endometrium	Diagnosis	ICD-10-CM
C54.2	Malignant neoplasm of myometrium	Diagnosis	ICD-10-CM
C54.3	Malignant neoplasm of fundus uteri	Diagnosis	ICD-10-CM
C54.8	Malignant neoplasm of overlapping sites of corpus uteri	Diagnosis	ICD-10-CM
C54.9	Malignant neoplasm of corpus uteri, unspecified	Diagnosis	ICD-10-CM
C55	Malignant neoplasm of uterus, part unspecified	Diagnosis	ICD-10-CM
C56.1	Malignant neoplasm of right ovary	Diagnosis	ICD-10-CM
C56.2	Malignant neoplasm of left ovary	Diagnosis	ICD-10-CM
C56.9	Malignant neoplasm of unspecified ovary	Diagnosis	ICD-10-CM
C57.00	Malignant neoplasm of unspecified fallopian tube	Diagnosis	ICD-10-CM
C57.01	Malignant neoplasm of right fallopian tube	Diagnosis	ICD-10-CM
C57.02	Malignant neoplasm of left fallopian tube	Diagnosis	ICD-10-CM
C57.10	Malignant neoplasm of unspecified broad ligament	Diagnosis	ICD-10-CM
C57.11	Malignant neoplasm of right broad ligament	Diagnosis	ICD-10-CM
C57.12	Malignant neoplasm of left broad ligament	Diagnosis	ICD-10-CM
C57.20	Malignant neoplasm of unspecified round ligament	Diagnosis	ICD-10-CM
C57.21	Malignant neoplasm of right round ligament	Diagnosis	ICD-10-CM
C57.22	Malignant neoplasm of left round ligament	Diagnosis	ICD-10-CM
C57.3	Malignant neoplasm of parametrium	Diagnosis	ICD-10-CM
C57.4	Malignant neoplasm of uterine adnexa, unspecified	Diagnosis	ICD-10-CM
C57.7	Malignant neoplasm of other specified female genital organs	Diagnosis	ICD-10-CM
C57.8	Malignant neoplasm of overlapping sites of female genital organs	Diagnosis	ICD-10-CM
C57.9	Malignant neoplasm of female genital organ, unspecified	Diagnosis	ICD-10-CM
C58	Malignant neoplasm of placenta	Diagnosis	ICD-10-CM
C60.0	Malignant neoplasm of prepuce	Diagnosis	ICD-10-CM
C60.1	Malignant neoplasm of glans penis	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C60.2	Malignant neoplasm of body of penis	Diagnosis	ICD-10-CM
C60.8	Malignant neoplasm of overlapping sites of penis	Diagnosis	ICD-10-CM
C60.9	Malignant neoplasm of penis, unspecified	Diagnosis	ICD-10-CM
C61	Malignant neoplasm of prostate	Diagnosis	ICD-10-CM
C62.00	Malignant neoplasm of unspecified undescended testis	Diagnosis	ICD-10-CM
C62.01	Malignant neoplasm of undescended right testis	Diagnosis	ICD-10-CM
C62.02	Malignant neoplasm of undescended left testis	Diagnosis	ICD-10-CM
C62.10	Malignant neoplasm of unspecified descended testis	Diagnosis	ICD-10-CM
C62.11	Malignant neoplasm of descended right testis	Diagnosis	ICD-10-CM
C62.12	Malignant neoplasm of descended left testis	Diagnosis	ICD-10-CM
C62.90	Malignant neoplasm of unspecified testis, unspecified whether descended or undescended	Diagnosis	ICD-10-CM
C62.91	Malignant neoplasm of right testis, unspecified whether descended or undescended	Diagnosis	ICD-10-CM
C62.92	Malignant neoplasm of left testis, unspecified whether descended or undescended	Diagnosis	ICD-10-CM
C63.00	Malignant neoplasm of unspecified epididymis	Diagnosis	ICD-10-CM
C63.01	Malignant neoplasm of right epididymis	Diagnosis	ICD-10-CM
C63.02	Malignant neoplasm of left epididymis	Diagnosis	ICD-10-CM
C63.10	Malignant neoplasm of unspecified spermatic cord	Diagnosis	ICD-10-CM
C63.11	Malignant neoplasm of right spermatic cord	Diagnosis	ICD-10-CM
C63.12	Malignant neoplasm of left spermatic cord	Diagnosis	ICD-10-CM
C63.2	Malignant neoplasm of scrotum	Diagnosis	ICD-10-CM
C63.7	Malignant neoplasm of other specified male genital organs	Diagnosis	ICD-10-CM
C63.8	Malignant neoplasm of overlapping sites of male genital organs	Diagnosis	ICD-10-CM
C63.9	Malignant neoplasm of male genital organ, unspecified	Diagnosis	ICD-10-CM
C64.1	Malignant neoplasm of right kidney, except renal pelvis	Diagnosis	ICD-10-CM
C64.2	Malignant neoplasm of left kidney, except renal pelvis	Diagnosis	ICD-10-CM
C64.9	Malignant neoplasm of unspecified kidney, except renal pelvis	Diagnosis	ICD-10-CM
C65.1	Malignant neoplasm of right renal pelvis	Diagnosis	ICD-10-CM
C65.2	Malignant neoplasm of left renal pelvis	Diagnosis	ICD-10-CM
C65.9	Malignant neoplasm of unspecified renal pelvis	Diagnosis	ICD-10-CM
C66.1	Malignant neoplasm of right ureter	Diagnosis	ICD-10-CM
C66.2	Malignant neoplasm of left ureter	Diagnosis	ICD-10-CM
C66.9	Malignant neoplasm of unspecified ureter	Diagnosis	ICD-10-CM
C67.0	Malignant neoplasm of trigone of bladder	Diagnosis	ICD-10-CM
C67.1	Malignant neoplasm of dome of bladder	Diagnosis	ICD-10-CM
C67.2	Malignant neoplasm of lateral wall of bladder	Diagnosis	ICD-10-CM
C67.3	Malignant neoplasm of anterior wall of bladder	Diagnosis	ICD-10-CM
C67.4	Malignant neoplasm of posterior wall of bladder	Diagnosis	ICD-10-CM
C67.5	Malignant neoplasm of bladder neck	Diagnosis	ICD-10-CM
C67.6	Malignant neoplasm of ureteric orifice	Diagnosis	ICD-10-CM
C67.7	Malignant neoplasm of urachus	Diagnosis	ICD-10-CM
C67.8	Malignant neoplasm of overlapping sites of bladder	Diagnosis	ICD-10-CM
C67.9	Malignant neoplasm of bladder, unspecified	Diagnosis	ICD-10-CM
C68.0	Malignant neoplasm of urethra	Diagnosis	ICD-10-CM
C68.1	Malignant neoplasm of paraurethral glands	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
C68.8	Malignant neoplasm of overlapping sites of urinary organs	Diagnosis	ICD-10-CM
C68.9	Malignant neoplasm of urinary organ, unspecified	Diagnosis	ICD-10-CM
C69.00	Malignant neoplasm of unspecified conjunctiva	Diagnosis	ICD-10-CM
C69.01	Malignant neoplasm of right conjunctiva	Diagnosis	ICD-10-CM
C69.02	Malignant neoplasm of left conjunctiva	Diagnosis	ICD-10-CM
C69.10	Malignant neoplasm of unspecified cornea	Diagnosis	ICD-10-CM
C69.11	Malignant neoplasm of right cornea	Diagnosis	ICD-10-CM
C69.12	Malignant neoplasm of left cornea	Diagnosis	ICD-10-CM
C69.20	Malignant neoplasm of unspecified retina	Diagnosis	ICD-10-CM
C69.21	Malignant neoplasm of right retina	Diagnosis	ICD-10-CM
C69.22	Malignant neoplasm of left retina	Diagnosis	ICD-10-CM
C69.30	Malignant neoplasm of unspecified choroid	Diagnosis	ICD-10-CM
C69.31	Malignant neoplasm of right choroid	Diagnosis	ICD-10-CM
C69.32	Malignant neoplasm of left choroid	Diagnosis	ICD-10-CM
C69.40	Malignant neoplasm of unspecified ciliary body	Diagnosis	ICD-10-CM
C69.41	Malignant neoplasm of right ciliary body	Diagnosis	ICD-10-CM
C69.42	Malignant neoplasm of left ciliary body	Diagnosis	ICD-10-CM
C69.50	Malignant neoplasm of unspecified lacrimal gland and duct	Diagnosis	ICD-10-CM
C69.51	Malignant neoplasm of right lacrimal gland and duct	Diagnosis	ICD-10-CM
C69.52	Malignant neoplasm of left lacrimal gland and duct	Diagnosis	ICD-10-CM
C69.60	Malignant neoplasm of unspecified orbit	Diagnosis	ICD-10-CM
C69.61	Malignant neoplasm of right orbit	Diagnosis	ICD-10-CM
C69.62	Malignant neoplasm of left orbit	Diagnosis	ICD-10-CM
C69.80	Malignant neoplasm of overlapping sites of unspecified eye and adnexa	Diagnosis	ICD-10-CM
C69.81	Malignant neoplasm of overlapping sites of right eye and adnexa	Diagnosis	ICD-10-CM
C69.82	Malignant neoplasm of overlapping sites of left eye and adnexa	Diagnosis	ICD-10-CM
C69.90	Malignant neoplasm of unspecified site of unspecified eye	Diagnosis	ICD-10-CM
C69.91	Malignant neoplasm of unspecified site of right eye	Diagnosis	ICD-10-CM
C69.92	Malignant neoplasm of unspecified site of left eye	Diagnosis	ICD-10-CM
C70.0	Malignant neoplasm of cerebral meninges	Diagnosis	ICD-10-CM
C70.1	Malignant neoplasm of spinal meninges	Diagnosis	ICD-10-CM
C70.9	Malignant neoplasm of meninges, unspecified	Diagnosis	ICD-10-CM
C71.0	Malignant neoplasm of cerebrum, except lobes and ventricles	Diagnosis	ICD-10-CM
C71.1	Malignant neoplasm of frontal lobe	Diagnosis	ICD-10-CM
C71.2	Malignant neoplasm of temporal lobe	Diagnosis	ICD-10-CM
C71.3	Malignant neoplasm of parietal lobe	Diagnosis	ICD-10-CM
C71.4	Malignant neoplasm of occipital lobe	Diagnosis	ICD-10-CM
C71.5	Malignant neoplasm of cerebral ventricle	Diagnosis	ICD-10-CM
C71.6	Malignant neoplasm of cerebellum	Diagnosis	ICD-10-CM
C71.7	Malignant neoplasm of brain stem	Diagnosis	ICD-10-CM
C71.8	Malignant neoplasm of overlapping sites of brain	Diagnosis	ICD-10-CM
C71.9	Malignant neoplasm of brain, unspecified	Diagnosis	ICD-10-CM
C72.0	Malignant neoplasm of spinal cord	Diagnosis	ICD-10-CM
C72.1	Malignant neoplasm of cauda equina	Diagnosis	ICD-10-CM
C72.20	Malignant neoplasm of unspecified olfactory nerve	Diagnosis	ICD-10-CM
C72.21	Malignant neoplasm of right olfactory nerve	Diagnosis	ICD-10-CM
C72.22	Malignant neoplasm of left olfactory nerve	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
C72.30	Malignant neoplasm of unspecified optic nerve	Diagnosis	ICD-10-CM
C72.31	Malignant neoplasm of right optic nerve	Diagnosis	ICD-10-CM
C72.32	Malignant neoplasm of left optic nerve	Diagnosis	ICD-10-CM
C72.40	Malignant neoplasm of unspecified acoustic nerve	Diagnosis	ICD-10-CM
C72.41	Malignant neoplasm of right acoustic nerve	Diagnosis	ICD-10-CM
C72.42	Malignant neoplasm of left acoustic nerve	Diagnosis	ICD-10-CM
C72.50	Malignant neoplasm of unspecified cranial nerve	Diagnosis	ICD-10-CM
C72.59	Malignant neoplasm of other cranial nerves	Diagnosis	ICD-10-CM
C72.9	Malignant neoplasm of central nervous system, unspecified	Diagnosis	ICD-10-CM
C73	Malignant neoplasm of thyroid gland	Diagnosis	ICD-10-CM
C74.00	Malignant neoplasm of cortex of unspecified adrenal gland	Diagnosis	ICD-10-CM
C74.01	Malignant neoplasm of cortex of right adrenal gland	Diagnosis	ICD-10-CM
C74.02	Malignant neoplasm of cortex of left adrenal gland	Diagnosis	ICD-10-CM
C74.10	Malignant neoplasm of medulla of unspecified adrenal gland	Diagnosis	ICD-10-CM
C74.11	Malignant neoplasm of medulla of right adrenal gland	Diagnosis	ICD-10-CM
C74.12	Malignant neoplasm of medulla of left adrenal gland	Diagnosis	ICD-10-CM
C74.90	Malignant neoplasm of unspecified part of unspecified adrenal gland	Diagnosis	ICD-10-CM
C74.91	Malignant neoplasm of unspecified part of right adrenal gland	Diagnosis	ICD-10-CM
C74.92	Malignant neoplasm of unspecified part of left adrenal gland	Diagnosis	ICD-10-CM
C75.0	Malignant neoplasm of parathyroid gland	Diagnosis	ICD-10-CM
C75.1	Malignant neoplasm of pituitary gland	Diagnosis	ICD-10-CM
C75.2	Malignant neoplasm of craniopharyngeal duct	Diagnosis	ICD-10-CM
C75.3	Malignant neoplasm of pineal gland	Diagnosis	ICD-10-CM
C75.4	Malignant neoplasm of carotid body	Diagnosis	ICD-10-CM
C75.5	Malignant neoplasm of aortic body and other paraganglia	Diagnosis	ICD-10-CM
C75.8	Malignant neoplasm with pluriglandular involvement, unspecified	Diagnosis	ICD-10-CM
C75.9	Malignant neoplasm of endocrine gland, unspecified	Diagnosis	ICD-10-CM
C76.0	Malignant neoplasm of head, face and neck	Diagnosis	ICD-10-CM
C76.1	Malignant neoplasm of thorax	Diagnosis	ICD-10-CM
C76.2	Malignant neoplasm of abdomen	Diagnosis	ICD-10-CM
C76.3	Malignant neoplasm of pelvis	Diagnosis	ICD-10-CM
C76.40	Malignant neoplasm of unspecified upper limb	Diagnosis	ICD-10-CM
C76.41	Malignant neoplasm of right upper limb	Diagnosis	ICD-10-CM
C76.42	Malignant neoplasm of left upper limb	Diagnosis	ICD-10-CM
C76.50	Malignant neoplasm of unspecified lower limb	Diagnosis	ICD-10-CM
C76.51	Malignant neoplasm of right lower limb	Diagnosis	ICD-10-CM
C76.52	Malignant neoplasm of left lower limb	Diagnosis	ICD-10-CM
C76.8	Malignant neoplasm of other specified ill-defined sites	Diagnosis	ICD-10-CM
C77.0	Secondary and unspecified malignant neoplasm of lymph nodes of head, face and neck	Diagnosis	ICD-10-CM
C77.1	Secondary and unspecified malignant neoplasm of intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C77.2	Secondary and unspecified malignant neoplasm of intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C77.3	Secondary and unspecified malignant neoplasm of axilla and upper limb lymph nodes	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C77.4	Secondary and unspecified malignant neoplasm of inguinal and lower limb lymph nodes	Diagnosis	ICD-10-CM
C77.5	Secondary and unspecified malignant neoplasm of intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C77.8	Secondary and unspecified malignant neoplasm of lymph nodes of multiple regions	Diagnosis	ICD-10-CM
C77.9	Secondary and unspecified malignant neoplasm of lymph node, unspecified	Diagnosis	ICD-10-CM
C78.00	Secondary malignant neoplasm of unspecified lung	Diagnosis	ICD-10-CM
C78.01	Secondary malignant neoplasm of right lung	Diagnosis	ICD-10-CM
C78.02	Secondary malignant neoplasm of left lung	Diagnosis	ICD-10-CM
C78.1	Secondary malignant neoplasm of mediastinum	Diagnosis	ICD-10-CM
C78.2	Secondary malignant neoplasm of pleura	Diagnosis	ICD-10-CM
C78.30	Secondary malignant neoplasm of unspecified respiratory organ	Diagnosis	ICD-10-CM
C78.39	Secondary malignant neoplasm of other respiratory organs	Diagnosis	ICD-10-CM
C78.4	Secondary malignant neoplasm of small intestine	Diagnosis	ICD-10-CM
C78.5	Secondary malignant neoplasm of large intestine and rectum	Diagnosis	ICD-10-CM
C78.6	Secondary malignant neoplasm of retroperitoneum and peritoneum	Diagnosis	ICD-10-CM
C78.7	Secondary malignant neoplasm of liver and intrahepatic bile duct	Diagnosis	ICD-10-CM
C78.80	Secondary malignant neoplasm of unspecified digestive organ	Diagnosis	ICD-10-CM
C78.89	Secondary malignant neoplasm of other digestive organs	Diagnosis	ICD-10-CM
C79.00	Secondary malignant neoplasm of unspecified kidney and renal pelvis	Diagnosis	ICD-10-CM
C79.01	Secondary malignant neoplasm of right kidney and renal pelvis	Diagnosis	ICD-10-CM
C79.02	Secondary malignant neoplasm of left kidney and renal pelvis	Diagnosis	ICD-10-CM
C79.10	Secondary malignant neoplasm of unspecified urinary organs	Diagnosis	ICD-10-CM
C79.11	Secondary malignant neoplasm of bladder	Diagnosis	ICD-10-CM
C79.19	Secondary malignant neoplasm of other urinary organs	Diagnosis	ICD-10-CM
C79.2	Secondary malignant neoplasm of skin	Diagnosis	ICD-10-CM
C79.31	Secondary malignant neoplasm of brain	Diagnosis	ICD-10-CM
C79.32	Secondary malignant neoplasm of cerebral meninges	Diagnosis	ICD-10-CM
C79.40	Secondary malignant neoplasm of unspecified part of nervous system	Diagnosis	ICD-10-CM
C79.49	Secondary malignant neoplasm of other parts of nervous system	Diagnosis	ICD-10-CM
C79.51	Secondary malignant neoplasm of bone	Diagnosis	ICD-10-CM
C79.52	Secondary malignant neoplasm of bone marrow	Diagnosis	ICD-10-CM
C79.60	Secondary malignant neoplasm of unspecified ovary	Diagnosis	ICD-10-CM
C79.61	Secondary malignant neoplasm of right ovary	Diagnosis	ICD-10-CM
C79.62	Secondary malignant neoplasm of left ovary	Diagnosis	ICD-10-CM
C79.70	Secondary malignant neoplasm of unspecified adrenal gland	Diagnosis	ICD-10-CM
C79.71	Secondary malignant neoplasm of right adrenal gland	Diagnosis	ICD-10-CM
C79.72	Secondary malignant neoplasm of left adrenal gland	Diagnosis	ICD-10-CM
C79.81	Secondary malignant neoplasm of breast	Diagnosis	ICD-10-CM
C79.82	Secondary malignant neoplasm of genital organs	Diagnosis	ICD-10-CM
C79.89	Secondary malignant neoplasm of other specified sites	Diagnosis	ICD-10-CM
C79.9	Secondary malignant neoplasm of unspecified site	Diagnosis	ICD-10-CM
C7A.00	Malignant carcinoid tumor of unspecified site	Diagnosis	ICD-10-CM
C7A.010	Malignant carcinoid tumor of the duodenum	Diagnosis	ICD-10-CM
C7A.011	Malignant carcinoid tumor of the jejunum	Diagnosis	ICD-10-CM
C7A.012	Malignant carcinoid tumor of the ileum	Diagnosis	ICD-10-CM
C7A.019	Malignant carcinoid tumor of the small intestine, unspecified portion	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C7A.020	Malignant carcinoid tumor of the appendix	Diagnosis	ICD-10-CM
C7A.021	Malignant carcinoid tumor of the cecum	Diagnosis	ICD-10-CM
C7A.022	Malignant carcinoid tumor of the ascending colon	Diagnosis	ICD-10-CM
C7A.023	Malignant carcinoid tumor of the transverse colon	Diagnosis	ICD-10-CM
C7A.024	Malignant carcinoid tumor of the descending colon	Diagnosis	ICD-10-CM
C7A.025	Malignant carcinoid tumor of the sigmoid colon	Diagnosis	ICD-10-CM
C7A.026	Malignant carcinoid tumor of the rectum	Diagnosis	ICD-10-CM
C7A.029	Malignant carcinoid tumor of the large intestine, unspecified portion	Diagnosis	ICD-10-CM
C7A.090	Malignant carcinoid tumor of the bronchus and lung	Diagnosis	ICD-10-CM
C7A.091	Malignant carcinoid tumor of the thymus	Diagnosis	ICD-10-CM
C7A.092	Malignant carcinoid tumor of the stomach	Diagnosis	ICD-10-CM
C7A.093	Malignant carcinoid tumor of the kidney	Diagnosis	ICD-10-CM
C7A.094	Malignant carcinoid tumor of the foregut, unspecified	Diagnosis	ICD-10-CM
C7A.095	Malignant carcinoid tumor of the midgut, unspecified	Diagnosis	ICD-10-CM
C7A.096	Malignant carcinoid tumor of the hindgut, unspecified	Diagnosis	ICD-10-CM
C7A.098	Malignant carcinoid tumors of other sites	Diagnosis	ICD-10-CM
C7A.1	Malignant poorly differentiated neuroendocrine tumors	Diagnosis	ICD-10-CM
C7A.8	Other malignant neuroendocrine tumors	Diagnosis	ICD-10-CM
C7B.00	Secondary carcinoid tumors, unspecified site	Diagnosis	ICD-10-CM
C7B.01	Secondary carcinoid tumors of distant lymph nodes	Diagnosis	ICD-10-CM
C7B.02	Secondary carcinoid tumors of liver	Diagnosis	ICD-10-CM
C7B.03	Secondary carcinoid tumors of bone	Diagnosis	ICD-10-CM
C7B.04	Secondary carcinoid tumors of peritoneum	Diagnosis	ICD-10-CM
C7B.09	Secondary carcinoid tumors of other sites	Diagnosis	ICD-10-CM
C7B.1	Secondary Merkel cell carcinoma	Diagnosis	ICD-10-CM
C7B.8	Other secondary neuroendocrine tumors	Diagnosis	ICD-10-CM
C80.0	Disseminated malignant neoplasm, unspecified	Diagnosis	ICD-10-CM
C80.1	Malignant (primary) neoplasm, unspecified	Diagnosis	ICD-10-CM
C80.2	Malignant neoplasm associated with transplanted organ	Diagnosis	ICD-10-CM
C81.00	Nodular lymphocyte predominant Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C81.01	Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.02	Nodular lymphocyte predominant Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.03	Nodular lymphocyte predominant Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.04	Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C81.05	Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.06	Nodular lymphocyte predominant Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.07	Nodular lymphocyte predominant Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM
C81.08	Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.09	Nodular lymphocyte predominant Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
C81.10	Nodular sclerosis Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C81.11	Nodular sclerosis Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.12	Nodular sclerosis Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.13	Nodular sclerosis Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.14	Nodular sclerosis Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C81.15	Nodular sclerosis Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.16	Nodular sclerosis Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.17	Nodular sclerosis Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM
C81.18	Nodular sclerosis Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.19	Nodular sclerosis Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C81.20	Mixed cellularity Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C81.21	Mixed cellularity Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.22	Mixed cellularity Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.23	Mixed cellularity Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.24	Mixed cellularity Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C81.25	Mixed cellularity Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.26	Mixed cellularity Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.27	Mixed cellularity Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM
C81.28	Mixed cellularity Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.29	Mixed cellularity Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C81.30	Lymphocyte depleted Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C81.31	Lymphocyte depleted Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.32	Lymphocyte depleted Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.33	Lymphocyte depleted Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.34	Lymphocyte depleted Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C81.35	Lymphocyte depleted Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.36	Lymphocyte depleted Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.37	Lymphocyte depleted Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM
C81.38	Lymphocyte depleted Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.39	Lymphocyte depleted Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C81.40	Lymphocyte-rich Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C81.41	Lymphocyte-rich Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.42	Lymphocyte-rich Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.43	Lymphocyte-rich Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.44	Lymphocyte-rich Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C81.45	Lymphocyte-rich Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.46	Lymphocyte-rich Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.47	Lymphocyte-rich Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM
C81.48	Lymphocyte-rich Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.49	Lymphocyte-rich Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C81.70	Other Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
C81.71	Other Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.72	Other Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.73	Other Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.74	Other Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C81.75	Other Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.76	Other Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.77	Other Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM
C81.78	Other Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.79	Other Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C81.90	Hodgkin lymphoma, unspecified, unspecified site	Diagnosis	ICD-10-CM
C81.91	Hodgkin lymphoma, unspecified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.92	Hodgkin lymphoma, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.93	Hodgkin lymphoma, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.94	Hodgkin lymphoma, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C81.95	Hodgkin lymphoma, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.96	Hodgkin lymphoma, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.97	Hodgkin lymphoma, unspecified, spleen	Diagnosis	ICD-10-CM
C81.98	Hodgkin lymphoma, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.99	Hodgkin lymphoma, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.00	Follicular lymphoma grade I, unspecified site	Diagnosis	ICD-10-CM
C82.01	Follicular lymphoma grade I, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.02	Follicular lymphoma grade I, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.03	Follicular lymphoma grade I, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.04	Follicular lymphoma grade I, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.05	Follicular lymphoma grade I, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.06	Follicular lymphoma grade I, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.07	Follicular lymphoma grade I, spleen	Diagnosis	ICD-10-CM
C82.08	Follicular lymphoma grade I, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.09	Follicular lymphoma grade I, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.10	Follicular lymphoma grade II, unspecified site	Diagnosis	ICD-10-CM
C82.11	Follicular lymphoma grade II, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.12	Follicular lymphoma grade II, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.13	Follicular lymphoma grade II, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.14	Follicular lymphoma grade II, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.15	Follicular lymphoma grade II, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.16	Follicular lymphoma grade II, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.17	Follicular lymphoma grade II, spleen	Diagnosis	ICD-10-CM
C82.18	Follicular lymphoma grade II, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.19	Follicular lymphoma grade II, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.20	Follicular lymphoma grade III, unspecified, unspecified site	Diagnosis	ICD-10-CM
C82.21	Follicular lymphoma grade III, unspecified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.22	Follicular lymphoma grade III, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.23	Follicular lymphoma grade III, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.24	Follicular lymphoma grade III, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
C82.25	Follicular lymphoma grade III, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.26	Follicular lymphoma grade III, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.27	Follicular lymphoma grade III, unspecified, spleen	Diagnosis	ICD-10-CM
C82.28	Follicular lymphoma grade III, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.29	Follicular lymphoma grade III, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.30	Follicular lymphoma grade IIIa, unspecified site	Diagnosis	ICD-10-CM
C82.31	Follicular lymphoma grade IIIa, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.32	Follicular lymphoma grade IIIa, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.33	Follicular lymphoma grade IIIa, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.34	Follicular lymphoma grade IIIa, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.35	Follicular lymphoma grade IIIa, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.36	Follicular lymphoma grade IIIa, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.37	Follicular lymphoma grade IIIa, spleen	Diagnosis	ICD-10-CM
C82.38	Follicular lymphoma grade IIIa, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.39	Follicular lymphoma grade IIIa, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.40	Follicular lymphoma grade IIIb, unspecified site	Diagnosis	ICD-10-CM
C82.41	Follicular lymphoma grade IIIb, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.42	Follicular lymphoma grade IIIb, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.43	Follicular lymphoma grade IIIb, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.44	Follicular lymphoma grade IIIb, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.45	Follicular lymphoma grade IIIb, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.46	Follicular lymphoma grade IIIb, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.47	Follicular lymphoma grade IIIb, spleen	Diagnosis	ICD-10-CM
C82.48	Follicular lymphoma grade IIIb, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.49	Follicular lymphoma grade IIIb, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.50	Diffuse follicle center lymphoma, unspecified site	Diagnosis	ICD-10-CM
C82.51	Diffuse follicle center lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.52	Diffuse follicle center lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.53	Diffuse follicle center lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.54	Diffuse follicle center lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.55	Diffuse follicle center lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.56	Diffuse follicle center lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.57	Diffuse follicle center lymphoma, spleen	Diagnosis	ICD-10-CM
C82.58	Diffuse follicle center lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.59	Diffuse follicle center lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.60	Cutaneous follicle center lymphoma, unspecified site	Diagnosis	ICD-10-CM
C82.61	Cutaneous follicle center lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.62	Cutaneous follicle center lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.63	Cutaneous follicle center lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.64	Cutaneous follicle center lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.65	Cutaneous follicle center lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.66	Cutaneous follicle center lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
C82.67	Cutaneous follicle center lymphoma, spleen	Diagnosis	ICD-10-CM
C82.68	Cutaneous follicle center lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.69	Cutaneous follicle center lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.80	Other types of follicular lymphoma, unspecified site	Diagnosis	ICD-10-CM
C82.81	Other types of follicular lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.82	Other types of follicular lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.83	Other types of follicular lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.84	Other types of follicular lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.85	Other types of follicular lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.86	Other types of follicular lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.87	Other types of follicular lymphoma, spleen	Diagnosis	ICD-10-CM
C82.88	Other types of follicular lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.89	Other types of follicular lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.90	Follicular lymphoma, unspecified, unspecified site	Diagnosis	ICD-10-CM
C82.91	Follicular lymphoma, unspecified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.92	Follicular lymphoma, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.93	Follicular lymphoma, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.94	Follicular lymphoma, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.95	Follicular lymphoma, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.96	Follicular lymphoma, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.97	Follicular lymphoma, unspecified, spleen	Diagnosis	ICD-10-CM
C82.98	Follicular lymphoma, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.99	Follicular lymphoma, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C83.00	Small cell B-cell lymphoma, unspecified site	Diagnosis	ICD-10-CM
C83.01	Small cell B-cell lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.02	Small cell B-cell lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.03	Small cell B-cell lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.04	Small cell B-cell lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.05	Small cell B-cell lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.06	Small cell B-cell lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.07	Small cell B-cell lymphoma, spleen	Diagnosis	ICD-10-CM
C83.08	Small cell B-cell lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.09	Small cell B-cell lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C83.10	Mantle cell lymphoma, unspecified site	Diagnosis	ICD-10-CM
C83.11	Mantle cell lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.12	Mantle cell lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.13	Mantle cell lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.14	Mantle cell lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.15	Mantle cell lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.16	Mantle cell lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.17	Mantle cell lymphoma, spleen	Diagnosis	ICD-10-CM
C83.18	Mantle cell lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.19	Mantle cell lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C83.30	Diffuse large B-cell lymphoma, unspecified site	Diagnosis	ICD-10-CM
C83.31	Diffuse large B-cell lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
C83.32	Diffuse large B-cell lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.33	Diffuse large B-cell lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.34	Diffuse large B-cell lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.35	Diffuse large B-cell lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.36	Diffuse large B-cell lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.37	Diffuse large B-cell lymphoma, spleen	Diagnosis	ICD-10-CM
C83.38	Diffuse large B-cell lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.39	Diffuse large B-cell lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C83.50	Lymphoblastic (diffuse) lymphoma, unspecified site	Diagnosis	ICD-10-CM
C83.51	Lymphoblastic (diffuse) lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.52	Lymphoblastic (diffuse) lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.53	Lymphoblastic (diffuse) lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.54	Lymphoblastic (diffuse) lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.55	Lymphoblastic (diffuse) lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.56	Lymphoblastic (diffuse) lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.57	Lymphoblastic (diffuse) lymphoma, spleen	Diagnosis	ICD-10-CM
C83.58	Lymphoblastic (diffuse) lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.59	Lymphoblastic (diffuse) lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C83.70	Burkitt lymphoma, unspecified site	Diagnosis	ICD-10-CM
C83.71	Burkitt lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.72	Burkitt lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.73	Burkitt lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.74	Burkitt lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.75	Burkitt lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.76	Burkitt lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.77	Burkitt lymphoma, spleen	Diagnosis	ICD-10-CM
C83.78	Burkitt lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.79	Burkitt lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C83.80	Other non-follicular lymphoma, unspecified site	Diagnosis	ICD-10-CM
C83.81	Other non-follicular lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.82	Other non-follicular lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.83	Other non-follicular lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.84	Other non-follicular lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.85	Other non-follicular lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.86	Other non-follicular lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.87	Other non-follicular lymphoma, spleen	Diagnosis	ICD-10-CM
C83.88	Other non-follicular lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.89	Other non-follicular lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C83.90	Non-follicular (diffuse) lymphoma, unspecified, unspecified site	Diagnosis	ICD-10-CM
C83.91	Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.92	Non-follicular (diffuse) lymphoma, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.93	Non-follicular (diffuse) lymphoma, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
C83.94	Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.95	Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.96	Non-follicular (diffuse) lymphoma, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.97	Non-follicular (diffuse) lymphoma, unspecified, spleen	Diagnosis	ICD-10-CM
C83.98	Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.99	Non-follicular (diffuse) lymphoma, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.00	Mycosis fungoides, unspecified site	Diagnosis	ICD-10-CM
C84.01	Mycosis fungoides, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.02	Mycosis fungoides, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.03	Mycosis fungoides, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.04	Mycosis fungoides, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.05	Mycosis fungoides, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.06	Mycosis fungoides, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.07	Mycosis fungoides, spleen	Diagnosis	ICD-10-CM
C84.08	Mycosis fungoides, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.09	Mycosis fungoides, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.10	Sezary disease, unspecified site	Diagnosis	ICD-10-CM
C84.11	Sezary disease, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.12	Sezary disease, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.13	Sezary disease, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.14	Sezary disease, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.15	Sezary disease, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.16	Sezary disease, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.17	Sezary disease, spleen	Diagnosis	ICD-10-CM
C84.18	Sezary disease, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.19	Sezary disease, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.40	Peripheral T-cell lymphoma, not classified, unspecified site	Diagnosis	ICD-10-CM
C84.41	Peripheral T-cell lymphoma, not classified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.42	Peripheral T-cell lymphoma, not classified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.43	Peripheral T-cell lymphoma, not classified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.44	Peripheral T-cell lymphoma, not classified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.45	Peripheral T-cell lymphoma, not classified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.46	Peripheral T-cell lymphoma, not classified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.47	Peripheral T-cell lymphoma, not classified, spleen	Diagnosis	ICD-10-CM
C84.48	Peripheral T-cell lymphoma, not classified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.49	Peripheral T-cell lymphoma, not classified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.60	Anaplastic large cell lymphoma, ALK-positive, unspecified site	Diagnosis	ICD-10-CM
C84.61	Anaplastic large cell lymphoma, ALK-positive, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.62	Anaplastic large cell lymphoma, ALK-positive, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.63	Anaplastic large cell lymphoma, ALK-positive, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
C84.64	Anaplastic large cell lymphoma, ALK-positive, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.65	Anaplastic large cell lymphoma, ALK-positive, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.66	Anaplastic large cell lymphoma, ALK-positive, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.67	Anaplastic large cell lymphoma, ALK-positive, spleen	Diagnosis	ICD-10-CM
C84.68	Anaplastic large cell lymphoma, ALK-positive, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.69	Anaplastic large cell lymphoma, ALK-positive, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.70	Anaplastic large cell lymphoma, ALK-negative, unspecified site	Diagnosis	ICD-10-CM
C84.71	Anaplastic large cell lymphoma, ALK-negative, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.72	Anaplastic large cell lymphoma, ALK-negative, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.73	Anaplastic large cell lymphoma, ALK-negative, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.74	Anaplastic large cell lymphoma, ALK-negative, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.75	Anaplastic large cell lymphoma, ALK-negative, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.76	Anaplastic large cell lymphoma, ALK-negative, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.77	Anaplastic large cell lymphoma, ALK-negative, spleen	Diagnosis	ICD-10-CM
C84.78	Anaplastic large cell lymphoma, ALK-negative, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.79	Anaplastic large cell lymphoma, ALK-negative, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.90	Mature T/NK-cell lymphomas, unspecified, unspecified site	Diagnosis	ICD-10-CM
C84.91	Mature T/NK-cell lymphomas, unspecified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.92	Mature T/NK-cell lymphomas, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.93	Mature T/NK-cell lymphomas, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.94	Mature T/NK-cell lymphomas, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.95	Mature T/NK-cell lymphomas, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.96	Mature T/NK-cell lymphomas, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.97	Mature T/NK-cell lymphomas, unspecified, spleen	Diagnosis	ICD-10-CM
C84.98	Mature T/NK-cell lymphomas, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.99	Mature T/NK-cell lymphomas, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.A0	Cutaneous T-cell lymphoma, unspecified, unspecified site	Diagnosis	ICD-10-CM
C84.A1	Cutaneous T-cell lymphoma, unspecified lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.A2	Cutaneous T-cell lymphoma, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.A3	Cutaneous T-cell lymphoma, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.A4	Cutaneous T-cell lymphoma, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.A5	Cutaneous T-cell lymphoma, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.A6	Cutaneous T-cell lymphoma, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.A7	Cutaneous T-cell lymphoma, unspecified, spleen	Diagnosis	ICD-10-CM
C84.A8	Cutaneous T-cell lymphoma, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
C84.A9	Cutaneous T-cell lymphoma, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.Z0	Other mature T/NK-cell lymphomas, unspecified site	Diagnosis	ICD-10-CM
C84.Z1	Other mature T/NK-cell lymphomas, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.Z2	Other mature T/NK-cell lymphomas, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.Z3	Other mature T/NK-cell lymphomas, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.Z4	Other mature T/NK-cell lymphomas, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.Z5	Other mature T/NK-cell lymphomas, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.Z6	Other mature T/NK-cell lymphomas, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.Z7	Other mature T/NK-cell lymphomas, spleen	Diagnosis	ICD-10-CM
C84.Z8	Other mature T/NK-cell lymphomas, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.Z9	Other mature T/NK-cell lymphomas, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C85.10	Unspecified B-cell lymphoma, unspecified site	Diagnosis	ICD-10-CM
C85.11	Unspecified B-cell lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C85.12	Unspecified B-cell lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C85.13	Unspecified B-cell lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C85.14	Unspecified B-cell lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C85.15	Unspecified B-cell lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C85.16	Unspecified B-cell lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C85.17	Unspecified B-cell lymphoma, spleen	Diagnosis	ICD-10-CM
C85.18	Unspecified B-cell lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C85.19	Unspecified B-cell lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C85.20	Mediastinal (thymic) large B-cell lymphoma, unspecified site	Diagnosis	ICD-10-CM
C85.21	Mediastinal (thymic) large B-cell lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C85.22	Mediastinal (thymic) large B-cell lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C85.23	Mediastinal (thymic) large B-cell lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C85.24	Mediastinal (thymic) large B-cell lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C85.25	Mediastinal (thymic) large B-cell lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C85.26	Mediastinal (thymic) large B-cell lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C85.27	Mediastinal (thymic) large B-cell lymphoma, spleen	Diagnosis	ICD-10-CM
C85.28	Mediastinal (thymic) large B-cell lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C85.29	Mediastinal (thymic) large B-cell lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C85.80	Other specified types of non-Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C85.81	Other specified types of non-Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C85.82	Other specified types of non-Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C85.83	Other specified types of non-Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C85.84	Other specified types of non-Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C85.85	Other specified types of non-Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C85.86	Other specified types of non-Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C85.87	Other specified types of non-Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
C85.88	Other specified types of non-Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C85.89	Other specified types of non-Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C85.90	Non-Hodgkin lymphoma, unspecified, unspecified site	Diagnosis	ICD-10-CM
C85.91	Non-Hodgkin lymphoma, unspecified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C85.92	Non-Hodgkin lymphoma, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C85.93	Non-Hodgkin lymphoma, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C85.94	Non-Hodgkin lymphoma, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C85.95	Non-Hodgkin lymphoma, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C85.96	Non-Hodgkin lymphoma, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C85.97	Non-Hodgkin lymphoma, unspecified, spleen	Diagnosis	ICD-10-CM
C85.98	Non-Hodgkin lymphoma, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C85.99	Non-Hodgkin lymphoma, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C86.0	Extranodal NK/T-cell lymphoma, nasal type	Diagnosis	ICD-10-CM
C86.1	Hepatosplenic T-cell lymphoma	Diagnosis	ICD-10-CM
C86.2	Enteropathy-type (intestinal) T-cell lymphoma	Diagnosis	ICD-10-CM
C86.3	Subcutaneous panniculitis-like T-cell lymphoma	Diagnosis	ICD-10-CM
C86.4	Blastic NK-cell lymphoma	Diagnosis	ICD-10-CM
C86.5	Angioimmunoblastic T-cell lymphoma	Diagnosis	ICD-10-CM
C86.6	Primary cutaneous CD30-positive T-cell proliferations	Diagnosis	ICD-10-CM
C88.2	Heavy chain disease	Diagnosis	ICD-10-CM
C88.3	Immunoproliferative small intestinal disease	Diagnosis	ICD-10-CM
C88.4	Extranodal marginal zone B-cell lymphoma of mucosa-associated lymphoid tissue [MALT-lymphoma]	Diagnosis	ICD-10-CM
C88.8	Other malignant immunoproliferative diseases	Diagnosis	ICD-10-CM
C88.9	Malignant immunoproliferative disease, unspecified	Diagnosis	ICD-10-CM
C8953	Chemotherapy administration, intravenous; push technique	Procedure	HCPCS
C8954	Chemotherapy administration, intravenous; infusion technique, up to one hour	Procedure	HCPCS
C8955	Chemotherapy administration, intravenous; infusion technique, each additional hour (List separately in addition to C8954)	Procedure	HCPCS
C90.00	Multiple myeloma not having achieved remission	Diagnosis	ICD-10-CM
C90.01	Multiple myeloma in remission	Diagnosis	ICD-10-CM
C90.02	Multiple myeloma in relapse	Diagnosis	ICD-10-CM
C90.10	Plasma cell leukemia not having achieved remission	Diagnosis	ICD-10-CM
C90.11	Plasma cell leukemia in remission	Diagnosis	ICD-10-CM
C90.12	Plasma cell leukemia in relapse	Diagnosis	ICD-10-CM
C90.20	Extramedullary plasmacytoma not having achieved remission	Diagnosis	ICD-10-CM
C90.21	Extramedullary plasmacytoma in remission	Diagnosis	ICD-10-CM
C90.22	Extramedullary plasmacytoma in relapse	Diagnosis	ICD-10-CM
C90.30	Solitary plasmacytoma not having achieved remission	Diagnosis	ICD-10-CM
C90.31	Solitary plasmacytoma in remission	Diagnosis	ICD-10-CM
C90.32	Solitary plasmacytoma in relapse	Diagnosis	ICD-10-CM
C9021	Injection, obinutuzumab, 10 mg	Procedure	HCPCS

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

Code	Description	Code Category	Code Type
C9025	Injection, ramucirumab, 5 mg	Procedure	HCPCS
C91.00	Acute lymphoblastic leukemia not having achieved remission	Diagnosis	ICD-10-CM
C91.01	Acute lymphoblastic leukemia, in remission	Diagnosis	ICD-10-CM
C91.02	Acute lymphoblastic leukemia, in relapse	Diagnosis	ICD-10-CM
C91.10	Chronic lymphocytic leukemia of B-cell type not having achieved remission	Diagnosis	ICD-10-CM
C91.11	Chronic lymphocytic leukemia of B-cell type in remission	Diagnosis	ICD-10-CM
C91.12	Chronic lymphocytic leukemia of B-cell type in relapse	Diagnosis	ICD-10-CM
C91.30	Prolymphocytic leukemia of B-cell type not having achieved remission	Diagnosis	ICD-10-CM
C91.31	Prolymphocytic leukemia of B-cell type, in remission	Diagnosis	ICD-10-CM
C91.32	Prolymphocytic leukemia of B-cell type, in relapse	Diagnosis	ICD-10-CM
C91.40	Hairy cell leukemia not having achieved remission	Diagnosis	ICD-10-CM
C91.41	Hairy cell leukemia, in remission	Diagnosis	ICD-10-CM
C91.42	Hairy cell leukemia, in relapse	Diagnosis	ICD-10-CM
C91.50	Adult T-cell lymphoma/leukemia (HTLV-1-associated) not having achieved remission	Diagnosis	ICD-10-CM
C91.51	Adult T-cell lymphoma/leukemia (HTLV-1-associated), in remission	Diagnosis	ICD-10-CM
C91.52	Adult T-cell lymphoma/leukemia (HTLV-1-associated), in relapse	Diagnosis	ICD-10-CM
C91.60	Prolymphocytic leukemia of T-cell type not having achieved remission	Diagnosis	ICD-10-CM
C91.61	Prolymphocytic leukemia of T-cell type, in remission	Diagnosis	ICD-10-CM
C91.62	Prolymphocytic leukemia of T-cell type, in relapse	Diagnosis	ICD-10-CM
C91.90	Lymphoid leukemia, unspecified not having achieved remission	Diagnosis	ICD-10-CM
C91.91	Lymphoid leukemia, unspecified, in remission	Diagnosis	ICD-10-CM
C91.92	Lymphoid leukemia, unspecified, in relapse	Diagnosis	ICD-10-CM
C91.A0	Mature B-cell leukemia Burkitt-type not having achieved remission	Diagnosis	ICD-10-CM
C91.A1	Mature B-cell leukemia Burkitt-type, in remission	Diagnosis	ICD-10-CM
C91.A2	Mature B-cell leukemia Burkitt-type, in relapse	Diagnosis	ICD-10-CM
C91.20	Other lymphoid leukemia not having achieved remission	Diagnosis	ICD-10-CM
C91.21	Other lymphoid leukemia, in remission	Diagnosis	ICD-10-CM
C91.22	Other lymphoid leukemia, in relapse	Diagnosis	ICD-10-CM
C9131	Injection, ado-trastuzumab emtansine, 1 mg	Procedure	HCPCS
C92.00	Acute myeloblastic leukemia, not having achieved remission	Diagnosis	ICD-10-CM
C92.01	Acute myeloblastic leukemia, in remission	Diagnosis	ICD-10-CM
C92.02	Acute myeloblastic leukemia, in relapse	Diagnosis	ICD-10-CM
C92.10	Chronic myeloid leukemia, BCR/ABL-positive, not having achieved remission	Diagnosis	ICD-10-CM
C92.11	Chronic myeloid leukemia, BCR/ABL-positive, in remission	Diagnosis	ICD-10-CM
C92.12	Chronic myeloid leukemia, BCR/ABL-positive, in relapse	Diagnosis	ICD-10-CM
C92.20	Atypical chronic myeloid leukemia, BCR/ABL-negative, not having achieved remission	Diagnosis	ICD-10-CM
C92.21	Atypical chronic myeloid leukemia, BCR/ABL-negative, in remission	Diagnosis	ICD-10-CM
C92.22	Atypical chronic myeloid leukemia, BCR/ABL-negative, in relapse	Diagnosis	ICD-10-CM
C92.30	Myeloid sarcoma, not having achieved remission	Diagnosis	ICD-10-CM
C92.31	Myeloid sarcoma, in remission	Diagnosis	ICD-10-CM
C92.32	Myeloid sarcoma, in relapse	Diagnosis	ICD-10-CM
C92.40	Acute promyelocytic leukemia, not having achieved remission	Diagnosis	ICD-10-CM
C92.41	Acute promyelocytic leukemia, in remission	Diagnosis	ICD-10-CM
C92.42	Acute promyelocytic leukemia, in relapse	Diagnosis	ICD-10-CM
C92.50	Acute myelomonocytic leukemia, not having achieved remission	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
C92.51	Acute myelomonocytic leukemia, in remission	Diagnosis	ICD-10-CM
C92.52	Acute myelomonocytic leukemia, in relapse	Diagnosis	ICD-10-CM
C92.60	Acute myeloid leukemia with 11q23-abnormality not having achieved remission	Diagnosis	ICD-10-CM
C92.61	Acute myeloid leukemia with 11q23-abnormality in remission	Diagnosis	ICD-10-CM
C92.62	Acute myeloid leukemia with 11q23-abnormality in relapse	Diagnosis	ICD-10-CM
C92.90	Myeloid leukemia, unspecified, not having achieved remission	Diagnosis	ICD-10-CM
C92.91	Myeloid leukemia, unspecified in remission	Diagnosis	ICD-10-CM
C92.92	Myeloid leukemia, unspecified in relapse	Diagnosis	ICD-10-CM
C92.A0	Acute myeloid leukemia with multilineage dysplasia, not having achieved remission	Diagnosis	ICD-10-CM
C92.A1	Acute myeloid leukemia with multilineage dysplasia, in remission	Diagnosis	ICD-10-CM
C92.A2	Acute myeloid leukemia with multilineage dysplasia, in relapse	Diagnosis	ICD-10-CM
C92.Z0	Other myeloid leukemia not having achieved remission	Diagnosis	ICD-10-CM
C92.Z1	Other myeloid leukemia, in remission	Diagnosis	ICD-10-CM
C92.Z2	Other myeloid leukemia, in relapse	Diagnosis	ICD-10-CM
C9259	Injection, pralatrexate, 1 mg	Procedure	HCPCS
C9260	Injection, ofatumumab, 10 mg	Procedure	HCPCS
C9262	Fludarabine phosphate, oral, 1 mg	Procedure	HCPCS
C9265	Injection, romidepsin, 1 mg	Procedure	HCPCS
C9273	Sipuleucel-T, minimum of 50 million autologous CD54+ cells activated with PAP-GM-CSF, including leukapheresis and all other preparatory procedures, per infusion	Procedure	HCPCS
C9276	Injection, cabazitaxel, 1 mg	Procedure	HCPCS
C9280	Injection, eribulin mesylate, 1 mg	Procedure	HCPCS
C9284	Injection, ipilimumab, 1 mg	Procedure	HCPCS
C9287	Injection, brentuximab vedotin, 1 mg	Procedure	HCPCS
C9289	Injection, asparaginase Erwinia chrysanthemi, 1,000 IU	Procedure	HCPCS
C9292	Injection, pertuzumab, 10 mg	Procedure	HCPCS
C9295	Injection, carfilzomib, 1 mg	Procedure	HCPCS
C9296	Injection, ziv-aflibercept, 1 mg	Procedure	HCPCS
C9297	Injection, omacetaxine mepesuccinate, 0.01 mg	Procedure	HCPCS
C93.00	Acute monoblastic/monocytic leukemia, not having achieved remission	Diagnosis	ICD-10-CM
C93.01	Acute monoblastic/monocytic leukemia, in remission	Diagnosis	ICD-10-CM
C93.02	Acute monoblastic/monocytic leukemia, in relapse	Diagnosis	ICD-10-CM
C93.10	Chronic myelomonocytic leukemia not having achieved remission	Diagnosis	ICD-10-CM
C93.11	Chronic myelomonocytic leukemia, in remission	Diagnosis	ICD-10-CM
C93.12	Chronic myelomonocytic leukemia, in relapse	Diagnosis	ICD-10-CM
C93.30	Juvenile myelomonocytic leukemia, not having achieved remission	Diagnosis	ICD-10-CM
C93.31	Juvenile myelomonocytic leukemia, in remission	Diagnosis	ICD-10-CM
C93.32	Juvenile myelomonocytic leukemia, in relapse	Diagnosis	ICD-10-CM
C93.90	Monocytic leukemia, unspecified, not having achieved remission	Diagnosis	ICD-10-CM
C93.91	Monocytic leukemia, unspecified in remission	Diagnosis	ICD-10-CM
C93.92	Monocytic leukemia, unspecified in relapse	Diagnosis	ICD-10-CM
C93.Z0	Other monocytic leukemia, not having achieved remission	Diagnosis	ICD-10-CM
C93.Z1	Other monocytic leukemia, in remission	Diagnosis	ICD-10-CM
C93.Z2	Other monocytic leukemia, in relapse	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C94.00	Acute erythroid leukemia, not having achieved remission	Diagnosis	ICD-10-CM
C94.01	Acute erythroid leukemia, in remission	Diagnosis	ICD-10-CM
C94.02	Acute erythroid leukemia, in relapse	Diagnosis	ICD-10-CM
C94.20	Acute megakaryoblastic leukemia not having achieved remission	Diagnosis	ICD-10-CM
C94.21	Acute megakaryoblastic leukemia, in remission	Diagnosis	ICD-10-CM
C94.22	Acute megakaryoblastic leukemia, in relapse	Diagnosis	ICD-10-CM
C94.30	Mast cell leukemia not having achieved remission	Diagnosis	ICD-10-CM
C94.31	Mast cell leukemia, in remission	Diagnosis	ICD-10-CM
C94.32	Mast cell leukemia, in relapse	Diagnosis	ICD-10-CM
C94.40	Acute panmyelosis with myelofibrosis not having achieved remission	Diagnosis	ICD-10-CM
C94.41	Acute panmyelosis with myelofibrosis, in remission	Diagnosis	ICD-10-CM
C94.42	Acute panmyelosis with myelofibrosis, in relapse	Diagnosis	ICD-10-CM
C94.6	Myelodysplastic disease, not classified	Diagnosis	ICD-10-CM
C94.80	Other specified leukemias not having achieved remission	Diagnosis	ICD-10-CM
C94.81	Other specified leukemias, in remission	Diagnosis	ICD-10-CM
C94.82	Other specified leukemias, in relapse	Diagnosis	ICD-10-CM
C9414	Etoposide; oral, 50 mg, brand name	Procedure	HCPCS
C9415	Doxorubicin HCl, 10 mg, brand name	Procedure	HCPCS
C9416	BCG (intravesical) per instillation, brand name	Procedure	HCPCS
C9417	Bleomycin sulfate, 15 units, brand name	Procedure	HCPCS
C9418	Cisplatin, powder or solution, per 10 mg, brand name	Procedure	HCPCS
C9419	Injection, cladribine, per 1 mg, brand name	Procedure	HCPCS
C9420	Cyclophosphamide, 100 mg, brand name	Procedure	HCPCS
C9421	Cyclophosphamide, lyophilized, 100 mg, brand name	Procedure	HCPCS
C9422	Cytarabine, 100 mg, brand name	Procedure	HCPCS
C9423	Dacarbazine, 100 mg, brand name	Procedure	HCPCS
C9424	Daunorubicin, 10 mg	Procedure	HCPCS
C9425	Etoposide, 10 mg, brand name	Procedure	HCPCS
C9426	Floxuridine, 500 mg, brand name	Procedure	HCPCS
C9427	Ifosfamide, 1 gm, brand name	Procedure	HCPCS
C9428	Mesna, 200 mg, brand name	Procedure	HCPCS
C9429	Idarubicin HCl, 5 mg, brand name	Procedure	HCPCS
C9430	Leuprolide acetate, per 1 mg, brand name	Procedure	HCPCS
C9431	Paclitaxel, 30 mg, brand name	Procedure	HCPCS
C9432	Mitomycin, 5 mg, brand name	Procedure	HCPCS
C9433	Thiotepa, 15 mg, brand name	Procedure	HCPCS
C9434	Supply of radiopharmaceutical diagnostic imaging agent, Gallium Ga 67, per mci, brand name	Procedure	HCPCS
C9435	Injection, gonadorelin HCl, brand name, per 100 mcg	Procedure	HCPCS
C9436	Azathioprine, parenteral, brand name, per 100 mg	Procedure	HCPCS
C9437	Carmustine, brand name, 100 mg	Procedure	HCPCS
C9442	Injection, belinostat, 10 mg	Procedure	HCPCS
C95.00	Acute leukemia of unspecified cell type not having achieved remission	Diagnosis	ICD-10-CM
C95.01	Acute leukemia of unspecified cell type, in remission	Diagnosis	ICD-10-CM
C95.02	Acute leukemia of unspecified cell type, in relapse	Diagnosis	ICD-10-CM
C95.10	Chronic leukemia of unspecified cell type not having achieved remission	Diagnosis	ICD-10-CM
C95.11	Chronic leukemia of unspecified cell type, in remission	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
C95.12	Chronic leukemia of unspecified cell type, in relapse	Diagnosis	ICD-10-CM
C95.90	Leukemia, unspecified not having achieved remission	Diagnosis	ICD-10-CM
C95.91	Leukemia, unspecified, in remission	Diagnosis	ICD-10-CM
C95.92	Leukemia, unspecified, in relapse	Diagnosis	ICD-10-CM
C96.0	Multifocal and multisystemic (disseminated) Langerhans-cell histiocytosis	Diagnosis	ICD-10-CM
C96.2	Malignant mast cell neoplasm	Diagnosis	ICD-10-CM
C96.20	Malignant mast cell neoplasm, unspecified	Diagnosis	ICD-10-CM
C96.21	Aggressive systemic mastocytosis	Diagnosis	ICD-10-CM
C96.22	Mast cell sarcoma	Diagnosis	ICD-10-CM
C96.29	Other malignant mast cell neoplasm	Diagnosis	ICD-10-CM
C96.4	Sarcoma of dendritic cells (accessory cells)	Diagnosis	ICD-10-CM
C96.9	Malignant neoplasm of lymphoid, hematopoietic and related tissue, unspecified	Diagnosis	ICD-10-CM
C96.A	Histiocytic sarcoma	Diagnosis	ICD-10-CM
C96.Z	Other specified malignant neoplasms of lymphoid, hematopoietic and related tissue	Diagnosis	ICD-10-CM
C9725	Placement of endorectal intracavitary applicator for high intensity brachytherapy	Procedure	HCPCS
C9726	Placement and removal (if performed) of applicator into breast for intraoperative radiation therapy, add-on to primary breast procedure	Procedure	HCPCS
C9728	Placement of interstitial device(s) for radiation therapy/surgery guidance (e.g., fiducial markers, dosimeter), for other than the following sites (any approach): abdomen, pelvis, prostate, retroperitoneum, thorax, single or multiple	Procedure	HCPCS
D00.00	Carcinoma in situ of oral cavity, unspecified site	Diagnosis	ICD-10-CM
D00.01	Carcinoma in situ of labial mucosa and vermilion border	Diagnosis	ICD-10-CM
D00.02	Carcinoma in situ of buccal mucosa	Diagnosis	ICD-10-CM
D00.03	Carcinoma in situ of gingiva and edentulous alveolar ridge	Diagnosis	ICD-10-CM
D00.04	Carcinoma in situ of soft palate	Diagnosis	ICD-10-CM
D00.05	Carcinoma in situ of hard palate	Diagnosis	ICD-10-CM
D00.06	Carcinoma in situ of floor of mouth	Diagnosis	ICD-10-CM
D00.07	Carcinoma in situ of tongue	Diagnosis	ICD-10-CM
D00.08	Carcinoma in situ of pharynx	Diagnosis	ICD-10-CM
D00.1	Carcinoma in situ of esophagus	Diagnosis	ICD-10-CM
D00.2	Carcinoma in situ of stomach	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
D01.3	Carcinoma in situ of anus and anal canal	Diagnosis	ICD-10-CM
D01.40	Carcinoma in situ of unspecified part of intestine	Diagnosis	ICD-10-CM
D01.49	Carcinoma in situ of other parts of intestine	Diagnosis	ICD-10-CM
D01.5	Carcinoma in situ of liver, gallbladder and bile ducts	Diagnosis	ICD-10-CM
D01.7	Carcinoma in situ of other specified digestive organs	Diagnosis	ICD-10-CM
D01.9	Carcinoma in situ of digestive organ, unspecified	Diagnosis	ICD-10-CM
D02.0	Carcinoma in situ of larynx	Diagnosis	ICD-10-CM
D02.1	Carcinoma in situ of trachea	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
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
D02.3	Carcinoma in situ of other parts of respiratory system	Diagnosis	ICD-10-CM
D02.4	Carcinoma in situ of respiratory system, unspecified	Diagnosis	ICD-10-CM
D03.0	Melanoma in situ of lip	Diagnosis	ICD-10-CM
D03.10	Melanoma in situ of unspecified eyelid, including canthus	Diagnosis	ICD-10-CM
D03.11	Melanoma in situ of right eyelid, including canthus	Diagnosis	ICD-10-CM
D03.12	Melanoma in situ of left eyelid, including canthus	Diagnosis	ICD-10-CM
D03.20	Melanoma in situ of unspecified ear and external auricular canal	Diagnosis	ICD-10-CM
D03.21	Melanoma in situ of right ear and external auricular canal	Diagnosis	ICD-10-CM
D03.22	Melanoma in situ of left ear and external auricular canal	Diagnosis	ICD-10-CM
D03.30	Melanoma in situ of unspecified part of face	Diagnosis	ICD-10-CM
D03.39	Melanoma in situ of other parts of face	Diagnosis	ICD-10-CM
D03.4	Melanoma in situ of scalp and neck	Diagnosis	ICD-10-CM
D03.51	Melanoma in situ of anal skin	Diagnosis	ICD-10-CM
D03.52	Melanoma in situ of breast (skin) (soft tissue)	Diagnosis	ICD-10-CM
D03.59	Melanoma in situ of other part of trunk	Diagnosis	ICD-10-CM
D03.60	Melanoma in situ of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM
D03.61	Melanoma in situ of right upper limb, including shoulder	Diagnosis	ICD-10-CM
D03.62	Melanoma in situ of left upper limb, including shoulder	Diagnosis	ICD-10-CM
D03.70	Melanoma in situ of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
D03.71	Melanoma in situ of right lower limb, including hip	Diagnosis	ICD-10-CM
D03.72	Melanoma in situ of left lower limb, including hip	Diagnosis	ICD-10-CM
D03.8	Melanoma in situ of other sites	Diagnosis	ICD-10-CM
D03.9	Melanoma in situ, unspecified	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
D06.0	Carcinoma in situ of endocervix	Diagnosis	ICD-10-CM
D06.1	Carcinoma in situ of exocervix	Diagnosis	ICD-10-CM
D06.7	Carcinoma in situ of other parts of cervix	Diagnosis	ICD-10-CM
D06.9	Carcinoma in situ of cervix, unspecified	Diagnosis	ICD-10-CM
D07.0	Carcinoma in situ of endometrium	Diagnosis	ICD-10-CM
D07.1	Carcinoma in situ of vulva	Diagnosis	ICD-10-CM
D07.2	Carcinoma in situ of vagina	Diagnosis	ICD-10-CM
D07.30	Carcinoma in situ of unspecified female genital organs	Diagnosis	ICD-10-CM
D07.39	Carcinoma in situ of other female genital organs	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
D07.4	Carcinoma in situ of penis	Diagnosis	ICD-10-CM
D07.5	Carcinoma in situ of prostate	Diagnosis	ICD-10-CM
D07.60	Carcinoma in situ of unspecified male genital organs	Diagnosis	ICD-10-CM
D07.61	Carcinoma in situ of scrotum	Diagnosis	ICD-10-CM
D07.69	Carcinoma in situ of other male genital organs	Diagnosis	ICD-10-CM
D09.0	Carcinoma in situ of bladder	Diagnosis	ICD-10-CM
D09.10	Carcinoma in situ of unspecified urinary organ	Diagnosis	ICD-10-CM
D09.19	Carcinoma in situ of other urinary organs	Diagnosis	ICD-10-CM
D09.20	Carcinoma in situ of unspecified eye	Diagnosis	ICD-10-CM
D09.21	Carcinoma in situ of right eye	Diagnosis	ICD-10-CM
D09.22	Carcinoma in situ of left eye	Diagnosis	ICD-10-CM
D09.3	Carcinoma in situ of thyroid and other endocrine glands	Diagnosis	ICD-10-CM
D09.8	Carcinoma in situ of other specified sites	Diagnosis	ICD-10-CM
D09.9	Carcinoma in situ, unspecified	Diagnosis	ICD-10-CM
D0Y08ZZ	Hyperthermia of Brain	Procedure	ICD-10-PCS
D0Y18ZZ	Hyperthermia of Brain Stem	Procedure	ICD-10-PCS
D0Y68ZZ	Hyperthermia of Spinal Cord	Procedure	ICD-10-PCS
D0Y78ZZ	Hyperthermia of Peripheral Nerve	Procedure	ICD-10-PCS
D37.01	Neoplasm of uncertain behavior of lip	Diagnosis	ICD-10-CM
D37.02	Neoplasm of uncertain behavior of tongue	Diagnosis	ICD-10-CM
D37.030	Neoplasm of uncertain behavior of the parotid salivary glands	Diagnosis	ICD-10-CM
D37.031	Neoplasm of uncertain behavior of the sublingual salivary glands	Diagnosis	ICD-10-CM
D37.032	Neoplasm of uncertain behavior of the submandibular salivary glands	Diagnosis	ICD-10-CM
D37.039	Neoplasm of uncertain behavior of the major salivary glands, unspecified	Diagnosis	ICD-10-CM
D37.04	Neoplasm of uncertain behavior of the minor salivary glands	Diagnosis	ICD-10-CM
D37.05	Neoplasm of uncertain behavior of pharynx	Diagnosis	ICD-10-CM
D37.09	Neoplasm of uncertain behavior of other specified sites of the oral cavity	Diagnosis	ICD-10-CM
D37.1	Neoplasm of uncertain behavior of stomach	Diagnosis	ICD-10-CM
D37.2	Neoplasm of uncertain behavior of small intestine	Diagnosis	ICD-10-CM
D37.3	Neoplasm of uncertain behavior of appendix	Diagnosis	ICD-10-CM
D37.4	Neoplasm of uncertain behavior of colon	Diagnosis	ICD-10-CM
D37.5	Neoplasm of uncertain behavior of rectum	Diagnosis	ICD-10-CM
D37.6	Neoplasm of uncertain behavior of liver, gallbladder and bile ducts	Diagnosis	ICD-10-CM
D37.8	Neoplasm of uncertain behavior of other specified digestive organs	Diagnosis	ICD-10-CM
D37.9	Neoplasm of uncertain behavior of digestive organ, unspecified	Diagnosis	ICD-10-CM
D38.0	Neoplasm of uncertain behavior of larynx	Diagnosis	ICD-10-CM
D38.1	Neoplasm of uncertain behavior of trachea, bronchus and lung	Diagnosis	ICD-10-CM
D38.2	Neoplasm of uncertain behavior of pleura	Diagnosis	ICD-10-CM
D38.3	Neoplasm of uncertain behavior of mediastinum	Diagnosis	ICD-10-CM
D38.4	Neoplasm of uncertain behavior of thymus	Diagnosis	ICD-10-CM
D38.5	Neoplasm of uncertain behavior of other respiratory organs	Diagnosis	ICD-10-CM
D38.6	Neoplasm of uncertain behavior of respiratory organ, unspecified	Diagnosis	ICD-10-CM
D39.0	Neoplasm of uncertain behavior of uterus	Diagnosis	ICD-10-CM
D39.10	Neoplasm of uncertain behavior of unspecified ovary	Diagnosis	ICD-10-CM
D39.11	Neoplasm of uncertain behavior of right ovary	Diagnosis	ICD-10-CM
D39.12	Neoplasm of uncertain behavior of left ovary	Diagnosis	ICD-10-CM
D39.2	Neoplasm of uncertain behavior of placenta	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
D39.8	Neoplasm of uncertain behavior of other specified female genital organs	Diagnosis	ICD-10-CM
D39.9	Neoplasm of uncertain behavior of female genital organ, unspecified	Diagnosis	ICD-10-CM
D3A.00	Benign carcinoid tumor of unspecified site	Diagnosis	ICD-10-CM
D3A.010	Benign carcinoid tumor of the duodenum	Diagnosis	ICD-10-CM
D3A.011	Benign carcinoid tumor of the jejunum	Diagnosis	ICD-10-CM
D3A.012	Benign carcinoid tumor of the ileum	Diagnosis	ICD-10-CM
D3A.019	Benign carcinoid tumor of the small intestine, unspecified portion	Diagnosis	ICD-10-CM
D3A.020	Benign carcinoid tumor of the appendix	Diagnosis	ICD-10-CM
D3A.021	Benign carcinoid tumor of the cecum	Diagnosis	ICD-10-CM
D3A.022	Benign carcinoid tumor of the ascending colon	Diagnosis	ICD-10-CM
D3A.023	Benign carcinoid tumor of the transverse colon	Diagnosis	ICD-10-CM
D3A.024	Benign carcinoid tumor of the descending colon	Diagnosis	ICD-10-CM
D3A.025	Benign carcinoid tumor of the sigmoid colon	Diagnosis	ICD-10-CM
D3A.026	Benign carcinoid tumor of the rectum	Diagnosis	ICD-10-CM
D3A.029	Benign carcinoid tumor of the large intestine, unspecified portion	Diagnosis	ICD-10-CM
D3A.090	Benign carcinoid tumor of the bronchus and lung	Diagnosis	ICD-10-CM
D3A.091	Benign carcinoid tumor of the thymus	Diagnosis	ICD-10-CM
D3A.092	Benign carcinoid tumor of the stomach	Diagnosis	ICD-10-CM
D3A.093	Benign carcinoid tumor of the kidney	Diagnosis	ICD-10-CM
D3A.094	Benign carcinoid tumor of the foregut, unspecified	Diagnosis	ICD-10-CM
D3A.095	Benign carcinoid tumor of the midgut, unspecified	Diagnosis	ICD-10-CM
D3A.096	Benign carcinoid tumor of the hindgut, unspecified	Diagnosis	ICD-10-CM
D3A.098	Benign carcinoid tumors of other sites	Diagnosis	ICD-10-CM
D3A.8	Other benign neuroendocrine tumors	Diagnosis	ICD-10-CM
D40.0	Neoplasm of uncertain behavior of prostate	Diagnosis	ICD-10-CM
D40.10	Neoplasm of uncertain behavior of unspecified testis	Diagnosis	ICD-10-CM
D40.11	Neoplasm of uncertain behavior of right testis	Diagnosis	ICD-10-CM
D40.12	Neoplasm of uncertain behavior of left testis	Diagnosis	ICD-10-CM
D40.8	Neoplasm of uncertain behavior of other specified male genital organs	Diagnosis	ICD-10-CM
D40.9	Neoplasm of uncertain behavior of male genital organ, unspecified	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
D41.3	Neoplasm of uncertain behavior of urethra	Diagnosis	ICD-10-CM
D41.4	Neoplasm of uncertain behavior of bladder	Diagnosis	ICD-10-CM
D41.8	Neoplasm of uncertain behavior of other specified urinary organs	Diagnosis	ICD-10-CM
D41.9	Neoplasm of uncertain behavior of unspecified urinary organ	Diagnosis	ICD-10-CM
D42.0	Neoplasm of uncertain behavior of cerebral meninges	Diagnosis	ICD-10-CM
D42.1	Neoplasm of uncertain behavior of spinal meninges	Diagnosis	ICD-10-CM
D42.9	Neoplasm of uncertain behavior of meninges, unspecified	Diagnosis	ICD-10-CM
D43.0	Neoplasm of uncertain behavior of brain, supratentorial	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
D43.1	Neoplasm of uncertain behavior of brain, infratentorial	Diagnosis	ICD-10-CM
D43.2	Neoplasm of uncertain behavior of brain, unspecified	Diagnosis	ICD-10-CM
D43.3	Neoplasm of uncertain behavior of cranial nerves	Diagnosis	ICD-10-CM
D43.4	Neoplasm of uncertain behavior of spinal cord	Diagnosis	ICD-10-CM
D43.8	Neoplasm of uncertain behavior of other specified parts of central nervous system	Diagnosis	ICD-10-CM
D43.9	Neoplasm of uncertain behavior of central nervous system, unspecified	Diagnosis	ICD-10-CM
D4381	localized delivery of antimicrobial agents via a controlled release vehicle into diseased crevicular tissue, per tooth	Procedure	HCPCS
D44.0	Neoplasm of uncertain behavior of thyroid gland	Diagnosis	ICD-10-CM
D44.10	Neoplasm of uncertain behavior of unspecified adrenal gland	Diagnosis	ICD-10-CM
D44.11	Neoplasm of uncertain behavior of right adrenal gland	Diagnosis	ICD-10-CM
D44.12	Neoplasm of uncertain behavior of left adrenal gland	Diagnosis	ICD-10-CM
D44.2	Neoplasm of uncertain behavior of parathyroid gland	Diagnosis	ICD-10-CM
D44.3	Neoplasm of uncertain behavior of pituitary gland	Diagnosis	ICD-10-CM
D44.4	Neoplasm of uncertain behavior of craniopharyngeal duct	Diagnosis	ICD-10-CM
D44.5	Neoplasm of uncertain behavior of pineal gland	Diagnosis	ICD-10-CM
D44.6	Neoplasm of uncertain behavior of carotid body	Diagnosis	ICD-10-CM
D44.7	Neoplasm of uncertain behavior of aortic body and other paraganglia	Diagnosis	ICD-10-CM
D44.9	Neoplasm of uncertain behavior of unspecified endocrine gland	Diagnosis	ICD-10-CM
D45	Polycythemia vera	Diagnosis	ICD-10-CM
D46.0	Refractory anemia without ring sideroblasts, so stated	Diagnosis	ICD-10-CM
D46.1	Refractory anemia with ring sideroblasts	Diagnosis	ICD-10-CM
D46.20	Refractory anemia with excess of blasts, unspecified	Diagnosis	ICD-10-CM
D46.21	Refractory anemia with excess of blasts 1	Diagnosis	ICD-10-CM
D46.22	Refractory anemia with excess of blasts 2	Diagnosis	ICD-10-CM
D46.4	Refractory anemia, unspecified	Diagnosis	ICD-10-CM
D46.9	Myelodysplastic syndrome, unspecified	Diagnosis	ICD-10-CM
D46.A	Refractory cytopenia with multilineage dysplasia	Diagnosis	ICD-10-CM
D46.B	Refractory cytopenia with multilineage dysplasia and ring sideroblasts	Diagnosis	ICD-10-CM
D46.C	Myelodysplastic syndrome with isolated del(5q) chromosomal abnormality	Diagnosis	ICD-10-CM
D46.Z	Other myelodysplastic syndromes	Diagnosis	ICD-10-CM
D47.0	Mast cell neoplasms of uncertain behavior	Diagnosis	ICD-10-CM
D47.01	Cutaneous mastocytosis	Diagnosis	ICD-10-CM
D47.02	Systemic mastocytosis	Diagnosis	ICD-10-CM
D47.09	Other mast cell neoplasms of uncertain behavior	Diagnosis	ICD-10-CM
D47.1	Chronic myeloproliferative disease	Diagnosis	ICD-10-CM
D47.3	Essential (hemorrhagic) thrombocythemia	Diagnosis	ICD-10-CM
D47.9	Neoplasm of uncertain behavior of lymphoid, hematopoietic and related tissue, unspecified	Diagnosis	ICD-10-CM
D47.Z1	Post-transplant lymphoproliferative disorder (PTLD)	Diagnosis	ICD-10-CM
D47.Z2	Castleman disease	Diagnosis	ICD-10-CM
D47.Z9	Other specified neoplasms of uncertain behavior of lymphoid, hematopoietic and related tissue	Diagnosis	ICD-10-CM
D48.0	Neoplasm of uncertain behavior of bone and articular cartilage	Diagnosis	ICD-10-CM
D48.1	Neoplasm of uncertain behavior of connective and other soft tissue	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
D48.2	Neoplasm of uncertain behavior of peripheral nerves and autonomic nervous system	Diagnosis	ICD-10-CM
D48.3	Neoplasm of uncertain behavior of retroperitoneum	Diagnosis	ICD-10-CM
D48.4	Neoplasm of uncertain behavior of peritoneum	Diagnosis	ICD-10-CM
D48.5	Neoplasm of uncertain behavior of skin	Diagnosis	ICD-10-CM
D48.60	Neoplasm of uncertain behavior of unspecified breast	Diagnosis	ICD-10-CM
D48.61	Neoplasm of uncertain behavior of right breast	Diagnosis	ICD-10-CM
D48.62	Neoplasm of uncertain behavior of left breast	Diagnosis	ICD-10-CM
D48.7	Neoplasm of uncertain behavior of other specified sites	Diagnosis	ICD-10-CM
D48.9	Neoplasm of uncertain behavior, unspecified	Diagnosis	ICD-10-CM
D49.0	Neoplasm of unspecified behavior of digestive system	Diagnosis	ICD-10-CM
D49.1	Neoplasm of unspecified behavior of respiratory system	Diagnosis	ICD-10-CM
D49.2	Neoplasm of unspecified behavior of bone, soft tissue, and skin	Diagnosis	ICD-10-CM
D49.3	Neoplasm of unspecified behavior of breast	Diagnosis	ICD-10-CM
D49.4	Neoplasm of unspecified behavior of bladder	Diagnosis	ICD-10-CM
D49.5	Neoplasm of unspecified behavior of other genitourinary organs	Diagnosis	ICD-10-CM
D49.511	Neoplasm of unspecified behavior of right kidney	Diagnosis	ICD-10-CM
D49.512	Neoplasm of unspecified behavior of left kidney	Diagnosis	ICD-10-CM
D49.519	Neoplasm of unspecified behavior of unspecified kidney	Diagnosis	ICD-10-CM
D49.59	Neoplasm of unspecified behavior of other genitourinary organ	Diagnosis	ICD-10-CM
D49.6	Neoplasm of unspecified behavior of brain	Diagnosis	ICD-10-CM
D49.7	Neoplasm of unspecified behavior of endocrine glands and other parts of nervous system	Diagnosis	ICD-10-CM
D49.81	Neoplasm of unspecified behavior of retina and choroid	Diagnosis	ICD-10-CM
D49.89	Neoplasm of unspecified behavior of other specified sites	Diagnosis	ICD-10-CM
D49.9	Neoplasm of unspecified behavior of unspecified site	Diagnosis	ICD-10-CM
D5983	radiation carrier	Procedure	HCPCS
D5984	radiation shield	Procedure	HCPCS
D5985	radiation cone locator	Procedure	HCPCS
D7Y08ZZ	Hyperthermia of Bone Marrow	Procedure	ICD-10-PCS
D7Y18ZZ	Hyperthermia of Thymus	Procedure	ICD-10-PCS
D7Y28ZZ	Hyperthermia of Spleen	Procedure	ICD-10-PCS
D7Y38ZZ	Hyperthermia of Neck Lymphatics	Procedure	ICD-10-PCS
D7Y48ZZ	Hyperthermia of Axillary Lymphatics	Procedure	ICD-10-PCS
D7Y58ZZ	Hyperthermia of Thorax Lymphatics	Procedure	ICD-10-PCS
D7Y68ZZ	Hyperthermia of Abdomen Lymphatics	Procedure	ICD-10-PCS
D7Y78ZZ	Hyperthermia of Pelvis Lymphatics	Procedure	ICD-10-PCS
D7Y88ZZ	Hyperthermia of Inguinal Lymphatics	Procedure	ICD-10-PCS
D8Y08ZZ	Hyperthermia of Eye	Procedure	ICD-10-PCS
D9Y08ZZ	Hyperthermia of Ear	Procedure	ICD-10-PCS
D9Y18ZZ	Hyperthermia of Nose	Procedure	ICD-10-PCS
D9Y38ZZ	Hyperthermia of Hypopharynx	Procedure	ICD-10-PCS
D9Y48ZZ	Hyperthermia of Mouth	Procedure	ICD-10-PCS
D9Y58ZZ	Hyperthermia of Tongue	Procedure	ICD-10-PCS
D9Y68ZZ	Hyperthermia of Salivary Glands	Procedure	ICD-10-PCS
D9Y78ZZ	Hyperthermia of Sinuses	Procedure	ICD-10-PCS
D9Y88ZZ	Hyperthermia of Hard Palate	Procedure	ICD-10-PCS

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

Code	Description	Code Category	Code Type
D9Y98ZZ	Hyperthermia of Soft Palate	Procedure	ICD-10-PCS
D9YB8ZZ	Hyperthermia of Larynx	Procedure	ICD-10-PCS
D9YD8ZZ	Hyperthermia of Nasopharynx	Procedure	ICD-10-PCS
D9YF8ZZ	Hyperthermia of Oropharynx	Procedure	ICD-10-PCS
DBY08ZZ	Hyperthermia of Trachea	Procedure	ICD-10-PCS
DBY18ZZ	Hyperthermia of Bronchus	Procedure	ICD-10-PCS
DBY28ZZ	Hyperthermia of Lung	Procedure	ICD-10-PCS
DBY58ZZ	Hyperthermia of Pleura	Procedure	ICD-10-PCS
DBY68ZZ	Hyperthermia of Mediastinum	Procedure	ICD-10-PCS
DBY78ZZ	Hyperthermia of Chest Wall	Procedure	ICD-10-PCS
DBY88ZZ	Hyperthermia of Diaphragm	Procedure	ICD-10-PCS
DDY08ZZ	Hyperthermia of Esophagus	Procedure	ICD-10-PCS
DDY18ZZ	Hyperthermia of Stomach	Procedure	ICD-10-PCS
DDY28ZZ	Hyperthermia of Duodenum	Procedure	ICD-10-PCS
DDY38ZZ	Hyperthermia of Jejunum	Procedure	ICD-10-PCS
DDY48ZZ	Hyperthermia of Ileum	Procedure	ICD-10-PCS
DDY58ZZ	Hyperthermia of Colon	Procedure	ICD-10-PCS
DDY78ZZ	Hyperthermia of Rectum	Procedure	ICD-10-PCS
DFY08ZZ	Hyperthermia of Liver	Procedure	ICD-10-PCS
DFY18ZZ	Hyperthermia of Gallbladder	Procedure	ICD-10-PCS
DFY28ZZ	Hyperthermia of Bile Ducts	Procedure	ICD-10-PCS
DFY38ZZ	Hyperthermia of Pancreas	Procedure	ICD-10-PCS
DGY08ZZ	Hyperthermia of Pituitary Gland	Procedure	ICD-10-PCS
DGY18ZZ	Hyperthermia of Pineal Body	Procedure	ICD-10-PCS
DGY28ZZ	Hyperthermia of Adrenal Glands	Procedure	ICD-10-PCS
DGY48ZZ	Hyperthermia of Parathyroid Glands	Procedure	ICD-10-PCS
DGY58ZZ	Hyperthermia of Thyroid	Procedure	ICD-10-PCS
DHY28ZZ	Hyperthermia of Face Skin	Procedure	ICD-10-PCS
DHY38ZZ	Hyperthermia of Neck Skin	Procedure	ICD-10-PCS
DHY48ZZ	Hyperthermia of Arm Skin	Procedure	ICD-10-PCS
DHY68ZZ	Hyperthermia of Chest Skin	Procedure	ICD-10-PCS
DHY78ZZ	Hyperthermia of Back Skin	Procedure	ICD-10-PCS
DHY88ZZ	Hyperthermia of Abdomen Skin	Procedure	ICD-10-PCS
DHY98ZZ	Hyperthermia of Buttock Skin	Procedure	ICD-10-PCS
DHYB8ZZ	Hyperthermia of Leg Skin	Procedure	ICD-10-PCS
DMY08ZZ	Hyperthermia of Left Breast	Procedure	ICD-10-PCS
DMY18ZZ	Hyperthermia of Right Breast	Procedure	ICD-10-PCS
DPY08ZZ	Hyperthermia of Skull	Procedure	ICD-10-PCS
DPY28ZZ	Hyperthermia of Maxilla	Procedure	ICD-10-PCS
DPY38ZZ	Hyperthermia of Mandible	Procedure	ICD-10-PCS
DPY48ZZ	Hyperthermia of Sternum	Procedure	ICD-10-PCS
DPY58ZZ	Hyperthermia of Rib(s)	Procedure	ICD-10-PCS
DPY68ZZ	Hyperthermia of Humerus	Procedure	ICD-10-PCS
DPY78ZZ	Hyperthermia of Radius/Ulna	Procedure	ICD-10-PCS
DPY88ZZ	Hyperthermia of Pelvic Bones	Procedure	ICD-10-PCS
DPY98ZZ	Hyperthermia of Femur	Procedure	ICD-10-PCS
DPYB8ZZ	Hyperthermia of Tibia/Fibula	Procedure	ICD-10-PCS

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

Code	Description	Code Category	Code Type
DPYC8ZZ	Hyperthermia of Other Bone	Procedure	ICD-10-PCS
DTY08ZZ	Hyperthermia of Kidney	Procedure	ICD-10-PCS
DTY18ZZ	Hyperthermia of Ureter	Procedure	ICD-10-PCS
DTY28ZZ	Hyperthermia of Bladder	Procedure	ICD-10-PCS
DTY38ZZ	Hyperthermia of Urethra	Procedure	ICD-10-PCS
DUY08ZZ	Hyperthermia of Ovary	Procedure	ICD-10-PCS
DUY18ZZ	Hyperthermia of Cervix	Procedure	ICD-10-PCS
DUY28ZZ	Hyperthermia of Uterus	Procedure	ICD-10-PCS
DVY08ZZ	Hyperthermia of Prostate	Procedure	ICD-10-PCS
DVY18ZZ	Hyperthermia of Testis	Procedure	ICD-10-PCS
DWY18ZZ	Hyperthermia of Head and Neck	Procedure	ICD-10-PCS
DWY28ZZ	Hyperthermia of Chest	Procedure	ICD-10-PCS
DWY38ZZ	Hyperthermia of Abdomen	Procedure	ICD-10-PCS
DWY48ZZ	Hyperthermia of Hemibody	Procedure	ICD-10-PCS
DWY58ZZ	Hyperthermia of Whole Body	Procedure	ICD-10-PCS
DWY68ZZ	Hyperthermia of Pelvic Region	Procedure	ICD-10-PCS
E0766	Electrical stimulation device used for cancer treatment, includes all accessories, any type	Procedure	HCPCS
G0210	PET imaging whole body; diagnosis; lung cancer, nonsmall cell	Procedure	HCPCS
G0211	PET imaging whole body; initial staging; lung cancer; nonsmall cell	Procedure	HCPCS
G0212	PET imaging whole body; restaging; lung cancer; nonsmall	Procedure	HCPCS
G0215	PET imaging whole body; restaging; colorectal cancer	Procedure	HCPCS
G0223	PET imaging whole body or regional; diagnosis; head and neck cancer; excluding thyroid and CNS cancers	Procedure	HCPCS
G0224	PET imaging whole body or regional; initial staging; head and neck cancer; excluding thyroid and CNS cancers	Procedure	HCPCS
G0225	PET imaging whole body or regional; restaging; head and neck cancer, excluding thyroid and CNS cancers	Procedure	HCPCS
G0226	PET imaging whole body; diagnosis; esophageal cancer	Procedure	HCPCS
G0227	PET imaging whole body; initial staging; esophageal cancer	Procedure	HCPCS
G0228	PET imaging whole body; restaging; esophageal cancer	Procedure	HCPCS
G0231	PET, whole body, for recurrence of colorectal or colorectal metastatic cancer; gamma cameras only	Procedure	HCPCS
G0233	PET, whole body, for recurrence of melanoma; gamma cameras only	Procedure	HCPCS
G0234	PET, regional or whole body, for solitary pulmonary nodule following CT or for initial staging of pathologically diagnosed nonsmall cell lung cancer; gamma cameras only	Procedure	HCPCS
G0252	PET imaging, full and partial-ring PET scanners only, for initial diagnosis of breast cancer and/or surgical planning for breast cancer (e.g., initial staging of axillary lymph nodes)	Procedure	HCPCS
G0253	PET imaging for breast cancer, full and partial-ring PET scanners only, staging/restaging of local regional recurrence or distant metastases (i.e., staging/restaging after or prior to course of treatment)	Procedure	HCPCS
G0254	PET imaging for breast cancer, full and partial ring PET scanners only, evaluation of response to treatment, performed during course of treatment	Procedure	HCPCS

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

Code	Description	Code Category	Code Type
G0292	Administration(s) of experimental drug(s) only in a medicare qualifying clinical trial (includes administration for chemotherapy and other types of therapy via infusion and/or other than infusion), per day	Procedure	HCPCS
G0296	Counseling visit to discuss need for lung cancer screening using low dose CT scan (LDCT) (service is for eligibility determination and shared decision making)	Procedure	HCPCS
G0355	Chemotherapy administration, subcutaneous or intramuscular nonhormonal antineoplastic	Procedure	HCPCS
G0359	Chemotherapy administration, intravenous infusion technique; up to one hour, single or initial substance/drug	Procedure	HCPCS
G0361	Initiation of prolonged chemotherapy infusion (more than eight hours), requiring use of a portable or implantable pump	Procedure	HCPCS
G0458	Low dose rate (LDR) prostate brachytherapy services, composite rate	Procedure	HCPCS
G0464	Colorectal cancer screening; stool-based DNA and fecal occult hemoglobin (e.g., KRAS, NDRG4 and BMP3)	Procedure	HCPCS
G6001	Ultrasonic guidance for placement of radiation therapy fields	Procedure	HCPCS
G6002	Stereoscopic x-ray guidance for localization of target volume for the delivery of radiation therapy	Procedure	HCPCS
G6003	Radiation treatment delivery, single treatment area, single port or parallel opposed ports, simple blocks or no blocks: up to 5 mev	Procedure	HCPCS
G6004	Radiation treatment delivery, single treatment area, single port or parallel opposed ports, simple blocks or no blocks: 6-10 mev	Procedure	HCPCS
G6005	Radiation treatment delivery, single treatment area, single port or parallel opposed ports, simple blocks or no blocks: 11-19 mev	Procedure	HCPCS
G6006	Radiation treatment delivery, single treatment area, single port or parallel opposed ports, simple blocks or no blocks: 20 mev or greater	Procedure	HCPCS
G6007	Radiation treatment delivery, 2 separate treatment areas, 3 or more ports on a single treatment area, use of multiple blocks: up to 5 mev	Procedure	HCPCS
G6008	Radiation treatment delivery, 2 separate treatment areas, 3 or more ports on a single treatment area, use of multiple blocks: 6-10 mev	Procedure	HCPCS
G6009	Radiation treatment delivery, 2 separate treatment areas, 3 or more ports on a single treatment area, use of multiple blocks: 11-19 mev	Procedure	HCPCS
G6010	Radiation treatment delivery, 2 separate treatment areas, 3 or more ports on a single treatment area, use of multiple blocks: 20 mev or greater	Procedure	HCPCS

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

Code	Description	Code Category	Code Type
G6011	Radiation treatment delivery, 3 or more separate treatment areas, custom blocking, tangential ports, wedges, rotational beam, compensators, electron beam; up to 5 mev	Procedure	HCPCS
G6012	Radiation treatment delivery, 3 or more separate treatment areas, custom blocking, tangential ports, wedges, rotational beam, compensators, electron beam; 6-10 mev	Procedure	HCPCS
G6013	Radiation treatment delivery, 3 or more separate treatment areas, custom blocking, tangential ports, wedges, rotational beam, compensators, electron beam; 11-19 mev	Procedure	HCPCS
G6014	Radiation treatment delivery, 3 or more separate treatment areas, custom blocking, tangential ports, wedges, rotational beam, compensators, electron beam; 20 mev or greater	Procedure	HCPCS
G6015	Intensity modulated treatment delivery, single or multiple fields/arcs, via narrow spatially and temporally modulated beams, binary, dynamic MLC, per treatment session	Procedure	HCPCS
G6016	Compensator-based beam modulation treatment delivery of inverse planned treatment using 3 or more high resolution (milled or cast) compensator, convergent beam modulated fields, per treatment session	Procedure	HCPCS
G6017	Intra-fraction localization and tracking of target or patient motion during delivery of radiation therapy (e.g., 3D positional tracking, gating, 3D surface tracking), each fraction of treatment	Procedure	HCPCS
G8371	Chemotherapy documented as not received or prescribed for Stage III colon cancer patients	Procedure	HCPCS
G8372	Chemotherapy documented as received or prescribed for Stage III colon cancer patients	Procedure	HCPCS
G8373	Chemotherapy plan documented prior to chemotherapy administration	Procedure	HCPCS
G8374	Chemotherapy plan not documented prior to chemotherapy administration	Procedure	HCPCS
G8376	Clinician documentation that breast cancer patient was not eligible for tamoxifen or aromatase inhibitor therapy	Procedure	HCPCS
G8377	Clinician documentation that colon cancer patient is not eligible for chemotherapy measure	Procedure	HCPCS
G8379	Documentation of radiation therapy recommended within 12 months of first office visit	Procedure	HCPCS
G8380	For patients with ER or PR positive, Stage IC-III breast cancer, clinician did not document that the patient received or was prescribed tamoxifen or aromatase inhibitor	Procedure	HCPCS
G8381	For patients with ER or PR positive, Stage IC-III breast cancer, clinician documented or prescribed that the patient is receiving tamoxifen or aromatase inhibitor	Procedure	HCPCS
G8389	Myelodysplastic syndrome (MDS) patients with no documentation of iron stores prior to receiving erythropoietin therapy	Procedure	HCPCS

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

Code	Description	Code Category	Code Type
G8464	Clinician documented that prostate cancer patient is not an eligible candidate for adjuvant hormonal therapy; low or intermediate risk of recurrence or risk of recurrence not determined	Procedure	HCPCS
G8465	High or very high risk of recurrence of prostate cancer	Procedure	HCPCS
G8518	Clinical stage prior to surgery for lung cancer and esophageal cancer resection was recorded	Procedure	HCPCS
G8519	Clinician documented that patient was not eligible for clinical stage prior to surgery for lung cancer and esophageal cancer resection measure	Procedure	HCPCS
G8520	Clinician stage prior to surgery for lung cancer and esophageal cancer resection was not recorded, reason not specified	Procedure	HCPCS
G8875	Clinician diagnosed breast cancer preoperatively by a minimally invasive biopsy method	Procedure	HCPCS
G8881	Stage of breast cancer is greater than T1N0M0 or T2N0M0	Procedure	HCPCS
G89.3	Neoplasm related pain (acute) (chronic)	Diagnosis	ICD-10-CM
G8927	Adjuvant chemotherapy referred, prescribed or previously received for AJCC stage III, colon cancer	Procedure	HCPCS
G8944	AJCC melanoma cancer stage 0 through IIC melanoma	Procedure	HCPCS
G9021	Chemotherapy assessment for nausea and/or vomiting, patient reported, performed at the time of chemotherapy administration; assessment Level 1: not at all (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9022	Chemotherapy assessment for nausea and/or vomiting, patient reported, performed at the time of chemotherapy administration; assessment Level 2: a little (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9023	Chemotherapy assessment for nausea and/or vomiting, patient reported, performed at the time of chemotherapy administration; assessment Level 3: quite a bit (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9024	Chemotherapy assessment for nausea and/or vomiting, patient reported, performed at the time of chemotherapy administration; assessment Level 4: very much (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9025	Chemotherapy assessment for pain, patient reported, performed at the time of chemotherapy administration; assessment Level 1: not at all (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9026	Chemotherapy assessment for pain, patient reported, performed at the time of chemotherapy administration; assessment Level 2: a little (for use in a Medicare-approved demonstration project)	Procedure	HCPCS

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

Code	Description	Code Category	Code Type
G9027	Chemotherapy assessment for pain, patient reported, performed at the time of chemotherapy administration; assessment Level 3: quite a bit (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9028	Chemotherapy assessment for pain, patient reported, performed at the time of chemotherapy administration; assessment Level 4: very much (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9029	Chemotherapy assessment for lack of energy (fatigue), patient reported, performed at the time of chemotherapy administration; assessment Level 1: not at all (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9030	Chemotherapy assessment for lack of energy (fatigue), patient reported, performed at the time of chemotherapy administration; assessment Level 2: a little (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9031	Chemotherapy assessment for lack of energy (fatigue), patient reported, performed at the time of chemotherapy administration, assessment Level 3: quite a bit (for use in a Medicare approved demonstration project)	Procedure	HCPCS
G9032	Chemotherapy assessment for lack of energy (fatigue), patient reported, performed at the time of chemotherapy administration, assessment Level 4: very much (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9050	Oncology; primary focus of visit; work-up, evaluation, or staging at the time of cancer diagnosis or recurrence (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9051	Oncology; primary focus of visit; treatment decision-making after disease is staged or restaged, discussion of treatment options, supervising/coordinating active cancer-directed therapy or managing consequences of cancer-directed therapy (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9052	Oncology; primary focus of visit; surveillance for disease recurrence for patient who has completed definitive cancer-directed therapy and currently lacks evidence of recurrent disease; cancer-directed therapy might be considered in the future (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9053	Oncology; primary focus of visit; expectant management of patient with evidence of cancer for whom no cancer-directed therapy is being administered or arranged at present; cancer-directed therapy might be considered in the future (for use in a Medicare-approved demonstration project)	Procedure	HCPCS

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

Code	Description	Code Category	Code Type
G9054	Oncology; primary focus of visit; supervising, coordinating or managing care of patient with terminal cancer or for whom other medical illness prevents further cancer treatment; includes symptom management, end-of-life care planning, management of palliative therapies (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9055	Oncology; primary focus of visit; other, unspecified service not otherwise listed (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9056	Oncology; practice guidelines; management adheres to guidelines (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9057	Oncology; practice guidelines; management differs from guidelines as a result of patient enrollment in an institutional review board-approved clinical trial (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9058	Oncology; practice guidelines; management differs from guidelines because the treating physician disagrees with guideline recommendations (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9059	Oncology; practice guidelines; management differs from guidelines because the patient, after being offered treatment consistent with guidelines, has opted for alternative treatment or management, including no treatment (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9060	Oncology; practice guidelines; management differs from guidelines for reason(s) associated with patient comorbid illness or performance status not factored into guidelines (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9061	Oncology; practice guidelines; patient's condition not addressed by available guidelines (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9062	Oncology; practice guidelines; management differs from guidelines for other reason(s) not listed (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9063	Oncology; disease status; limited to nonsmall cell lung cancer; extent of disease initially established as Stage I (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9064	Oncology; disease status; limited to nonsmall cell lung cancer; extent of disease initially established as Stage II (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS

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Code	Description	Code Category	Code Type
G9065	Oncology; disease status; limited to nonsmall cell lung cancer; extent of disease initially established as Stage III a (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9066	Oncology; disease status; limited to nonsmall cell lung cancer; Stage III B-IV at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9067	Oncology; disease status; limited to nonsmall cell lung cancer; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9069	Oncology; disease status; small cell lung cancer, limited to small cell and combined small cell/nonsmall cell; extensive Stage at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9070	Oncology; disease status; small cell lung cancer, limited to small cell and combined small cell/nonsmall; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9071	Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; stage I or stage IIA-IIB; or T3, N1, M0; and ER and/or PR positive; with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9072	Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; stage I, or stage IIA-IIB; or T3, N1, M0; and ER and PR negative; with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9073	Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; stage IIIA-IIIB; and not T3, N1, M0; and ER and/or PR positive; with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS

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Code	Description	Code Category	Code Type
G9074	Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; stage IIIA-IIIB; and not T3, N1, M0; and ER and PR negative; with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9075	Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; M1 at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9076	Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; extent of disease unknown, under evaluation, presurgical or not listed (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9077	Oncology; disease status; prostate cancer, limited to adenocarcinoma as predominant cell type; T1-T2C and Gleason 2-7 and PSA < or equal to 20 at diagnosis with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9078	Oncology; disease status; prostate cancer, limited to adenocarcinoma as predominant cell type; T2 or T3a Gleason 8-10 or PSA > 20 at diagnosis with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9079	Oncology; disease status; prostate cancer, limited to adenocarcinoma as predominant cell type; T3B-T4, any N; any T, N1 at diagnosis with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9080	Oncology; disease status; prostate cancer, limited to adenocarcinoma; after initial treatment with rising PSA or failure of PSA decline (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9081	Oncology; disease status; prostate cancer, limited to adenocarcinoma, non-castrate, incompletely castrate; clinical metastases or M1 at diagnosis (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9082	Oncology; disease status; prostate cancer, limited to adenocarcinoma; castrate; clinical metastases or M1 at diagnosis (for use in a Medicare-approved demonstration project)	Procedure	HCPCS

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Code	Description	Code Category	Code Type
G9083	Oncology; disease status; prostate cancer, limited to adenocarcinoma; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9084	Oncology; disease status; colon cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T1-3, N0, M0 with no evidence of disease progression, recurrence or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9085	Oncology; disease status; colon cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T4, N0, M0 with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9086	Oncology; disease status; colon cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T1-4, N1-2, M0 with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9087	Oncology; disease status; colon cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; M1 at diagnosis, metastatic, locally recurrent, or progressive with current clinical, radiologic, or biochemical evidence of disease (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9088	Oncology; disease status; colon cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; M1 at diagnosis, metastatic, locally recurrent, or progressive without current clinical, radiologic, or biochemical evidence of disease (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9089	Oncology; disease status; colon cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease unknown, staging in progress or not listed (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9090	Oncology; disease status; rectal cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T1-2, N0, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9091	Oncology; disease status; rectal cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T3, N0, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS

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

Code	Description	Code Category	Code Type
G9092	Oncology; disease status; rectal cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T1-3, N1-2, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9093	Oncology; disease status; rectal cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease initially established as T4, any N, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9094	Oncology; disease status; rectal cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; M1 at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9095	Oncology; disease status; rectal cancer, limited to invasive cancer, adenocarcinoma as predominant cell type; extent of disease unknown, staging in progress or not listed (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9096	Oncology; disease status; esophageal cancer, limited to adenocarcinoma or squamous cell carcinoma as predominant cell type; extent of disease initially established as T1-T3, N0-N1 or NX (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9097	Oncology; disease status; esophageal cancer, limited to adenocarcinoma or squamous cell carcinoma as predominant cell type; extent of disease initially established as T4, any N, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9098	Oncology; disease status; esophageal cancer, limited to adenocarcinoma or squamous cell carcinoma as predominant cell type; M1 at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9099	Oncology; disease status; esophageal cancer, limited to adenocarcinoma or squamous cell carcinoma as predominant cell type; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)	Procedure	HCPCS

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

Code	Description	Code Category	Code Type
G9100	Oncology; disease status; gastric cancer, limited to adenocarcinoma as predominant cell type; post R0 resection (with or without neoadjuvant therapy) with no evidence of disease recurrence, progression, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9101	Oncology; disease status; gastric cancer, limited to adenocarcinoma as predominant cell type; post R1 or R2 resection (with or without neoadjuvant therapy) with no evidence of disease progression, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9102	Oncology; disease status; gastric cancer, limited to adenocarcinoma as predominant cell type; clinical or pathologic M0, unresectable with no evidence of disease progression, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9103	Oncology; disease status; gastric cancer, limited to adenocarcinoma as predominant cell type; clinical or pathologic M1 at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9104	Oncology; disease status; gastric cancer, limited to adenocarcinoma as predominant cell type; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9105	Oncology; disease status; pancreatic cancer, limited to adenocarcinoma as predominant cell type; post R0 resection without evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9106	Oncology; disease status; pancreatic cancer, limited to adenocarcinoma; post R1 or R2 resection with no evidence of disease progression, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9107	Oncology; disease status; pancreatic cancer, limited to adenocarcinoma; unresectable at diagnosis, M1 at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9108	Oncology; disease status; pancreatic cancer, limited to adenocarcinoma; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)	Procedure	HCPCS

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

Code	Description	Code Category	Code Type
G9109	Oncology; disease status; head and neck cancer, limited to cancers of oral cavity, pharynx and larynx with squamous cell as predominant cell type; extent of disease initially established as T1-T2 and N0, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9110	Oncology; disease status; head and neck cancer, limited to cancers of oral cavity, pharynx and larynx with squamous cell as predominant cell type; extent of disease initially established as T3-4 and/or N1-3, M0 (prior to neoadjuvant therapy, if any) with no evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9111	Oncology; disease status; head and neck cancer, limited to cancers of oral cavity, pharynx and larynx with squamous cell as predominant cell type; M1 at diagnosis, metastatic, locally recurrent, or progressive (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9112	Oncology; disease status; head and neck cancer, limited to cancers of oral cavity, pharynx and larynx with squamous cell as predominant cell type; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9113	Oncology; disease status; ovarian cancer, limited to epithelial cancer; pathologic stage 1A-B (Grade 1) without evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9114	Oncology; disease status; ovarian cancer, limited to epithelial cancer; pathologic stage 1A-B (grade 2-3); or stage IC (all grades); or stage II; without evidence of disease progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9115	Oncology; disease status; ovarian cancer, limited to epithelial cancer; pathologic stage III-IV; without evidence of progression, recurrence, or metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9116	Oncology; disease status; ovarian cancer, limited to epithelial cancer; evidence of disease progression, or recurrence, and/or platinum resistance (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9117	Oncology; disease status; ovarian cancer, limited to epithelial cancer; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)	Procedure	HCPCS

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

Code	Description	Code Category	Code Type
G9123	Oncology; disease status; chronic myelogenous leukemia, limited to Philadelphia chromosome positive and/or BCR-ABL positive; chronic phase not in hematologic, cytogenetic, or molecular remission (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9124	Oncology; disease status; chronic myelogenous leukemia, limited to Philadelphia chromosome positive and /or BCR-ABL positive; accelerated phase not in hematologic cytogenetic, or molecular remission (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9125	Oncology; disease status; chronic myelogenous leukemia, limited to Philadelphia chromosome positive and/or BCR-ABL positive; blast phase not in hematologic, cytogenetic, or molecular remission (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9128	Oncology; disease status; limited to multiple myeloma, systemic disease; smoldering, stage I (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9129	Oncology; disease status; limited to multiple myeloma, systemic disease; stage II or higher (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9130	Oncology; disease status; limited to multiple myeloma, systemic disease; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9131	Oncology; disease status; invasive female breast cancer (does not include ductal carcinoma in situ); adenocarcinoma as predominant cell type; extent of disease unknown, staging in progress, or not listed (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9132	Oncology; disease status; prostate cancer, limited to adenocarcinoma; hormone-refractory/androgen-independent (e.g., rising PSA on antiandrogen therapy or postorchiectomy); clinical metastases (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9133	Oncology; disease status; prostate cancer, limited to adenocarcinoma; hormone-responsive; clinical metastases or M1 at diagnosis (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9134	Oncology; disease status; non-Hodgkin's lymphoma, any cellular classification; Stage I, II at diagnosis, not relapsed, not refractory (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9135	Oncology; disease status; non-Hodgkin's lymphoma, any cellular classification; Stage III, IV, not relapsed, not refractory (for use in a Medicare-approved demonstration project)	Procedure	HCPCS

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

Code	Description	Code Category	Code Type
G9136	Oncology; disease status; non-Hodgkin's lymphoma, transformed from original cellular diagnosis to a second cellular classification (for use in a medicare-approved demonstration project)	Procedure	HCPCS
G9137	Oncology; disease status; non-Hodgkin's lymphoma, any cellular classification; relapsed/refractory (for use in a medicare-approved demonstration project)	Procedure	HCPCS
G9138	Oncology; disease status; non-Hodgkin's lymphoma, any cellular classification; diagnostic evaluation, stage not determined, evaluation of possible relapse or nonresponse to therapy, or not listed (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
G9139	Oncology; disease status; chronic myelogenous leukemia, limited to Philadelphia chromosome positive and/or BCR-ABL positive; extent of disease unknown, staging in progress, not listed (for use in a Medicare-approved demonstration project)	Procedure	HCPCS
J0207	Injection, amifostine, 500 mg	Procedure	HCPCS
J1260	Injection, dolasetron mesylate, 10 mg	Procedure	HCPCS
J8498	Antiemetic drug, rectal/suppository, not otherwise specified	Procedure	HCPCS
J8510	Busulfan, oral, 2 mg	Procedure	HCPCS
J8520	Capecitabine, oral, 150 mg	Procedure	HCPCS
J8521	Capecitabine, oral, 500 mg	Procedure	HCPCS
J8530	Cyclophosphamide, oral, 25 mg	Procedure	HCPCS
J8560	Etoposide, oral, 50 mg	Procedure	HCPCS
J8562	Fludarabine phosphate, oral, 10 mg	Procedure	HCPCS
J8597	Antiemetic drug, oral, not otherwise specified	Procedure	HCPCS
J8600	Melphalan, oral, 2 mg	Procedure	HCPCS
J8610	Methotrexate, oral, 2.5 mg	Procedure	HCPCS
J8700	Temozolomide, oral, 5 mg	Procedure	HCPCS
J8705	Topotecan, oral, 0.25 mg	Procedure	HCPCS
J8999	Prescription drug, oral, chemotherapeutic, NOS	Procedure	HCPCS
J9000	Injection, doxorubicin HCl, 10 mg	Procedure	HCPCS
J9002	Injection, doxorubicin hydrochloride, liposomal, Doxil, 10 mg	Procedure	HCPCS
J9015	Injection, aldesleukin, per single use vial	Procedure	HCPCS
J9017	Injection, arsenic trioxide, 1 mg	Procedure	HCPCS
J9019	Injection, asparaginase (Erwinaze), 1,000 IU	Procedure	HCPCS
J9020	Injection, asparaginase, not otherwise specified, 10,000 units	Procedure	HCPCS
J9025	Injection, azacitidine, 1 mg	Procedure	HCPCS
J9031	BCG (intravesical) per instillation	Procedure	HCPCS
J9033	Injection, bendamustine HCl (Treanda), 1 mg	Procedure	HCPCS
J9040	Injection, bleomycin sulfate, 15 units	Procedure	HCPCS
J9042	Injection, brentuximab vedotin, 1 mg	Procedure	HCPCS
J9043	Injection, cabazitaxel, 1 mg	Procedure	HCPCS
J9045	Injection, carboplatin, 50 mg	Procedure	HCPCS
J9047	Injection, carfilzomib, 1 mg	Procedure	HCPCS
J9050	Injection, carmustine, 100 mg	Procedure	HCPCS

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

Code	Description	Code Category	Code Type
J9060	Injection, cisplatin, powder or solution, 10 mg	Procedure	HCPCS
J9062	Cisplatin, 50 mg	Procedure	HCPCS
J9065	Injection, cladribine, per 1 mg	Procedure	HCPCS
J9070	Cyclophosphamide, 100 mg	Procedure	HCPCS
J9080	Cyclophosphamide, 200 mg	Procedure	HCPCS
J9090	Cyclophosphamide, 500 mg	Procedure	HCPCS
J9091	Cyclophosphamide, 1 g	Procedure	HCPCS
J9092	Cyclophosphamide, 2 g	Procedure	HCPCS
J9093	Cyclophosphamide, lyophilized, 100 mg	Procedure	HCPCS
J9094	Cyclophosphamide, lyophilized, 200 mg	Procedure	HCPCS
J9095	Cyclophosphamide, lyophilized, 500 mg	Procedure	HCPCS
J9096	Cyclophosphamide, lyophilized, 1 g	Procedure	HCPCS
J9097	Cyclophosphamide, lyophilized, 2 g	Procedure	HCPCS
J9100	Injection, cytarabine, 100 mg	Procedure	HCPCS
J9110	Injection, cytarabine, 500 mg	Procedure	HCPCS
J9120	Injection, dactinomycin, 0.5 mg	Procedure	HCPCS
J9130	Dacarbazine, 100 mg	Procedure	HCPCS
J9140	Dacarbazine, 200 mg	Procedure	HCPCS
J9150	Injection, daunorubicin, 10 mg	Procedure	HCPCS
J9151	Injection, daunorubicin citrate, liposomal formulation, 10 mg	Procedure	HCPCS
J9165	Injection, diethylstilbestrol diphosphate, 250 mg	Procedure	HCPCS
J9179	Injection, eribulin mesylate, 0.1 mg	Procedure	HCPCS
J9181	Injection, etoposide, 10 mg	Procedure	HCPCS
J9185	Injection, fludarabine phosphate, 50 mg	Procedure	HCPCS
J9190	Injection, fluorouracil, 500 mg	Procedure	HCPCS
J9200	Injection, floxuridine, 500 mg	Procedure	HCPCS
J9201	Injection, gemcitabine HCl, 200 mg	Procedure	HCPCS
J9202	Goserelin acetate implant, per 3.6 mg	Procedure	HCPCS
J9206	Injection, irinotecan, 20 mg	Procedure	HCPCS
J9207	Injection, ixabepilone, 1 mg	Procedure	HCPCS
J9208	Injection, ifosfamide, 1 g	Procedure	HCPCS
J9209	Injection, mesna, 200 mg	Procedure	HCPCS
J9211	Injection, idarubicin HCl, 5 mg	Procedure	HCPCS
J9213	Injection, interferon, alfa-2a, recombinant, 3 million units	Procedure	HCPCS
J9214	Injection, interferon, alfa-2b, recombinant, 1 million units	Procedure	HCPCS
J9215	Injection, interferon, alfa-N3, (human leukocyte derived), 250,000 IU	Procedure	HCPCS
J9216	Injection, interferon, gamma 1-b, 3 million units	Procedure	HCPCS
J9217	Leuprolide acetate (for depot suspension), 7.5 mg	Procedure	HCPCS
J9218	Leuprolide acetate, per 1 mg	Procedure	HCPCS
J9219	Leuprolide acetate implant, 65 mg	Procedure	HCPCS
J9225	Histrelin implant (Vantas), 50 mg	Procedure	HCPCS
J9226	Histrelin implant (Supprelin LA), 50 mg	Procedure	HCPCS
J9228	Injection, ipilimumab, 1 mg	Procedure	HCPCS
J9230	Injection, mechlorethamine HCl, (nitrogen mustard), 10 mg	Procedure	HCPCS
J9245	Injection, melphalan HCl, 50 mg	Procedure	HCPCS
J9250	Methotrexate sodium, 5 mg	Procedure	HCPCS
J9260	Methotrexate sodium, 50 mg	Procedure	HCPCS

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

Code	Description	Code Category	Code Type
J9262	Injection, omacetaxine mepesuccinate, 0.01 mg	Procedure	HCPCS
J9263	Injection, oxaliplatin, 0.5 mg	Procedure	HCPCS
J9265	Injection, paclitaxel, 30 mg	Procedure	HCPCS
J9266	Injection, pegaspargase, per single dose vial	Procedure	HCPCS
J9267	Injection, paclitaxel, 1 mg	Procedure	HCPCS
J9268	Injection, pentostatin, 10 mg	Procedure	HCPCS
J9270	Injection, plicamycin, 2.5 mg	Procedure	HCPCS
J9280	Injection, mitomycin, 5 mg	Procedure	HCPCS
J9290	Mitomycin, 20 mg	Procedure	HCPCS
J9291	Mitomycin, 40 mg	Procedure	HCPCS
J9293	Injection, mitoxantrone HCl, per 5 mg	Procedure	HCPCS
J9300	Injection, gemtuzumab ozogamicin, 5 mg	Procedure	HCPCS
J9301	Injection, obinutuzumab, 10 mg	Procedure	HCPCS
J9302	Injection, ofatumumab, 10 mg	Procedure	HCPCS
J9303	Injection, panitumumab, 10 mg	Procedure	HCPCS
J9306	Injection, pertuzumab, 1 mg	Procedure	HCPCS
J9310	Injection, rituximab, 100 mg	Procedure	HCPCS
J9315	Injection, romidepsin, 1 mg	Procedure	HCPCS
J9320	Injection, streptozocin, 1 g	Procedure	HCPCS
J9328	Injection, temozolomide, 1 mg	Procedure	HCPCS
J9330	Injection, temsirolimus, 1 mg	Procedure	HCPCS
J9340	Injection, thiotepa, 15 mg	Procedure	HCPCS
J9350	Injection, topotecan, 4 mg	Procedure	HCPCS
J9351	Injection, topotecan, 0.1 mg	Procedure	HCPCS
J9354	Injection, ado-trastuzumab emtansine, 1 mg	Procedure	HCPCS
J9360	Injection, vinblastine sulfate, 1 mg	Procedure	HCPCS
J9370	Vincristine sulfate, 1 mg	Procedure	HCPCS
J9371	Injection, vincristine sulfate liposome, 1 mg	Procedure	HCPCS
J9375	Vincristine sulfate, 2 mg	Procedure	HCPCS
J9380	Vincristine sulfate, 5 mg	Procedure	HCPCS
J9390	Injection, vinorelbine tartrate, 10 mg	Procedure	HCPCS
J9600	Injection, porfimer sodium, 75 mg	Procedure	HCPCS
J9999	Not otherwise classified, antineoplastic drugs	Procedure	HCPCS
Q0083	Chemotherapy administration by other than infusion technique only (e.g., subcutaneous, intramuscular, push), per visit	Procedure	HCPCS
Q0084	Chemotherapy administration by infusion technique only, per visit	Procedure	HCPCS
Q0085	Chemotherapy administration by both infusion technique and other technique(s) (e.g. subcutaneous, intramuscular. push), per visit	Procedure	HCPCS
Q0161	Chlorpromazine hydrochloride, 5 mg, oral, FDA approved prescription anti-emetic, for use as a complete therapeutic substitute for an IV anti-emetic at the time of chemotherapy treatment, not to exceed a 48 hour dosage regimen	Procedure	HCPCS

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

Code	Description	Code Category	Code Type
Q0162	Ondansetron 1 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48 hour dosage regimen	Procedure	HCPCS
Q0163	Diphenhydramine HCl, 50 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at time of chemotherapy treatment not to exceed a 48-hour dosage regimen	Procedure	HCPCS
Q0164	Prochlorperazine maleate, 5 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen	Procedure	HCPCS
Q0165	Prochlorperazine maleate, 10 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen	Procedure	HCPCS
Q0166	Granisetron HCl, 1 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 24-hour dosage regimen	Procedure	HCPCS
Q0167	Dronabinol, 2.5 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen	Procedure	HCPCS
Q0168	Dronabinol, 5 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen	Procedure	HCPCS
Q0169	Promethazine HCl, 12.5 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen	Procedure	HCPCS
Q0170	Promethazine HCl, 25 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen	Procedure	HCPCS
Q0171	Chlorpromazine HCl, 10 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen	Procedure	HCPCS
Q0172	Chlorpromazine HCl, 25 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen	Procedure	HCPCS

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

Code	Description	Code Category	Code Type
Q0173	Trimethobenzamide HCl, 250 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen	Procedure	HCPCS
Q0174	Thiethylperazine maleate, 10 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen	Procedure	HCPCS
Q0175	Perphenazine, 4 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48 hour dosage regimen	Procedure	HCPCS
Q0176	Perphenazine, 8 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48 hour dosage regimen	Procedure	HCPCS
Q0177	Hydroxyzine pamoate, 25 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen	Procedure	HCPCS
Q0178	Hydroxyzine pamoate, 50 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen	Procedure	HCPCS
Q0179	Ondansetron HCl 8 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen	Procedure	HCPCS
Q0180	Dolasetron mesylate, 100 mg, oral, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 24-hour dosage regimen	Procedure	HCPCS
Q0181	Unspecified oral dosage form, FDA approved prescription antiemetic, for use as a complete therapeutic substitute for an IV antiemetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen	Procedure	HCPCS
Q0511	Pharmacy supply fee for oral anticancer, oral antiemetic, or immunosuppressive drug(s); for the first prescription in a 30-day period	Procedure	HCPCS
Q0512	Pharmacy supply fee for oral anticancer, oral antiemetic, or immunosuppressive drug(s); for a subsequent prescription in a 30-day period	Procedure	HCPCS
Q2017	Injection, teniposide, 50 mg	Procedure	HCPCS
Q2025	Fludarabine phosphate, oral, 1 mg	Procedure	HCPCS
Q2048	Injection, doxorubicin hydrochloride, liposomal, DOXIL, 10 mg	Procedure	HCPCS
Q2049	Injection, doxorubicin hydrochloride, liposomal, imported Lipodox, 10 mg	Procedure	HCPCS

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Code	Description	Code Category	Code Type
Q2050	Injection, doxorubicin hydrochloride, liposomal, not otherwise specified, 10 mg	Procedure	HCPCS
Q3001	Radioelements for brachytherapy, any type, each	Procedure	HCPCS
Q85.00	Neurofibromatosis, unspecified	Diagnosis	ICD-10-CM
Q85.01	Neurofibromatosis, type 1	Diagnosis	ICD-10-CM
Q85.02	Neurofibromatosis, type 2	Diagnosis	ICD-10-CM
Q85.03	Schwannomatosis	Diagnosis	ICD-10-CM
Q85.09	Other neurofibromatosis	Diagnosis	ICD-10-CM
R18.0	Malignant ascites	Diagnosis	ICD-10-CM
XW03351	Introduction of Blinatumomab Antineoplastic Immunotherapy into Peripheral Vein, Percutaneous Approach, New Technology Group 1	Procedure	ICD-10-PCS
XW033B3	Introduction of Cytarabine and Daunorubicin Liposome Antineoplastic into Peripheral Vein, Percutaneous Approach, New Technology Group 3	Procedure	ICD-10-PCS
XW033C3	Introduction of Engineered Autologous Chimeric Antigen Receptor T-cell Immunotherapy into Peripheral Vein, Percutaneous Approach, New Technology Group 3	Procedure	ICD-10-PCS
XW04351	Introduction of Blinatumomab Antineoplastic Immunotherapy into Central Vein, Percutaneous Approach, New Technology Group 1	Procedure	ICD-10-PCS
XW043B3	Introduction of Cytarabine and Daunorubicin Liposome Antineoplastic into Central Vein, Percutaneous Approach, New Technology Group 3	Procedure	ICD-10-PCS
XW043C3	Introduction of Engineered Autologous Chimeric Antigen Receptor T-cell Immunotherapy into Central Vein, Percutaneous Approach, New Technology Group 3	Procedure	ICD-10-PCS
Acute Myocardial Infarction			
410	Acute myocardial infarction	Diagnosis	ICD-9-CM
410.0	Acute myocardial infarction of anterolateral wall	Diagnosis	ICD-9-CM
410.00	Acute myocardial infarction of anterolateral wall, episode of care unspecified	Diagnosis	ICD-9-CM
410.01	Acute myocardial infarction of anterolateral wall, initial episode of care	Diagnosis	ICD-9-CM
410.02	Acute myocardial infarction of anterolateral wall, subsequent episode of care	Diagnosis	ICD-9-CM
410.1	Acute myocardial infarction of other anterior wall	Diagnosis	ICD-9-CM
410.10	Acute myocardial infarction of other anterior wall, episode of care unspecified	Diagnosis	ICD-9-CM
410.11	Acute myocardial infarction of other anterior wall, initial episode of care	Diagnosis	ICD-9-CM
410.12	Acute myocardial infarction of other anterior wall, subsequent episode of care	Diagnosis	ICD-9-CM
410.2	Acute myocardial infarction of inferolateral wall	Diagnosis	ICD-9-CM
410.20	Acute myocardial infarction of inferolateral wall, episode of care unspecified	Diagnosis	ICD-9-CM
410.21	Acute myocardial infarction of inferolateral wall, initial episode of care	Diagnosis	ICD-9-CM
410.22	Acute myocardial infarction of inferolateral wall, subsequent episode of care	Diagnosis	ICD-9-CM
410.3	Acute myocardial infarction of inferoposterior wall	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
410.30	Acute myocardial infarction of inferoposterior wall, episode of care unspecified	Diagnosis	ICD-9-CM
410.31	Acute myocardial infarction of inferoposterior wall, initial episode of care	Diagnosis	ICD-9-CM
410.32	Acute myocardial infarction of inferoposterior wall, subsequent episode of care	Diagnosis	ICD-9-CM
410.4	Acute myocardial infarction of other inferior wall	Diagnosis	ICD-9-CM
410.40	Acute myocardial infarction of other inferior wall, episode of care unspecified	Diagnosis	ICD-9-CM
410.41	Acute myocardial infarction of other inferior wall, initial episode of care	Diagnosis	ICD-9-CM
410.42	Acute myocardial infarction of other inferior wall, subsequent episode of care	Diagnosis	ICD-9-CM
410.5	Acute myocardial infarction of other lateral wall	Diagnosis	ICD-9-CM
410.50	Acute myocardial infarction of other lateral wall, episode of care unspecified	Diagnosis	ICD-9-CM
410.51	Acute myocardial infarction of other lateral wall, initial episode of care	Diagnosis	ICD-9-CM
410.52	Acute myocardial infarction of other lateral wall, subsequent episode of care	Diagnosis	ICD-9-CM
410.6	Acute myocardial infarction, true posterior wall infarction	Diagnosis	ICD-9-CM
410.60	Acute myocardial infarction, true posterior wall infarction, episode of care unspecified	Diagnosis	ICD-9-CM
410.61	Acute myocardial infarction, true posterior wall infarction, initial episode of care	Diagnosis	ICD-9-CM
410.62	Acute myocardial infarction, true posterior wall infarction, subsequent episode of care	Diagnosis	ICD-9-CM
410.7	Acute myocardial infarction, subendocardial infarction	Diagnosis	ICD-9-CM
410.70	Acute myocardial infarction, subendocardial infarction, episode of care unspecified	Diagnosis	ICD-9-CM
410.71	Acute myocardial infarction, subendocardial infarction, initial episode of care	Diagnosis	ICD-9-CM
410.72	Acute myocardial infarction, subendocardial infarction, subsequent episode of care	Diagnosis	ICD-9-CM
410.8	Acute myocardial infarction of other specified sites	Diagnosis	ICD-9-CM
410.80	Acute myocardial infarction of other specified sites, episode of care unspecified	Diagnosis	ICD-9-CM
410.81	Acute myocardial infarction of other specified sites, initial episode of care	Diagnosis	ICD-9-CM
410.82	Acute myocardial infarction of other specified sites, subsequent episode of care	Diagnosis	ICD-9-CM
410.9	Acute myocardial infarction, unspecified site	Diagnosis	ICD-9-CM
410.90	Acute myocardial infarction, unspecified site, episode of care unspecified	Diagnosis	ICD-9-CM
410.91	Acute myocardial infarction, unspecified site, initial episode of care	Diagnosis	ICD-9-CM
410.92	Acute myocardial infarction, unspecified site, subsequent episode of care	Diagnosis	ICD-9-CM
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

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Code	Description	Code Category	Code Type
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
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
Hypertension/Hypertensive Disorders			
401	Essential hypertension	Diagnosis	ICD-9-CM
401.0	Essential hypertension, malignant	Diagnosis	ICD-9-CM
401.1	Essential hypertension, benign	Diagnosis	ICD-9-CM
401.9	Unspecified essential hypertension	Diagnosis	ICD-9-CM
402	Hypertensive heart disease	Diagnosis	ICD-9-CM
402.0	Malignant hypertensive heart disease	Diagnosis	ICD-9-CM
402.00	Malignant hypertensive heart disease without heart failure	Diagnosis	ICD-9-CM
402.01	Malignant hypertensive heart disease with heart failure	Diagnosis	ICD-9-CM
402.1	Benign hypertensive heart disease	Diagnosis	ICD-9-CM
402.10	Benign hypertensive heart disease without heart failure	Diagnosis	ICD-9-CM
402.11	Benign hypertensive heart disease with heart failure	Diagnosis	ICD-9-CM
402.9	Unspecified hypertensive heart disease	Diagnosis	ICD-9-CM
402.90	Unspecified hypertensive heart disease without heart failure	Diagnosis	ICD-9-CM
402.91	Hypertensive heart disease, unspecified, with heart failure	Diagnosis	ICD-9-CM
403	Hypertensive chronic kidney disease	Diagnosis	ICD-9-CM
403.0	Hypertensive chronic kidney disease, malignant	Diagnosis	ICD-9-CM
403.00	Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
403.01	Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
403.1	Hypertensive chronic kidney disease, benign	Diagnosis	ICD-9-CM
403.10	Hypertensive chronic kidney disease, benign, with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
403.11	Hypertensive chronic kidney disease, benign, with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
403.9	Hypertensive chronic kidney disease, unspecified	Diagnosis	ICD-9-CM
403.90	Hypertensive chronic kidney disease, unspecified, with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
403.91	Hypertensive chronic kidney disease, unspecified, with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404	Hypertensive heart and chronic kidney disease	Diagnosis	ICD-9-CM
404.0	Hypertensive heart and chronic kidney disease, malignant	Diagnosis	ICD-9-CM
404.00	Hypertensive heart and chronic kidney disease, malignant, without heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.01	Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.02	Hypertensive heart and chronic kidney disease, malignant, without heart failure and with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.03	Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.1	Hypertensive heart and chronic kidney disease, benign	Diagnosis	ICD-9-CM
404.10	Hypertensive heart and chronic kidney disease, benign, without heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.11	Hypertensive heart and chronic kidney disease, benign, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.12	Hypertensive heart and chronic kidney disease, benign, without heart failure and with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.13	Hypertensive heart and chronic kidney disease, benign, with heart failure and chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.9	Hypertensive heart and chronic kidney disease, unspecified	Diagnosis	ICD-9-CM
404.90	Hypertensive heart and chronic kidney disease, unspecified, without heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.91	Hypertensive heart and chronic kidney disease, unspecified, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.92	Hypertensive heart and chronic kidney disease, unspecified, without heart failure and with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.93	Hypertensive heart and chronic kidney disease, unspecified, with heart failure and chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
405	Secondary hypertension	Diagnosis	ICD-9-CM
405.0	Secondary hypertension, malignant	Diagnosis	ICD-9-CM
405.01	Secondary renovascular hypertension, malignant	Diagnosis	ICD-9-CM
405.09	Other secondary hypertension, malignant	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
405.1	Secondary hypertension, benign	Diagnosis	ICD-9-CM
405.11	Secondary renovascular hypertension, benign	Diagnosis	ICD-9-CM
405.19	Other secondary hypertension, benign	Diagnosis	ICD-9-CM
405.9	Unspecified secondary hypertension, unspecified	Diagnosis	ICD-9-CM
405.91	Secondary renovascular hypertension, unspecified	Diagnosis	ICD-9-CM
405.99	Other secondary hypertension, unspecified	Diagnosis	ICD-9-CM
997.91	Hypertension	Diagnosis	ICD-9-CM
I10	Essential (primary) hypertension	Diagnosis	ICD-10-CM
I11.0	Hypertensive heart disease with heart failure	Diagnosis	ICD-10-CM
I11.9	Hypertensive heart disease without heart failure	Diagnosis	ICD-10-CM
I12.0	Hypertensive chronic kidney disease with stage 5 chronic kidney disease or end stage renal disease	Diagnosis	ICD-10-CM
I12.9	Hypertensive chronic kidney disease with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	Diagnosis	ICD-10-CM
I13.0	Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	Diagnosis	ICD-10-CM
I13.10	Hypertensive heart and chronic kidney disease without heart failure, with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	Diagnosis	ICD-10-CM
I13.11	Hypertensive heart and chronic kidney disease without heart failure, with stage 5 chronic kidney disease, or end stage renal disease	Diagnosis	ICD-10-CM
I13.2	Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease	Diagnosis	ICD-10-CM
I15.0	Renovascular hypertension	Diagnosis	ICD-10-CM
I15.1	Hypertension secondary to other renal disorders	Diagnosis	ICD-10-CM
I15.2	Hypertension secondary to endocrine disorders	Diagnosis	ICD-10-CM
I15.8	Other secondary hypertension	Diagnosis	ICD-10-CM
I15.9	Secondary hypertension, unspecified	Diagnosis	ICD-10-CM
I16.0	Hypertensive urgency	Diagnosis	ICD-10-CM
I16.1	Hypertensive emergency	Diagnosis	ICD-10-CM
I16.9	Hypertensive crisis, unspecified	Diagnosis	ICD-10-CM
I97.3	Postprocedural hypertension	Diagnosis	ICD-10-CM
N26.2	Page kidney	Diagnosis	ICD-10-CM
Hypercholesterolemia/Hyperlipidemia			
272.0	Pure hypercholesterolemia	Diagnosis	ICD-9-CM
272.1	Pure hyperglyceridemia	Diagnosis	ICD-9-CM
272.2	Mixed hyperlipidemia	Diagnosis	ICD-9-CM
272.3	Hyperchylomicronemia	Diagnosis	ICD-9-CM
272.4	Other and unspecified hyperlipidemia	Diagnosis	ICD-9-CM
E78.0	Pure hypercholesterolemia	Diagnosis	ICD-10-CM
E78.00	Pure hypercholesterolemia, unspecified	Diagnosis	ICD-10-CM
E78.01	Familial hypercholesterolemia	Diagnosis	ICD-10-CM
E78.1	Pure hyperglyceridemia	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
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
Alcohol Consumption			
291	Alcohol-induced mental disorders	Diagnosis	ICD-9-CM
291.0	Alcohol withdrawal delirium	Diagnosis	ICD-9-CM
291.1	Alcohol-induced persisting amnesic disorder	Diagnosis	ICD-9-CM
291.2	Alcohol-induced persisting dementia	Diagnosis	ICD-9-CM
291.3	Alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-9-CM
291.4	Idiosyncratic alcohol intoxication	Diagnosis	ICD-9-CM
291.5	Alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-9-CM
291.8	Other specified alcohol-induced mental disorders	Diagnosis	ICD-9-CM
291.81	Alcohol withdrawal	Diagnosis	ICD-9-CM
291.82	Alcohol induced sleep disorders	Diagnosis	ICD-9-CM
291.89	Other specified alcohol-induced mental disorders	Diagnosis	ICD-9-CM
291.9	Unspecified alcohol-induced mental disorders	Diagnosis	ICD-9-CM
303	Alcohol dependence syndrome	Diagnosis	ICD-9-CM
303.0	Acute alcoholic intoxication	Diagnosis	ICD-9-CM
303.00	Acute alcoholic intoxication, unspecified	Diagnosis	ICD-9-CM
303.01	Acute alcoholic intoxication, continuous	Diagnosis	ICD-9-CM
303.02	Acute alcoholic intoxication, episodic	Diagnosis	ICD-9-CM
303.9	Other and unspecified alcohol dependence	Diagnosis	ICD-9-CM
303.90	Other and unspecified alcohol dependence, unspecified	Diagnosis	ICD-9-CM
303.91	Other and unspecified alcohol dependence, continuous	Diagnosis	ICD-9-CM
303.92	Other and unspecified alcohol dependence, episodic	Diagnosis	ICD-9-CM
303.93	Other and unspecified alcohol dependence, in remission	Diagnosis	ICD-9-CM
305.0	Nondependent alcohol abuse	Diagnosis	ICD-9-CM
305.00	Nondependent alcohol abuse, unspecified	Diagnosis	ICD-9-CM
305.01	Nondependent alcohol abuse, continuous	Diagnosis	ICD-9-CM
305.02	Nondependent alcohol abuse, episodic	Diagnosis	ICD-9-CM
305.03	Nondependent alcohol abuse, in remission	Diagnosis	ICD-9-CM
357.5	Alcoholic polyneuropathy	Diagnosis	ICD-9-CM
425.5	Alcoholic cardiomyopathy	Diagnosis	ICD-9-CM
535.30	Alcoholic gastritis without mention of hemorrhage	Diagnosis	ICD-9-CM
535.31	Alcoholic gastritis with hemorrhage	Diagnosis	ICD-9-CM
571.0	Alcoholic fatty liver	Diagnosis	ICD-9-CM
571.1	Acute alcoholic hepatitis	Diagnosis	ICD-9-CM
571.2	Alcoholic cirrhosis of liver	Diagnosis	ICD-9-CM
571.3	Unspecified alcoholic liver damage	Diagnosis	ICD-9-CM
790.3	Excessive blood level of alcohol	Diagnosis	ICD-9-CM
94.6	Alcohol and drug rehabilitation and detoxification	Procedure	ICD-9-CM
94.61	Alcohol rehabilitation	Procedure	ICD-9-CM
94.62	Alcohol detoxification	Procedure	ICD-9-CM
94.63	Alcohol rehabilitation and detoxification	Procedure	ICD-9-CM

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Code	Description	Code Category	Code Type
94.67	Combined alcohol and drug rehabilitation	Procedure	ICD-9-CM
94.68	Combined alcohol and drug detoxification	Procedure	ICD-9-CM
94.69	Combined alcohol and drug rehabilitation and detoxification	Procedure	ICD-9-CM
980.0	Toxic effect of ethyl alcohol	Diagnosis	ICD-9-CM
99408	Alcohol and/or substance (other than tobacco) abuse structured screening (eg, AUDIT, DAST), and brief intervention (SBI) services; 15 to 30 minutes	Procedure	CPT-4
99409	Alcohol and/or substance (other than tobacco) abuse structured screening (eg, AUDIT, DAST), and brief intervention (SBI) services; greater than 30 minutes	Procedure	CPT-4
E86.00	Accidental poisoning by alcoholic beverages	Diagnosis	ICD-9-CM
F10.10	Alcohol abuse, uncomplicated	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
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

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Code	Description	Code Category	Code Type
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 amnesic disorder	Diagnosis	ICD-10-CM
F10.97	Alcohol use, unspecified with alcohol-induced persisting dementia	Diagnosis	ICD-10-CM
F10.980	Alcohol use, unspecified with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10.981	Alcohol use, unspecified with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
F10.982	Alcohol use, unspecified with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10.988	Alcohol use, unspecified with other alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.99	Alcohol use, unspecified with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM
G0396	Alcohol and/or substance (other than tobacco) abuse structured assessment (e.g., AUDIT, DAST), and brief intervention 15 to 30 minutes	Procedure	HCPCS
G0397	Alcohol and/or substance (other than tobacco) abuse structured assessment (e.g., AUDIT, DAST), and intervention, greater than 30 minutes	Procedure	HCPCS
G0443	Brief face-to-face behavioral counseling for alcohol misuse, 15 minutes	Procedure	HCPCS
G31.2	Degeneration of nervous system due to alcohol	Diagnosis	ICD-10-CM
G62.1	Alcoholic polyneuropathy	Diagnosis	ICD-10-CM
H0001	Alcohol and/or drug assessment	Procedure	HCPCS
H0003	Alcohol and/or drug screening; laboratory analysis of specimens for presence of alcohol and/or drugs	Procedure	HCPCS
H0005	Alcohol and/or drug services; group counseling by a clinician	Procedure	HCPCS
H0006	Alcohol and/or drug services; case management	Procedure	HCPCS
H0007	Alcohol and/or drug services; crisis intervention (outpatient)	Procedure	HCPCS
H0008	Alcohol and/or drug services; subacute detoxification (hospital inpatient)	Procedure	HCPCS
H0009	Alcohol and/or drug services; acute detoxification (hospital inpatient)	Procedure	HCPCS
H0010	Alcohol and/or drug services; subacute detoxification (residential addiction program inpatient)	Procedure	HCPCS
H0011	Alcohol and/or drug services; acute detoxification (residential addiction program inpatient)	Procedure	HCPCS
H0012	Alcohol and/or drug services; subacute detoxification (residential addiction program outpatient)	Procedure	HCPCS
H0013	Alcohol and/or drug services; acute detoxification (residential addiction program outpatient)	Procedure	HCPCS
H0014	Alcohol and/or drug services; ambulatory detoxification	Procedure	HCPCS
H0015	Alcohol and/or drug services; intensive outpatient (treatment program that operates at least 3 hours/day and at least 3 days/week and is based on an individualized treatment plan), including assessment, counseling; crisis intervention, and activity therapies or education	Procedure	HCPCS

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

Code	Description	Code Category	Code Type
H0016	Alcohol and/or drug services; medical/somatic (medical intervention in ambulatory setting)	Procedure	HCPCS
H0020	Alcohol and/or drug services; methadone administration and/or service (provision of the drug by a licensed program)	Procedure	HCPCS
H0021	Alcohol and/or drug training service (for staff and personnel not employed by providers)	Procedure	HCPCS
H0022	Alcohol and/or drug intervention service (planned facilitation)	Procedure	HCPCS
H0026	Alcohol and/or drug prevention process service, community-based (delivery of services to develop skills of impactors)	Procedure	HCPCS
H0027	Alcohol and/or drug prevention environmental service (broad range of external activities geared toward modifying systems in order to mainstream prevention through policy and law)	Procedure	HCPCS
H0028	Alcohol and/or drug prevention problem identification and referral service (e.g., student assistance and employee assistance programs), does not include assessment	Procedure	HCPCS
H0029	Alcohol and/or drug prevention alternatives service (services for populations that exclude alcohol and other drug use e.g., alcohol free social events)	Procedure	HCPCS
H0047	Alcohol and/or other drug abuse services, not otherwise specified	Procedure	HCPCS
H0048	Alcohol and/or other drug testing: collection and handling only, specimens other than blood	Procedure	HCPCS
H0049	Alcohol and/or drug screening	Procedure	HCPCS
H0050	Alcohol and/or drug services, brief intervention, per 15 minutes	Procedure	HCPCS
H2034	Alcohol and/or drug abuse halfway house services, per diem	Procedure	HCPCS
H2035	Alcohol and/or other drug treatment program, per hour	Procedure	HCPCS
H2036	Alcohol and/or other drug treatment program, per diem	Procedure	HCPCS
HZ2ZZZZ	Detoxification Services for Substance Abuse Treatment	Procedure	ICD-10-PCS
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

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

Code	Description	Code Category	Code Type
HZ46ZZZ	Group Counseling for Substance Abuse Treatment, Psychoeducation	Procedure	ICD-10-PCS
HZ47ZZZ	Group Counseling for Substance Abuse Treatment, Motivational Enhancement	Procedure	ICD-10-PCS
HZ48ZZZ	Group Counseling for Substance Abuse Treatment, Confrontational	Procedure	ICD-10-PCS
HZ49ZZZ	Group Counseling for Substance Abuse Treatment, Continuing Care	Procedure	ICD-10-PCS
HZ4BZZZ	Group Counseling for Substance Abuse Treatment, Spiritual	Procedure	ICD-10-PCS
HZ50ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Cognitive	Procedure	ICD-10-PCS
HZ51ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Behavioral	Procedure	ICD-10-PCS
HZ52ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Cognitive-Behavioral	Procedure	ICD-10-PCS
HZ53ZZZ	Individual Psychotherapy for Substance Abuse Treatment, 12-Step	Procedure	ICD-10-PCS
HZ54ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Interpersonal	Procedure	ICD-10-PCS
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
T1006	Alcohol and/or substance abuse services, family/couple counseling	Procedure	HCPCS

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

Code	Description	Code Category	Code Type
T1007	Alcohol and/or substance abuse services, treatment plan development and/or modification	Procedure	HCPCS
T1008	Day treatment for individual alcohol and/or substance abuse services	Procedure	HCPCS
T1009	Child sitting services for children of the individual receiving alcohol and/or substance abuse services	Procedure	HCPCS
T1010	Meals for individuals receiving alcohol and/or substance abuse services (when meals not included in the program)	Procedure	HCPCS
T1011	Alcohol and/or substance abuse services, not otherwise classified	Procedure	HCPCS
T1012	Alcohol and/or substance abuse services, skills development	Procedure	HCPCS
T51.0X1A	Toxic effect of ethanol, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T51.0X1D	Toxic effect of ethanol, accidental (unintentional), subsequent encounter	Procedure	ICD-10-PCS
T51.0X2A	Toxic effect of ethanol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.0X2D	Toxic effect of ethanol, intentional self-harm, subsequent encounter	Procedure	ICD-10-PCS
T51.0X2S	Toxic effect of ethanol, intentional self-harm, sequela	Procedure	ICD-10-PCS
T51.0X3A	Toxic effect of ethanol, assault, initial encounter	Diagnosis	ICD-10-CM
T51.0X3D	Toxic effect of ethanol, assault, subsequent encounter	Procedure	ICD-10-PCS
T51.0X3S	Toxic effect of ethanol, assault, sequela	Procedure	ICD-10-PCS
T51.0X4A	Toxic effect of ethanol, undetermined, initial encounter	Diagnosis	ICD-10-CM
T51.0X4D	Toxic effect of ethanol, undetermined, subsequent encounter	Procedure	ICD-10-PCS
T51.0X4S	Toxic effect of ethanol, undetermined, sequela	Procedure	ICD-10-PCS
Z71.41	Alcohol abuse counseling and surveillance of alcoholic	Diagnosis	ICD-10-CM
Z71.42	Counseling for family member of alcoholic	Diagnosis	ICD-10-CM
Chronic Kidney Disease			
585	Chronic kidney disease (CKD)	Diagnosis	ICD-9-CM
585.1	Chronic kidney disease, Stage I	Diagnosis	ICD-9-CM
585.2	Chronic kidney disease, Stage II (mild)	Diagnosis	ICD-9-CM
585.3	Chronic kidney disease, Stage III (moderate)	Diagnosis	ICD-9-CM
585.4	Chronic kidney disease, Stage IV (severe)	Diagnosis	ICD-9-CM
585.5	Chronic kidney disease, Stage V	Diagnosis	ICD-9-CM
585.6	End stage renal disease	Diagnosis	ICD-9-CM
585.9	Chronic kidney disease, unspecified	Diagnosis	ICD-9-CM
586	Unspecified renal failure	Diagnosis	ICD-9-CM
587	Unspecified renal sclerosis	Diagnosis	ICD-9-CM
N18.1	Chronic kidney disease, stage 1	Diagnosis	ICD-10-CM
N18.2	Chronic kidney disease, stage 2 (mild)	Diagnosis	ICD-10-CM
N18.3	Chronic kidney disease, stage 3 (moderate)	Diagnosis	ICD-10-CM
N18.4	Chronic kidney disease, stage 4 (severe)	Diagnosis	ICD-10-CM
N18.5	Chronic kidney disease, stage 5	Diagnosis	ICD-10-CM
N18.6	End stage renal disease	Diagnosis	ICD-10-CM
N18.9	Chronic kidney disease, unspecified	Diagnosis	ICD-10-CM
N19	Unspecified kidney failure	Diagnosis	ICD-10-CM
N26.1	Atrophy of kidney (terminal)	Diagnosis	ICD-10-CM
N26.9	Renal sclerosis, unspecified	Diagnosis	ICD-10-CM
Tobacco Use			
1034F	Current tobacco smoker (CAD, CAP, COPD, PV) (DM)	Procedure	CPT-4
1035F	Current smokeless tobacco user (eg, chew, snuff) (PV)	Procedure	CPT-4
305.1	Nondependent tobacco use disorder	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
305.1	Tobacco use disorder	Diagnosis	ICD-9-CM
4000F	Tobacco use cessation intervention, counseling (COPD, CAP, CAD, Asthma) (DM) (PV)	Procedure	CPT-4
4001F	Tobacco use cessation intervention, pharmacologic therapy (COPD, CAD, CAP, PV, Asthma) (DM) (PV)	Procedure	CPT-4
4004F	Patient screened for tobacco use and received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (PV, CAD)	Procedure	CPT-4
649.0	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium	Diagnosis	ICD-9-CM
649.00	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care or not applicable	Diagnosis	ICD-9-CM
649.01	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
649.02	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
649.03	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, antepartum condition or complication	Diagnosis	ICD-9-CM
649.04	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
83887	Nicotine	Procedure	CPT-4
989.84	Toxic effect of tobacco	Diagnosis	ICD-9-CM
99406	Smoking and tobacco use cessation counseling visit; intermediate, greater than 3 minutes up to 10 minutes	Procedure	CPT-4
99407	Smoking and tobacco use cessation counseling visit; intensive, greater than 10 minutes	Procedure	CPT-4
C9801	Smoking and tobacco cessation counseling visit for the asymptomatic patient; intermediate, greater than 3 minutes. up to 10 minutes	Procedure	HCPCS
C9802	Smoking and tobacco cessation counseling visit for the asymptomatic patient; intensive, greater than 10 minutes	Procedure	HCPCS
D1320	tobacco counseling for the control and prevention of oral disease	Procedure	HCPCS
F17	Nicotine dependence	Diagnosis	ICD-10-CM
F17.2	Nicotine dependence	Diagnosis	ICD-10-CM
F17.20	Nicotine dependence, unspecified	Diagnosis	ICD-10-CM
F17.200	Nicotine dependence, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F17.201	Nicotine dependence, unspecified, in remission	Diagnosis	ICD-10-CM
F17.203	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
F17.21	Nicotine dependence, cigarettes	Diagnosis	ICD-10-CM
F17.210	Nicotine dependence, cigarettes, uncomplicated	Diagnosis	ICD-10-CM
F17.211	Nicotine dependence, cigarettes, in remission	Diagnosis	ICD-10-CM
F17.213	Nicotine dependence, cigarettes, with withdrawal	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
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
F17.220	Nicotine dependence, chewing tobacco, uncomplicated	Diagnosis	ICD-10-CM
F17.221	Nicotine dependence, chewing tobacco, in remission	Diagnosis	ICD-10-CM
F17.290	Nicotine dependence, other tobacco product, uncomplicated	Diagnosis	ICD-10-CM
F17.291	Nicotine dependence, other tobacco product, in remission	Diagnosis	ICD-10-CM
G0375	Smoking and tobacco use cessation counseling visit; intermediate, greater than 3 minutes up to 10 minutes	Procedure	HCPCS
G0376	Smoking and tobacco use cessation counseling visit; intensive, greater than 10 minutes	Procedure	HCPCS
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
G8093	Newly diagnosed chronic obstructive pulmonary disease (COPD) patient documented to have received smoking cessation intervention, within 3 months of diagnosis	Procedure	HCPCS
G8094	Newly diagnosed chronic obstructive pulmonary disease (COPD) patient not documented to have received smoking cessation intervention, within 3 months of diagnosis	Procedure	HCPCS
G8402	Tobacco (smoke) use cessation intervention, counseling	Procedure	HCPCS
G8403	Tobacco (smoke) use cessation intervention not counseled	Procedure	HCPCS
G8453	Tobacco use cessation intervention, counseling	Procedure	HCPCS
G8454	Tobacco use cessation intervention not counseled, reason not specified	Procedure	HCPCS
G8455	Current tobacco smoker	Procedure	HCPCS
G8456	Current smokeless tobacco user	Procedure	HCPCS
G8688	Currently a smokeless tobacco user (e.g., chew, snuff) and no exposure to secondhand smoke	Procedure	HCPCS
G8690	Current tobacco smoker or current exposure to secondhand smoke	Procedure	HCPCS
G8692	Current smokeless tobacco user (e.g., chew, snuff) and no exposure to secondhand smoke	Procedure	HCPCS
G9016	Smoking cessation counseling, individual, in the absence of or in addition to any other evaluation and management service, per session (6-10 minutes) [demo project code only]	Procedure	HCPCS
G9276	Documentation that patient is a current tobacco user	Procedure	HCPCS
G9458	Patient documented as tobacco user and received tobacco cessation intervention (must include at least one of the following: advice given to quit smoking or tobacco use, counseling on the benefits of quitting smoking or tobacco use, assistance with or referral to external smoking or tobacco cessation support programs, or current enrollment in smoking or tobacco use cessation program) if identified as a tobacco user	Procedure	HCPCS
O99.33	Tobacco use disorder complicating pregnancy, childbirth, and the puerperium	Diagnosis	ICD-10-CM
O99.330	Smoking (tobacco) complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O99.331	Smoking (tobacco) complicating pregnancy, first trimester	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
O99.332	Smoking (tobacco) complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99.333	Smoking (tobacco) complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99.334	Smoking (tobacco) complicating childbirth	Diagnosis	ICD-10-CM
O99.335	Smoking (tobacco) complicating the puerperium	Diagnosis	ICD-10-CM
S4990	Nicotine patches, legend	Procedure	HCPCS
S4991	Nicotine patches, non-legend	Procedure	HCPCS
S4995	Smoking cessation gum	Procedure	HCPCS
S9075	Smoking cessation treatment	Procedure	HCPCS
S9453	Smoking cessation classes, non-physician provider, per session	Procedure	HCPCS
T65.211A	Toxic effect of chewing tobacco, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.212A	Toxic effect of chewing tobacco, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.213A	Toxic effect of chewing tobacco, assault, initial encounter	Diagnosis	ICD-10-CM
T65.214A	Toxic effect of chewing tobacco, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65.221A	Toxic effect of tobacco cigarettes, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.222A	Toxic effect of tobacco cigarettes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.223A	Toxic effect of tobacco cigarettes, assault, initial encounter	Diagnosis	ICD-10-CM
T65.224A	Toxic effect of tobacco cigarettes, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65.291A	Toxic effect of other tobacco and nicotine, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.292A	Toxic effect of other tobacco and nicotine, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.293A	Toxic effect of other tobacco and nicotine, assault, initial encounter	Diagnosis	ICD-10-CM
T65.294A	Toxic effect of other tobacco and nicotine, undetermined, initial encounter	Diagnosis	ICD-10-CM
V15.82	Personal history of tobacco use, presenting hazards to health	Diagnosis	ICD-9-CM
Z72.0	Tobacco use	Diagnosis	ICD-10-CM
Z87.891	Personal history of nicotine dependence	Diagnosis	ICD-10-CM
HbA1c Labs			
0061U	Transcutaneous measurement of five biomarkers (tissue oxygenation [StO ₂], oxyhemoglobin [ctHbO ₂], deoxyhemoglobin [ctHbR], papillary and reticular dermal hemoglobin concentrations [ctHb1 and ctHb2]), using spatial frequency domain imaging (SFDI) and multi-spectral analysis	Procedure	CPT-4
0493T	Near-infrared spectroscopy studies of lower extremity wounds (eg, for oxyhemoglobin measurement)	Procedure	CPT-3
0514F	Plan of care for elevated hemoglobin level documented for patient receiving Erythropoiesis-Stimulating Agent therapy (ESA) (CKD)	Procedure	CPT-2
3044F	Most recent hemoglobin A1c (HbA1c) level less than 7.0% (DM)	Procedure	CPT-2
3045F	Most recent hemoglobin A1c (HbA1c) level 7.0-9.0% (DM)	Procedure	CPT-2
3046F	Most recent hemoglobin A1c level greater than 9.0% (DM)	Procedure	CPT-2
3279F	Hemoglobin level greater than or equal to 13 g/dL (CKD, ESRD)	Procedure	CPT-2
3280F	Hemoglobin level 11 g/dL to 12.9 g/dL (CKD, ESRD)	Procedure	CPT-2
3281F	Hemoglobin level less than 11 g/dL (CKD, ESRD)	Procedure	CPT-2

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

Code	Description	Code Category	Code Type
81000	Urinalysis, by dip stick or tablet reagent for bilirubin, glucose, hemoglobin, ketones, leukocytes, nitrite, pH, protein, specific gravity, urobilinogen, any number of these constituents; non-automated, with microscopv	Procedure	CPT-4
81001	Urinalysis, by dip stick or tablet reagent for bilirubin, glucose, hemoglobin, ketones, leukocytes, nitrite, pH, protein, specific gravity, urobilinogen, any number of these constituents; automated, with microscopv	Procedure	CPT-4
81002	Urinalysis, by dip stick or tablet reagent for bilirubin, glucose, hemoglobin, ketones, leukocytes, nitrite, pH, protein, specific gravity, urobilinogen, any number of these constituents; non-automated, without microscopv	Procedure	CPT-4
81003	Urinalysis, by dip stick or tablet reagent for bilirubin, glucose, hemoglobin, ketones, leukocytes, nitrite, pH, protein, specific gravity, urobilinogen, any number of these constituents; automated, without microscopv	Procedure	CPT-4
81361	HBB (hemoglobin, subunit beta) (eg, sickle cell anemia, beta thalassemia, hemoglobinopathy); common variant(s) (eg, HbS, HbC, HbE)	Procedure	CPT-4
81362	HBB (hemoglobin, subunit beta) (eg, sickle cell anemia, beta thalassemia, hemoglobinopathy); known familial variant(s)	Procedure	CPT-4
81363	HBB (hemoglobin, subunit beta) (eg, sickle cell anemia, beta thalassemia, hemoglobinopathy); duplication/deletion variant(s)	Procedure	CPT-4
81364	HBB (hemoglobin, subunit beta) (eg, sickle cell anemia, beta thalassemia, hemoglobinopathy); full gene sequence	Procedure	CPT-4
81443	Genetic testing for severe inherited conditions (eg, cystic fibrosis, Ashkenazi Jewish-associated disorders [eg, Bloom syndrome, Canavan disease, Fanconi anemia type C, mucopolipidosis type VI, Gaucher disease, Tay-Sachs disease], beta hemoglobinopathies, phenylketonuria, galactosemia), genomic sequence analysis panel, must include sequencing of at least 15 genes (eg, ACADM, ARSA, ASPA, ATP7B, BCKDHA, BCKDHB, BLM, CFTR, DHCR7, FANCC, G6PC, GAA, GALT, GBA, GBE1, HBB, HEXA, IKBKAP, MCOLN1, PAH)	Procedure	CPT-4
81528	Oncology (colorectal) screening, quantitative real-time target and signal amplification of 10 DNA markers (KRAS mutations, promoter methylation of NDRG4 and BMP3) and fecal hemoglobin, utilizing stool, algorithm reported as a positive or negative result	Procedure	CPT-4
82274	Blood, occult, by fecal hemoglobin determination by immunoassay, qualitative, feces, 1-3 simultaneous determinations	Procedure	CPT-4
82375	Carboxyhemoglobin; quantitative	Procedure	CPT-4

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

Code	Description	Code Category	Code Type
82376	Carboxyhemoglobin; qualitative	Procedure	CPT-4
82820	Hemoglobin-oxygen affinity (pO ₂ for 50% hemoglobin saturation with oxygen)	Procedure	CPT-4
83020	Hemoglobin fractionation and quantitation; electrophoresis (eg, A2, S, C, and/or F)	Procedure	CPT-4
83021	Hemoglobin fractionation and quantitation; chromatography (eg, A2, S, C, and/or F)	Procedure	CPT-4
83026	Hemoglobin; by copper sulfate method, non-automated	Procedure	CPT-4
83030	Hemoglobin; F (fetal), chemical	Procedure	CPT-4
83033	Hemoglobin; F (fetal), qualitative	Procedure	CPT-4
83036	Hemoglobin; glycosylated (A1C)	Procedure	CPT-4
83037	Hemoglobin; glycosylated (A1C) by device cleared by FDA for home use	Procedure	CPT-4
83045	Hemoglobin; methemoglobin, qualitative	Procedure	CPT-4
83050	Hemoglobin; methemoglobin, quantitative	Procedure	CPT-4
83051	Hemoglobin; plasma	Procedure	CPT-4
83060	Hemoglobin; sulfhemoglobin, quantitative	Procedure	CPT-4
83065	Hemoglobin; thermolabile	Procedure	CPT-4
83068	Hemoglobin; unstable, screen	Procedure	CPT-4
83069	Hemoglobin; urine	Procedure	CPT-4
85018	Blood count; hemoglobin (Hgb)	Procedure	CPT-4
85046	Blood count; reticulocytes, automated, including 1 or more cellular parameters (eg, reticulocyte hemoglobin content [CHR], immature reticulocyte fraction [IRF], reticulocyte volume [MRV], RNA content). direct measurement	Procedure	CPT-4
85460	Hemoglobin or RBCs, fetal, for fetomaternal hemorrhage; differential lysis (Kleihauer-Betke)	Procedure	CPT-4
85461	Hemoglobin or RBCs, fetal, for fetomaternal hemorrhage; rosette	Procedure	CPT-4
88738	Hemoglobin (Hgb), quantitative, transcutaneous	Procedure	CPT-4
88740	Hemoglobin, quantitative, transcutaneous, per day; carboxyhemoglobin	Procedure	CPT-4
88741	Hemoglobin, quantitative, transcutaneous, per day; methemoglobin	Procedure	CPT-4
G0908	Most recent hemoglobin (Hgb) level > 12.0 g/dl	Procedure	HCPCS
G0910	Most recent hemoglobin level ≤ 12.0 g/dl	Procedure	HCPCS
G8973	Most recent hemoglobin (Hgb) level < 10 g/dl	Procedure	HCPCS
G8974	Hemoglobin level measurement not documented, reason not given	Procedure	HCPCS
G8975	Documentation of medical reason(s) for patient having a hemoglobin level < 10 g/dl (e.g., patients who have nonrenal etiologies of anemia [e.g., sickle cell anemia or other hemoglobinopathies, hypersplenism, primary bone marrow disease, anemia related to chemotherapy for diagnosis of malignancy, postoperative bleeding, active bloodstream or peritoneal infection], other medical reasons)	Procedure	HCPCS
G8976	Most recent hemoglobin (Hgb) level ≥ 10 g/dl	Procedure	HCPCS
S3620	Newborn metabolic screening panel, includes test kit, postage and the laboratory tests specified by the state for inclusion in this panel (e.g., galactose; hemoglobin, electrophoresis; hydroxyprogesterone, 17-d; phenylalanine (PKU); and throxine, total)	Procedure	HCPCS

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

Code	Description	Code Category	Code Type
S3846	Genetic testing for hemoglobin E beta-thalassemia	Procedure	HCPCS
eGFR Labs			
82565	Creatinine; blood	Procedure	CPT-4
Creatinine Labs			
80047	Basic metabolic panel (Calcium, ionized) This panel must include the following: Calcium, ionized (82330) Carbon dioxide (bicarbonate) (82374) Chloride (82435) Creatinine (82565) Glucose (82947) Potassium (84132) Sodium (84295) Urea Nitrogen (BUN) (84520)	Procedure	CPT-4
80048	Basic metabolic panel (Calcium, total) This panel must include the following: Calcium, total (82310) Carbon dioxide (bicarbonate) (82374) Chloride (82435) Creatinine (82565) Glucose (82947) Potassium (84132) Sodium (84295) Urea nitrogen (BUN) (84520)	Procedure	CPT-4
80053	Comprehensive metabolic panel This panel must include the following: Albumin (82040) Bilirubin, total (82247) Calcium, total (82310) Carbon dioxide (bicarbonate) (82374) Chloride (82435) Creatinine (82565) Glucose (82947) Phosphatase, alkaline (84075) Potassium (84132) Protein, total (84155) Sodium (84295) Transferase, alanine amino (ALT) (SGPT) (84460) Transferase, aspartate amino (AST) (SGOT) (84450) Urea nitrogen (BUN) (84520)	Procedure	CPT-4
80069	Renal function panel This panel must include the following: Albumin (82040) Calcium, total (82310) Carbon dioxide (bicarbonate) (82374) Chloride (82435) Creatinine (82565) Glucose (82947) Phosphorus inorganic (phosphate) (84100) Potassium (84132) Sodium (84295) Urea nitrogen (BUN) (84520)	Procedure	CPT-4
82565	Creatinine; blood	Procedure	CPT-4
82570	Creatinine; other source	Procedure	CPT-4
82575	Creatinine; clearance	Procedure	CPT-4
G8774	Serum creatinine test result documented and reviewed	Procedure	HCPCS
G9722	Documented history of renal failure or baseline serum creatinine = 4.0 mg/dl; renal transplant recipients are not considered to have preoperative renal failure, unless, since transplantation the CR has been or is 4.0 or higher	Procedure	HCPCS

Appendix G. International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Claims-Based BMI in this Request

Code	Description	Code Category	Code Type
BMI Less than 19			
V85.0	Body Mass Index less than 19, adult	Diagnosis	ICD-9-CM
Z68.1	Body mass index (BMI) 19.9 or less, adult	Diagnosis	ICD-10-CM
BMI between 19 - 24.9			
V85.1	Body Mass Index between 19-24, adult	Diagnosis	ICD-9-CM
Z68.20	Body mass index (BMI) 20.0-20.9, adult	Diagnosis	ICD-10-CM
Z68.21	Body mass index (BMI) 21.0-21.9, adult	Diagnosis	ICD-10-CM
Z68.22	Body mass index (BMI) 22.0-22.9, adult	Diagnosis	ICD-10-CM
Z68.23	Body mass index (BMI) 23.0-23.9, adult	Diagnosis	ICD-10-CM
Z68.24	Body mass index (BMI) 24.0-24.9, adult	Diagnosis	ICD-10-CM
BMI between 25 - 29.9			
V85.2	Body Mass Index between 25-29, adult	Diagnosis	ICD-9-CM
V85.21	Body Mass Index 25.0-25.9, adult	Diagnosis	ICD-9-CM
V85.22	Body Mass Index 26.0-26.9, adult	Diagnosis	ICD-9-CM
V85.23	Body Mass Index 27.0-27.9, adult	Diagnosis	ICD-9-CM
V85.24	Body Mass Index 28.0-28.9, adult	Diagnosis	ICD-9-CM
V85.25	Body Mass Index 29.0-29.9, adult	Diagnosis	ICD-9-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
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
BMI between 30 - 39.9			
V85.3	Body Mass Index between 30-39, adult	Diagnosis	ICD-9-CM
V85.30	Body Mass Index 30.0-30.9, adult	Diagnosis	ICD-9-CM
V85.31	Body Mass Index 31.0-31.9, adult	Diagnosis	ICD-9-CM
V85.32	Body Mass Index 32.0-32.9, adult	Diagnosis	ICD-9-CM
V85.33	Body Mass Index 33.0-33.9, adult	Diagnosis	ICD-9-CM
V85.34	Body Mass Index 34.0-34.9, adult	Diagnosis	ICD-9-CM
V85.35	Body Mass Index 35.0-35.9, adult	Diagnosis	ICD-9-CM
V85.36	Body Mass Index 36.0-36.9, adult	Diagnosis	ICD-9-CM
V85.37	Body Mass Index 37.0-37.9, adult	Diagnosis	ICD-9-CM
V85.38	Body Mass Index 38.0-38.9, adult	Diagnosis	ICD-9-CM
V85.39	Body Mass Index 39.0-39.9, adult	Diagnosis	ICD-9-CM
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
BMI between 40 - 69.9			
V85.4	Body Mass Index 40 and over, adult	Diagnosis	ICD-9-CM
V85.41	Body Mass Index 40.0-44.9, adult	Diagnosis	ICD-9-CM
V85.42	Body Mass Index 45.0-49.9, adult	Diagnosis	ICD-9-CM
V85.43	Body Mass Index 50.0-59.9, adult	Diagnosis	ICD-9-CM

Appendix G. International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Claims-Based BMI in this Request

Code	Description	Code Category	Code Type
V85.44	Body Mass Index 60.0-69.9, adult	Diagnosis	ICD-9-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
BMI Greater than 70			
V85.45	Body Mass Index 70 and over, adult	Diagnosis	ICD-9-CM
Z68.45	Body mass index (BMI) 70 or greater, adult	Diagnosis	ICD-10-CM
Obesity			
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

Appendix G. International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Claims-Based BMI in this Request

Code	Description	Code Category	Code Type
0D164K9	Bypass Stomach to Duodenum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164KA	Bypass Stomach to Jejunum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164KB	Bypass Stomach to Ileum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
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 Endoscopic	Procedure	ICD-10-PCS
0D168J9	Bypass Stomach to Duodenum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168JA	Bypass Stomach to Jejunum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168JB	Bypass Stomach to Ileum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168JL	Bypass Stomach to Transverse Colon with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168K9	Bypass Stomach to Duodenum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168KA	Bypass Stomach to Jejunum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168KB	Bypass Stomach to Ileum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168KL	Bypass Stomach to Transverse Colon with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168Z9	Bypass Stomach to Duodenum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168ZA	Bypass Stomach to Jejunum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168ZB	Bypass Stomach to Ileum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
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

Appendix G. International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Claims-Based BMI in this Request

Code	Description	Code Category	Code Type
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 G. International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Claims-Based BMI in this Request

Code	Description	Code Category	Code Type
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

Appendix G. International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Claims-Based BMI in this Request

Code	Description	Code Category	Code Type
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
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
0D760DZ	Dilation of Stomach with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
0D760ZZ	Dilation of Stomach, Open Approach	Procedure	ICD-10-PCS
0D763DZ	Dilation of Stomach with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0D763ZZ	Dilation of Stomach, Percutaneous Approach	Procedure	ICD-10-PCS
0D764DZ	Dilation of Stomach with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D764ZZ	Dilation of Stomach, Percutaneous Endoscopic Approach	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
0DF60ZZ	Fragmentation in Stomach, Open Approach	Procedure	ICD-10-PCS
0DF63ZZ	Fragmentation in Stomach, Percutaneous Approach	Procedure	ICD-10-PCS
0DF64ZZ	Fragmentation in Stomach, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DF67ZZ	Fragmentation in Stomach, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0DF68ZZ	Fragmentation in Stomach, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0DM60ZZ	Reattachment of Stomach, Open Approach	Procedure	ICD-10-PCS
0DM64ZZ	Reattachment of Stomach, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DN60ZZ	Release Stomach, Open Approach	Procedure	ICD-10-PCS
0DN63ZZ	Release Stomach, Percutaneous Approach	Procedure	ICD-10-PCS
0DN64ZZ	Release Stomach, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DN67ZZ	Release Stomach, Via Natural or Artificial Opening	Procedure	ICD-10-PCS

Appendix G. International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Claims-Based BMI in this Request

Code	Description	Code Category	Code Type
ODN68ZZ	Release Stomach, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
ODQ60ZZ	Repair Stomach, Open Approach	Procedure	ICD-10-PCS
ODQ63ZZ	Repair Stomach, Percutaneous Approach	Procedure	ICD-10-PCS
ODQ64ZZ	Repair Stomach, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ODQ67ZZ	Repair Stomach, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODQ68ZZ	Repair Stomach, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
ODU607Z	Supplement Stomach with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ODU60JZ	Supplement Stomach with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
ODU60KZ	Supplement Stomach with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ODU647Z	Supplement Stomach with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ODU64JZ	Supplement Stomach with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ODU64KZ	Supplement Stomach with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ODU677Z	Supplement Stomach with Autologous Tissue Substitute, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODU67JZ	Supplement Stomach with Synthetic Substitute, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODU67KZ	Supplement Stomach with Nonautologous Tissue Substitute, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODU687Z	Supplement Stomach with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
ODU68JZ	Supplement Stomach with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
ODU68KZ	Supplement Stomach with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
ODV60CZ	Restriction of Stomach with Extraluminal Device, Open Approach	Procedure	ICD-10-PCS
ODV60DZ	Restriction of Stomach with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
ODV60ZZ	Restriction of Stomach, Open Approach	Procedure	ICD-10-PCS
ODV63CZ	Restriction of Stomach with Extraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
ODV63DZ	Restriction of Stomach with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
ODV63ZZ	Restriction of Stomach, Percutaneous Approach	Procedure	ICD-10-PCS
ODV64CZ	Restriction of Stomach with Extraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ODV64DZ	Restriction of Stomach with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ODV64ZZ	Restriction of Stomach, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ODV67ZZ	Restriction of Stomach, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODV68ZZ	Restriction of Stomach, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0F190Z3	Bypass Common Bile Duct to Duodenum, Open Approach	Procedure	ICD-10-PCS
OTRB07Z	Replacement of Bladder with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
278.0	Overweight and obesity	Diagnosis	ICD-9-CM
278.00	Obesity, unspecified	Diagnosis	ICD-9-CM
278.01	Morbid obesity	Diagnosis	ICD-9-CM
278.02	Overweight	Diagnosis	ICD-9-CM
278.1	Localized adiposity	Diagnosis	ICD-9-CM
43.89	Open and other partial gastrectomy	Procedure	ICD-9-CM
44.31	High gastric bypass	Procedure	ICD-9-CM

Appendix G. International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Claims-Based BMI in this Request

Code	Description	Code Category	Code Type
44.38	Laparoscopic gastroenterostomy	Procedure	ICD-9-CM
44.39	Other gastroenterostomy without gastrectomy	Procedure	ICD-9-CM
44.68	Laparoscopic gastroplasty	Procedure	ICD-9-CM
44.69	Other repair of stomach	Procedure	ICD-9-CM
44.95	Laparoscopic gastric restrictive procedure	Procedure	ICD-9-CM
45.51	Isolation of segment of small intestine	Procedure	ICD-9-CM
45.91	Small-to-small intestinal anastomosis	Procedure	ICD-9-CM
539.0	Complications of gastric band procedure	Diagnosis	ICD-9-CM
539.01	Infection due to gastric band procedure	Diagnosis	ICD-9-CM
539.09	Other complications of gastric band procedure	Diagnosis	ICD-9-CM
539.8	Complications of other bariatric procedure	Diagnosis	ICD-9-CM
539.81	Infection due to other bariatric procedure	Diagnosis	ICD-9-CM
539.89	Other complications of other bariatric procedure	Diagnosis	ICD-9-CM
649.1	Obesity complicating pregnancy, childbirth, or the puerperium	Diagnosis	ICD-9-CM
649.10	Obesity complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care or not applicable	Diagnosis	ICD-9-CM
649.11	Obesity complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
649.12	Obesity complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
649.13	Obesity complicating pregnancy, childbirth, or the puerperium, antepartum condition or complication	Diagnosis	ICD-9-CM
649.14	Obesity complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
649.2	Bariatric surgery status complicating pregnancy, childbirth, or the puerperium	Diagnosis	ICD-9-CM
649.20	Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care or not applicable	Diagnosis	ICD-9-CM
649.21	Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
649.22	Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
649.23	Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, antepartum condition or complication	Diagnosis	ICD-9-CM
649.24	Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
E65	Localized adiposity	Diagnosis	ICD-10-CM
E66.01	Morbid (severe) obesity due to excess calories	Diagnosis	ICD-10-CM
E66.09	Other obesity due to excess calories	Diagnosis	ICD-10-CM
E66.1	Drug-induced obesity	Diagnosis	ICD-10-CM
E66.3	Overweight	Diagnosis	ICD-10-CM
E66.8	Other obesity	Diagnosis	ICD-10-CM
E66.9	Obesity, unspecified	Diagnosis	ICD-10-CM

Appendix G. International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Claims-Based BMI in this Request

Code	Description	Code Category	Code Type
K95.01	Infection due to gastric band procedure	Diagnosis	ICD-10-CM
K95.09	Other complications of gastric band procedure	Diagnosis	ICD-10-CM
K95.81	Infection due to other bariatric procedure	Diagnosis	ICD-10-CM
K95.89	Other complications of other bariatric procedure	Diagnosis	ICD-10-CM
O99.210	Obesity complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O99.211	Obesity complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99.212	Obesity complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99.213	Obesity complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99.214	Obesity complicating childbirth	Diagnosis	ICD-10-CM
O99.215	Obesity complicating the puerperium	Diagnosis	ICD-10-CM
O99.840	Bariatric surgery status complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O99.841	Bariatric surgery status complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99.842	Bariatric surgery status complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99.843	Bariatric surgery status complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99.844	Bariatric surgery status complicating childbirth	Diagnosis	ICD-10-CM
O99.845	Bariatric surgery status complicating the puerperium	Diagnosis	ICD-10-CM
V45.86	Bariatric surgery status	Diagnosis	ICD-9-CM
Z98.84	Bariatric surgery status	Diagnosis	ICD-10-CM

Appendix H. Clinical Categorization of Body mass index (BMI), Hemoglobin A1C (HbA1c), Creatinine, Glomerular filtration rate (eGFR), and Tobacco records

Condition	
BMI	
1	BMI <18.5
2	BMI ≥18.5 and <25
3	BMI ≥25 and <30
4	BMI ≥30 and <40
5	BMI ≥40 and <70
6	BMI ≥70 and ≤90
7	Patients Missing Both Height and Weight
8	Patients with a Valid Height but Missing Weight
9	Patients with a Valid Weight but Missing Height
10	Patients with Any Missing Definition
Tobacco	
1	Current User
2	Never User
3	Quit/Former User
4	Passive User
5	Environmental Exposure
6	Record Indicates Patient Not Asked
7	Conflicting Records
8	Patients with Missing Tobacco Information
HbA1c	
1	HbA1c ≥2.5 and <5.7
2	HbA1c ≥5.7 and <6.5
3	HbA1c ≥6.5 and <8.0
4	HbA1c ≥8.0 and <9.0
5	HbA1c ≥9.0 and <10.0
6	HbA1c ≥10.0 and <12.5
7	HbA1c ≥12.5 and <15.0
8	HbA1c ≥15.0 and <25.0
9	Patients with Missing HbA1c
Creatinine	
1	Creatinine ≥0.3 and ≤0.8
2	Creatinine >0.8 and ≤0.9
3	Creatinine >0.9 and ≤1.0
4	Creatinine >1.0 and ≤1.2
5	Creatinine >1.2 and ≤1.5
6	Creatinine >1.5 and ≤2.0
7	Creatinine >2.0 and ≤2.5
8	Creatinine >2.5 and ≤3.0
9	Creatinine >3.0 and ≤3.5
10	Creatinine >3.5 and <20
11	Patients with Missing Creatinine
eGFR	
1	eGFR<15
2	eGFR ≥15 and ≤29
3	eGFR ≥30 and ≤44
4	eGFR ≥45 and ≤59
5	eGFR ≥60 and ≤89
6	eGFR ≥90 and ≤200
7	Patients with Missing eGFR

Appendix I. Specifications Defining Parameters in this Request

This requested executed the Cohort Identification and Descriptive Analysis (CIDA) tool version 10.3.2 with ad hoc programming to estimate rates of sodium glucose co-transporter 2 inhibitor

Query period: 03/01/2013 - 06/30/2018
Coverage requirement: Medical & Drug Coverage
Pre-index enrollment requirement: 365 days
Post-index enrollment requirement: 0 days
Enrollment gap: 45 days
Age groups: 20-44, 45-64, 65+ years
Stratifications: Age group, Sex, Calendar year, Race, Ethnicity, Sex*Age Group, Calendar Year* AgeGroup
Censor output categorization: N/A
Restrictions: None

Scenario	Exposure/Event					Inclusion/Exclusion Criteria					
	Index Exposure/ Event	Cohort definition	Washout period (days)	Incident with respect to:	Exclude evidence of days supply if exposure washout includes dispensings	Censor enrollment at evidence of	Inclusion/ Exclusion	Criteria	Evaluation period start (days)	Evaluation period end (days)	Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings
1	SGLT-2 Inhibitors (excluding SGLT- 2i/DPP-4i combination products)	*First valid index date during query period	365	SGLT-2s	*Washout lookback period should search for evidence of days supply;	*Death; *Data Partner End Date; *Query End Date	DPP-4is	*Exclusion	0	0	*Evaluation period should search for only evidence of a dispensing date (same day co- dispensings)
2	Canagliflozin (excluding SGLT- 2i/DPP-4i combination products)	*First valid index date during query period	365	Canagliflozin	*Washout lookback period should search for evidence of days supply;	*Death; *Data Partner End Date; *Query End Date	DPP-4is	*Exclusion	0	0	*Evaluation period should search for only evidence of a dispensing date (same day co- dispensings)
3	Dapagliflozin (excluding SGLT- 2i/DPP-4i combination products)	*First valid index date during query period	365	Dapagliflozin	*Washout lookback period should search for evidence of days supply;	*Death; *Data Partner End Date; *Query End Date	DPP-4is	*Exclusion	0	0	*Evaluation period should search for only evidence of a dispensing date (same day co- dispensings)

Appendix I. Specifications Defining Parameters in this Request

Scenario	Exposure/Event					Inclusion/Exclusion Criteria					
	Index Exposure/ Event	Cohort definition	Washout period (days)	Incident with respect to:	Exclude evidence of days supply if exposure washout includes dispensings	Censor enrollment at evidence of	Inclusion/ Exclusion	Criteria	Evaluation period start (days)	Evaluation period end (days)	Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings
4	Empagliflozin (excluding SGLT- 2i/DPP-4i combination products)	*First valid index date during query period	365	Empagliflozi n	*Washout lookback period should search for evidence of days supply;	*Death; *Data Partner End Date; *Query End Date	DPP-4is	*Exclusion	0	0	*Evaluation period should search for only evidence of a dispensing date (same day co- dispensings)
5	Eturgliflozin (excluding SGLT- 2i/DPP-4i combination products)	*First valid index date during query period	365	Eturgliflozin	*Washout lookback period should search for evidence of days supply;	*Death; *Data Partner End Date; *Query End Date	DPP-4is	*Exclusion	0	0	*Evaluation period should search for only evidence of a dispensing date (same day co- dispensings)
6	Sitagliptin (excluding SGLT- 2i/DPP-4i combination products)	*First valid index date during query period	365	Sitagliptin	*Washout lookback period should search for evidence of days supply;	*Death; *Data Partner End Date; *Query End Date	SGLT-2is	*Exclusion	0	0	*Evaluation period should search for only evidence of a dispensing date (same day co- dispensings)
7	SGLT-2 Inhibitors (excluding SGLT- 2i/DPP-4i combination products)	*First valid index date during query period	0	None	*Washout lookback period should search for evidence of days supply;	*Death; *Data Partner End Date; *Query End Date	DPP-4is	*Exclusion	0	0	*Evaluation period should search for only evidence of a dispensing date (same day co- dispensings)
8	Canagliflozin (excluding SGLT- 2i/DPP-4i combination products)	*First valid index date during query period	0	None	*Washout lookback period should search for evidence of days supply;	*Death; *Data Partner End Date; *Query End Date	DPP-4is	*Exclusion	0	0	*Evaluation period should search for only evidence of a dispensing date (same day co- dispensings)

Appendix I. Specifications Defining Parameters in this Request

Scenario	Exposure/Event					Inclusion/Exclusion Criteria					
	Index Exposure/ Event	Cohort definition	Washout period (days)	Incident with respect to:	Exclude evidence of days supply if exposure washout includes dispensings	Censor enrollment at evidence of	Inclusion/ Exclusion	Criteria	Evaluation period start (days)	Evaluation period end (days)	Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings
9	Dapagliflozin (excluding SGLT- 2i/DPP-4i combination products)	*First valid index date during query period	0	None	*Washout lookback period should search for evidence of days supply;	*Death; *Data Partner End Date; *Query End Date	DPP-4is	*Exclusion	0	0	*Evaluation period should search for only evidence of a dispensing date (same day co- dispensings)
10	Empagliflozin (excluding SGLT- 2i/DPP-4i combination products)	*First valid index date during query period	0	None	*Washout lookback period should search for evidence of days supply;	*Death; *Data Partner End Date; *Query End Date	DPP-4is	*Exclusion	0	0	*Evaluation period should search for only evidence of a dispensing date (same day co- dispensings)
11	Eturgliflozin (excluding SGLT- 2i/DPP-4i combination products)	*First valid index date during query period	0	None	*Washout lookback period should search for evidence of days supply;	*Death; *Data Partner End Date; *Query End Date	DPP-4is	*Exclusion	0	0	*Evaluation period should search for only evidence of a dispensing date (same day co- dispensings)
12	Sitagliptin (excluding SGLT- 2i/DPP-4i combination products)	*First valid index date during query period	0	None	*Washout lookback period should search for evidence of days supply;	*Death; *Data Partner End Date; *Query End Date	SGLT-2is	*Exclusion	0	0	*Evaluation period should search for only evidence of a dispensing date (same day co- dispensings)

National Drug Codes (NDC) are checked against First Data Bank's "National Drug Data File (NDDF®) Plus."

Appendix J. Specifications Defining Baseline Characteristics in this Request

Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
GLP-1 Analogs	N/A	N/A	-365	0	*Evaluation period should search for only evidence of a dispensing date	1	None
SGLT-2is	N/A	N/A	-365	-1	*Evaluation period should search for only evidence of a dispensing date	1	None
DPP-4is	N/A	N/A	-365	-1	*Evaluation period should search for only evidence of a dispensing date	1	None
Thiazolidinediones	N/A	N/A	-365	0	*Evaluation period should search for only evidence of a dispensing date	1	None
Sulfonylureas	N/A	N/A	-365	0	*Evaluation period should search for only evidence of a dispensing date	1	None
Biguanides	N/A	N/A	-365	0	*Evaluation period should search for only evidence of a dispensing date	1	None
Short/Rapid-Acting Insulins	N/A	N/A	-365	0	*Evaluation period should search for only evidence of a dispensing date	1	None
Long/Intermediate-Acting Insulins	N/A	N/A	-365	0	*Evaluation period should search for only evidence of a dispensing date	1	None

Appendix J. Specifications Defining Baseline Characteristics in this Request

Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Diabetes Complication (defined as either renal, neurologic, ocular, or peripheral vascular)	Any	Any	-365	0	N/A	1	N/A
Stroke	Any	Any	-365	0	N/A	1	N/A
Malignancy	Any	Any	-365	0	N/A	1	N/A
Acute Myocardial Infarction	Any	Any	-365	0	N/A	1	N/A
Hypertension/ Hypertensive Disorders	Any	Any	-365	0	N/A	1	N/A
Hypercholesterolemia/ Hyperlipidemia	Any	Any	-365	0	N/A	1	N/A
Alcohol Consumption	Any	Any	-365	0	N/A	1	N/A
Chronic Kidney Disease	Any	Any	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Procedure	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Procedure	Any	N/A	-365	0	N/A	1	N/A
Diagnosis Record for BMI less than 19	Any	Any	-365	0	N/A	1	N/A
Diagnosis Record for BMI 19-24	Any	Any	-365	0	N/A	1	N/A
Diagnosis Record for BMI 25-29	Any	Any	-365	0	N/A	1	N/A
Diagnosis Record for BMI 30-39	Any	Any	-365	0	N/A	1	N/A
Diagnosis Record for BMI 40-69	Any	Any	-365	0	N/A	1	N/A
Diagnosis Record for BMI 70+	Any	Any	-365	0	N/A	1	N/A
Obesity Diagnosis	Any	Any	-365	0	N/A	1	N/A

Appendix J. Specifications Defining Baseline Characteristics in this Request

Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Smoking Diagnosis	Any	Any	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Procedure	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Procedure	Any	N/A	-183	0	N/A	1	N/A
Diagnosis Record for BMI less than 19	Any	Any	-183	0	N/A	1	N/A
Diagnosis Record for BMI 19-24	Any	Any	-183	0	N/A	1	N/A
Diagnosis Record for BMI 25-29	Any	Any	-183	0	N/A	1	N/A
Diagnosis Record for BMI 30-39	Any	Any	-183	0	N/A	1	N/A
Diagnosis Record for BMI 40-69	Any	Any	-183	0	N/A	1	N/A
Diagnosis Record for BMI 70+	Any	Any	-183	0	N/A	1	N/A
Obesity Diagnosis	Any	Any	-183	0	N/A	1	N/A
Smoking Diagnosis	Any	Any	-183	0	N/A	1	N/A
Lab Result from EHR							
Hemoglobin A1c Lab Result 2.5-<5.7%	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 5.7-<6.5%	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 6.5-<8%	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 8-<9%	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 9-<10%	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 10%-<12.5%	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 12.5%-<15%	Any	N/A	-365	0	N/A	1	N/A

Appendix J. Specifications Defining Baseline Characteristics in this Request

Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Hemoglobin A1c Lab Result 15%-25%	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result 0.3-0.8 mg/dL	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >0.8-0.9 mg/dL	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >0.9-1.0 mg/dL	Any	N/A	-365	0	N/A	1	N/A
Creatine Lab Result >1.0-1.2 mg/dL	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >1.2-1.5 mg/dL	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >1.5-2.0 mg/dL	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >2.0-2.5 mg/dL	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >2.5-3.0 mg/dL	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >3.0-3.5 mg/dL	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >3.5-20 mg/dL	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 2.5-<5.7%	Any	N/A	-183	0	N/A	1	N/A
Hemoglobin A1c Lab Result 5.7-<6.5%	Any	N/A	183	0	N/A	1	N/A
Hemoglobin A1c Lab Result 6.5-<8%	Any	N/A	-183	0	N/A	1	N/A
Hemoglobin A1c Lab Result 8-<9%	Any	N/A	183	0	N/A	1	N/A
Hemoglobin A1c Lab Result 9-<10%	Any	N/A	-183	0	N/A	1	N/A
Hemoglobin A1c Lab Result 10%-<12.5%	Any	N/A	-183	0	N/A	1	N/A

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Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Hemoglobin A1c Lab Result 12.5%-<15%	Any	N/A	-183	0	N/A	1	N/A
Hemoglobin A1c Lab Result 15%-25%	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result 0.3-0.8 mg/dL	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result >0.8-0.9 mg/dL	Any	N/A	183	0	N/A	1	N/A
Creatinine Lab Result >0.9-1.0 mg/dL	Any	N/A	-183	0	N/A	1	N/A
Creatine Lab Result >1.0-1.2 mg/dL	Any	N/A	183	0	N/A	1	N/A
Creatinine Lab Result >1.2-1.5 mg/dL	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result >1.5-2.0 mg/dL	Any	N/A	183	0	N/A	1	N/A
Creatinine Lab Result >2.0-2.5 mg/dL	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result >2.5-3.0 mg/dL	Any	N/A	183	0	N/A	1	N/A
Creatinine Lab Result >3.0-3.5 mg/dL	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result >3.5-20 mg/dL	Any	N/A	183	0	N/A	1	N/A
Calculated BMI (HT and WT) from EHR							
Underweight (BMI 15-<18.5 kg/m ²), adult	Any	Any	-365	0	N/A	1	N/A
Normal Weight (18.5 ≤ BMI < 25 mg/m ²), adult	Any	Any	-365	0	N/A	1	N/A
Overweight (25 ≤ BMI < 30 kg/m ²), adult	Any	Any	-365	0	N/A	1	N/A
Obese (BMI 30-<40 kg/m ²), adult	Any	Any	-365	0	N/A	1	N/A

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Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Obese (BMI 40-<70 kg/m ²), adult	Any	Any	-365	0	N/A	1	N/A
Obese (BMI 70-90 kg/m ²), adult	Any	Any	-365	0	N/A	1	N/A
Underweight (BMI 15-<18.5 kg/m ²), adult	Any	Any	-183	0	N/A	1	N/A
Normal Weight (18.5 ≤ BMI < 25 mg/m ²), adult	Any	Any	-183	0	N/A	1	N/A
Overweight (25 ≤ BMI < 30 kg/m ²), adult	Any	Any	-183	0	N/A	1	N/A
Obese (BMI 30-<40 kg/m ²), adult	Any	Any	-183	0	N/A	1	N/A
Obese (BMI 40-<70 kg/m ²), adult	Any	Any	-183	0	N/A	1	N/A
Obese (BMI 70-90 kg/m ²), adult	Any	Any	-183	0	N/A	1	N/A
Tobacco from EHR							
Current user, Tobacco	Any	Any	-365	0	N/A	1	N/A
Never, Tobacco	Any	Any	-365	0	N/A	1	N/A
Quit/former user, Tobacco	Any	Any	-365	0	N/A	1	N/A
Passive, Tobacco	Any	Any	-365	0	N/A	1	N/A
Environmental exposure, Tobacco	Any	Any	-365	0	N/A	1	N/A
Not asked, Tobacco	Any	Any	-365	0	N/A	1	N/A
Conflicting, Tobacco	Any	Any	-365	0	N/A	1	N/A
Current user, Tobacco	Any	Any	-183	0	N/A	1	N/A
Never, Tobacco	Any	Any	-183	0	N/A	1	N/A
Quit/former user, Tobacco	Any	Any	-183	0	N/A	1	N/A
Passive, Tobacco	Any	Any	-183	0	N/A	1	N/A

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Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Environmental exposure, Tobacco	Any	Any	-183	0	N/A	1	N/A
Not asked, Tobacco	Any	Any	-183	0	N/A	1	N/A
Conflicting, Tobacco	Any	Any	-183	0	N/A	1	N/A
BMI/Obesity Correlation Matrix (-365,0)							
No EHR BMI record for 15- <18.5 or BMI 18.5-<25 or BMI 25-<30 or BMI 30-<40 or BMI 40-<70 or BMI 70-90 or Obese (>30) AND Claims BMI record for <19	Any	Any	-365	0	N/A	1	N/A
No EHR BMI record for 15- <18.5 or BMI 18.5-<25 or BMI 25-<30 or BMI 30-<40 or BMI 40-<70 or BMI 70-90 or Obese (>30) AND Claims BMI record for 19-24	Any	Any	-365	0	N/A	1	N/A
No EHR BMI record for 15- <18.5 or BMI 18.5-<25 or BMI 25-<30 or BMI 30-<40 or BMI 40-<70 or BMI 70-90 or Obese (>30) AND Claims BMI record for 25-29	Any	Any	-365	0	N/A	1	N/A

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Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
No EHR BMI record for 15-<18.5 or BMI 18.5-<25 or BMI 25-<30 or BMI 30-<40 or BMI 40-<70 or BMI 70-90 or Obese (>30) AND Claims BMI record for 30-39	Any	Any	-365	0	N/A	1	N/A
No EHR BMI record for <15-<18.5 or BMI 18.5-<25 or BMI 25-<30 or BMI 30-<40 or BMI 40-<70 or BMI 70-90 or Obese (>30) AND Claims BMI record for 40-69	Any	Any	-365	0	N/A	1	N/A
No EHR BMI record for 15-<18.5 or BMI 18.5-<25 or BMI 25-<30 or BMI 30-<40 or BMI 40-<70 or BMI 70-90 or Obese (>30) AND Claims BMI record for >70	Any	Any	-365	0	N/A	1	N/A
No EHR BMI record for 15-<18.5 or BMI 18.5-<25 or BMI 25-<30 or BMI 30-<40 or BMI 40-<70 or BMI 70-90 or Obese (>30) AND Claims BMI record for Obese	Any	Any	-365	0	N/A	1	N/A

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Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
No EHR BMI record for 15- <18.5 or BMI 18.5-<25 or BMI 25-<30 or BMI 30-<40 or BMI 40-<70 or BMI 70-90 or Obese (>30) AND No Claims BMI record for <19-24 or BMI 19-24 or BMI 25-29 or BMI 30-39 or BMI 40-69 or BMI >70 or Obesity	Any	Any	-365	0	N/A	1	N/A
Underweight (BMI 15- <18.5 kg/m ²), adult AND Claims BMI record for <19	Any	Any	-365	0	N/A	1	N/A
Underweight (BMI 15- <18.5 kg/m ²), adult AND Claims BMI record for <19-24	Any	Any	-365	0	N/A	1	N/A
Underweight (BMI 15- <18.5 kg/m ²), adult AND No Claims BMI record for <19-24 or BMI 19-24 or BMI 25-29 or BMI 30-39 or BMI 40-69 or BMI >70 or Obesity	Any	Any	-365	0	N/A	1	N/A
Normal Weight (18.5 ≤ BMI < 25 mg/m ²), adult AND Claims BMI record for <19	Any	Any	-365	0	N/A	1	N/A

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Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Normal Weight (18.5 ≤ BMI < 25 mg/m ²), adult AND Claims BMI record for 19-24	Any	Any	-365	0	N/A	1	N/A
Normal Weight (18.5 ≤ BMI < 25 mg/m ²), adult AND Claims BMI record for 25-29	Any	Any	-365	0	N/A	1	N/A
Normal Weight (18.5 ≤ BMI < 25 mg/m ²), adult AND No Claims BMI record for <19-24 or BMI 19-24 or BMI 25-29 or BMI 30-39 or BMI 40-69 or BMI ≥70 or Obesity	Any	Any	-365	0	N/A	1	N/A
Overweight (25 ≤ BMI < 30 kg/m ²), adult AND Claims BMI record for 19-24	Any	Any	-365	0	N/A	1	N/A
Overweight (25 ≤ BMI < 30 kg/m ²), adult AND Claims BMI record for 25-29	Any	Any	-365	0	N/A	1	N/A
Overweight (25 ≤ BMI < 30 kg/m ²), adult AND Claims BMI record for 30-39	Any	Any	-365	0	N/A	1	N/A
Overweight (25 ≤ BMI < 30 kg/m ²), adult AND Claims BMI record for Obesity	Any	Any	-365	0	N/A	1	N/A

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Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Overweight (25 ≤ BMI < 30 kg/m ²), adult AND No Claims BMI record for <19-24 or BMI 19-24 or BMI 25-29 or BMI 30-39 or BMI 40-69 or BMI ≥70 or Obesity	Any	Any	-365	0	N/A	1	N/A
Obese (BMI 30-<40 kg/m ²), adult AND Claims BMI record for 25-29	Any	Any	-365	0	N/A	1	N/A
Obese (BMI 30-<40 kg/m ²), adult AND Claims BMI record for 30-39	Any	Any	-365	0	N/A	1	N/A
Obese (BMI 30-<40 kg/m ²), adult AND Claims BMI record for 40-69	Any	Any	-365	0	N/A	1	N/A
Obese (BMI 30-<40 kg/m ²), adult AND Claims BMI record for Obesity	Any	Any	-365	0	N/A	1	N/A
Obese (BMI 30-<40 kg/m ²), adult AND No Claims BMI record for <19-24 or BMI 19-24 or BMI 25-29 or BMI 30-39 or BMI 40-69 or BMI ≥70 or Obesity	Any	Any	-365	0	N/A	1	N/A

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Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Obese (BMI 40-<70 kg/m ²), adult AND Claims BMI record for 30-39	Any	Any	-365	0	N/A	1	N/A
Obese (BMI 40-<70 kg/m ²), adult AND Claims BMI record for 40-69	Any	Any	-365	0	N/A	1	N/A
Obese (BMI 40-<70 kg/m ²), adult AND Claims BMI record for 70+	Any	Any	-365	0	N/A	1	N/A
Obese (BMI 40-<70 kg/m ²), adult AND Claims BMI record for Obesity	Any	Any	-365	0	N/A	1	N/A
Obese (BMI 40-<70 kg/m ²), adult AND No Claims BMI record for <19-24 or BMI 19-24 or BMI 25-29 or BMI 30-39 or BMI 40-69 or BMI ≥70 or Obesity	Any	Any	-365	0	N/A	1	N/A
Obese (BMI 70-90 kg/m ²), adult AND Claims BMI record for 40-69	Any	Any	-365	0	N/A	1	N/A
Obese (BMI 70-90 kg/m ²), adult AND Claims BMI record for >70	Any	Any	-365	0	N/A	1	N/A

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Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Obese (BMI 70-90 kg/m2), adult AND Claims BMI record for Obesity	Any	Any	-365	0	N/A	1	N/A
Obese (BMI 70-90 kg/m2), adult AND No Claims BMI record for <19-24 or BM 19-24 or BMI 25-29 or BMI 30-39 or BMI 40-69 or BMI >70 or Obesity	Any	Any	-365	0	N/A	1	N/A
Obese (BMI30-<40 OR BMI 40-<70 OR BMI 70-90 kg/m2), adult AND Claims BMI record for 25-29	Any	Any	-365	0	N/A	1	N/A
Obese (BMI30-<40 OR BMI 40-<70 OR BMI 70-90 kg/m2), adult AND Claims BMI record for 30-39	Any	Any	-365	0	N/A	1	N/A
Obese (BMI30-<40 OR BMI 40-<70 OR BMI 70-90 kg/m2), adult AND Claims BMI record for 40-69	Any	Any	-365	0	N/A	1	N/A
Obese (BMI30-<40 OR BMI 40-<70 OR BMI 70-90 kg/m2), adult AND Claims BMI record for >70	Any	Any	-365	0	N/A	1	N/A

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Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Obese (BMI30-<40 OR BMI 40-<70 OR BMI 70-90 kg/m2), adult AND Claims BMI record for Obesity	Any	Any	-365	0	N/A	1	N/A
Obese (BMI 30-<40 OR BMI 40-<70 OR BMI 70-90 kg/m2), adult AND No Claims BMI record for <19-24 or BMI 19-24 or BMI 25-29 or BMI 30-39 or BMI 40-69 or BMI >70 or Obesity	Any	Any	-365	0	N/A	1	N/A
BMI/Obesity Correlation Matrix (-183,0)							
No EHR BMI record for 15-<18.5 or BMI 18.5-<25 or BMI 25-<30 or BMI 30-<40 or BMI 40-<70 or BMI 70-90 or Obese (>30) AND Claims BMI record for <19	Any	Any	-183	0	N/A	1	N/A
No EHR BMI record for 15-<18.5 or BMI 18.5-<25 or BMI 25-<30 or BMI 30-<40 or BMI 40-<70 or BMI 70-90 or Obese (>30) AND Claims BMI record for 19-24	Any	Any	-183	0	N/A	1	N/A

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Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
No EHR BMI record for 15-<18.5 or BMI 18.5-<25 or BMI 25-<30 or BMI 30-<40 or BMI 40-<70 or BMI 70-90 or Obese (>30) AND Claims BMI record for 25-29	Any	Any	-183	0	N/A	1	N/A
No EHR BMI record for 15-<18.5 or BMI 18.5-<25 or BMI 25-<30 or BMI 30-<40 or BMI 40-<70 or BMI 70-90 or Obese (>30) AND Claims BMI record for 30-39	Any	Any	-183	0	N/A	1	N/A
No EHR BMI record for <15-<18.5 or BMI 18.5-<25 or BMI 25-<30 or BMI 30-<40 or BMI 40-<70 or BMI 70-90 or Obese (>30) AND Claims BMI record for 40-69	Any	Any	-183	0	N/A	1	N/A
No EHR BMI record for 15-<18.5 or BMI 18.5-<25 or BMI 25-<30 or BMI 30-<40 or BMI 40-<70 or BMI 70-90 or Obese (>30) AND Claims BMI record for >70	Any	Any	-183	0	N/A	1	N/A

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Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
No EHR BMI record for 15<18.5 or BMI 18.5-<25 or BMI 25-<30 or BMI 30-<40 or BMI 40-<70 or BMI 70-90 or Obese (>30) AND Claims BMI record for Obese	Any	Any	-183	0	N/A	1	N/A
No EHR BMI record for 15<18.5 or BMI 18.5-<25 or BMI 25-<30 or BMI 30-<40 or BMI 40-<70 or BMI 70-90 or Obese (>30) AND No Claims BMI record for <19-24 or BMI 19-24 or BMI 25-29 or BMI 30-39 or BMI 40-69 or BMI >70 or Obesity	Any	Any	-183	0	N/A	1	N/A
Underweight (BMI 15-<18.5 kg/m2), adult AND Claims BMI record for <19	Any	Any	-183	0	N/A	1	N/A
Underweight (BMI 15<18.5 kg/m2), adult AND Claims BMI record for <19-24	Any	Any	-183	0	N/A	1	N/A
Underweight (BMI 15-<18.5 kg/m2), adult AND No Claims BMI record for <19-24 or BMI 19-24 or BMI 25-29 or BMI 30-39 or BMI 40-69 or BMI >70 or Obesity	Any	Any	-183	0	N/A	1	N/A

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Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Normal Weight ($18.5 \leq \text{BMI} < 25 \text{ mg/m}^2$), adult AND Claims BMI record for <19	Any	Any	-183	0	N/A	1	N/A
Normal Weight ($18.5 \leq \text{BMI} < 25 \text{ mg/m}^2$), adult AND Claims BMI record for 19-24	Any	Any	-183	0	N/A	1	N/A
Normal Weight ($18.5 \leq \text{BMI} < 25 \text{ mg/m}^2$), adult AND Claims BMI record for 25-29	Any	Any	-183	0	N/A	1	N/A
Normal Weight ($18.5 \leq \text{BMI} < 25 \text{ mg/m}^2$), adult AND No Claims BMI record for <19-24 or BMI 19-24 or BMI 25-29 or BMI 30-39 or BMI 40-69 or BMI ≥ 70 or Obesity	Any	Any	-183	0	N/A	1	N/A
Overweight ($25 \leq \text{BMI} < 30 \text{ kg/m}^2$), adult AND Claims BMI record for 19-24	Any	Any	-183	0	N/A	1	N/A
Overweight ($25 \leq \text{BMI} < 30 \text{ kg/m}^2$), adult AND Claims BMI record for 25-29	Any	Any	-183	0	N/A	1	N/A
Overweight ($25 \leq \text{BMI} < 30 \text{ kg/m}^2$), adult AND Claims BMI record for 30-39	Any	Any	-183	0	N/A	1	N/A

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Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Overweight (25 ≤ BMI < 30 kg/m ²), adult AND Claims BMI record for Obesity	Any	Any	-183	0	N/A	1	N/A
Overweight (25 ≤ BMI < 30 kg/m ²), adult AND No Claims BMI record for <19-24 or BMI 19-24 or BMI 25-29 or BMI 30-39 or BMI 40-69 or BMI ≥70 or Obesity	Any	Any	-183	0	N/A	1	N/A
Obese (BMI 30-<40 kg/m ²), adult AND Claims BMI record for 25-29	Any	Any	-183	0	N/A	1	N/A
Obese (BMI 30-<40 kg/m ²), adult AND Claims BMI record for 30-39	Any	Any	-183	0	N/A	1	N/A
Obese (BMI 30-<40 kg/m ²), adult AND Claims BMI record for 40-69	Any	Any	-183	0	N/A	1	N/A
Obese (BMI 30-<40 kg/m ²), adult AND Claims BMI record for Obesity	Any	Any	-183	0	N/A	1	N/A

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Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Obese (BMI 30-<40 kg/m ²), adult AND No Claims BMI record for <19-24 or BMI 19-24 or BMI 25-29 or BMI 30-39 or BMI 40-69 or BMI ≥70 or Obesity	Any	Any	-183	0	N/A	1	N/A
Obese (BMI 40-<70 kg/m ²), adult AND Claims BMI record for 30-39	Any	Any	-183	0	N/A	1	N/A
Obese (BMI 40-<70 kg/m ²), adult AND Claims BMI record for 40-69	Any	Any	-183	0	N/A	1	N/A
Obese (BMI 40-<70 kg/m ²), adult AND Claims BMI record for 70+	Any	Any	-183	0	N/A	1	N/A
Obese (BMI 40-<70 kg/m ²), adult AND Claims BMI record for Obesity	Any	Any	-183	0	N/A	1	N/A
Obese (BMI 40-<70 kg/m ²), adult AND No Claims BMI record for <19-24 or BMI 19-24 or BMI 25-29 or BMI 30-39 or BMI 40-69 or BMI ≥70 or Obesity	Any	Any	-183	0	N/A	1	N/A
Obese (BMI 70-90 kg/m ²), adult AND Claims BMI record for 40-69	Any	Any	-183	0	N/A	1	N/A

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Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Obese (BMI 70-90 kg/m2), adult AND Claims BMI record for >70	Any	Any	-183	0	N/A	1	N/A
Obese (BMI 70-90 kg/m2), adult AND Claims BMI record for Obesity	Any	Any	-183	0	N/A	1	N/A
Obese (BMI 70-90 kg/m2), adult AND No Claims BMI record for <19-24 or BMI 19-24 or BMI 25-29 or BMI 30-39 or BMI 40-69 or BMI >70 or Obesity	Any	Any	-183	0	N/A	1	N/A
Obese (BMI30-<40 OR BMI 40-<70 OR BMI 70-90 kg/m2), adult AND Claims BMI record for 25-29	Any	Any	-183	0	N/A	1	N/A
Obese (BMI30-<40 OR BMI 40-<70 OR BMI 70-90 kg/m2), adult AND Claims BMI record for 30-39	Any	Any	-183	0	N/A	1	N/A
Obese (BMI30-<40 OR BMI 40-<70 OR BMI 70-90 kg/m2), adult AND Claims BMI record for 40-69	Any	Any	-183	0	N/A	1	N/A

Appendix J. Specifications Defining Baseline Characteristics in this Request

Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Obese (BMI30-<40 OR BMI 40-<70 OR BMI 70-90 kg/m2), adult AND Claims BMI record for >70	Any	Any	-183	0	N/A	1	N/A
Obese (BMI30-<40 OR BMI 40-<70 OR BMI 70-90 kg/m2), adult AND Claims BMI record for Obesity	Any	Any	-183	0	N/A	1	N/A
Obese (BMI 30-<40 OR BMI 40-<70 OR BMI 70-90 kg/m2), adult AND No Claims BMI record for <19-24 or BMI 19-24 or BMI 25-29 or BMI 30-39 or BMI 40-69 or BMI >70 or Obesity	Any	Any	-183	0	N/A	1	N/A
Hemoglobin A1c Correlation Matrix							
Hemoglobin A1c Lab Result 2.5%-<5.7% AND Claims record for Hemoglobin A1c Lab	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 5.7-<6.5% AND Claims record for Hemoglobin A1c Lab	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 6.5-<8% AND Claims record for Hemoglobin A1c Lab	Any	N/A	-365	0	N/A	1	N/A

Appendix J. Specifications Defining Baseline Characteristics in this Request

Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Hemoglobin A1c Lab Result 8-<9% AND Claims record for Hemoglobin A1c Lab	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 9-<10% AND Claims record for Hemoglobin A1c Lab	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 10%-<12.5% AND Claims record for Hemoglobin A1c Lab	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 12.5-<15% AND Claims record for Hemoglobin A1c Lab	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 15%-25% AND Claims record for Hemoglobin A1c Lab	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 2.5-<5.7% AND Claims record for NONE Hemoglobin A1c Lab	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 5.7-<6.5% AND Claims record for NONE Hemoglobin A1c Lab	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 6.5-<8% AND Claims record for NONE Hemoglobin A1c Lab	Any	N/A	-365	0	N/A	1	N/A

Appendix J. Specifications Defining Baseline Characteristics in this Request

Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Hemoglobin A1c Lab Result 8-<9% AND Claims record for NONE Hemoglobin A1c Lab	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 9-<10% AND Claims record for NONE Hemoglobin A1c Lab	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 10%-<12.5% AND Claims record for NONE Hemoglobin A1c Lab	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 12.5-<15% AND Claims record for NONE Hemoglobin A1c Lab	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 15%-25% AND Claims record for NONE Hemoglobin A1c Lab	Any	N/A	-365	0	N/A	1	N/A
Hemoglobin A1c Lab Result 2.5%-<5.7% AND Claims record for Hemoglobin A1c Lab	Any	N/A	-183	0	N/A	1	N/A
Hemoglobin A1c Lab Result 5.7-<6.5% AND Claims record for Hemoglobin A1c Lab	Any	N/A	-183	0	N/A	1	N/A

Appendix J. Specifications Defining Baseline Characteristics in this Request

Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Hemoglobin A1c Lab Result 6.5-<8% AND Claims record for Hemoglobin A1c Lab	Any	N/A	-183	0	N/A	1	N/A
Hemoglobin A1c Lab Result 8-<9% AND Claims record for Hemoglobin A1c Lab	Any	N/A	-183	0	N/A	1	N/A
Hemoglobin A1c Lab Result 9-<10% AND Claims record for Hemoglobin A1c Lab	Any	N/A	-183	0	N/A	1	N/A
Hemoglobin A1c Lab Result 10-<12.5% AND Claims record for Hemoglobin A1c Lab	Any	N/A	-183	0	N/A	1	N/A
Hemoglobin A1c Lab Result 12.5-<15% AND Claims record for Hemoglobin A1c Lab	Any	N/A	-183	0	N/A	1	N/A
Hemoglobin A1c Lab Result 15%-25% AND Claims record for Hemoglobin A1c Lab	Any	N/A	-183	0	N/A	1	N/A
Hemoglobin A1c Lab Result 2.5-<5.7% AND Claims record for NONE Hemoglobin A1c Lab	Any	N/A	-183	0	N/A	1	N/A
Hemoglobin A1c Lab Result 5.7-<6.5% AND Claims record for NONE Hemoglobin A1c Lab	Any	N/A	-183	0	N/A	1	N/A

Appendix J. Specifications Defining Baseline Characteristics in this Request

Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Hemoglobin A1c Lab Result 6.5-<8% AND Claims record for NONE Hemoglobin A1c Lab	Any	N/A	-183	0	N/A	1	N/A
Hemoglobin A1c Lab Result 8-<9% AND Claims record for NONE Hemoglobin A1c Lab	Any	N/A	-183	0	N/A	1	N/A
Hemoglobin A1c Lab Result 9-<10% AND Claims record for NONE Hemoglobin A1c Lab	Any	N/A	-183	0	N/A	1	N/A
Hemoglobin A1c Lab Result 10%-<12.5% AND Claims record for NONE Hemoglobin A1c Lab	Any	N/A	-183	0	N/A	1	N/A
Hemoglobin A1c Lab Result 12.5-<15% AND Claims record for NONE Hemoglobin A1c Lab	Any	N/A	-183	0	N/A	1	N/A
Hemoglobin A1c Lab Result 15%-25% AND Claims record for NONE Hemoglobin A1c Lab	Any	N/A	-183	0	N/A	1	N/A
Creatinine Correlation Matrix							
Creatinine Lab Result 0.3-0.8 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A

Appendix J. Specifications Defining Baseline Characteristics in this Request

Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Creatinine Lab Result >0.8-0.9 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >0.9-1.0 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >1.0-1.2 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >1.2-1.5 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >1.5-2.0 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >2.0-2.5 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >2.5-3.0 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >3.0-3.5 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A

Appendix J. Specifications Defining Baseline Characteristics in this Request

Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Creatinine Lab Result >3.5-20 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result 0.3-0.8 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >0.8-0.9 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >0.9-1.0 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A
Creatine Lab Result >1.0-1.2 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >1.2-1.5 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >1.5-2.0 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >2.0-2.5 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A

Appendix J. Specifications Defining Baseline Characteristics in this Request

Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Creatinine Lab Result >2.5-3.0 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >3.0-3.5 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result >3.5-20 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-365	0	N/A	1	N/A
Creatinine Lab Result 0.3-0.8 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result >0.8-0.9 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result >0.9-1.0 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A
Creatine Lab Result >1.0-1.2 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result >1.2-1.5 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A

Appendix J. Specifications Defining Baseline Characteristics in this Request

Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Creatinine Lab Result >1.5-2.0 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result >2.0-2.5 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result >2.5-3.0 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result >3.0-3.5 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result >3.5-20 mg/dL AND Claims record for Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result 0.3-0.8 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result >0.8-0.9 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result >0.9-1.0 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A

Appendix J. Specifications Defining Baseline Characteristics in this Request

Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Creatine Lab Result >1.0-1.2 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result >1.2-1.5 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result >1.5-2.0 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result >2.0-2.5 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result >2.5-3.0 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result >3.0-3.5 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A
Creatinine Lab Result >3.5-20 mg/dL AND Claims record for NONE Creatinine Lab	Any	N/A	-183	0	N/A	1	N/A
Tobacco Use Correlation Matrix							
Current user, Tobacco AND Claims record for smoking/tobacco	Any	Any	-365	0	N/A	1	N/A
Never, Tobacco AND Claims record for smoking/tobacco	Any	Any	-365	0	N/A	1	N/A

Appendix J. Specifications Defining Baseline Characteristics in this Request

Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Quit/former user, Tobacco AND Claims record for smoking/tobacco	Any	Any	-365	0	N/A	1	N/A
Passive, Tobacco AND Claims record for smoking/tobacco	Any	Any	-365	0	N/A	1	N/A
Environmental exposure, Tobacco AND Claims record for smoking/tobacco	Any	Any	-365	0	N/A	1	N/A
Not asked, Tobacco AND Claims record for smoking/tobacco	Any	Any	-365	0	N/A	1	N/A
Conflicting, Tobacco AND Claims record for smoking/tobacco	Any	Any	-365	0	N/A	1	N/A
Current user, Tobacco AND Claims record for NONE smoking/tobacco	Any	Any	-365	0	N/A	1	N/A
Never, Tobacco AND Claims record for NONE smoking/tobacco	Any	Any	-365	0	N/A	1	N/A
Quit/former user, Tobacco AND Claims record for NONE smoking/tobacco	Any	Any	-365	0	N/A	1	N/A
Passive, Tobacco AND Claims record for NONE smoking/tobacco	Any	Any	-365	0	N/A	1	N/A

Appendix J. Specifications Defining Baseline Characteristics in this Request

Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	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
Recorded History Of							
Environmental exposure, Tobacco AND Claims record for NONE smoking/tobacco	Any	Any	-365	0	N/A	1	N/A
Not asked, Tobacco AND Claims record for NONE smoking/tobacco	Any	Any	-365	0	N/A	1	N/A
Conflicting, Tobacco AND Claims record for NONE smoking/tobacco	Any	Any	-365	0	N/A	1	N/A
Current user, Tobacco AND Claims record for smoking/tobacco	Any	Any	-183	0	N/A	1	N/A
Never, Tobacco AND Claims record for smoking/tobacco	Any	Any	-183	0	N/A	1	N/A
Quit/former user, Tobacco AND Claims record for smoking/tobacco	Any	Any	-183	0	N/A	1	N/A
Passive, Tobacco AND Claims record for smoking/tobacco	Any	Any	-183	0	N/A	1	N/A
Environmental exposure, Tobacco AND Claims record for smoking/tobacco	Any	Any	-183	0	N/A	1	N/A
Not asked, Tobacco AND Claims record for smoking/tobacco	Any	Any	-183	0	N/A	1	N/A

Appendix J. Specifications Defining Baseline Characteristics in this Request

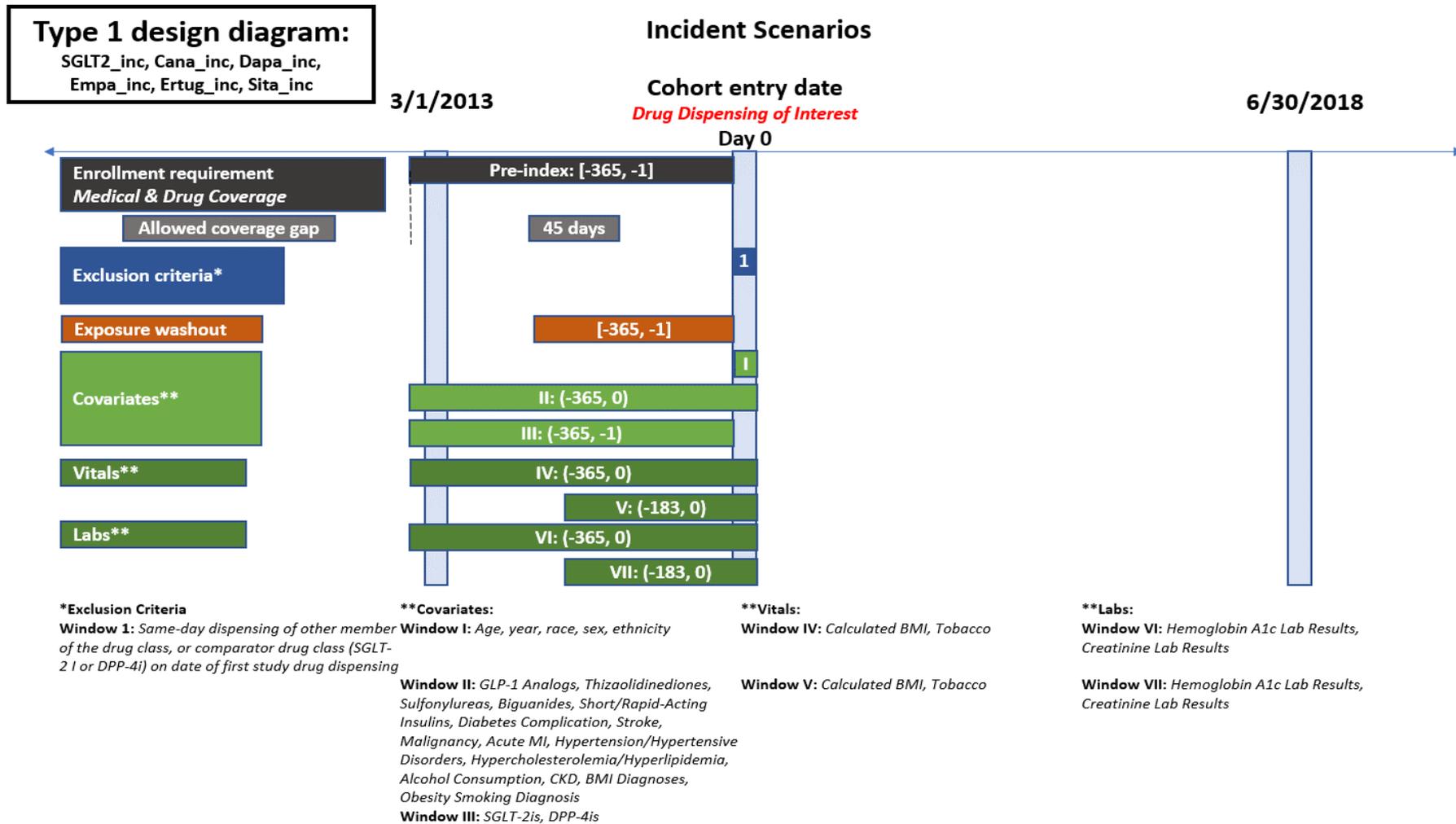
Covariates							
Covariate	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)	Exclude evidence of days supply if covariate includes dispensings	Number of instances the covariate should be found in evaluation period	Forced supply to attach to dispensings
Recorded History Of							
Conflicting, Tobacco AND Claims record for smoking/tobacco	Any	Any	-183	0	N/A	1	N/A
Current user, Tobacco AND Claims record for NONE smoking/tobacco	Any	Any	-183	0	N/A	1	N/A
Never, Tobacco AND Claims record for NONE smoking/tobacco	Any	Any	-183	0	N/A	1	N/A
Quit/former user, Tobacco AND Claims record for NONE smoking/tobacco	Any	Any	-183	0	N/A	1	N/A
Passive, Tobacco AND Claims record for NONE smoking/tobacco	Any	Any	-183	0	N/A	1	N/A
Environmental exposure, Tobacco AND Claims record for NONE smoking/tobacco	Any	Any	-183	0	N/A	1	N/A
Not asked, Tobacco AND Claims record for NONE smoking/tobacco	Any	Any	-183	0	N/A	1	N/A
Conflicting, Tobacco AND Claims record for NONE smoking/tobacco	Any	Any	-183	0	N/A	1	N/A

Appendix K. Specifications Defining Utilization in this Request

Utilization

Medical utilization evaluation period start (days)	Medical utilization evaluation period end (days)	Medical visit care settings	Drug utilization evaluation period start (days)	Drug utilization evaluation period end (days)
-365	0	*Inpatient hospital stay; *Non-acute institutional stay; *Emergency department encounter; *Ambulatory visit; *Other ambulatory visit; *Any care setting	-365	0
-183	0	*Inpatient hospital stay; *Non-acute institutional stay; *Emergency department encounter; *Ambulatory visit; *Other ambulatory visit; *Any care setting	-183	0

Appendix L. Diagram Detailing the Design of the Request



Appendix L. Diagram Detailing the Design of the Request

