

## Disclaimer

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

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

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

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

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## Overview for Request: cder mpl1p wp047, Report 2 of 3

Request ID: cder\_mpl1p\_wp047

Request Description: In this report, we used the Sentinel Distributed Database (SDD) to examine adherence to FDA's
Risk Evaluation and Mitigation Strategy (REMS) absolute neutrophil count (ANC) screening recommendations for clozapine
use. This is report 2 of 3 and contains data returned by Data Partners (DPs) with data from members with Medicaid/CHIP.
Reports 1 and 3 include data from all DPs and members with Medicare Fee-For-Service (FFS), respectively.

<u>Sentinel Routine Querying Module:</u> Cohort Identification and Descriptive Analysis (CIDA) tool, version 11.3.0, with the Multiple Events module and custom programming.

<u>Data Source:</u> We distributed this query to seven Sentinel Data Partners on August 15, 2022. This report includes data from two DPs from October 1, 2015 through December 31, 2019. Of note, there is potential overlap in data from both DPs contributing data from one particular US state's Medicaid program in one year. While we cannot reveal the exact magnitude of the overlap to protect patient privacy, it is <0.8% of the total population presented in this report. Please see Appendix A for a list of dates of available data for each DP.

Study Design: We identified incident clozapine treatment episodes and evaluated ANC screening events in various windows during said episodes among a cohort of members who were at least 12 years of age at the index date, which was defined as the first date of dispensing after all inclusion, exclusion, and washout criteria were met. For each ANC screening evaluation window, we report descriptive statistics on the number of ANC screenings, length of gaps between ANC screenings, and monthly rate of ANC screenings. We use each of these metrics to capture different aspects of adherence to the FDA REMS ANC screening recommendations by reporting the number of clozapine episodes falling into different categories of each metric in the various ANC screening evaluation windows. In addition to describing these adherence metrics overall, this report also stratifies them by various demographic and clinical characteristics at baseline, including U.S. Census Bureau region. We assessed the ANC screening adherence among clozapine episodes from October 1, 2015 to December 31, 2019; and from January 1, 2020 to October 31, 2021. Please see Appendix B for a list of states and territories Included in Each Census Bureau Region. This is a Type 2 analysis with the multiple events add-on in the Query Request Package (QRP) documentation.

<u>Cohort Eligibility Criteria:</u> We required members to be enrolled in health plans with medical and drug coverage in the 30 days prior to the index date and from the index date through the earlier of the end of the ANC screening evaluation window or the end of the exposure episode; gaps in coverage of up to 30 days were allowed and treated as continuous enrollment. The following age groups were included in the cohort: 12-18, 19-35, 36-50, 51-64, 65-74, and 75+ years.

<u>Primary Exposure of Interest:</u> We defined the exposure of interest, clozapine, using outpatient dispensing data and National Drug Codes (NDCs). We defined incident exposure as no prior evidence of clozapine dispensed in the 30 days prior to the first qualifying (index) exposure. Each qualifying dispensing of clozapine (index) was included in the cohort; cohort reentry was allowed. Please see Appendix C for a list of generic and brand names of medical products used to define exposures in this request.

Follow-Up Time: We created exposure episodes based on the number of days of clozapine supplied per dispensing in the outpatient pharmacy dispensing data. If multiple dispensings were supplied on the same day, we used the maximum days supplied to define the episode. We bridged together dispensings separated by gaps of less than 30 days. Minimum clozapine episode length depended on the ANC screening evaluation window being considered and included: 1) at least one day in duration, 2) at least six months in duration (184 days), 3) at least one year in duration (366 days), and 4) at least two years in duration (731 days). Follow-up began on the index date and continued until the first occurrence of: 1) disenrollment; 2) death; 3) the end of the data provided by each Data Partner; 4) the end of the query period; or 5) the end of the clozapine exposure episode.

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Sensitivity Analysis: To assess the impact of a longer clozapine washout period on ANC screening adherence metrics, we also evaluated ANC screening events in the [1, 182] days after index among clozapine episodes of at least one day in duration where only episodes without evidence of clozapine in the six months (183 days) prior to the index exposure were included. In each of the three time periods, members with qualifying exposure episodes were required to be continuously enrolled in the six months (183 days) prior to the index event through the earlier of the end of the ANC screening evaluation window or the end of the exposure episode.

Events of Interest: The event of interest was an ANC screening, defined using Revenue, Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS) procedure codes, as well as Revenue, CPT-4, and HCPCS laboratory codes. We evaluated ANC screenings during different windows relative to the clozapine exposure episode index date (day 0). The ANC screening evaluation window varied for each required minimum clozapine episode duration:

- For clozapine episodes at least one day in duration, the ANC screening evaluation windows were:
  - o [-30, 0] days of clozapine index ("Look 1"), and
  - o [1, 182] days of clozapine index ("Look 2").
- For clozapine episodes at least six months in duration, the ANC screening evaluation windows were:
  - o [1, 182] days of clozapine index ("Look 5") and
  - o [183, 364] days of clozapine index ("Look 3"). .
- For clozapine episodes at least one-year in duration, the ANC screening evaluation windows were:
  - o [183, 364] days of clozapine index ("Look 6") and
  - o [365, 729] days of clozapine index ("Look 6").
- For clozapine episodes at least two years in duration, the ANC screening evaluation window was [365, 729] days of clozapine index ("Look 7").

For Looks 2-7, we required additional continuous enrollment after clozapine index through the end of the ANC screening evaluation window, regardless of when clozapine follow-up ended. Please see Appendix D for the list of Revenue, CPT-4, and HCPCS procedure and laboratory codes used to define ANC screenings in this request.

Adherence Criteria: As mentioned above, we use three metrics to assess various aspects of adherence to the FDA REMS ANC screening recommendations for clozapine users. As in the recommendations, the adherence definitions in this query vary based on duration of clozapine treatment. We report descriptive statistics for each adherence metric, but rather than define clozapine episodes as "adherent" vs. "non-adherent," we additionally report the number of clozapine episodes by classification of each metric as follows:

- All gap lengths between ANC screenings: ≤10 days, ≤17 days, and ≤33 days
- Total number of ANC screenings during evaluation window: At least one and 36 or more
  - o Only reported for Looks 1, 5, 6, and 7 because minimum required clozapine duration ensures comparability across evaluation windows
  - o Further classified as 1-4, 5-7, 8-11, 12-14, 15-20, 25-27, 28-30, 31-35, and ≥36 for Looks 5-7
  - o Further classified as ≥25 for Look 5
  - o Further classified as ≥12 for Looks 6 and 7
- Monthly rate of ANC screenings during evaluation window: ≥1, ≥2, and ≥4 per month
  - o Not reported for Look 1 since no recommendations exist for this evaluation window

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Baseline Characteristics: We assessed recent drug utilization in the 30 days prior to and including the day of clozapine initiation. The specific drugs of interest were: lithium, atypical antipsychotics, typical antipsychotics, any antipsychotic, and antidepressants. We assessed the following clinical characteristics in patients' entire available enrollment history up to and including the day of clozapine initiation using the Chronic Conditions Warehouse (CCW) algorithms1: alcohol use disorders, anxiety disorders, attention-deficit/hyperactivity disorder (ADHD) and other behavioral disorders, ADHD Only subset, bipolar disorders, depression, depressive disorders, drug use disorders, opioid use disorders (including sub-categories), personality disorders, schizophrenia, and schizophrenia and other psychotic disorders. We additionally calculated the Charlson/Elixhauser combined comorbidity score2, and health service utilization over patients' entire available enrollment history. Please see Appendices E and F for a list of generic and brand names of medical products, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), and HCPCS codes used to define baseline characteristics in this request.

Please see Appendices G, H, I, J, and K for the specifications defining parameters and the design diagrams for this request.

<u>Limitations:</u> Algorithms used to define primary events, secondary events, and baseline characteristics are imperfect; thus, it is possible that there may be misclassification. Therefore, data should be interpreted with this limitation in mind.

<u>Notes:</u> Please contact the Sentinel Operations Center (info@sentinelsystem.org) for questions and to provide comments/suggestions for future enhancements to this document. For more information on Sentinel's routine querying modules, please refer to the documentation (https://dev.sentinelsystem.org/projects/SENTINEL/repos/sentinel-routine-querying-tool-documentation/browse).

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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

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.

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**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 **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 - i**ndicator 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.

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<sup>\*</sup>all terms may not be used in this report



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Characteristic <sup>1</sup>	Number	
Number of episodes	25,691	
Number of unique patients	19,293	
Demographics	Mean	Standard Deviation
Mean Age (years)	35.6	13.9
Age (years)	Number	Percent
12-18	2,467	9.6%
19-35	12,576	49.0%
36-50	5,777	22.5%
51-64	4,600	17.9%
65-74	254	1.0%
75+	17	0.1%
Sex		
Female	7,596	39.4%
Male	11,697	60.6%
Unknown	6,104	31.6%
Race		
American Indian or Alaska Native	305	1.6%
Asian	856	4.4%
Black or African American	3,574	18.5%
Native Hawaiian or Other Pacific Islander	78	0.4%
White	8,376	43.4%
Ethnicity	,	
Not Hispanic	13,250	68.7%
Unknown	3,628	18.8%
Hispanic	2,415	12.5%
Year	, -	
2015 Quarter 4	870	3.4%
2016 Quarter 1	2,181	8.5%
2016 Quarter 2	1,879	7.3%
2016 Quarter 3	1,840	7.2%
2016 Quarter 4	1,930	7.5%
2017 Quarter 1	2,414	9.4%
2017 Quarter 2	2,160	8.4%
2017 Quarter 3	2,043	8.0%
2017 Quarter 4	2,121	8.3%
2018 Quarter 1	2,208	8.6%
2018 Quarter 2	1,890	7.4%
2018 Quarter 3	2,092	8.1%
2018 Quarter 4	1,925	7.5%
2019 Quarter 1	34	0.1%
2019 Quarter 2	45	0.2%
2019 Quarter 3	32	0.1%
2019 Quarter 4	27	0.1%

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Table 1A.i: Aggregated Baseline Table for Members with Clozapine Use for at Least 1 Day with Absolute Neutrophil Count (ANC) Screening Events Assessed during the 30 Days Prior to Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 1)

Geographic Census Bureau Region	Number	Percent
Invalid	52	0.2%
Midwest	5,599	21.8%
Missing	0	0.0%
Northeast	6,706	26.1%
Other	88	0.3%
South	7,111	27.7%
West	6,135	23.9%
Evidence of Medical Comorbidities Any Time Through Index Date		
Charlson/Elixhauser Combined Comorbidity Score <sup>3</sup>	2.3	2.1
ADHD Only Subset	2,207	8.6%
ADHD and Other Behavior Disorders	4,831	18.8%
Alcohol Use Disorders	2,650	10.3%
Anxiety Disorders	9,693	37.7%
Bipolar Disorders	9,309	36.2%
Depression	10,915	42.5%
Depressive Disorders	7,555	29.4%
Drug Use Disorders	5,723	22.3%
Opioid Use Disorder (OUD) 1	1,093	4.3%
OUD 2	970	3.8%
OUD 3	848	3.3%
OUD 4	204	0.8%
Personality Disorders	3,215	12.5%
Schizophrenia	20,238	78.8%
Schizophrenia and Other Psychotic Disorders	21,385	83.2%
Evidence of Medical Comorbidities Any Time Through Index Date		
Lithium	4,044	15.7%
Atypical Antipsychotics	11,489	44.7%
Typical Antipsychotics	5,550	21.6%
Any Antipsychotic (Typical or Atypical)	14,074	54.8%
Antidepressants	10,391	40.4%
Healthcare Encounter Utilization at Any Time Through the Index Date	Mean	Standard Deviation
Mean number of ambulatory encounters	75.2	138.1
Mean number of emergency room encounters	3.6	9.4
Mean number of inpatient hospital encounters	1.8	3.6
Mean number of non-acute institutional encounters	0.6	2.4
Mean number of other ambulatory encounters	100.3	175.8

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Table 1A.i: Aggregated Baseline Table for Members with Clozapine Use for at Least 1 Day with Absolute Neutrophil Count (ANC) Screening Events Assessed during the 30 Days Prior to Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 1)

Medical Product Utilization Metrics From 30 Days Prior Through the Index Date	Mean	Standard Deviation
Mean number of unique drug classes	5.3	3.6
Mean number of generics	5.5	3.8
Mean number of filled prescriptions	6.8	5.5

<sup>&</sup>lt;sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and ethnicity which are based on total number of unique patients

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<sup>&</sup>lt;sup>2</sup>The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).



Table 1C.i: Summary of Number of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 1 Day with ANC Screening Events Assessed during the 30 Days Prior to Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 1), by Baseline Characteristic

				Number of Al	NC Screening	;s	
Characteristic <sup>1</sup>	Number		Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Number of episodes	25,691						
Number of unique patients	19,293						
Demographics	Mean	Standard Deviation					
Mean Age (years)	35.6	13.9					
Age (years	Number	Percent					
12-18	2,467	9.6%	1.9	1.3	1	1	2
19-35	12,576	49.0%	1.6	1.0	1	1	2
36-50	5,777	22.5%	1.6	1.0	1	1	2
51-64	4,600	17.9%	1.7	1.3	1	1	2
65-74	254	1.0%	1.8	1.4	1	1	2
75+	17	0.1%	2.4	1.8	1	1	3
Sex							
Female	7,596	39.4%	1.7	1.2	1	1	2
Male	11,697	60.6%	1.6	1.1	1	1	2
Race							
Unknown	6,104	31.6%	1.6	1.1	1	1	2
American Indian or Alaska Native	305	1.6%	1.7	1.2	1	1	2
Asian	856	4.4%	1.5	1.0	1	1	2
Black or African American	3,574	18.5%	1.7	1.2	1	1	2
Native Hawaiian or Other Pacific Islander	78	0.4%	1.5	1.0	1	1	2
White	8,376	43.4%	1.7	1.1	1	1	2
Ethnicity							
Not Hispanic	13,250	68.7%	1.7	1.1	1	1	2
Unknown	3,628	18.8%	1.6	1.1	1	1	2
Hispanic	2,415	12.5%	1.6	1.1	1	1	2
Year							
2015 Quarter 4	870	3.4%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 1	2,181	8.5%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 2	1,879	7.3%	N/A	N/A	N/A	N/A	N/A



Table 1C.i: Summary of Number of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 1 Day with ANC Screening Events Assessed during the 30 Days Prior to Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 1), by Baseline Characteristic

			Number of ANC Screenings				
	Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
2016 Quarter 3	1,840	7.2%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 4	1,930	7.5%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 1	2,414	9.4%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 2	2,160	8.4%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 3	2,043	8.0%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 4	2,121	8.3%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 1	2,208	8.6%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 2	1,890	7.4%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 3	2,092	8.1%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 4	1,925	7.5%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 1	34	0.1%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 2	45	0.2%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 3	32	0.1%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 4	27	0.1%	N/A	N/A	N/A	N/A	N/A
Geographic Census Bureau Region							
Invalid	52	0.2%	1.6	1.1	1	1	2
Missing	0	0.0%					
Midwest	5,599	21.8%	1.8	1.3	1	1	2
Northeast	6,706	26.1%	1.5	0.9	1	1	2
Other	88	0.3%	1.0	0.2	1	1	1
South	7,111	27.7%	1.7	1.1	1	1	2
West	6,135	23.9%	1.7	1.2	1	1	2
<b>Evidence of Medical Comorbidities Any Time Through Index</b>							
Date	Mean	Standard Deviation					
Charlson/Elixhauser Combined Comorbidity Score <sup>3</sup>	2.3	2.1					
	Number	Percent					
ADHD Only Subset	2,207	8.6%	1.8	1.3	1	1	2
ADHD and Other Behavior Disorders	4,831	18.8%	1.8	1.2	1	1	2
Alcohol Use Disorders	2,650	10.3%	1.7	1.2	1	1	2



Table 1C.i: Summary of Number of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 1 Day with ANC Screening Events Assessed during the 30 Days Prior to Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 1), by Baseline Characteristic

			Number of ANC Screenings			
Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
9,693	37.7%	1.8	1.2	1	1	2
9,309	36.2%	1.8	1.3	1	1	2
10,915	42.5%	1.8	1.3	1	1	2
7,555	29.4%	1.8	1.3	1	1	2
5,723	22.3%	1.7	1.2	1	1	2
1,093	4.3%	1.7	1.2	1	1	2
970	3.8%	1.7	1.2	1	1	2
848	3.3%	1.8	1.2	1	1	2
204	0.8%	1.6	1.2	1	1	2
3,215	12.5%	1.9	1.3	1	1	2
20,238	78.8%	1.7	1.1	1	1	2
21,385	83.2%	1.7	1.1	1	1	2
Date						
4,044	15.7%	1.7	1.2	1	1	2
11,489	44.7%	1.7	1.1	1	1	2
5,550	21.6%	1.7	1.1	1	1	2
14,074	54.8%	1.7	1.1	1	1	2
10,391	40.4%	1.6	1.1	1	1	2
Mean	Standard Deviation					
75.2	138.1	N/A*	N/A	N/A	N/A	N/A
3.6	9.4	N/A	N/A	N/A	N/A	N/A
1.8	3.6	N/A	N/A	N/A	N/A	N/A
0.6	2.4	N/A	N/A	N/A	N/A	N/A
100.3	175.8	N/A	N/A	N/A	N/A	N/A
	9,693 9,309 10,915 7,555 5,723 1,093 970 848 204 3,215 20,238 21,385  Date  4,044 11,489 5,550 14,074 10,391  Mean 75.2 3.6 1.8 0.6	9,693 37.7% 9,309 36.2% 10,915 42.5% 7,555 29.4% 5,723 22.3% 1,093 4.3% 970 3.8% 848 3.3% 204 0.8% 3,215 12.5% 20,238 78.8% 21,385 83.2%   Date  4,044 15.7% 11,489 44.7% 5,550 21.6% 14,074 54.8% 10,391 40.4%   Mean Standard Deviation 75.2 138.1 3.6 9.4 1.8 3.6 0.6 2.4	9,693 37.7% 1.8 9,309 36.2% 1.8 10,915 42.5% 1.8 7,555 29.4% 1.8 5,723 22.3% 1.7 1,093 4.3% 1.7 970 3.8% 1.7 848 3.3% 1.8 204 0.8% 1.6 3,215 12.5% 1.9 20,238 78.8% 1.7 21,385 83.2% 1.7  Date  4,044 15.7% 1.7 11,489 44.7% 1.7 5,550 21.6% 1.7 14,074 54.8% 1.7 10,391 40.4% 1.6  Mean Standard Deviation  75.2 138.1 N/A* 3.6 9.4 N/A 1.8 3.6 N/A 0.6 2.4 N/A	Number         Percent         Mean         Standard Deviation           9,693         37.7%         1.8         1.2           9,309         36.2%         1.8         1.3           10,915         42.5%         1.8         1.3           7,555         29.4%         1.8         1.3           5,723         22.3%         1.7         1.2           1,093         4.3%         1.7         1.2           970         3.8%         1.7         1.2           848         3.3%         1.8         1.2           204         0.8%         1.6         1.2           3,215         12.5%         1.9         1.3           20,238         78.8%         1.7         1.1           21,385         83.2%         1.7         1.1           Date           4,044         15.7%         1.7         1.1           1,489         44.7%         1.7         1.1           14,074         54.8%         1.7         1.1           14,074         54.8%         1.7         1.1           10,391         40.4%         1.6         1.1     **Mean Standard Deviation  **This is a	Number         Percent         Mean         Standard Deviation         Quarter 1           9,693         37.7%         1.8         1.2         1           9,309         36.2%         1.8         1.3         1           10,915         42.5%         1.8         1.3         1           7,555         29.4%         1.8         1.3         1           5,723         22.3%         1.7         1.2         1           1,093         4.3%         1.7         1.2         1           970         3.8%         1.7         1.2         1           848         3.3%         1.8         1.2         1           848         3.3%         1.8         1.2         1           3,215         12.5%         1.9         1.3         1           20,238         78.8%         1.7         1.1         1           21,385         83.2%         1.7         1.1         1           Date           4,044         15.7%         1.7         1.1         1           1,4074         54.8%         1.7         1.1         1           14,074         54.8%         1.7	Number         Percent         Mean         Standard Deviation         Quarter 1         Median           9,693         37.7%         1.8         1.2         1         1           9,309         36.2%         1.8         1.3         1         1           10,915         42.5%         1.8         1.3         1         1           7,555         29.4%         1.8         1.3         1         1           5,723         22.3%         1.7         1.2         1         1           1,093         4.3%         1.7         1.2         1         1           970         3.8%         1.7         1.2         1         1           848         3.3%         1.8         1.2         1         1           204         0.8%         1.6         1.2         1         1           3,215         12.5%         1.9         1.3         1         1           20,238         78.8%         1.7         1.1         1         1           21,385         83.2%         1.7         1.1         1         1           4,044         15.7%         1.7         1.1         1         1

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Table 1C.i: Summary of Number of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 1 Day with ANC Screening Events Assessed during the 30 Days Prior to Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 1), by Baseline Characteristic

				Number of A	NC Screening	s	
Medical Product Utilization Metrics From 30 Days Prior							
Through the Index Date	Mean	<b>Standard Deviation</b>	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Mean number of unique drug classes	5.3	3.6	N/A	N/A	N/A	N/A	N/A
Mean number of generics	5.5	3.8	N/A	N/A	N/A	N/A	N/A
Mean number of filled prescriptions	6.8	5.5	N/A	N/A	N/A	N/A	N/A

<sup>&</sup>lt;sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and ethnicity which are based on total number of unique patients

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<sup>&</sup>lt;sup>2</sup>The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).
\*N/A = Not Applicable



Table 1A.j: Aggregated Baseline Table for Members with Clozapine Use for at Least 1 Day with Absolute Neutrophil Count (ANC) Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2)

Characteristic <sup>1</sup>	Number	
Number of episodes	25,691	
Number of unique patients	19,293	
Demographics	Mean	Standard Deviation
Mean Age (years)	35.6	13.9
Age (years)	Number	Percent
12-18	2,467	9.6%
19-35	12,576	49.0%
36-50	5,777	22.5%
51-64	4,600	17.9%
65-74	254	1.0%
75+	17	0.1%
Sex		
Female	7,596	39.4%
Male	11,697	60.6%
Unknown	6,104	31.6%
Race		
American Indian or Alaska Native	305	1.6%
Asian	856	4.4%
Black or African American	3,574	18.5%
Native Hawaiian or Other Pacific Islander	78	0.4%
White	8,376	43.4%
Ethnicity		
Not Hispanic	13,250	68.7%
Unknown	3,628	18.8%
Hispanic	2,415	12.5%
Year		
2015 Quarter 4	870	3.4%
2016 Quarter 1	2,181	8.5%
2016 Quarter 2	1,879	7.3%
2016 Quarter 3	1,840	7.2%
2016 Quarter 4	1,930	7.5%
2017 Quarter 1	2,414	9.4%
2017 Quarter 2	2,160	8.4%
2017 Quarter 3	2,043	8.0%
2017 Quarter 4	2,121	8.3%
2018 Quarter 1	2,208	8.6%
2018 Quarter 2	1,890	7.4%
2018 Quarter 3	2,092	8.1%
2018 Quarter 4	1,925	7.5%
2019 Quarter 1	34	0.1%
2019 Quarter 2	45	0.2%
2019 Quarter 3	32	0.1%
2019 Quarter 4	27	0.1%

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Table 1A.j: Aggregated Baseline Table for Members with Clozapine Use for at Least 1 Day with Absolute Neutrophil Count (ANC) Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2)

Midsuest         5,599         21.8%           Missing         0         0.0%           Other         6,706         26.1%           Other         88         0.3%           South         7,111         27.7%           West         6,135         23.9%           Evidence of Medical Comorbidities Any Time Through Index Date           Charlson/Elikhauser Combined Comorbidity Score*         2.3         2.1           ADHD only Subset         2,207         8.6%           ADHD and Other Behavior Disorders         4,831         18.8%           Alcohol Use Disorders         2,650         10.3%           Alcohol Use Disorders         9,693         37.7%           Bipolar Disorders         9,693         37.7%           Depression         10,915         42.5%           Depression biorders         7,555         29.4%           Drug Use Disorders         5,723         22.3%           Drug Use Disorders         5,723         22.3%           OulD 2         970         3.8%           OulD 3         484         3.3%           OUD 4         204         0.8%           Personality Disorders         21,28         78.8%	Geographic Census Bureau Region	Number	Percent
Missing         0         0.0%           Northeast         6,706         26.1%           Other         88         0.3%           South         7,111         27.7%           West         6,135         23.9%           Evidence of Medical Comorbidities Any Time Through Index Date         3.2         2.1           Charlson/Elixhauser Combined Comorbidity Scores*         2.207         8.6%           ADHD Only Subset         2,207         8.6%           ADHD and Other Behavior Disorders         4,831         18.8%           Alcohol Use Disorders         2,650         10.3%           Alcohol Use Disorders         9,693         37.7%           Bipolar Disorders         9,693         37.7%           Bipolar Disorders         9,693         37.7%           Bipolar Disorders         9,693         37.7%           Depressive Disorders         7,555         29.4%           Depressive Disorders         7,555         29.4%           Drug Use Disorder         10,915         42.5%           Depressive Disorders         5,723         22.3%           Oub 3         848         3.3%           OUD 4         970         3.8%           OUD 3	Invalid	52	0.2%
Northeast         6,706         26.1%           Other         88         0.3%           South         7,111         27.7%           West         6,335         23.9%           Evidence of Medical Comorbidities Any Time Through Index Date           Charlson/Elixhauser Combined Comorbidity Score <sup>2</sup> 2,3         2,1           ADHD Only Subset         2,207         8.6%           ADHD and Other Behavior Disorders         4,831         18.8%           Alcoholl Use Disorders         4,831         18.8%           Alcoholl Use Disorders         9,693         37.7%           Bipolar Disorders         9,693         37.7%           Bipolar Disorders         9,693         37.7%           Depressive Disorders         7,555         29.4%           Depressive Disorders         7,555         29.4%           Drug Use Disorders         5,723         22.3%           Oup 2         970         3.8%           Oup 3         484         3.3%           OUD 4         204         0.8%           Personality Disorders         3,215         12.5%           Schizophrenia         20,238         78.8%           Schizophrenia and Other Psychotic D	Midwest	5,599	21.8%
Other         88         0.3%           South         7,111         27.7%           West         6,155         23.3 %           Evidence of Medical Comorbidities Any Time Through Index Date         Total Control Contro	Missing	0	0.0%
South         7,111         27.7%           West         6,135         23.9%           Evidence of Medical Comorbidities Any Time Through Index Date         Service of Medical Comorbidities Any Time Through Index Date           Charlson/Elixhauser Combined Comorbidity Scores         2.3         2.1           ADHD Only Subset         2,207         8.6%           ADHD and Other Behavior Disorders         4,831         18.8%           Alcohol Use Disorders         9,693         37.7%           Bipolar Disorders         9,693         37.7%           Depression         10,915         42.5%           Depressive Disorders         7,555         29.4%           Drug Use Disorders         7,555         29.4%           Drug Use Disorders         5,723         22.3%           Opioid Use Disorders         5,723         22.3%           OUD 2         970         3.8%           OUD 3         484         3.3%           OUD 4         204         0.8%           Personality Disorders         3,215         12.5%           Schizophrenia         20,238         78.8%           Schizophrenia and Other Psychotic Disorders         21,385         83.2%           Evidence of Medical Comorbidities Any Time	Northeast	6,706	26.1%
West         6,135         23.9%           Evidence of Medical Comorbidities Any Time Through Index Date         Charlson/Elixhauser Combined Comorbidity Score*         2.3         2.1           ADHD Only Subset         2,207         8.6%           ADHD and Other Behavior Disorders         4,831         18.8%           Alcohol Use Disorders         2,650         10.3%           Anxiety Disorders         9,693         37.7%           Bipolar Disorders         9,309         36.2%           Depression         10,915         42.5%           Depression Disorders         7,555         29.4%           Drug Use Disorders         5,723         22.3%           Oppid Use Disorder (OUD) 1         1,093         4.3%           OUD 2         970         3.8%           OUD 3         484         3.3%           OUD 4         970         3.8%           Ochizophrenia         3,215         12.5%           Schizophrenia and Other Psychotic Disorders         21,385         83.2%           Evidence of Medical Comorbidities Any Time Through Index Date         11,489         44.7%           Atypical Antipsychotics         5,550         21.6%           Aprical Antipsychotics         5,550         21.6%	Other	88	0.3%
Evidence of Medical Comorbidities Any Time Through Index Date         2.3         2.1           Charlson/Elixhauser Combined Comorbidity Score³         2,207         8.6%           ADHD only Subset         2,207         8.6%           ADHD and Other Behavior Disorders         4,831         18.8%           Alcohol Use Disorders         2,650         10.3%           Anxiety Disorders         9,693         37.7%           Bipolar Disorders         9,309         36.2%           Depression         10,915         42.5%           Depressive Disorders         7,555         29.4%           Drug Use Disorders         5,723         22.3%           Opicid Use Disorder (OUD) 1         1,093         4.3%           OUD 2         970         3.8%           OUD 3         848         3.3%           OUD 4         204         0.8%           Personality Disorders         3,215         12.5%           Schizophrenia         20,238         78.8%           Schizophrenia and Other Psychotic Disorders         21,385         83.2%           Evidence of Medical Comorbidities Any Time Through Index Date         11,489         44.7%           Typical Antipsychotics         5,550         21.6%	South	7,111	27.7%
Charlson/Elixhauser Combined Comorbidity Score³         2.3         2.1           ADHD Only Subset         2,207         8.6%           ADHD and Other Behavior Disorders         4,831         18.8%           Alcohol Use Disorders         2,650         10.3%           Anxiety Disorders         9,693         37.7%           Bipolar Disorders         9,309         36.2%           Depression         10,915         42.5%           Depressive Disorders         7,555         29.4%           Drug Use Disorders         5,723         22.3%           Opioid Use Disorder (OUD) 1         1,093         4.3%           OUD 2         97         3.8%           OUD 3         848         3.3%           OUD 4         204         0.8%           Personality Disorders         3,215         12.5%           Schizophrenia         20,238         78.8%           Schizophrenia and Other Psychotic Disorders         21,385         83.2%           Evidence of Medical Comorbidities Any Time Through Index Date         11,489         44.7%           Ithium         4,044         15.7%         15,750         21.6%           Any Antipsychotics         5,550         21.6%         21.6% <t< td=""><td>West</td><td>6,135</td><td>23.9%</td></t<>	West	6,135	23.9%
ADHD Only Subset       2,207       8.6%         ADHD and Other Behavior Disorders       4,831       18.8%         Alcohol Use Disorders       2,650       10.3%         Anxiety Disorders       9,309       37.7%         Bipolar Disorders       9,309       36.2%         Depression       10,915       42.5%         Depressive Disorders       7,555       29.4%         Drug Use Disorders       5,723       22.3%         Opioid Use Disorder (OUD) 1       1,093       4.3%         OUD 2       970       3.8%         OUD 3       848       3.3%         OUD 4       204       0.8%         Personality Disorders       3,215       12.5%         Schizophrenia       20,238       78.8%         Schizophrenia and Other Psychotic Disorders       20,238       78.8%         Schizophrenia and Other Psychotic Disorders       21,385       83.2%         Evidence of Medical Comorbidities Any Time Through Index Date       4,044       15.7%         Atypical Antipsychotics       11,489       44.7%         Typical Antipsychotics       5,550       21.6%         Any Antipsychotic (Typical or Atypical)       14,074       54.8%         Antidepressants	Evidence of Medical Comorbidities Any Time Through Index Date		
ADHD and Other Behavior Disorders Alcohol Use Disorders Alcohol Use Disorders Anxiety Disorders Anxiety Disorders Anxiety Disorders Bipolar Disorder Disorder Disorders Bipolar Disorder Disorder Disorder Disorde	Charlson/Elixhauser Combined Comorbidity Score <sup>3</sup>	2.3	2.1
Alcohol Use Disorders       2,650       10.3%         Anxiety Disorders       9,693       37.7%         Bipolar Disorders       9,309       36.2%         Depression       10,915       42.5%         Depressive Disorders       7,555       29.4%         Drug Use Disorders       5,723       22.3%         Opjoid Use Disorder (OUD) 1       1,093       4.3%         OUD 2       970       3.8%         OUD 3       848       3.3%         OUD 4       204       0.8%         Personality Disorders       3,215       12.5%         Schizophrenia       20,238       78.8%         Schizophrenia and Other Psychotic Disorders       21,385       83.2%         Evidence of Medical Comorbidities Any Time Through Index Date       Lithium       4,044       15.7%         Atypical Antipsychotics       11,489       44.7%         Typical Antipsychotics       5,550       21.6%         Any Antipsychotic (Typical or Atypical)       14,074       54.8%         Antidepressants       10,391       40.4%         Mean number of ambulatory encounters       75.2       138.1         Mean number of emergency room encounters       3.6       9.4         Mea	ADHD Only Subset	2,207	8.6%
Anxiety Disorders       9,693       37.7%         Bipolar Disorders       9,309       36.2%         Depression       10,915       42.5%         Depressive Disorders       7,555       29.4%         Drug Use Disorders       5,723       22.3%         Opioid Use Disorder (OUD) 1       1,093       4.3%         OUD 2       970       3.8%         OUD 3       848       3.3%         OUD 4       204       0.8%         Personality Disorders       3,215       12.5%         Schizophrenia       20,238       78.8%         Schizophrenia and Other Psychotic Disorders       21,385       83.2%         Evidence of Medical Comorbidities Any Time Through Index Date       11,489       44.7%         Atypical Antipsychotics       11,489       44.7%         Any Antipsychotic (Typical or Atypical)       14,074       54.8%         Antidepressants       10,391       40.4%         Healthcare Encounter Utilization at Any Time Through the Index Date       Mean       Standard Deviation         Mean number of ambulatory encounters       75.2       138.1         Mean number of emergency room encounters       3.6       9.4         Mean number of inpatient hospital encounters       1.8 <td>ADHD and Other Behavior Disorders</td> <td>4,831</td> <td>18.8%</td>	ADHD and Other Behavior Disorders	4,831	18.8%
Biplolar Disorders       9,309       36.2%         Depression       10,915       42.5%         Depressive Disorders       7,555       29.4%         Drug Use Disorders       5,723       22.3%         Opioid Use Disorder (OUD) 1       1,093       4.3%         OUD 2       970       3.8%         OUD 3       848       3.3%         OUD 4       204       0.8%         Personality Disorders       3,215       12.5%         Schizophrenia       20,238       78.8%         Schizophrenia and Other Psychotic Disorders       21,385       83.2%         Evidence of Medical Comorbidities Any Time Through Index Date       4,044       15.7%         Lithium       4,044       15.7%       44.7%         Atypical Antipsychotics       11,489       44.7%       7         Typical Antipsychotics       5,550       21.6%       2.1         Any Antipsychotic (Typical or Atypical)       14,074       54.8%         Antidepressants       10,391       40.4%         Healthcare Encounter Utilization at Any Time Through the Index Date       Mean       Standard Deviation         Mean number of emergency room encounters       75.2       138.1         Mean number of inpatient hosp	Alcohol Use Disorders	2,650	10.3%
Depression         10,915         42.5%           Depressive Disorders         7,555         29.4%           Drug Use Disorders         5,723         22.3%           Opioid Use Disorder (OUD) 1         1,093         4.3%           OUD 2         970         3.8%           OUD 3         848         3.3%           OUD 4         204         0.8%           Personality Disorders         3,215         12.5%           Schizophrenia         20,238         78.8%           Schizophrenia and Other Psychotic Disorders         20,238         78.8%           Evidence of Medical Comorbidities Any Time Through Index Date         11,489         44.7%           Lithium         4,044         15.7%           Atypical Antipsychotics         11,489         44.7%           Typical Antipsychotics         5,550         21.6%           Any Antipsychotic (Typical or Atypical)         14,074         54.8%           Antidepressants         10,391         40.4%           Healthcare Encounter Utilization at Any Time Through the Index Date         Mean         Standard Deviation           Mean number of emergency room encounters         3.6         9.4           Mean number of inpatient hospital encounters         1.8	Anxiety Disorders	9,693	37.7%
Depressive Disorders         7,555         29.4%           Drug Use Disorders         5,723         22.3%           Opjoid Use Disorder (OUD) 1         1,093         4.3%           OUD 2         970         3.8%           OUD 3         848         3.3%           OUD 4         204         0.8%           Personality Disorders         3,215         12.5%           Schizophrenia         20,238         78.8%           Schizophrenia and Other Psychotic Disorders         21,385         83.2%           Evidence of Medical Comorbidities Any Time Through Index Date         11,489         44.7%           Atypical Antipsychotics         11,489         44.7%           Typical Antipsychotics         5,550         21.6%           Any Antipsychotic (Typical or Atypical)         14,074         54.8%           Antidepressants         10,391         40.4%           Healthcare Encounter Utilization at Any Time Through the Index Date         Mean         Standard Deviation           Mean number of ambulatory encounters         75.2         138.1           Mean number of inpatient hospital encounters         1.8         3.6           Mean number of inpatient hospital encounters         0.6         2.4	Bipolar Disorders	9,309	36.2%
Drug Use Disorders         5,723         22.3%           Opjoid Use Disorder (OUD) 1         1,093         4.3%           OUD 2         970         3.8%           OUD 3         848         3.3%           OUD 4         204         0.8%           Personality Disorders         3,215         12.5%           Schizophrenia         20,238         78.8%           Schizophrenia and Other Psychotic Disorders         21,385         83.2%           Evidence of Medical Comorbidities Any Time Through Index Date         ***         ***           Lithium         4,044         15.7%           Atypical Antipsychotics         11,489         44.7%           Typical Antipsychotics         5,550         21.6%           Any Antipsychotic (Typical or Atypical)         14,074         54.8%           Antidepressants         10,391         40.4%           Healthcare Encounter Utilization at Any Time Through the Index Date         Mean         Standard Deviation           Mean number of ambulatory encounters         75.2         138.1           Mean number of inpatient hospital encounters         1.8         3.6           Mean number of inpatient hospital encounters         0.6         2.4	Depression	10,915	42.5%
Opioid Use Disorder (OUD) 1         1,093         4.3%           OUD 2         970         3.8%           OUD 3         848         3.3%           OUD 4         204         0.8%           Personality Disorders         3,215         12.5%           Schizophrenia         20,238         78.8%           Schizophrenia and Other Psychotic Disorders         21,385         83.2%           Evidence of Medical Comorbidities Any Time Through Index Date         4,044         15.7%           Lithium         4,044         15.7%           Atypical Antipsychotics         11,489         44.7%           Typical Antipsychotics         5,550         21.6%           Any Antipsychotic (Typical or Atypical)         14,074         54.8%           Antidepressants         10,391         40.4%           Healthcare Encounter Utilization at Any Time Through the Index Date         Mean         Standard Deviation           Mean number of ambulatory encounters         75.2         138.1           Mean number of inpatient hospital encounters         3.6         9.4           Mean number of inpatient hospital encounters         1.8         3.6           Mean number of non-acute institutional encounters         0.6         2.4	Depressive Disorders	7,555	29.4%
OUD 2         970         3.8%           OUD 3         848         3.3%           OUD 4         204         0.8%           Personality Disorders         3,215         12.5%           Schizophrenia         20,238         78.8%           Schizophrenia and Other Psychotic Disorders         21,385         83.2%           Evidence of Medical Comorbidities Any Time Through Index Date         ***         ***           Lithium         4,044         15.7%           Atypical Antipsychotics         11,489         44.7%           Typical Antipsychotics         5,550         21.6%           Any Antipsychotic (Typical or Atypical)         14,074         54.8%           Antidepressants         10,391         40.4%           Healthcare Encounter Utilization at Any Time Through the Index Date         Mean         Standard Deviation           Mean number of ambulatory encounters         75.2         138.1           Mean number of inpatient hospital encounters         3.6         9.4           Mean number of inpatient hospital encounters         1.8         3.6           Mean number of non-acute institutional encounters         0.6         2.4	Drug Use Disorders	5,723	22.3%
OUD 3 OUD 4 OUD 4 OUD 4 Personality Disorders 3,215 12.5% Schizophrenia 20,238 78.8% Schizophrenia and Other Psychotic Disorders 21,385 83.2%  Evidence of Medical Comorbidities Any Time Through Index Date Lithium 4,044 15.7% Atypical Antipsychotics 11,489 44.7% Typical Antipsychotics 5,550 21.6% Any Antipsychotic (Typical or Atypical) Antidepressants 10,391 40.4% Healthcare Encounter Utilization at Any Time Through the Index Date Mean number of ambulatory encounters 75.2 138.1 Mean number of emergency room encounters Mean number of inpatient hospital encounters 1.8 Mean number of non-acute institutional encounters 0.6 2.4	Opioid Use Disorder (OUD) 1	1,093	4.3%
OUD 4 204 0.8% Personality Disorders 3,215 12.5% Schizophrenia 20,238 78.8% Schizophrenia and Other Psychotic Disorders 21,385 83.2%  Evidence of Medical Comorbidities Any Time Through Index Date Lithium 4,044 15.7% Atypical Antipsychotics 11,489 44.7% Typical Antipsychotics 5,550 21.6% Any Antipsychotic (Typical or Atypical) 14,074 54.8% Antidepressants 10,391 40.4%  Healthcare Encounter Utilization at Any Time Through the Index Date Mean number of ambulatory encounters 75.2 138.1 Mean number of inpatient hospital encounters 1.8 3.6 Mean number of non-acute institutional encounters 0.6 2.4	OUD 2	970	3.8%
Personality Disorders Schizophrenia Schizophrenia Schizophrenia and Other Psychotic Disorders Schizophrenia and Other Psychotic S Schizophrenia and Other Psychotic S Schizophrenia and Other Psychotic S Schizophrenia and Other Psychotic Psychotic S Schizophrenia and Other Psychotic Insert S Schizophrenia and Other Psychotic Psychotic Psychotic S Schizophrenia and Other Psychotic Psychot	OUD 3	848	3.3%
Schizophrenia 20,238 78.8% Schizophrenia and Other Psychotic Disorders 21,385 83.2%  Evidence of Medical Comorbidities Any Time Through Index Date  Lithium 4,044 15.7% Atypical Antipsychotics 11,489 44.7% Typical Antipsychotics 5,550 21.6% Any Antipsychotic (Typical or Atypical) 14,074 54.8% Antidepressants 10,391 40.4%  Healthcare Encounter Utilization at Any Time Through the Index Date Mean number of ambulatory encounters 75.2 138.1  Mean number of inpatient hospital encounters 3.6 9.4  Mean number of inpatient hospital encounters 1.8 3.6  Mean number of non-acute institutional encounters 0.6 2.4	OUD 4	204	0.8%
Schizophrenia and Other Psychotic Disorders  Evidence of Medical Comorbidities Any Time Through Index Date  Lithium 4,044 15.7%  Atypical Antipsychotics 11,489 44.7%  Typical Antipsychotics 5,550 21.6%  Any Antipsychotic (Typical or Atypical) 14,074 54.8%  Antidepressants 10,391 40.4%  Healthcare Encounter Utilization at Any Time Through the Index Date Mean number of ambulatory encounters 75.2 138.1  Mean number of emergency room encounters 3.6 9.4  Mean number of inpatient hospital encounters 1.8 3.6  Mean number of non-acute institutional encounters 0.6 2.4	Personality Disorders	3,215	12.5%
Evidence of Medical Comorbidities Any Time Through Index Date  Lithium 4,044 15.7%  Atypical Antipsychotics 11,489 44.7%  Typical Antipsychotics 5,550 21.6%  Any Antipsychotic (Typical or Atypical) 14,074 54.8%  Antidepressants 10,391 40.4%  Healthcare Encounter Utilization at Any Time Through the Index Date Mean Number of ambulatory encounters 75.2 138.1  Mean number of emergency room encounters 3.6 9.4  Mean number of inpatient hospital encounters 1.8 3.6  Mean number of non-acute institutional encounters 0.6 2.4	Schizophrenia	20,238	78.8%
Lithium 4,044 15.7% Atypical Antipsychotics 11,489 44.7% Typical Antipsychotics 5,550 21.6% Any Antipsychotic (Typical or Atypical) 14,074 54.8% Antidepressants 10,391 40.4%  Healthcare Encounter Utilization at Any Time Through the Index Date Mean Number of ambulatory encounters 75.2 138.1  Mean number of emergency room encounters 3.6 9.4  Mean number of inpatient hospital encounters 1.8 3.6  Mean number of non-acute institutional encounters 0.6 2.4	Schizophrenia and Other Psychotic Disorders	21,385	83.2%
Atypical Antipsychotics Typical Antipsychotics Any Antipsychotic (Typical or Atypical) Antidepressants 10,391 40.4%  Healthcare Encounter Utilization at Any Time Through the Index Date Mean number of ambulatory encounters Mean number of emergency room encounters Mean number of inpatient hospital encounters Mean number of non-acute institutional encounters  75.2 138.1 Mean number of inpatient hospital encounters 1.8 3.6 Mean number of non-acute institutional encounters 0.6 2.4	Evidence of Medical Comorbidities Any Time Through Index Date		
Typical Antipsychotics 5,550 21.6% Any Antipsychotic (Typical or Atypical) 14,074 54.8% Antidepressants 10,391 40.4%  Healthcare Encounter Utilization at Any Time Through the Index Date Mean Number of ambulatory encounters 75.2 138.1  Mean number of emergency room encounters 3.6 9.4  Mean number of inpatient hospital encounters 1.8 3.6  Mean number of non-acute institutional encounters 0.6 2.4	Lithium	4,044	15.7%
Any Antipsychotic (Typical or Atypical)  Antidepressants  10,391  40.4%  Healthcare Encounter Utilization at Any Time Through the Index Date  Mean number of ambulatory encounters  75.2  138.1  Mean number of emergency room encounters  3.6  9.4  Mean number of inpatient hospital encounters  1.8  3.6  Mean number of non-acute institutional encounters  0.6  2.4	Atypical Antipsychotics	11,489	44.7%
Antidepressants 10,391 40.4%  Healthcare Encounter Utilization at Any Time Through the Index Date Mean Mean Standard Deviation  Mean number of ambulatory encounters 75.2 138.1  Mean number of emergency room encounters 3.6 9.4  Mean number of inpatient hospital encounters 1.8 3.6  Mean number of non-acute institutional encounters 0.6 2.4	Typical Antipsychotics	5,550	21.6%
Healthcare Encounter Utilization at Any Time Through the Index DateMeanStandard DeviationMean number of ambulatory encounters75.2138.1Mean number of emergency room encounters3.69.4Mean number of inpatient hospital encounters1.83.6Mean number of non-acute institutional encounters0.62.4	Any Antipsychotic (Typical or Atypical)	14,074	54.8%
Mean number of ambulatory encounters75.2138.1Mean number of emergency room encounters3.69.4Mean number of inpatient hospital encounters1.83.6Mean number of non-acute institutional encounters0.62.4	Antidepressants	10,391	40.4%
Mean number of emergency room encounters3.69.4Mean number of inpatient hospital encounters1.83.6Mean number of non-acute institutional encounters0.62.4	Healthcare Encounter Utilization at Any Time Through the Index Date	Mean	Standard Deviation
Mean number of inpatient hospital encounters1.83.6Mean number of non-acute institutional encounters0.62.4	Mean number of ambulatory encounters	75.2	138.1
Mean number of non-acute institutional encounters 0.6 2.4	Mean number of emergency room encounters	3.6	9.4
	Mean number of inpatient hospital encounters	1.8	3.6
Mean number of other ambulatory encounters 100.3 175.8	Mean number of non-acute institutional encounters	0.6	2.4
	Mean number of other ambulatory encounters	100.3	175.8

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Table 1A.j: Aggregated Baseline Table for Members with Clozapine Use for at Least 1 Day with Absolute Neutrophil Count (ANC) Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2)

Medical Product Utilization Metrics From 30 Days Prior Through the Index Date	Mean	Standard Deviation
Mean number of unique drug classes	5.3	3.6
Mean number of generics	5.5	3.8
Mean number of filled prescriptions	6.8	5.5

<sup>&</sup>lt;sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and ethnicity which are based on total number of unique patients

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<sup>&</sup>lt;sup>2</sup>The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).



Table 1B.j: Summary of Gap of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 1 Day with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

				Number of A	NC Screening	s	
Characteristic <sup>1</sup>	Number		Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Number of episodes	25,691						
Number of unique patients	19,293						
Demographics	Mean	Standard Deviation					
Mean Age (years)	35.6	13.9					
Age (years	Number	Percent					
12-18	2,467	9.6%	10.9	14.7	7	7	9
19-35	12,576	49.0%	12.0	14.7	7	7	12
36-50	5,777	22.5%	12.5	14.5	7	7	14
51-64	4,600	17.9%	13.2	15.4	7	7	14
65-74	254	1.0%	13.5	15.5	7	7	15
75+	17	0.1%	10.7	11.5	7	7	13
Sex							
Female	7,596	39.4%	12.1	14.8	7	7	13
Male	11,697	60.6%	12.3	14.8	7	7	14
Race							
Unknown	6,104	31.6%	12.0	14.8	7	7	12
American Indian or Alaska Native	305	1.6%	11.7	13.5	7	7	13
Asian	856	4.4%	12.5	15.0	7	7	14
Black or African American	3,574	18.5%	12.7	14.8	7	7	14
Native Hawaiian or Other Pacific Islander	78	0.4%	12.7	14.2	7	7	14
White	8,376	43.4%	12.2	14.8	7	7	13
Ethnicity							
Not Hispanic	13,250	68.7%	12.3	14.8	7	7	14
Unknown	3,628	18.8%	11.8	14.6	7	7	11
Hispanic	2,415	12.5%	12.3	15.1	7	7	13
Year							
2015 Quarter 4	870	3.4%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 1	2,181	8.5%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 2	1,879	7.3%	N/A	N/A	N/A	N/A	N/A



Table 1B.j: Summary of Gap of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 1 Day with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

				s			
	Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
2016 Quarter 3	1,840	7.2%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 4	1,930	7.5%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 1	2,414	9.4%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 2	2,160	8.4%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 3	2,043	8.0%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 4	2,121	8.3%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 1	2,208	8.6%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 2	1,890	7.4%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 3	2,092	8.1%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 4	1,925	7.5%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 1	34	0.1%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 2	45	0.2%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 3	32	0.1%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 4	27	0.1%	N/A	N/A	N/A	N/A	N/A
Geographic Census Bureau Region							
Invalid	52	0.2%	11.8	14.3	6	7	10
Midwest	5,599	21.8%	11.2	13.3	7	7	10
Missing	0	0.0%					
Northeast	6,706	26.1%	13.4	16.5	7	7	14
Other	88	0.3%	31.1	29.4	18	27	32
South	7,111	27.7%	14.0	16.3	7	7	16
West	6,135	23.9%	10.9	13.2	7	7	9
<b>Evidence of Medical Comorbidities Any Time Through Index</b>							
Date	Mean	Standard Deviation					
Charlson/Elixhauser Combined Comorbidity Score <sup>3</sup>	2.3	2.1					
	Number	Percent					
ADHD Only Subset	2,207	8.6%	10.4	13.3	7	7	9
ADHD and Other Behavior Disorders	4,831	18.8%	10.5	13.1	7	7	9
Alcohol Use Disorders	2,650	10.3%	10.3	12.0	6	7	9

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Table 1B.j: Summary of Gap of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 1 Day with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

	Number of ANC Screenings						
	Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Anxiety Disorders	9,693	37.7%	10.5	12.9	6	7	9
Bipolar Disorders	9,309	36.2%	10.8	13.4	6	7	9
Depression	10,915	42.5%	10.7	13.0	6	7	9
Depressive Disorders	7,555	29.4%	10.5	12.9	6	7	9
Drug Use Disorders	5,723	22.3%	10.4	12.4	6	7	9
Opioid Use Disorder (OUD) 1	1,093	4.3%	10.3	12.7	6	7	9
OUD 2	970	3.8%	10.3	12.8	6	7	9
OUD 3	848	3.3%	10.1	12.5	6	7	9
OUD 4	204	0.8%	10.8	13.6	6	7	11
Personality Disorders	3,215	12.5%	10.3	12.7	6	7	9
Schizophrenia	20,238	78.8%	12.1	14.4	7	7	13
Schizophrenia and Other Psychotic Disorders	21,385	83.2%	12.0	14.4	7	7	13
<b>Evidence of Medical Comorbidities Any Time Through Inde</b>	ex Date						
Lithium	4,044	15.7%	11.4	14.6	7	7	10
Atypical Antipsychotics	11,489	44.7%	9.9	12.2	7	7	8
Typical Antipsychotics	5,550	21.6%	10.2	12.6	7	7	8
Any Antipsychotic (Typical or Atypical)	14,074	54.8%	10.3	12.7	7	7	8
Antidepressants	10,391	40.4%	11.3	13.8	7	7	10
Healthcare Encounter Utilization at Any Time Through the	!						
Index Date	Mean	Standard Deviation					
Mean number of ambulatory encounters	75.2	138.1	N/A*	N/A	N/A	N/A	N/A
Mean number of emergency room encounters	3.6	9.4	N/A	N/A	N/A	N/A	N/A
Mean number of inpatient hospital encounters	1.8	3.6	N/A	N/A	N/A	N/A	N/A
Mean number of non-acute institutional encounters	0.6	2.4	N/A	N/A	N/A	N/A	N/A
Mean number of other ambulatory encounters	100.3	175.8	N/A	N/A	N/A	N/A	N/A

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Table 1B.j: Summary of Gap of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 1 Day with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

**Number of ANC Screenings Medical Product Utilization Metrics From 30 Days Prior Through the Index Date Standard Deviation** Quarter 1 Median Quarter 3 Mean **Standard Deviation** Mean Mean number of unique drug classes 5.3 3.6 N/A N/A N/A N/A N/A Mean number of generics 5.5 N/A N/A 3.8 N/A N/A N/A Mean number of filled prescriptions 6.8 5.5 N/A N/A N/A N/A N/A

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<sup>&</sup>lt;sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and ethnicity which are based on total number of unique patients

<sup>&</sup>lt;sup>2</sup>The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).
\*N/A = Not Applicable



Table 1C.j: Summary of Number of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 1 Day with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

				Number of A	NC Screening	;s	
Characteristic <sup>1</sup>	Number		Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Number of episodes	25,691						
Number of unique patients	19,293						
Demographics	Mean	Standard Deviation					
Mean Age (years)	35.6	13.9					
Age (years	Number	Percent					
12-18	2,467	9.6%	10.9	9.1	3	7	19
19-35	12,576	49.0%	9.8	8.7	3	6	16
36-50	5,777	22.5%	9.4	8.4	3	6	14
51-64	4,600	17.9%	9.0	8.1	3	6	13
65-74	254	1.0%	8.6	7.8	3	6	12
75+	17	0.1%	10.9	9.5	3	7	20
Sex							
Female	7,596	39.4%	9.7	8.6	3	6	16
Male	11,697	60.6%	9.6	8.5	3	6	15
Race							
Unknown	6,104	31.6%	10.0	8.7	3	6	17
American Indian or Alaska Native	305	1.6%	10.3	8.4	3	7	18
Asian	856	4.4%	9.6	8.5	3	6	15
Black or African American	3,574	18.5%	8.8	8.0	2	6	13
Native Hawaiian or Other Pacific Islander	78	0.4%	9.2	8.3	2	6	14
White	8,376	43.4%	9.8	8.7	3	6	16
Ethnicity							
Not Hispanic	13,250	68.7%	9.5	8.5	3	6	15
Unknown	3,628	18.8%	10.1	8.8	3	6	17
Hispanic	2,415	12.5%	9.9	8.5	3	6	16
Year							
2015 Quarter 4	870	3.4%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 1	2,181	8.5%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 2	1,879	7.3%	N/A	N/A	N/A	N/A	N/A



Table 1C.j: Summary of Number of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 1 Day with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

				s			
	Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
2016 Quarter 3	1,840	7.2%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 4	1,930	7.5%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 1	2,414	9.4%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 2	2,160	8.4%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 3	2,043	8.0%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 4	2,121	8.3%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 1	2,208	8.6%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 2	1,890	7.4%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 3	2,092	8.1%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 4	1,925	7.5%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 1	34	0.1%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 2	45	0.2%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 3	32	0.1%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 4	27	0.1%	N/A	N/A	N/A	N/A	N/A
Geographic Census Bureau Region							
Invalid	52	0.2%	10.7	8.6	5	7	20
Midwest	5,599	21.8%	10.8	9.0	3	7	19
Missing	0	0.0%					
Northeast	6,706	26.1%	9.0	8.2	2	6	14
Other	88	0.3%	3.4	2.5	1	3	6
South	7,111	27.7%	7.5	7.4	2	5	10
West	6,135	23.9%	11.5	9.0	4	8	20
<b>Evidence of Medical Comorbidities Any Time Through Index</b>							
Date	Mean	Standard Deviation					
Charlson/Elixhauser Combined Comorbidity Score <sup>3</sup>	2.3	2.1					
	Number	Percent					
ADHD Only Subset	2,207	8.6%	10.9	9.1	3	8	19
ADHD and Other Behavior Disorders	4,831	18.8%	10.7	9.0	3	7	19
Alcohol Use Disorders	2,650	10.3%	10.1	8.7	3	7	17



Table 1C.j: Summary of Number of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 1 Day with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

				Number of A	NC Screening	s	
	Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Anxiety Disorders	9,693	37.7%	10.6	8.9	3	7	18
Bipolar Disorders	9,309	36.2%	10.4	8.9	3	7	18
Depression	10,915	42.5%	10.4	8.9	3	7	18
Depressive Disorders	7,555	29.4%	10.4	8.9	3	7	18
Drug Use Disorders	5,723	22.3%	10.3	8.7	3	7	18
Opioid Use Disorder (OUD) 1	1,093	4.3%	9.0	8.4	2	5	15
OUD 2	970	3.8%	9.0	8.5	2	5	14
OUD 3	848	3.3%	8.7	8.3	2	5	14
OUD 4	204	0.8%	9.0	8.3	2	6	14
Personality Disorders	3,215	12.5%	10.7	8.9	3	7	18
Schizophrenia	20,238	78.8%	9.6	8.5	3	6	16
Schizophrenia and Other Psychotic Disorders	21,385	83.2%	9.7	8.6	3	6	16
<b>Evidence of Medical Comorbidities Any Time Through Inde</b>	ex Date						
Lithium	4,044	15.7%	10.7	8.9	3	7	19
Atypical Antipsychotics	11,489	44.7%	12.1	9.4	4	9	22
Typical Antipsychotics	5,550	21.6%	11.8	9.4	3	9	21
Any Antipsychotic (Typical or Atypical)	14,074	54.8%	11.6	9.3	3	8	21
Antidepressants	10,391	40.4%	10.5	8.9	3	7	18
Healthcare Encounter Utilization at Any Time Through the							
Index Date	Mean	<b>Standard Deviation</b>					
Mean number of ambulatory encounters	75.2	138.1	N/A*	N/A	N/A	N/A	N/A
Mean number of emergency room encounters	3.6	9.4	N/A	N/A	N/A	N/A	N/A
Mean number of inpatient hospital encounters	1.8	3.6	N/A	N/A	N/A	N/A	N/A
Mean number of non-acute institutional encounters	0.6	2.4	N/A	N/A	N/A	N/A	N/A
Mean number of other ambulatory encounters	100.3	175.8	N/A	N/A	N/A	N/A	N/A

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Table 1C.j: Summary of Number of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 1 Day with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

	Number of ANC Screenings						
Medical Product Utilization Metrics From 30 Days Prior							
Through the Index Date	Mean	Standard Deviation	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Mean number of unique drug classes	5.3	3.6	N/A	N/A	N/A	N/A	N/A
Mean number of generics	5.5	3.8	N/A	N/A	N/A	N/A	N/A
Mean number of filled prescriptions	6.8	5.5	N/A	N/A	N/A	N/A	N/A

<sup>&</sup>lt;sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and ethnicity which are based on total number of unique patients

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<sup>&</sup>lt;sup>2</sup>The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

<sup>\*</sup>N/A = Not Applicable



Table 1D.j: Summary of Rate of Absolute Neutrophil Count (ANC) Screening Events per Month for Members with Clozapine Use for at Least 1 Day with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

				Number of A	NC Screening	;s	
Characteristic <sup>1</sup>	Number		Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Number of episodes	25,691						
Number of unique patients	19,293						
Demographics	Mean	Standard Deviation					
Mean Age (years)	35.6	13.9					
Age (years	Number	Percent					
12-18	2,467	9.6%	2.6	1.5	1	2.6	4
19-35	12,576	49.0%	2.3	1.6	1	2.1	4
36-50	5,777	22.5%	2.3	1.6	1	1.8	4
51-64	4,600	17.9%	2.2	1.7	1	1.5	3
65-74	254	1.0%	2.1	1.6	1	1.4	3
75+	17	0.1%	2.5	1.5	1	2.5	4
Sex							
Female	7,596	39.4%	2.3	1.6	1	2.0	4
Male	11,697	60.6%	2.3	1.6	1	2.0	4
Race							
Unknown	6,104	31.6%	2.4	1.6	1	2.1	4
American Indian or Alaska Native	305	1.6%	2.4	1.5	1	2.1	4
Asian	856	4.4%	2.3	1.6	1	1.8	4
Black or African American	3,574	18.5%	2.2	1.6	1	1.7	4
Native Hawaiian or Other Pacific Islander	78	0.4%	2.2	1.9	1	2.0	3
White	8,376	43.4%	2.3	1.6	1	2.0	4
Ethnicity	,						
Not Hispanic	13,250	68.7%	2.3	1.6	1	1.9	4
Unknown	3,628	18.8%	2.4	1.6	1	2.1	4
Hispanic	2,415	12.5%	2.3	1.6	1	2.1	4
Year							
2015 Quarter 4	870	3.4%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 1	2,181	8.5%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 2	1,879	7.3%	N/A	N/A	N/A	N/A	N/A



Table 1D.j: Summary of Rate of Absolute Neutrophil Count (ANC) Screening Events per Month for Members with Clozapine Use for at Least 1 Day with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

				Number of A	NC Screening	s	
	Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
2016 Quarter 3	1,840	7.2%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 4	1,930	7.5%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 1	2,414	9.4%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 2	2,160	8.4%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 3	2,043	8.0%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 4	2,121	8.3%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 1	2,208	8.6%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 2	1,890	7.4%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 3	2,092	8.1%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 4	1,925	7.5%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 1	34	0.1%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 2	45	0.2%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 3	32	0.1%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 4	27	0.1%	N/A	N/A	N/A	N/A	N/A
Geographic Census Bureau Region							
Invalid	52	0.2%	2.7	1.6	1	2.9	4
Midwest	5,599	21.8%	2.5	1.7	1	2.3	4
Missing	0	0.0%					
Northeast	6,706	26.1%	2.1	1.5	1	1.6	3
Other	88	0.3%	0.9	0.6	0	1.0	1
South	7,111	27.7%	2.0	1.5	1	1.3	3
West	6,135	23.9%	2.6	1.6	1	2.5	4
<b>Evidence of Medical Comorbidities Any Time Through Index</b>							
Date	Mean	Standard Deviation					
Charlson/Elixhauser Combined Comorbidity Score <sup>3</sup>	2.3	2.1					
	Number	Percent					
ADHD Only Subset	2,207	8.6%	2.7	1.6	1	2.8	4
ADHD and Other Behavior Disorders	4,831	18.8%	2.7	1.7	1	2.7	4
Alcohol Use Disorders	2,650	10.3%	2.8	1.6	1	2.7	4



Table 1D.j: Summary of Rate of Absolute Neutrophil Count (ANC) Screening Events per Month for Members with Clozapine Use for at Least 1 Day with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

				Number of A	NC Screening	s	
	Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Anxiety Disorders	9,693	37.7%	2.7	1.7	1	2.6	4
Bipolar Disorders	9,309	36.2%	2.6	1.7	1	2.5	4
Depression	10,915	42.5%	2.6	1.7	1	2.5	4
Depressive Disorders	7,555	29.4%	2.7	1.7	1	2.7	4
Drug Use Disorders	5,723	22.3%	2.7	1.6	1	2.6	4
Opioid Use Disorder (OUD) 1	1,093	4.3%	2.8	1.8	1	2.6	4
OUD 2	970	3.8%	2.8	1.8	1	2.6	4
OUD 3	848	3.3%	2.8	1.8	1	2.7	4
OUD 4	204	0.8%	2.6	1.5	1	2.5	4
Personality Disorders	3,215	12.5%	2.8	1.7	1	2.8	4
Schizophrenia	20,238	78.8%	2.3	1.6	1	2.0	4
Schizophrenia and Other Psychotic Disorders	21,385	83.2%	2.4	1.6	1	2.1	4
<b>Evidence of Medical Comorbidities Any Time Through Inde</b>	ex Date						
Lithium	4,044	15.7%	2.5	1.6	1	2.3	4
Atypical Antipsychotics	11,489	44.7%	2.8	1.6	1	3.1	4
Typical Antipsychotics	5,550	21.6%	2.8	1.7	1	3.0	4
Any Antipsychotic (Typical or Atypical)	14,074	54.8%	2.7	1.6	1	2.9	4
Antidepressants	10,391	40.4%	2.5	1.6	1	2.3	4
Healthcare Encounter Utilization at Any Time Through the							
Index Date	Mean	Standard Deviation					
Mean number of ambulatory encounters	75.2	138.1	N/A*	N/A	N/A	N/A	N/A
Mean number of emergency room encounters	3.6	9.4	N/A	N/A	N/A	N/A	N/A
Mean number of inpatient hospital encounters	1.8	3.6	N/A	N/A	N/A	N/A	N/A
Mean number of non-acute institutional encounters	0.6	2.4	N/A	N/A	N/A	N/A	N/A
Mean number of other ambulatory encounters	100.3	175.8	N/A	N/A	N/A	N/A	N/A

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Table 1D.j: Summary of Rate of Absolute Neutrophil Count (ANC) Screening Events per Month for Members with Clozapine Use for at Least 1 Day with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

	Number of ANC Screenings						
Medical Product Utilization Metrics From 30 Days Prior							
Through the Index Date	Mean	Standard Deviation	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Mean number of unique drug classes	5.3	3.6	N/A	N/A	N/A	N/A	N/A
Mean number of generics	5.5	3.8	N/A	N/A	N/A	N/A	N/A
Mean number of filled prescriptions	6.8	5.5	N/A	N/A	N/A	N/A	N/A

<sup>&</sup>lt;sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and ethnicity which are based on total number of unique patients

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<sup>&</sup>lt;sup>2</sup>The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

<sup>\*</sup>N/A = Not Applicable



Table 1A.m: Aggregated Baseline Table for Members with Clozapine Use for 183-Day Washout Period with Absolute Neutrophil Count (ANC) Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2)

Characteristic <sup>1</sup>	Number	
Number of episodes	12,071	
Number of unique patients	11,504	
Demographics	Mean	Standard Deviation
Mean Age (years)	33.8	13.6
Age (years)	Number	Percent
12-18	1,503	12.5%
19-35	6,156	51.0%
36-50	2,527	20.9%
51-64	1,802	14.9%
65-74	****	****
75+	****	****
Sex		
Female	4,616	40.1%
Male	6,888	59.9%
Unknown	3,747	32.6%
Race		
American Indian or Alaska Native	209	1.8%
Asian	480	4.2%
Black or African American	2,020	17.6%
Native Hawaiian or Other Pacific Islander	46	0.4%
White	5,002	43.5%
Ethnicity	,	
Not Hispanic	7,808	67.9%
Unknown	2,240	19.5%
Hispanic	1,456	12.7%
Year	_,,,,,	
2015 Quarter 4	434	3.6%
2016 Quarter 1	502	4.2%
2016 Quarter 2	352	2.9%
2016 Quarter 3	903	7.5%
2016 Quarter 4	944	7.8%
2017 Quarter 1	1,064	8.8%
2017 Quarter 2	1,022	8.5%
2017 Quarter 3	1,149	9.5%
2017 Quarter 4	1,250	10.4%
2018 Quarter 1	1,179	9.8%
2018 Quarter 2	1,005	8.3%
2018 Quarter 3	1,124	9.3%
2018 Quarter 4	1,070	8.9%
2019 Quarter 1	13	0.1%
2019 Quarter 2	23	0.2%
2019 Quarter 3	18	0.1%
2019 Quarter 4	19	0.2%

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Table 1A.m: Aggregated Baseline Table for Members with Clozapine Use for 183-Day Washout Period with Absolute Neutrophil Count (ANC) Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2)

Geographic Census Bureau Region	Number	Percent
Invalid	****	****
Midwest	2,719	22.5%
Missing	****	****
Northeast	2,727	22.6%
Other	****	****
South	3,276	27.1%
West	3,316	27.5%
Evidence of Medical Comorbidities Any Time Through Index Date		
Charlson/Elixhauser Combined Comorbidity Score <sup>3</sup>	2.4	2.1
ADHD Only Subset	1,358	11.3%
ADHD and Other Behavior Disorders	2,907	24.1%
Alcohol Use Disorders	1,577	13.1%
Anxiety Disorders	5,664	46.9%
Bipolar Disorders	5,272	43.7%
Depression	6,222	51.5%
Depressive Disorders	4,496	37.2%
Drug Use Disorders	3,420	28.3%
Opioid Use Disorder (OUD) 1	688	5.7%
OUD 2	621	5.1%
OUD 3	552	4.6%
OUD 4	127	1.1%
Personality Disorders	1,848	15.3%
Schizophrenia	9,485	78.6%
Schizophrenia and Other Psychotic Disorders	10,205	84.5%
Evidence of Medical Comorbidities Any Time Through Index Date		
Lithium	2,116	17.5%
Atypical Antipsychotics	7,102	58.8%
Typical Antipsychotics	3,238	26.8%
Any Antipsychotic (Typical or Atypical)	8,199	67.9%
Antidepressants	5,339	44.2%
Healthcare Encounter Utilization at Any Time Through the Index Date	Mean	Standard Deviation
Mean number of ambulatory encounters	84.6	140.6
Mean number of emergency room encounters	4.9	11.5
Mean number of inpatient hospital encounters	2.3	4.1
Mean number of non-acute institutional encounters	0.8	2.0
Mean number of other ambulatory encounters	110.4	176.4

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Table 1A.m: Aggregated Baseline Table for Members with Clozapine Use for 183-Day Washout Period with Absolute Neutrophil Count (ANC) Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2)

Medical Product Utilization Metrics From 30 Days Prior Through the Index Date	Mean	Standard Deviation
Mean number of unique drug classes	5.7	3.7
Mean number of generics	6.0	3.9
Mean number of filled prescriptions	7.6	5.9

<sup>&</sup>lt;sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and ethnicity which are based on total number of unique patients

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<sup>&</sup>lt;sup>2</sup>The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

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



Table 1B.m: Summary of Gap of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for 183-Day Washout Period with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

Characteristic <sup>1</sup>			Number of ANC Screenings					
	Number		Mean	Standard Deviation	Quarter 1	Median	Quarter 3	
Number of episodes	12,071							
Number of unique patients	11,504							
Demographics	Mean	Standard Deviation						
Mean Age (years)	33.8	13.6						
Age (years	Number	Percent						
12-18	1,503	12.5%	9.7	13.2	7	7	8	
19-35	6,156	51.0%	9.9	12.3	7	7	8	
36-50	2,527	20.9%	9.6	11.7	6	7	8	
51-64	1,802	14.9%	10.0	12.7	6	7	8	
65-74	****	****	9.9	13.4	6	7	7	
75+	****	****	9.1	7.4	6	7	8	
Sex								
Female	4,616	40.1%	9.7	12.3	6	7	8	
Male	6,888	59.9%	9.9	12.3	7	7	8	
Race								
Unknown	3,747	32.6%	9.9	12.3	7	7	8	
American Indian or Alaska Native	209	1.8%	9.2	10.2	7	7	8	
Asian	480	4.2%	10.0	12.6	7	7	8	
Black or African American	2,020	17.6%	10.1	12.6	6	7	8	
Native Hawaiian or Other Pacific Islander	46	0.4%	9.9	10.8	7	7	10	
White	5,002	43.5%	9.7	12.3	7	7	8	
Ethnicity	,							
Not Hispanic	7,808	67.9%	9.8	12.3	7	7	8	
Unknown	2,240	19.5%	9.8	12.2	7	7	8	
Hispanic	1,456	12.7%	10.0	12.6	7	7	8	
Year								
2015 Quarter 4	434	3.6%	N/A	N/A	N/A	N/A	N/A	
2016 Quarter 1	502	4.2%	N/A	N/A	N/A	N/A	N/A	
2016 Quarter 2	352	2.9%	N/A	N/A	N/A	N/A	N/A	



Table 1B.m: Summary of Gap of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for 183-Day Washout Period with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

			Number of ANC Screenings				
	Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
2016 Quarter 3	903	7.5%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 4	944	7.8%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 1	1,064	8.8%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 2	1,022	8.5%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 3	1,149	9.5%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 4	1,250	10.4%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 1	1,179	9.8%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 2	1,005	8.3%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 3	1,124	9.3%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 4	1,070	8.9%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 1	13	0.1%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 2	23	0.2%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 3	18	0.1%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 4	19	0.2%	N/A	N/A	N/A	N/A	N/A
Geographic Census Bureau Region							
Invalid	****	****	10.0	15.4	7	7	7
Midwest	2,719	22.5%	9.0	10.5	6	7	8
Missing	****	****					
Northeast	2,727	22.6%	10.5	13.6	7	7	9
Other	****	****	35.0	40.1	10	18	53
South	3,276	27.1%	11.1	14.2	7	7	10
West	3,316	27.5%	9.3	11.4	7	7	8
Evidence of Medical Comorbidities Any Time Through Index							
Date	Mean	Standard Deviation					
Charlson/Elixhauser Combined Comorbidity Score <sup>3</sup>	2.4	2.1					
	Number	Percent					
ADHD Only Subset	1,358	11.3%	9.1	11.4	7	7	8
ADHD and Other Behavior Disorders	2,907	24.1%	9.2	11.3	6	7	8
Alcohol Use Disorders	1,577	13.1%	9.0	10.4	6	7	8



Table 1B.m: Summary of Gap of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for 183-Day Washout Period with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

				Number of A	NC Screening	s	
	Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Anxiety Disorders	5,664	46.9%	9.2	11.1	6	7	8
Bipolar Disorders	5,272	43.7%	9.2	11.3	6	7	8
Depression	6,222	51.5%	9.2	11.1	6	7	8
Depressive Disorders	4,496	37.2%	9.1	11.1	6	7	8
Drug Use Disorders	3,420	28.3%	9.2	10.9	6	7	8
Opioid Use Disorder (OUD) 1	688	5.7%	8.9	10.3	6	7	8
OUD 2	621	5.1%	8.9	10.7	6	7	8
OUD 3	552	4.6%	8.9	10.4	6	7	8
OUD 4	127	1.1%	9.3	10.4	6	7	9
Personality Disorders	1,848	15.3%	8.9	10.6	6	7	8
Schizophrenia	9,485	78.6%	9.8	12.0	7	7	8
Schizophrenia and Other Psychotic Disorders	10,205	84.5%	9.7	12.0	7	7	8
<b>Evidence of Medical Comorbidities Any Time Through Ind</b>	ex Date						
Lithium	2,116	17.5%	9.6	12.5	7	7	8
Atypical Antipsychotics	7,102	58.8%	8.7	10.5	6	7	7
Typical Antipsychotics	3,238	26.8%	8.9	10.7	6	7	7
Any Antipsychotic (Typical or Atypical)	8,199	67.9%	8.9	10.7	6	7	8
Antidepressants	5,339	44.2%	9.3	11.3	6	7	8
Healthcare Encounter Utilization at Any Time Through the							
Index Date	Mean	<b>Standard Deviation</b>					
Mean number of ambulatory encounters	84.6	140.6	N/A*	N/A	N/A	N/A	N/A
Mean number of emergency room encounters	4.9	11.5	N/A	N/A	N/A	N/A	N/A
Mean number of inpatient hospital encounters	2.3	4.1	N/A	N/A	N/A	N/A	N/A
Mean number of non-acute institutional encounters	0.8	2.0	N/A	N/A	N/A	N/A	N/A
Mean number of other ambulatory encounters	110.4	176.4	N/A	N/A	N/A	N/A	N/A



Table 1B.m: Summary of Gap of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for 183-Day Washout Period with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

				Number of A	NC Screening	S	
Medical Product Utilization Metrics From 30 Days Prior							
Through the Index Date	Mean	Standard Deviation	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Mean number of unique drug classes	5.7	3.7	N/A	N/A	N/A	N/A	N/A
Mean number of generics	6.0	3.9	N/A	N/A	N/A	N/A	N/A
Mean number of filled prescriptions	7.6	5.9	N/A	N/A	N/A	N/A	N/A

<sup>&</sup>lt;sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and ethnicity which are based on total number of unique patients

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<sup>&</sup>lt;sup>2</sup>The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

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

<sup>\*</sup>N/A = Not Applicable



Table 1C.m: Summary of Number of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for 183-Day Washout Period with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

			Number of ANC Screenings							
Characteristic <sup>1</sup>	Number		Mean	Standard Deviation	Quarter 1	Median	Quarter 3			
Number of episodes	12,071									
Number of unique patients	11,504									
Demographics	Mean	Standard Deviation								
Mean Age (years)	33.8	13.6								
Age (years	Number	Percent								
12-18	1,503	12.5%	12.5	9.3	4	11	22			
19-35	6,156	51.0%	11.8	9.3	3	9	21			
36-50	2,527	20.9%	11.9	9.5	3	9	22			
51-64	1,802	14.9%	11.0	9.2	3	8	20			
65-74	****	****	11.4	9.5	3	8	22			
75+	****	****	12.6	9.8	6	7	20			
Sex										
Female	4,616	40.1%	11.8	9.4	3	9	21			
Male	6,888	59.9%	11.7	9.3	3	9	21			
Race										
Unknown	3,747	32.6%	11.9	9.3	3	9	21			
American Indian or Alaska Native	209	1.8%	12.5	9.1	3	12	22			
Asian	480	4.2%	12.0	9.4	3	10	22			
Black or African American	2,020	17.6%	10.8	9.0	3	7	19			
Native Hawaiian or Other Pacific Islander	46	0.4%	12.4	9.2	3	11.5	22			
White	5,002	43.5%	12.0	9.4	3	9	21			
Ethnicity										
Not Hispanic	7,808	67.9%	11.7	9.3	3	9	21			
Unknown	2,240	19.5%	11.9	9.3	3	9	22			
Hispanic	1,456	12.7%	12.0	9.2	3	10	21			
Year										
2015 Quarter 4	434	3.6%	N/A	N/A	N/A	N/A	N/A			
2016 Quarter 1	502	4.2%	N/A	N/A	N/A	N/A	N/A			
2016 Quarter 2	352	2.9%	N/A	N/A	N/A	N/A	N/A			



Table 1C.m: Summary of Number of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for 183-Day Washout Period with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

			Number of ANC Screenings						
	Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3		
2016 Quarter 3	903	7.5%	N/A	N/A	N/A	N/A	N/A		
2016 Quarter 4	944	7.8%	N/A	N/A	N/A	N/A	N/A		
2017 Quarter 1	1,064	8.8%	N/A	N/A	N/A	N/A	N/A		
2017 Quarter 2	1,022	8.5%	N/A	N/A	N/A	N/A	N/A		
2017 Quarter 3	1,149	9.5%	N/A	N/A	N/A	N/A	N/A		
2017 Quarter 4	1,250	10.4%	N/A	N/A	N/A	N/A	N/A		
2018 Quarter 1	1,179	9.8%	N/A	N/A	N/A	N/A	N/A		
2018 Quarter 2	1,005	8.3%	N/A	N/A	N/A	N/A	N/A		
2018 Quarter 3	1,124	9.3%	N/A	N/A	N/A	N/A	N/A		
2018 Quarter 4	1,070	8.9%	N/A	N/A	N/A	N/A	N/A		
2019 Quarter 1	13	0.1%	N/A	N/A	N/A	N/A	N/A		
2019 Quarter 2	23	0.2%	N/A	N/A	N/A	N/A	N/A		
2019 Quarter 3	18	0.1%	N/A	N/A	N/A	N/A	N/A		
2019 Quarter 4	19	0.2%	N/A	N/A	N/A	N/A	N/A		
Geographic Census Bureau Region									
Invalid	****	****	12.5	9.5	5	8	22		
Midwest	2,719	22.5%	13.3	9.7	4	12	23		
Missing	****	****							
Northeast	2,727	22.6%	11.3	9.0	3	8	20		
Other	****	****	1.3	0.6	1	1	2		
South	3,276	27.1%	9.2	8.5	2	6	15		
West	3,316	27.5%	13.1	9.4	4	12	23		
<b>Evidence of Medical Comorbidities Any Time Through Index</b>									
Date	Mean	Standard Deviation							
Charlson/Elixhauser Combined Comorbidity Score <sup>3</sup>	2.4	2.1							
	Number	Percent							
ADHD Only Subset	1,358	11.3%	12.8	9.4	4	11	22		
ADHD and Other Behavior Disorders	2,907	24.1%	12.4	9.4	3	10	22		
Alcohol Use Disorders	1,577	13.1%	11.6	9.1	3	9	20		

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Table 1C.m: Summary of Number of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for 183-Day Washout Period with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

			Number of ANC Screenings					
	Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3	
Anxiety Disorders	5,664	46.9%	12.1	9.4	3	10	21	
Bipolar Disorders	5,272	43.7%	12.1	9.4	3	10	22	
Depression	6,222	51.5%	12.0	9.3	3	10	21	
Depressive Disorders	4,496	37.2%	11.8	9.3	3	9	21	
Drug Use Disorders	3,420	28.3%	11.7	9.2	3	9	21	
Opioid Use Disorder (OUD) 1	688	5.7%	10.4	9.2	2	7	19	
OUD 2	621	5.1%	10.3	9.2	2	6	18	
OUD 3	552	4.6%	9.7	9.0	2	5	17	
OUD 4	127	1.1%	10.1	8.8	2	6.5	16	
Personality Disorders	1,848	15.3%	12.2	9.5	3	10	22	
Schizophrenia	9,485	78.6%	11.7	9.2	3	9	21	
Schizophrenia and Other Psychotic Disorders	10,205	84.5%	11.8	9.3	3	9	21	
<b>Evidence of Medical Comorbidities Any Time Through Index</b>	x Date							
Lithium	2,116	17.5%	12.6	9.4	4	11	22	
Atypical Antipsychotics	7,102	58.8%	13.5	9.6	4	13	23	
Typical Antipsychotics	3,238	26.8%	13.3	9.6	4	12	23	
Any Antipsychotic (Typical or Atypical)	8,199	67.9%	13.3	9.5	4	12	23	
Antidepressants	5,339	44.2%	12.4	9.5	3	10	22	
Healthcare Encounter Utilization at Any Time Through the								
Index Date	Mean	Standard Deviation						
Mean number of ambulatory encounters	84.6	140.6	N/A*	N/A	N/A	N/A	N/A	
Mean number of emergency room encounters	4.9	11.5	N/A	N/A	N/A	N/A	N/A	
Mean number of inpatient hospital encounters	2.3	4.1	N/A	N/A	N/A	N/A	N/A	
Mean number of non-acute institutional encounters	0.8	2.0	N/A	N/A	N/A	N/A	N/A	
Mean number of other ambulatory encounters	110.4	176.4	N/A	N/A	N/A	N/A	N/A	

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Table 1C.m: Summary of Number of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for 183-Day Washout Period with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

				Number of A	NC Screening	S	
Medical Product Utilization Metrics From 30 Days Prior							
Through the Index Date	Mean	Standard Deviation	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Mean number of unique drug classes	5.7	3.7	N/A	N/A	N/A	N/A	N/A
Mean number of generics	6.0	3.9	N/A	N/A	N/A	N/A	N/A
Mean number of filled prescriptions	7.6	5.9	N/A	N/A	N/A	N/A	N/A

<sup>&</sup>lt;sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and ethnicity which are based on total number of unique patients

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<sup>&</sup>lt;sup>2</sup>The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

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

<sup>\*</sup>N/A = Not Applicable



Table 1D.m: Summary of Rate of Absolute Neutrophil Count (ANC) Screening Events per Month for Members with Clozapine Use for 183-Day Washout Period with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

				Number of A	NC Screening	s	
Characteristic <sup>1</sup>	Number		Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Number of episodes	12,071						
Number of unique patients	11,504						
Demographics	Mean	Standard Deviation					
Mean Age (years)	33.8	13.6					
Age (years	Number	Percent					
12-18	1,503	12.5%	2.9	1.5	2	3.2	4
19-35	6,156	51.0%	2.8	1.6	1	3.0	4
36-50	2,527	20.9%	2.9	1.6	1	3.1	4
51-64	1,802	14.9%	2.9	1.8	1	3.0	4
65-74	****	****	2.8	1.7	1	2.5	4
75+	****	****	3.0	1.4	2	3.6	4
Sex							
Female	4,616	40.1%	2.9	1.6	1	3.1	4
Male	6,888	59.9%	2.8	1.6	1	3.1	4
Race							
Unknown	3,747	32.6%	2.9	1.6	1	3.1	4
American Indian or Alaska Native	209	1.8%	3.0	1.4	2	3.3	4
Asian	480	4.2%	2.8	1.6	1	3.0	4
Black or African American	2,020	17.6%	2.8	1.6	1	3.0	4
Native Hawaiian or Other Pacific Islander	46	0.4%	2.7	1.3	2	2.9	4
White	5,002	43.5%	2.9	1.6	1	3.1	4
Ethnicity							
Not Hispanic	7,808	67.9%	2.8	1.6	1	3.1	4
Unknown	2,240	19.5%	2.9	1.6	1	3.2	4
Hispanic	1,456	12.7%	2.8	1.6	2	3.1	4
Year							
2015 Quarter 4	434	3.6%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 1	502	4.2%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 2	352	2.9%	N/A	N/A	N/A	N/A	N/A



Table 1D.m: Summary of Rate of Absolute Neutrophil Count (ANC) Screening Events per Month for Members with Clozapine Use for 183-Day Washout Period with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

				Number of A			
	Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
2016 Quarter 3	903	7.5%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 4	944	7.8%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 1	1,064	8.8%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 2	1,022	8.5%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 3	1,149	9.5%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 4	1,250	10.4%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 1	1,179	9.8%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 2	1,005	8.3%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 3	1,124	9.3%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 4	1,070	8.9%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 1	13	0.1%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 2	23	0.2%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 3	18	0.1%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 4	19	0.2%	N/A	N/A	N/A	N/A	N/A
Geographic Census Bureau Region							
Invalid	****	****	2.9	1.6	1	3.6	4
Midwest	2,719	22.5%	3.1	1.6	2	3.6	4
Missing	****	****					
Northeast	2,727	22.6%	2.7	1.6	1	2.8	4
Other	****	****	1.1	1.1	0	1.0	2
South	3,276	27.1%	2.5	1.6	1	2.3	4
West	3,316	27.5%	3.0	1.6	2	3.3	4
<b>Evidence of Medical Comorbidities Any Time Through Index</b>							
Date	Mean	Standard Deviation					
Charlson/Elixhauser Combined Comorbidity Score <sup>3</sup>	2.4	2.1					
	Number	Percent					
ADHD Only Subset	1,358	11.3%	3.1	1.4	2	3.5	4
ADHD and Other Behavior Disorders	2,907	24.1%	3.1	1.6	2	3.3	4
Alcohol Use Disorders	1,577	13.1%	3.1	1.6	2	3.3	4



Table 1D.m: Summary of Rate of Absolute Neutrophil Count (ANC) Screening Events per Month for Members with Clozapine Use for 183-Day Washout Period with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

				Number of A	Number of ANC Screenings		
	Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Anxiety Disorders	5,664	46.9%	3.1	1.6	2	3.3	4
Bipolar Disorders	5,272	43.7%	3.1	1.6	2	3.3	4
Depression	6,222	51.5%	3.0	1.6	2	3.3	4
Depressive Disorders	4,496	37.2%	3.1	1.6	2	3.3	4
Drug Use Disorders	3,420	28.3%	3.0	1.6	2	3.3	4
Opioid Use Disorder (OUD) 1	688	5.7%	3.1	1.7	2	3.3	4
OUD 2	621	5.1%	3.1	1.7	2	3.2	4
OUD 3	552	4.6%	3.1	1.8	2	3.2	4
OUD 4	127	1.1%	3.0	1.5	2	2.8	4
Personality Disorders	1,848	15.3%	3.1	1.6	2	3.5	4
Schizophrenia	9,485	78.6%	2.9	1.6	1	3.1	4
Schizophrenia and Other Psychotic Disorders	10,205	84.5%	2.9	1.6	1	3.1	4
<b>Evidence of Medical Comorbidities Any Time Through Inde</b>	ex Date						
Lithium	2,116	17.5%	2.9	1.7	1	3.2	4
Atypical Antipsychotics	7,102	58.8%	3.2	1.5	2	3.6	4
Typical Antipsychotics	3,238	26.8%	3.2	1.6	2	3.5	4
Any Antipsychotic (Typical or Atypical)	8,199	67.9%	3.2	1.6	2	3.5	4
Antidepressants	5,339	44.2%	3.0	1.6	2	3.3	4
Healthcare Encounter Utilization at Any Time Through the	1						
Index Date	Mean	Standard Deviation					
Mean number of ambulatory encounters	84.6	140.6	N/A*	N/A	N/A	N/A	N/A
Mean number of emergency room encounters	4.9	11.5	N/A	N/A	N/A	N/A	N/A
Mean number of inpatient hospital encounters	2.3	4.1	N/A	N/A	N/A	N/A	N/A
Mean number of non-acute institutional encounters	0.8	2.0	N/A	N/A	N/A	N/A	N/A
Mean number of other ambulatory encounters	110.4	176.4	N/A	N/A	N/A	N/A	N/A

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Table 1D.m: Summary of Rate of Absolute Neutrophil Count (ANC) Screening Events per Month for Members with Clozapine Use for 183-Day Washout Period with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 2), by Baseline Characteristic

				Number of A	NC Screening	S	
Medical Product Utilization Metrics From 30 Days Prior							
Through the Index Date	Mean	<b>Standard Deviation</b>	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Mean number of unique drug classes	5.7	3.7	N/A	N/A	N/A	N/A	N/A
Mean number of generics	6.0	3.9	N/A	N/A	N/A	N/A	N/A
Mean number of filled prescriptions	7.6	5.9	N/A	N/A	N/A	N/A	N/A

<sup>&</sup>lt;sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and ethnicity which are based on total number of unique patients

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<sup>&</sup>lt;sup>2</sup>The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

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

<sup>\*</sup>N/A = Not Applicable



Table 1A.n: Aggregated Baseline Table for Members with Clozapine Use for at Least 6 Months with Absolute Neutrophil Count (ANC) Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 5)

Characteristic <sup>1</sup>	Number	
Number of episodes	11,286	
Number of unique patients	10,639	
Demographics	Mean	Standard Deviation
Mean Age (years)	35.7	13.9
Age (years)	Number	Percent
12-18	****	****
19-35	5,410	47.9%
36-50	2,571	22.8%
51-64	2,101	18.6%
65-74	94	0.8%
75+	****	****
Sex		
Female	4,135	38.9%
Male	6,504	61.1%
Unknown	3,344	31.4%
Race		
American Indian or Alaska Native	****	****
Asian	496	4.7%
Black or African American	1,801	16.9%
Native Hawaiian or Other Pacific Islander	****	****
White	4,787	45.0%
Ethnicity	, -	
Not Hispanic	7,317	68.8%
Unknown	1,930	18.1%
Hispanic	1,392	13.1%
Year	,	
2015 Quarter 4	367	3.3%
2016 Quarter 1	1,215	10.8%
2016 Quarter 2	925	8.2%
2016 Quarter 3	957	8.5%
2016 Quarter 4	1,014	9.0%
2017 Quarter 1	1,287	11.4%
2017 Quarter 2	1,102	9.8%
2017 Quarter 3	1,000	8.9%
2017 Quarter 4	1,129	10.0%
2018 Quarter 1	1,203	10.7%
2018 Quarter 2	1,006	8.9%
2018 Quarter 3	18	0.2%
2018 Quarter 4	14	0.1%
2019 Quarter 1	21	0.2%
2019 Quarter 2	28	0.2%
2019 Quarter 3	0	0.0%
2019 Quarter 4	0	0.0%

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Table 1A.n: Aggregated Baseline Table for Members with Clozapine Use for at Least 6 Months with Absolute Neutrophil Count (ANC) Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 5)

Geographic Census Bureau Region	Number	Percent
Invalid	23	0.2%
Midwest	2,643	23.4%
Missing	****	****
Northeast	3,022	26.8%
Other	****	****
South	2,464	21.8%
West	3,088	27.4%
Evidence of Medical Comorbidities Any Time Through Index Date		
Charlson/Elixhauser Combined Comorbidity Score <sup>3</sup>	2.1	1.9
ADHD Only Subset	900	8.0%
ADHD and Other Behavior Disorders	1,906	16.9%
Alcohol Use Disorders	884	7.8%
Anxiety Disorders	3,747	33.2%
Bipolar Disorders	3,626	32.1%
Depression	4,228	37.5%
Depressive Disorders	2,791	24.7%
Drug Use Disorders	2,002	17.7%
Opioid Use Disorder (OUD) 1	285	2.5%
OUD 2	249	2.2%
OUD 3	205	1.8%
OUD 4	50	0.4%
Personality Disorders	1,208	10.7%
Schizophrenia	8,691	77.0%
Schizophrenia and Other Psychotic Disorders	9,182	81.4%
Evidence of Medical Comorbidities Any Time Through Index Date		
Lithium	1,866	16.5%
Atypical Antipsychotics	5,220	46.3%
Typical Antipsychotics	2,491	22.1%
Any Antipsychotic (Typical or Atypical)	6,321	56.0%
Antidepressants	4,609	40.8%
Healthcare Encounter Utilization at Any Time Through the Index Date	Mean	Standard Deviation
Mean number of ambulatory encounters	69.5	133.0
Mean number of emergency room encounters	2.7	7.3
Mean number of inpatient hospital encounters	1.4	2.9
Mean number of non-acute institutional encounters	0.6	2.1
Mean number of other ambulatory encounters	86.9	147.8

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Table 1A.n: Aggregated Baseline Table for Members with Clozapine Use for at Least 6 Months with Absolute Neutrophil Count (ANC) Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 5)

Medical Product Utilization Metrics From 30 Days Prior Through the Index Date	Mean	Standard Deviation
Mean number of unique drug classes	5.5	3.7
Mean number of generics	5.8	3.9
Mean number of filled prescriptions	7.2	5.6

<sup>&</sup>lt;sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and ethnicity which are based on total number of unique patients

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<sup>&</sup>lt;sup>2</sup>The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

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



Table 1B.n: Summary of Gap of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 6 Months with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 5), by Baseline Characteristic

				Number of Al	NC Screening	s	
Characteristic <sup>1</sup>	Number		Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Number of episodes	11,286						
Number of unique patients	10,639						
Demographics	Mean	Standard Deviation					
Mean Age (years)	35.7	13.9					
Age (years	Number	Percent					
12-18	****	****	11.0	15.5	7	7	8
19-35	5,410	47.9%	12.1	15.2	7	7	12
36-50	2,571	22.8%	12.8	15.2	7	7	14
51-64	2,101	18.6%	13.7	16.1	7	7	15
65-74	94	0.8%	14.5	17.1	7	7	19
75+	****	****	9.1	6.7	7	7	9
Sex							
Female	4,135	38.9%	12.3	15.4	7	7	13
Male	6,504	61.1%	12.6	15.5	7	7	14
Race							
Unknown	3,344	31.4%	12.3	15.3	7	7	13
American Indian or Alaska Native	****	****	12.0	14.0	7	7	13
Asian	496	4.7%	12.7	15.5	7	7	14
Black or African American	1,801	16.9%	13.0	15.6	7	7	14
Native Hawaiian or Other Pacific Islander	****	****	12.5	14.4	7	7	14
White	4,787	45.0%	12.4	15.5	7	7	13
Ethnicity							
Not Hispanic	7,317	68.8%	12.5	15.5	7	7	14
Unknown	1,930	18.1%	12.0	15.2	7	7	12
Hispanic	1,392	13.1%	12.6	15.5	7	7	13
Year							
2015 Quarter 4	367	3.3%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 1	1,215	10.8%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 2	925	8.2%	N/A	N/A	N/A	N/A	N/A



Table 1B.n: Summary of Gap of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 6 Months with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 5), by Baseline Characteristic

				Number of A	ANC Screenings		
	Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
2016 Quarter 3	957	8.5%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 4	1,014	9.0%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 1	1,287	11.4%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 2	1,102	9.8%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 3	1,000	8.9%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 4	1,129	10.0%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 1	1,203	10.7%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 2	1,006	8.9%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 3	18	0.2%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 4	14	0.1%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 1	21	0.2%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 2	28	0.2%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 3	0	0.0%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 4	0	0.0%	N/A	N/A	N/A	N/A	N/A
Geographic Census Bureau Region							
Invalid	23	0.2%	13.3	13.8	7	7	18
Midwest	2,643	23.4%	11.5	13.9	7	7	11
Missing	****	****					
Northeast	3,022	26.8%	13.6	17.2	7	7	14
Other	****	****	32.6	30.5	21	27.5	33
South	2,464	21.8%	14.4	17.6	7	7	15
West	3,088	27.4%	11.1	13.7	7	7	9
<b>Evidence of Medical Comorbidities Any Time Through Index</b>							
Date	Mean	Standard Deviation					
Charlson/Elixhauser Combined Comorbidity Score <sup>3</sup>	2.1	1.9					
	Number	Percent					
ADHD Only Subset	900	8.0%	10.5	14.0	7	7	8
ADHD and Other Behavior Disorders	1,906	16.9%	10.5	13.6	7	7	8
Alcohol Use Disorders	884	7.8%	10.5	12.5	7	7	9



Table 1B.n: Summary of Gap of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 6 Months with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 5), by Baseline Characteristic

				Number of A	NC Screening	;s	
	Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Anxiety Disorders	3,747	33.2%	10.6	13.4	7	7	9
Bipolar Disorders	3,626	32.1%	10.9	14.0	7	7	9
Depression	4,228	37.5%	10.9	13.6	7	7	9
Depressive Disorders	2,791	24.7%	10.7	13.5	7	7	9
Drug Use Disorders	2,002	17.7%	10.5	12.9	7	7	9
Opioid Use Disorder (OUD) 1	285	2.5%	10.4	13.0	7	7	9
OUD 2	249	2.2%	10.3	13.0	7	7	9
OUD 3	205	1.8%	10.2	12.5	6	7	9
OUD 4	50	0.4%	10.9	14.0	6	7	9
Personality Disorders	1,208	10.7%	10.5	13.3	7	7	9
Schizophrenia	8,691	77.0%	12.3	15.0	7	7	13
Schizophrenia and Other Psychotic Disorders	9,182	81.4%	12.2	14.9	7	7	13
<b>Evidence of Medical Comorbidities Any Time Through Inde</b>	ex Date						
Lithium	1,866	16.5%	11.5	15.2	7	7	10
Atypical Antipsychotics	5,220	46.3%	10.0	12.6	7	7	8
Typical Antipsychotics	2,491	22.1%	10.2	12.9	7	7	8
Any Antipsychotic (Typical or Atypical)	6,321	56.0%	10.4	13.0	7	7	8
Antidepressants	4,609	40.8%	11.5	14.3	7	7	10
Healthcare Encounter Utilization at Any Time Through the							
Index Date	Mean	Standard Deviation					
Mean number of ambulatory encounters	69.5	133.0	N/A*	N/A	N/A	N/A	N/A
Mean number of emergency room encounters	2.7	7.3	N/A	N/A	N/A	N/A	N/A
Mean number of inpatient hospital encounters	1.4	2.9	N/A	N/A	N/A	N/A	N/A
Mean number of non-acute institutional encounters	0.6	2.1	N/A	N/A	N/A	N/A	N/A
Mean number of other ambulatory encounters	86.9	147.8	N/A	N/A	N/A	N/A	N/A

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Table 1B.n: Summary of Gap of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 6 Months with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 5), by Baseline Characteristic

				Number of A	NC Screening	S	
Medical Product Utilization Metrics From 30 Days Prior							
Through the Index Date	Mean	Standard Deviation	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Mean number of unique drug classes	5.5	3.7	N/A	N/A	N/A	N/A	N/A
Mean number of generics	5.8	3.9	N/A	N/A	N/A	N/A	N/A
Mean number of filled prescriptions	7.2	5.6	N/A	N/A	N/A	N/A	N/A

<sup>&</sup>lt;sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and ethnicity which are based on total number of unique patients

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<sup>&</sup>lt;sup>2</sup>The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

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

<sup>\*</sup>N/A = Not Applicable



Table 1C.n: Summary of Number of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 6 Months with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 5), by Baseline Characteristic

				Number of Al	NC Screening	ŗs		
Characteristic <sup>1</sup>	Number		Mean	Standard Deviation	Quarter 1	Median	Quarter 3	
Number of episodes	11,286							
Number of unique patients	10,639							
Demographics	Mean	Standard Deviation						
Mean Age (years)	35.7	13.9						
Age (years	Number	Percent						
12-18	****	****	15.5	9.3	6	17	25	
19-35	5,410	47.9%	13.9	9.1	6	12	23	
36-50	2,571	22.8%	13.2	9.0	6	10	23	
51-64	2,101	18.6%	12.2	8.6	6	8	20	
65-74	94	0.8%	11.5	8.3	6	8	16	
75+	****	****	19.0	9.1	12	20.5	27	
Sex								
Female	4,135	38.9%	13.7	9.1	6	11	23	
Male	6,504	61.1%	13.4	9.0	6	11	23	
Race								
Unknown	3,344	31.4%	13.8	9.1	6	12	23	
American Indian or Alaska Native	****	****	14.1	8.4	6	13	23	
Asian	496	4.7%	13.3	9.0	6	10	23	
Black or African American	1,801	16.9%	12.9	8.7	6	10	22	
Native Hawaiian or Other Pacific Islander	****	****	13.4	8.1	6	12	21	
White	4,787	45.0%	13.7	9.2	6	11	23	
Ethnicity	,							
Not Hispanic	7,317	68.8%	13.4	9.0	6	11	23	
Unknown	1,930	18.1%	14.0	9.2	6	12	24	
Hispanic	1,392	13.1%	13.4	8.9	6	11	22	
Year								
2015 Quarter 4	367	3.3%	N/A	N/A	N/A	N/A	N/A	
2016 Quarter 1	1,215	10.8%	N/A	N/A	N/A	N/A	N/A	
2016 Quarter 2	925	8.2%	N/A	N/A	N/A	N/A	N/A	



Table 1C.n: Summary of Number of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 6 Months with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 5), by Baseline Characteristic

				Number of A	ANC Screenings		
	Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
2016 Quarter 3	957	8.5%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 4	1,014	9.0%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 1	1,287	11.4%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 2	1,102	9.8%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 3	1,000	8.9%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 4	1,129	10.0%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 1	1,203	10.7%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 2	1,006	8.9%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 3	18	0.2%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 4	14	0.1%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 1	21	0.2%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 2	28	0.2%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 3	0	0.0%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 4	0	0.0%	N/A	N/A	N/A	N/A	N/A
Geographic Census Bureau Region							
Invalid	23	0.2%	12.6	8.8	6	7	22
Midwest	2,643	23.4%	14.7	9.4	6	13	24
Missing	****	****					
Northeast	3,022	26.8%	12.3	8.7	5	9	21
Other	****	****	4.6	2.4	1	6	6
South	2,464	21.8%	11.6	8.4	5	8	19
West	3,088	27.4%	15.3	9.0	6	15	24
<b>Evidence of Medical Comorbidities Any Time Through Index</b>							
Date	Mean	Standard Deviation					
Charlson/Elixhauser Combined Comorbidity Score <sup>3</sup>	2.1	1.9					
	Number	Percent					
ADHD Only Subset	900	8.0%	16.2	9.1	7	18	25
ADHD and Other Behavior Disorders	1,906	16.9%	16.2	9.0	7	18	25
Alcohol Use Disorders	884	7.8%	16.3	8.6	8	18	24



Table 1C.n: Summary of Number of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 6 Months with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 5), by Baseline Characteristic

				Number of A	NC Screening		
	Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Anxiety Disorders	3,747	33.2%	16.0	9.0	7	17	24
Bipolar Disorders	3,626	32.1%	15.6	9.1	7	16	24
Depression	4,228	37.5%	15.6	9.0	7	17	24
Depressive Disorders	2,791	24.7%	16.0	8.9	7	17	24
Drug Use Disorders	2,002	17.7%	16.3	8.6	8	18	24
Opioid Use Disorder (OUD) 1	285	2.5%	16.4	8.6	9	18	24
OUD 2	249	2.2%	16.6	8.6	9	18	24
OUD 3	205	1.8%	16.7	8.3	11	18	24
OUD 4	50	0.4%	15.7	9.1	8	16	24
Personality Disorders	1,208	10.7%	16.3	8.9	8	17	25
Schizophrenia	8,691	77.0%	13.8	8.9	6	12	23
Schizophrenia and Other Psychotic Disorders	9,182	81.4%	13.9	9.0	6	12	23
<b>Evidence of Medical Comorbidities Any Time Through Inde</b>	ex Date						
Lithium	1,866	16.5%	14.7	9.2	6	14	24
Atypical Antipsychotics	5,220	46.3%	17.1	9.0	8	20	25
Typical Antipsychotics	2,491	22.1%	16.7	9.1	7	19	25
Any Antipsychotic (Typical or Atypical)	6,321	56.0%	16.4	9.1	7	19	25
Antidepressants	4,609	40.8%	14.8	9.2	6	14	24
<b>Healthcare Encounter Utilization at Any Time Through the</b>							
Index Date	Mean	Standard Deviation					
Mean number of ambulatory encounters	69.5	133.0	N/A*	N/A	N/A	N/A	N/A
Mean number of emergency room encounters	2.7	7.3	N/A	N/A	N/A	N/A	N/A
Mean number of inpatient hospital encounters	1.4	2.9	N/A	N/A	N/A	N/A	N/A
Mean number of non-acute institutional encounters	0.6	2.1	N/A	N/A	N/A	N/A	N/A
Mean number of other ambulatory encounters	86.9	147.8	N/A	N/A	N/A	N/A	N/A

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Table 1C.n: Summary of Number of Absolute Neutrophil Count (ANC) Screening Events for Members with Clozapine Use for at Least 6 Months with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 5), by Baseline Characteristic

				Number of A	NC Screening	s	
Medical Product Utilization Metrics From 30 Days Prior							
Through the Index Date	Mean	Standard Deviation	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Mean number of unique drug classes	5.5	3.7	N/A	N/A	N/A	N/A	N/A
Mean number of generics	5.8	3.9	N/A	N/A	N/A	N/A	N/A
Mean number of filled prescriptions	7.2	5.6	N/A	N/A	N/A	N/A	N/A

<sup>&</sup>lt;sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and ethnicity which are based on total number of unique patients

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<sup>&</sup>lt;sup>2</sup>The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

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

<sup>\*</sup>N/A = Not Applicable



Table 1D.n: Summary of Rate of Absolute Neutrophil Count (ANC) Screening Events per Month for Members with Clozapine Use for at Least 6 Months with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 5), by Baseline Characteristic

				Number of Al	NC Screening	ngs		
Characteristic <sup>1</sup>	Number		Mean	Standard Deviation	Quarter 1	Median	Quarter 3	
Number of episodes	11,286							
Number of unique patients	10,639							
Demographics	Mean	Standard Deviation						
Mean Age (years)	35.7	13.9						
Age (years	Number	Percent						
12-18	****	****	2.6	1.5	1	2.8	4	
19-35	5,410	47.9%	2.3	1.5	1	2.0	4	
36-50	2,571	22.8%	2.2	1.5	1	1.6	4	
51-64	2,101	18.6%	2.0	1.4	1	1.3	3	
65-74	94	0.8%	1.9	1.4	1	1.3	3	
75+	****	****	3.1	1.5	2	3.4	4	
Sex								
Female	4,135	38.9%	2.3	1.5	1	1.8	4	
Male	6,504	61.1%	2.2	1.5	1	1.8	4	
Race								
Unknown	3,344	31.4%	2.3	1.5	1	2.0	4	
American Indian or Alaska Native	****	****	2.3	1.4	1	2.1	4	
Asian	496	4.7%	2.2	1.5	1	1.6	4	
Black or African American	1,801	16.9%	2.1	1.4	1	1.6	4	
Native Hawaiian or Other Pacific Islander	****	****	2.2	1.3	1	2.0	3	
White	4,787	45.0%	2.3	1.5	1	1.8	4	
Ethnicity	•							
Not Hispanic	7,317	68.8%	2.2	1.5	1	1.8	4	
Unknown	1,930	18.1%	2.3	1.5	1	2.0	4	
Hispanic	1,392	13.1%	2.2	1.5	1	1.8	4	
Year								
2015 Quarter 4	367	3.3%	N/A	N/A	N/A	N/A	N/A	
2016 Quarter 1	1,215	10.8%	N/A	N/A	N/A	N/A	N/A	
2016 Quarter 2	925	8.2%	N/A	N/A	N/A	N/A	N/A	



Table 1D.n: Summary of Rate of Absolute Neutrophil Count (ANC) Screening Events per Month for Members with Clozapine Use for at Least 6 Months with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 5), by Baseline Characteristic

				Number of A	ANC Screenings		
	Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
2016 Quarter 3	957	8.5%	N/A	N/A	N/A	N/A	N/A
2016 Quarter 4	1,014	9.0%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 1	1,287	11.4%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 2	1,102	9.8%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 3	1,000	8.9%	N/A	N/A	N/A	N/A	N/A
2017 Quarter 4	1,129	10.0%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 1	1,203	10.7%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 2	1,006	8.9%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 3	18	0.2%	N/A	N/A	N/A	N/A	N/A
2018 Quarter 4	14	0.1%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 1	21	0.2%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 2	28	0.2%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 3	0	0.0%	N/A	N/A	N/A	N/A	N/A
2019 Quarter 4	0	0.0%	N/A	N/A	N/A	N/A	N/A
Geographic Census Bureau Region							
Invalid	23	0.2%	2.1	1.4	1	1.2	4
Midwest	2,643	23.4%	2.4	1.5	1	2.1	4
Missing	****	****					
Northeast	3,022	26.8%	2.0	1.4	1	1.5	3
Other	****	****	0.8	0.4	0	1.0	1
South	2,464	21.8%	1.9	1.4	1	1.3	3
West	3,088	27.4%	2.5	1.5	1	2.5	4
<b>Evidence of Medical Comorbidities Any Time Through Index</b>	(						
Date	Mean	Standard Deviation					
Charlson/Elixhauser Combined Comorbidity Score <sup>3</sup>	2.1	1.9					
	Number	Percent					
ADHD Only Subset	900	8.0%	2.7	1.5	1	3.0	4
ADHD and Other Behavior Disorders	1,906	16.9%	2.7	1.5	1	3.0	4
Alcohol Use Disorders	884	7.8%	2.7	1.4	1	3.0	4



Table 1D.n: Summary of Rate of Absolute Neutrophil Count (ANC) Screening Events per Month for Members with Clozapine Use for at Least 6 Months with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 5), by Baseline Characteristic

				Number of A	NC Screenings		
	Number	Percent	Mean	Standard Deviation	Quarter 1	Median	Quarter 3
Anxiety Disorders	3,747	33.2%	2.6	1.5	1	2.8	4
Bipolar Disorders	3,626	32.1%	2.6	1.5	1	2.6	4
Depression	4,228	37.5%	2.6	1.5	1	2.8	4
Depressive Disorders	2,791	24.7%	2.6	1.5	1	2.8	4
Drug Use Disorders	2,002	17.7%	2.7	1.4	1	3.0	4
Opioid Use Disorder (OUD) 1	285	2.5%	2.7	1.4	1	3.0	4
OUD 2	249	2.2%	2.7	1.4	1	3.0	4
OUD 3	205	1.8%	2.8	1.4	2	3.0	4
OUD 4	50	0.4%	2.6	1.5	1	2.6	4
Personality Disorders	1,208	10.7%	2.7	1.5	1	2.8	4
Schizophrenia	8,691	77.0%	2.3	1.5	1	2.0	4
Schizophrenia and Other Psychotic Disorders	9,182	81.4%	2.3	1.5	1	2.0	4
<b>Evidence of Medical Comorbidities Any Time Through Index</b>	Date						
Lithium	1,866	16.5%	2.4	1.5	1	2.3	4
Atypical Antipsychotics	5,220	46.3%	2.8	1.5	1	3.3	4
Typical Antipsychotics	2,491	22.1%	2.8	1.5	1	3.1	4
Any Antipsychotic (Typical or Atypical)	6,321	56.0%	2.7	1.5	1	3.1	4
Antidepressants	4,609	40.8%	2.4	1.5	1	2.3	4
Healthcare Encounter Utilization at Any Time Through the							
Index Date	Mean	<b>Standard Deviation</b>					
Mean number of ambulatory encounters	69.5	133.0	N/A*	N/A	N/A	N/A	N/A
Mean number of emergency room encounters	2.7	7.3	N/A	N/A	N/A	N/A	N/A
Mean number of inpatient hospital encounters	1.4	2.9	N/A	N/A	N/A	N/A	N/A
Mean number of non-acute institutional encounters	0.6	2.1	N/A	N/A	N/A	N/A	N/A
Mean number of other ambulatory encounters	86.9	147.8	N/A	N/A	N/A	N/A	N/A

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Table 1D.n: Summary of Rate of Absolute Neutrophil Count (ANC) Screening Events per Month for Members with Clozapine Use for at Least 6 Months with ANC Screening Events Assessed during the First 6 Months of Clozapine Use in the Sentinel Distributed Database (SDD) from October 1, 2015 to December 31, 2019 (Look 5), by Baseline Characteristic

				Number of A	NC Screening	s				
Medical Product Utilization Metrics From 30 Days Prior										
Through the Index Date	Mean	Standard Deviation	Mean	Standard Deviation	Quarter 1	Median	Quarter 3			
Mean number of unique drug classes	5.5	3.7	N/A	N/A	N/A	N/A	N/A			
Mean number of generics	5.8	3.9	N/A	N/A	N/A	N/A	N/A			
Mean number of filled prescriptions	7.2	5.6	N/A	N/A	N/A	N/A	N/A			

<sup>&</sup>lt;sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and ethnicity which are based on total number of unique patients

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<sup>&</sup>lt;sup>2</sup>The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

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

<sup>\*</sup>N/A = Not Applicable



# Summary Table 1a. Summary of Clozapine Episodes that Met the REMS Requirements for Absolute Neutrophil Count (ANC) Screening Frequency in the Sentinel Distributed Database (SDD), Gap between ANC Screenings

	Clozapine	<b>Episodes</b> <sup>A</sup>	Gaps between all ANC Screenings							
				≤ 10 day gap		ау дар	≤ 33 day gap			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
October 1, 2015 to December 31, 2019										
Up to 6 months of clozapine use (Look 2)	25,691	100.0%	1,873	7.3%	4,411	17.2%	8,894	34.6%		
183-Day Washout Period (Look 2)	12,071	100.0%	1,304	10.8%	2,890	23.9%	4,696	38.9%		
0-6 months for clozapine use of at least 6 months (Look 5)	11,286	100.0%	502	4.4%	1,607	14.2%	3,647	32.3%		

ANumber of Clozapine Episodes represents the total number of episodes in each group. The number of episodes meeting each adherence category may not sum to the total number of episodes.

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### Summary Table 1b. Summary Statistics of the Gap Between Absolute Neutrophil Count (ANC) Screenings during Clozapine Use in the Sentinel Distributed Database (SDD)

	Clozapine Episodes <sup>B</sup>	Gaps between all ANC Screenings (days)									
	Number	Mean	Standard Deviation	Minimum	Quarter 1	Median	Quarter 3	Maximum			
October 1, 2015 to December 31, 2019											
Up to 6 months of clozapine use (Look 2)	19,103	12.2	14.8	0	7	7.0	13	181			
183-Day Washout Period (Look 2)	9,084	9.8	12.3	0	7	7.0	8	181			
0-6 months for clozapine use of at least 6 months (Look 5)	9,837	12.4	15.5	0	7	7.0	13	181			

<sup>&</sup>lt;sup>B</sup>Only clozapine episodes with at least one ANC screening in the specified window are summarized in this table.



# Summary Table 2a. Summary of Clozapine Episodes that Met the REMS Requirements for the Number of Absolute Neutrophil Count (ANC) Screenings in the Sentinel Distributed Database (SDD), Number of ANC Screenings

	Cloza	pine	Number of ANC Screenings											
	Episodes <sup>A</sup>		≥1		1-4		5-7		8-11		12-14		15-20	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
October 1, 2015 to December 31, 2														
30 days before clozapine initiation (Look 1)	25,691	100.0%	14,993	58.4%	N/A*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
0-6 months for clozapine use of at least 6 months (Look 5)	11,286	100.0%	9,837	87.2%	1,565	13.9%	2,411	21.4%	1,033	9.2%	602	5.3%	1,095	9.7%

Anumber of Clozapine Episodes represents the total number of episodes in each group. The number of episodes meeting each adherence category may not sum to the total number of episodes.

\*N/A = Not Applicable

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# Summary Table 2a. Summary of Clozapine Episodes that Met the REMS Requirements for the Number of Absolute Neutrophil Count (ANC) Screenings in the Sentinel Distributed Database (SDD), Number of ANC Screenings

		Number of ANC Screenings												
	21-24		25-27		28-30		31-35		≥ 36		≥ 25		≥ 12	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
October 1, 2015 to December 31, 2	October 1, 2015 to December 31, 2019													
30 days before clozapine initiation (Look 1)	N/A*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
0-6 months for clozapine use of at least 6 months (Look 5)	1,302	11.5%	1,549	13.7%	219	1.9%	42	0.4%	19	0.2%	1,829	16.2%	N/A	N/A

<sup>\*</sup>N/A = Not Applicable



### Summary Table 2b. Summary Statistics of the Number of Absolute Neutrophil Count (ANC) Screenings during Clozapine Use in the Sentinel Distributed Database (SDD)

	Clozapine Episodes <sup>B</sup>	Number of ANC Screenings									
	Number	Mean	Standard Deviation	Minimum	Quarter 1	Median	Quarter 3	Maximum			
October 1, 2015 to December 31, 2019											
30 days before clozapine initiation (Look 1)	14,993	1.6	1.1	1	1	1	2	19			
0-6 months for clozapine use of at least 6 months (Look 5)	9,837	13.5	9	1	6	11	23	59			

<sup>&</sup>lt;sup>B</sup>Only clozapine episodes with at least one ANC screening in the specified window are summarized in this table.



# Summary Table 3a. Summary of Clozapine Episodes that Met the REMS Requirements for Absolute Neutrophil Count (ANC) Screening Frequency in the Sentinel Distributed Database (SDD), Rate of ANC Screening Events per Month

	Claranina	F.: d A	Number of ANC Screenings per Month*							
	Ciozapine	Clozapine Episodes <sup>A</sup>		≥1		≥2		4		
	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
October 1, 2015 to December 31, 2019										
Up to 6 months of clozapine use (Look 2)	25,691	100.0%	13,788	53.7%	9,465	36.8%	3,638	14.2%		
183-Day Washout Period (Look 2)	12,071	100.0%	7,570	62.7%	6,080	50.4%	2,584	21.4%		
0-6 months for clozapine use of at least 6 months (Look 5)	11,286	100.0%	6,528	57.8%	4,630	41.0%	1,829	16.2%		

<sup>\*</sup> Month=30 days

<sup>&</sup>lt;sup>A</sup>Number of Clozapine Episodes represents the total number of episodes in each group. The number of episodes meeting each adherence category may not sum to the total number of episodes.



### Summary Table 3b. Summary Statistics of the Rate of Absolute Neutrophil Count (ANC) Screening during Clozapine Use in the Sentinel Distributed Database (SDD)

	Clozapine Episodes <sup>B</sup>	Rate of ANC Screenings per Clozapine Episode per Month*									
	Number	Mean	Standard Deviation	Minimum	Quarter 1	Median	Quarter 3	Maximum			
October 1, 2015 to December 31, 2019											
Up to 6 months of clozapine use (Look 2)	19,103	2.3	1.6	0	1	2.0	4	20			
183-Day Washout Period (Look 2)	9,084	2.9	1.6	0	1	3.1	4	19			
0-6 months for clozapine use of at least 6 months (Look 5)	9,837	2.2	1.5	0	1	1.8	4	10			

<sup>\*</sup> Month=30 days

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<sup>&</sup>lt;sup>B</sup>Only clozapine episodes with at least one ANC screening in the specified window are summarized in this table.



### Appendix A. Dates of Available Data for Each Data Partner (DP) as of Request Distribution Date (August 15, 2022)

DP ID	Start Date <sup>1</sup>	End Date <sup>1</sup>
DP03	01/01/2000	12/31/2020
DP07	01/01/2014	12/31/2018

<sup>&</sup>lt;sup>1</sup>The start and end dates are based on the minimum and maximum dates within each DP. The month with the maximum date must have at least 80% of the number of records in the previous month.

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## Appendix B. List of States and U.S. Territories per Census Bureau (CB) Region

CB region	States and U.S. Territories
Midwest (MW)	Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin
Northeast (NE)	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New Jersey, New York, Pennsylvania
South (S)	Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia
West (W)	Arizona, Alaska, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming
Other	American Samoa, Guam, Marshall Islands, Micronesia, Northern Mariana Islands, Palau, Puerto Rico, U.S. Virgin Islands
Invalid	Recorded geographic location does not match any identifiers per the Sentinel Common Data Model definition
Missing	Missing from claims

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

Generic Name	Brand Name	
	Clozapine	
clozapine	Clozaril	
clozapine	clozapine	
clozapine	FazaClo	
clozapine	Versacloz	

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# Appendix D. List of Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), and Revenue (RE) Codes Used to Define the Events of Interest in this Request

	•	Code	Code
Code	Description	Category	Type
	Absolute Neutrophil Count (ANC)		
0305	Laboratory-Hematology	Procedure, Laboratory	RE
80050	General health panel This panel must include the following: Comprehensive metabolic panel (80053) Blood count, complete (CBC), automated and automated differential WBC count (85025 or 85027 and 85004) OR Blood count, complete (CBC), automated (85027) and appropriate manual differential WBC count (85007 or 85009) Thyroid stimulating hormone (TSH) (84443)	Procedure, Laboratory	CPT-4
80055	Obstetric panel This panel must include the following: Blood count, complete (CBC), automated and automated differential WBC count (85025 or 85027 and 85004) OR Blood count, complete (CBC), automated (85027) and appropriate manual differential WBC count (85007 or 85009) Hepatitis B surface antigen (HBsAg) (87340) Antibody, rubella (86762) Syphilis test, non-treponemal antibody; qualitative (eg, VDRL, RPR, ART) (86592) Antibody screen, RBC, each serum technique (86850) Blood typing, ABO (86900) AND Blood typing, Rh (D) (86901)		CPT-4
85004	Blood count; automated differential WBC count	Procedure, Laboratory	CPT-4
85007	Blood count; blood smear, microscopic examination with manual differential WBC count	Procedure, Laboratory	CPT-4
85008	Blood count; blood smear, microscopic examination without manual differential WBC count	Procedure, Laboratory	CPT-4
85009	Blood count; manual differential WBC count, buffy coat	Procedure, Laboratory	CPT-4
85025	Blood count; complete (CBC), automated (Hgb, Hct, RBC, WBC and platelet count) and automated differential WBC count	Procedure, Laboratory	CPT-4
85027	Blood count; complete (CBC), automated (Hgb, Hct, RBC, WBC and platelet count)	Procedure, Laboratory	CPT-4
85032	Blood count; manual cell count (erythrocyte, leukocyte, or platelet) each	Procedure, Laboratory	CPT-4
85048	Blood count; leukocyte (WBC), automated	Procedure, Laboratory	CPT-4
G0306	Complete CBC, automated (HgB, HCT, RBC, WBC, without platelet count) and automated WBC differential count	Procedure, Laboratory	HCPCS
G0307	Complete CBC, automated (HgB, HCT, RBC, WBC; without platelet count)	Procedure, Laboratory	HCPCS

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

Generic Name	Brand Name
	Lithium
thium citrate	lithium citrate
thium carbonate	lithium carbonate
thium carbonate	Lithobid
	Atypical Anti-Psychotics
ripiprazole	Abilify Maintena
ripiprazole	Abilify
ripiprazole	aripiprazole
ripiprazole	Abilify MyCite
ripiprazole	Abilify Discmelt
ripiprazole	Abilify MyCite Starter Kit
ripiprazole	Abilify MyCite Maintenance Kit
ripiprazole lauroxil	Aristada
ripiprazole lauroxil, submicronized	Aristada Initio
senapine	Secuado
senapine maleate	Saphris
senapine maleate	Saphris (black cherry)
senapine maleate	asenapine maleate
rexpiprazole	Rexulti
ariprazine HCl	Vraylar
operidone	Fanapt
umateperone tosylate	Caplyta
urasidone HCl	Latuda
lanzapine	Zyprexa
lanzapine	olanzapine
lanzapine	Zyprexa Zydis
lanzapine pamoate	Zyprexa Relprevv
lanzapine/fluoxetine HCl	olanzapine-fluoxetine
lanzapine/fluoxetine HCl	Symbyax
lanzapine/samidorphan malate	Lybalvi
aliperidone	paliperidone
aliperidone	Invega
aliperidone palmitate	Invega Sustenna
aliperidone palmitate	Invega Trinza
aliperidone palmitate	Invega Hafyera
imavanserin tartrate	Nuplazid
uetiapine fumarate	quetiapine
uetiapine fumarate	Seroquel
uetiapine fumarate	Seroquel XR
speridone	risperidone
speridone	Perseris
speridone	Risperdal
isperidone	Risperdal M-TAB
isperidone microspheres	Risperdal Consta
iprasidone HCl	Geodon
iprasidone HCl	ziprasidone HCl
iprasidone mesylate	ziprasidone mesylate

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

Generic Name	Brand Name
iprasidone mesylate	Geodon
	Typical Anti-Psychotics
hlorpromazine HCl	chlorpromazine
luphenazine decanoate	fluphenazine decanoate
luphenazine HCl	fluphenazine HCl
naloperidol	haloperidol
naloperidol decanoate	haloperidol decanoate
naloperidol decanoate	Haldol Decanoate
naloperidol lactate	haloperidol lactate
naloperidol lactate	Haldol
oxapine	Adasuve
oxapine succinate	loxapine succinate
oxapine succinate	Loxitane
nolindone HCl	molindone
nolindone HCl	Moban
perphenazine	perphenazine
perphenazine/amitriptyline HCl	perphenazine-amitriptyline
perphenazine/amitriptyline HCl	Duo-Vil 2-10
perphenazine/amitriptyline HCl	Duo-Vil 2-25
oimozide	pimozide
oimozide	Orap
hioridazine HCl	thioridazine
hiothixene	thiothixene
hiothixene	Navane
rifluoperazine HCl	trifluoperazine
rifluoperazine HCl	trifluoperazine
rifluoperazine HCl	trifluoperazine
All Anti-F	Psychotics (Typical and Atypical)
ripiprazole	Abilify Maintena
ripiprazole	Abilify
ripiprazole	aripiprazole
ripiprazole	Abilify MyCite
ripiprazole	Abilify Discmelt
ripiprazole	Abilify MyCite Starter Kit
ripiprazole	Abilify MyCite Maintenance Kit
ripiprazole lauroxil	Aristada
ripiprazole lauroxil, submicronized	Aristada Initio
senapine	Secuado
senapine maleate	Saphris
senapine maleate	Saphris (black cherry)
senapine maleate	asenapine maleate
prexpiprazole	Rexulti
ariprazine HCl	Vraylar
chlorpromazine HCl	chlorpromazine
luphenazine decanoate	fluphenazine decanoate
luphenazine HCl	fluphenazine HCl
naloperidol	haloperidol

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

Generic Name	of Medical Products Used to Define Covariates in this Request  Brand Name
haloperidol decanoate	haloperidol decanoate
haloperidol decanoate	Haldol Decanoate
haloperidol lactate	haloperidol lactate
haloperidol lactate	Haldol
iloperidone	Fanapt
loxapine	Adasuve
loxapine succinate	loxapine succinate
loxapine succinate	Loxitane
lumateperone tosylate	Caplyta
lurasidone HCl	Latuda
molindone HCl	molindone
molindone HCl	Moban
olanzapine	Zyprexa
olanzapine	olanzapine
olanzapine	Zyprexa Zydis
olanzapine pamoate	Zyprexa Relprevv
olanzapine/fluoxetine HCl	olanzapine-fluoxetine
olanzapine/fluoxetine HCl	Symbyax
olanzapine/samidorphan malate	Lybalvi
paliperidone	paliperidone
paliperidone	Invega
paliperidone palmitate	Invega Sustenna
paliperidone palmitate	Invega Trinza
paliperidone palmitate	Invega Hafyera
perphenazine	perphenazine
perphenazine/amitriptyline HCl	perphenazine-amitriptyline
perphenazine/amitriptyline HCl	Duo-Vil 2-10
perphenazine/amitriptyline HCl	Duo-Vil 2-25
pimavanserin tartrate	Nuplazid
pimozide	pimozide
pimozide	Orap
quetiapine fumarate	quetiapine
quetiapine fumarate	Seroquel
quetiapine fumarate	Seroquel XR
risperidone	risperidone
risperidone	Perseris
risperidone	Risperdal
risperidone	Risperdal M-TAB
risperidone microspheres	Risperdal Consta
thioridazine HCl	thioridazine
thiothixene	thiothixene
thiothixene	Navane
trifluoperazine HCl	trifluoperazine
trifluoperazine HCl	trifluoperazine
trifluoperazine HCl	trifluoperazine
ziprasidone HCl	Geodon
ziprasidone HCl	ziprasidone HCl

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

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Covariates in this Request				
Generic Name	Brand Name			
ziprasidone mesylate	ziprasidone mesylate			
ziprasidone mesylate	Geodon			
Anti-De	epressants			
amitriptyline HCl	amitriptyline			
amitriptyline HCl/chlordiazepoxide	amitriptyline-chlordiazepoxide			
amitriptyline HCl/chlordiazepoxide	Limbitrol			
amoxapine	amoxapine			
brexanolone	Zulresso			
bupropion HBr	Aplenzin			
bupropion HCl	bupropion HCl			
bupropion HCl	Wellbutrin XL			
bupropion HCl	Wellbutrin SR			
bupropion HCl	Forfivo XL			
bupropion HCl	Wellbutrin			
bupropion HCl	Budeprion XL			
bupropion HCl	Budeprion SR			
citalopram hydrobromide	citalopram			
citalopram hydrobromide	Celexa			
clomipramine HCl	clomipramine			
clomipramine HCl	Anafranil			
desipramine HCl	desipramine			
desipramine HCl	Norpramin			
desvenlafaxine	desvenlafaxine			
desvenlafaxine	Khedezla			
desvenlafaxine fumarate	desvenlafaxine fumarate			
desvenlafaxine succinate	Pristiq			
desvenlafaxine succinate	desvenlafaxine succinate			
doxepin HCl	doxepin			
doxepin HCl	Silenor			
duloxetine HCl	Drizalma Sprinkle			
duloxetine HCl duloxetine HCl	duloxetine Cymbalta			
duloxetine HCl	Irenka			
escitalopram oxalate	escitalopram oxalate			
escitalopram oxalate	·			
esketamine HCl	Lexapro Spravato			
fluoxetine HCl	fluoxetine			
fluoxetine HCl	Prozac			
fluoxetine HCl	Sarafem			
fluoxetine HCl	Rapiflux			
fluoxetine HCl	Selfemra			
fluoxetine HCl	Prozac Weekly			
fluvoxamine maleate	fluvoxamine			
fluvoxamine maleate	Luvox CR			
imipramine HCl	imipramine HCl			
imipramine HCl	Tofranil			
imipramine pamoate	imipramine pamoate			
impramine pulloute	impraising pullbate			

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

Generic Name	Brand Name
imipramine pamoate	Tofranil-PM
isocarboxazid	Marplan
maprotiline HCl	maprotiline
milnacipran HCl	Savella
mirtazapine	mirtazapine
mirtazapine	Remeron SolTab
mirtazapine	Remeron
nefazodone HCl	nefazodone
nortriptyline HCl	nortriptyline
nortriptyline HCl	Pamelor
olanzapine/fluoxetine HCl	olanzapine-fluoxetine
olanzapine/fluoxetine HCl	Symbyax
paroxetine HCl	Paxil CR
paroxetine HCl	paroxetine HCl
paroxetine HCl	Paxil
paroxetine mesylate	Pexeva
perphenazine/amitriptyline HCl	perphenazine-amitriptyline
perphenazine/amitriptyline HCl	Duo-Vil 2-25
perphenazine/amitriptyline HCl	Duo-Vil 2-10
phenelzine sulfate	Nardil
phenelzine sulfate	phenelzine
protriptyline HCl	protriptyline
protriptyline HCl	Vivactil
selegiline	Emsam
sertraline HCl	sertraline
sertraline HCl	Zoloft
tranylcypromine sulfate	tranylcypromine
tranylcypromine sulfate	Parnate
trazodone HCl	trazodone
trazodone HCl	Desyrel
trazodone HCl	Oleptro ER
trimipramine maleate	trimipramine
trimipramine maleate	Surmontil
venlafaxine HCl	venlafaxine
venlafaxine HCl	Effexor XR
venlafaxine HCl	Effexor
vortioxetine hydrobromide	Trintellix
vortioxetine hydrobromide	Brintellix
vilazodone HCl	Viibryd
levomilnacipran HCl	Fetzima
Opioid Use Dis	sorder (OUD 1) (defined as OUD 2, 3, or 4) <sup>1</sup>

## Opioid Use Disorder (OUD 1) (defined as OUD 2, 3, or 4)

buprenorphine HCIbuprenorphine HCIbuprenorphine HCI/naloxone HCIbuprenorphine-naloxone

buprenorphineSublocadebuprenorphine HCI/naloxone HCISuboxonebuprenorphine HCIProbuphine

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

Generic Name	Brand Name	
buprenorphine HCl/naloxone HCl	Zubsolv	
buprenorphine HCl/naloxone HCl	Bunavail	
buprenorphine HCl	Subutex	
Oį	pioid Use Disorder 4 (OUD 4)	
buprenorphine HCl	buprenorphine HCl	
buprenorphine HCl/naloxone HCl	buprenorphine-naloxone	
buprenorphine	Sublocade	
buprenorphine HCl/naloxone HCl	Suboxone	
buprenorphine HCl	Probuphine	
buprenorphine HCl/naloxone HCl	Zubsolv	
buprenorphine HCl/naloxone HCl	Bunavail	
buprenorphine HCl	Subutex	

 $<sup>^{1}</sup>$ See below and Appendix E for completion of definitions of OUD 2, 3, and 4

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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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	
Code	Description	Category	Code Type
	ADHD and Other Behavior Disorders		
312.00	Undersocialized conduct disorder, aggressive type, unspecified	Diagnosis	ICD-9-CM
312.01	Undersocialized conduct disorder, aggressive type, mild	Diagnosis	ICD-9-CM
312.02	Undersocialized conduct disorder, aggressive type, moderate	Diagnosis	ICD-9-CM
312.03	Undersocialized conduct disorder, aggressive type, severe	Diagnosis	ICD-9-CM
312.10	Undersocialized conduct disorder, unaggressive type, unspecified	Diagnosis	ICD-9-CM
312.11	Undersocialized conduct disorder, unaggressive type, mild	Diagnosis	ICD-9-CM
312.12	Undersocialized conduct disorder, unaggressive type, moderate	Diagnosis	ICD-9-CM
312.13	Undersocialized conduct disorder, unaggressive type, severe	Diagnosis	ICD-9-CM
312.20	Socialized conduct disorder, unspecified	Diagnosis	ICD-9-CM
312.21	Socialized conduct disorder, mild	Diagnosis	ICD-9-CM
312.22	Socialized conduct disorder, moderate	Diagnosis	ICD-9-CM
312.23	Socialized conduct disorder, severe	Diagnosis	ICD-9-CM
312.30	Impulse control disorder, unspecified	Diagnosis	ICD-9-CM
312.31	Pathological gambling	Diagnosis	ICD-9-CM
312.32	Kleptomania	Diagnosis	ICD-9-CM
312.33	Pyromania	Diagnosis	ICD-9-CM
312.34	Intermittent explosive disorder	Diagnosis	ICD-9-CM
312.35	Isolated explosive disorder	Diagnosis	ICD-9-CM
312.39	Other disorder of impulse control	Diagnosis	ICD-9-CM
312.4	Mixed disturbance of conduct and emotions	Diagnosis	ICD-9-CM
312.81	Conduct disorder, childhood onset type	Diagnosis	ICD-9-CM
312.82	Conduct disorder, adolescent onset type	Diagnosis	ICD-9-CM
312.89	Other specified disturbance of conduct, not elsewhere classified	Diagnosis	ICD-9-CM
312.9	Unspecified disturbance of conduct	Diagnosis	ICD-9-CM
314.00	Attention deficit disorder of childhood without mention of hyperactivity	Diagnosis	ICD-9-CM
314.01	Attention deficit disorder of childhood with hyperactivity	Diagnosis	ICD-9-CM
314.1	Hyperkinesis of childhood with developmental delay	Diagnosis	ICD-9-CM
314.2	Hyperkinetic conduct disorder of childhood	Diagnosis	ICD-9-CM
314.8	Other specified manifestations of hyperkinetic syndrome of childhood	Diagnosis	ICD-9-CM
314.9	Unspecified hyperkinetic syndrome of childhood	Diagnosis	ICD-9-CM
F63.0	Pathological gambling	Diagnosis	ICD-10-CM
F63.1	Pyromania	Diagnosis	ICD-10-CM
F63.2	Kleptomania	Diagnosis	ICD-10-CM
F63.3	Trichotillomania	Diagnosis	ICD-10-CM
F63.81	Intermittent explosive disorder	Diagnosis	ICD-10-CM
F63.89	Other impulse disorders	Diagnosis	ICD-10-CM
F63.9	Impulse disorder, unspecified	Diagnosis	ICD-10-CM
F90.0	Attention-deficit hyperactivity disorder, predominantly inattentive type	Diagnosis	ICD-10-CM
F90.1	Attention-deficit hyperactivity disorder, predominantly hyperactive type	Diagnosis	ICD-10-CM
F90.2	Attention-deficit hyperactivity disorder, combined type	Diagnosis	ICD-10-CM
F90.8	Attention-deficit hyperactivity disorder, other type	Diagnosis	ICD-10-CM
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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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	
Code	Description	Category	Code Type
F90.9	Attention-deficit hyperactivity disorder, unspecified type	Diagnosis	ICD-10-CN
F91.0	Conduct disorder confined to family context	Diagnosis	ICD-10-CM
F91.1	Conduct disorder, childhood-onset type	Diagnosis	ICD-10-CN
F91.2	Conduct disorder, adolescent-onset type	Diagnosis	ICD-10-CN
F91.3	Oppositional defiant disorder	Diagnosis	ICD-10-CM
F91.8	Other conduct disorders	Diagnosis	ICD-10-CM
F91.9	Conduct disorder, unspecified	Diagnosis	ICD-10-CN
	ADHD Only Subset		
314.00	Attention deficit disorder of childhood without mention of hyperactivity	Diagnosis	ICD-9-CM
314.01	Attention deficit disorder of childhood with hyperactivity	Diagnosis	ICD-9-CM
314.1	Hyperkinesis of childhood with developmental delay	Diagnosis	ICD-9-CM
314.2	Hyperkinetic conduct disorder of childhood	Diagnosis	ICD-9-CM
314.8	Other specified manifestations of hyperkinetic syndrome of childhood	Diagnosis	ICD-9-CM
314.9	Unspecified hyperkinetic syndrome of childhood	Diagnosis	ICD-9-CM
F90.0	Attention-deficit hyperactivity disorder, predominantly inattentive type	Diagnosis	ICD-10-CN
F90.1	Attention-deficit hyperactivity disorder, predominantly hyperactive type	Diagnosis	ICD-10-CM
F90.2	Attention-deficit hyperactivity disorder, combined type	Diagnosis	ICD-10-CM
F90.8	Attention-deficit hyperactivity disorder, other type	Diagnosis	ICD-10-CM
F90.9	Attention-deficit hyperactivity disorder, unspecified type	Diagnosis	ICD-10-CM
	Alcohol Use Disorders		
291.0	Alcohol withdrawal delirium	Diagnosis	ICD-9-CM
291.1	Alcohol-induced persisting amnestic disorder	Diagnosis	ICD-9-CM
291.2	Alcohol-induced persisting dementia	Diagnosis	ICD-9-CM
291.3	Alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-9-CM
291.4	Idiosyncratic alcohol intoxication	Diagnosis	ICD-9-CM
291.5	Alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-9-CM
291.8	Other specified alcohol-induced mental disorders	Diagnosis	ICD-9-CM
291.81	Alcohol withdrawal	Diagnosis	ICD-9-CM
291.82	Alcohol induced sleep disorders	Diagnosis	ICD-9-CM
291.89	Other specified alcohol-induced mental disorders	Diagnosis	ICD-9-CM
291.9	Unspecified alcohol-induced mental disorders	Diagnosis	ICD-9-CM
303.00	Acute alcoholic intoxication, unspecified	Diagnosis	ICD-9-CM
303.01	Acute alcoholic intoxication, continuous	Diagnosis	ICD-9-CM
303.02	Acute alcoholic intoxication, episodic	Diagnosis	ICD-9-CM
303.90	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
305.00	Nondependent alcohol abuse, unspecified	Diagnosis	ICD-9-CM
305.01	Nondependent alcohol abuse, continuous	Diagnosis	ICD-9-CM
305.02	Nondependent alcohol abuse, episodic	Diagnosis	ICD-9-CM
357.5	Alcoholic polyneuropathy	Diagnosis	ICD-9-CM
425.5	Alcoholic cardiomyopathy	Diagnosis	ICD-9-CM
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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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

	ssed to Define Covariates in this nequest	Code	
Code	Description	Category	Code Type
535.30	Alcoholic gastritis without mention of hemorrhage	Diagnosis	ICD-9-CM
535.31	Alcoholic gastritis with hemorrhage	Diagnosis	ICD-9-CM
571.0	Alcoholic fatty liver	Diagnosis	ICD-9-CM
571.1	Acute alcoholic hepatitis	Diagnosis	ICD-9-CM
571.2	Alcoholic cirrhosis of liver	Diagnosis	ICD-9-CM
571.3	Unspecified alcoholic liver damage	Diagnosis	ICD-9-CM
760.71	Noxious influences affecting fetus or newborn via placenta or breast milk, alcohol	Diagnosis	ICD-9-CM
94.6	Alcohol and drug rehabilitation and detoxification	Procedure	ICD-9-CM
94.61	Alcohol rehabilitation	Procedure	ICD-9-CM
94.62	Alcohol detoxification	Procedure	ICD-9-CM
94.63	Alcohol rehabilitation and detoxification	Procedure	ICD-9-CM
94.67	Combined alcohol and drug rehabilitation	Procedure	ICD-9-CM
94.68	Combined alcohol and drug detoxification	Procedure	ICD-9-CM
94.69	Combined alcohol and drug rehabilitation and detoxification	Procedure	ICD-9-CM
980.0	Toxic effect of ethyl alcohol	Diagnosis	ICD-9-CM
E860.0	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
F10.130	Alcohol abuse with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F10.131	Alcohol abuse with withdrawal delirium	Diagnosis	ICD-10-CM
F10.132	Alcohol abuse with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F10.139	Alcohol abuse with withdrawal, unspecified	Diagnosis	ICD-10-CM
F10.14	Alcohol abuse with alcohol-induced mood disorder	Diagnosis	ICD-10-CM
F10.150	Alcohol abuse with alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F10.151	Alcohol abuse with alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F10.159	Alcohol abuse with alcohol-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F10.180	Alcohol abuse with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10.181	Alcohol abuse with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
F10.182	Alcohol abuse with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10.188	Alcohol abuse with other alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.19	Alcohol abuse with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.20	Alcohol dependence, uncomplicated	Diagnosis	ICD-10-CM
F10.220	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

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F10.250 F10.251 F10.259 F10.26 F10.27 F10.280 F10.281	Alcohol dependence with alcohol-induced psychotic disorder with delusions Alcohol dependence with alcohol-induced psychotic disorder with hallucinations Alcohol dependence with alcohol-induced psychotic disorder, unspecified Alcohol dependence with alcohol-induced persisting amnestic disorder Alcohol dependence with alcohol-induced persisting dementia Alcohol dependence with alcohol-induced anxiety disorder Alcohol dependence with alcohol-induced sexual dysfunction	Diagnosis Diagnosis Diagnosis Diagnosis Diagnosis Diagnosis Diagnosis	Code Type ICD-10-CM ICD-10-CM ICD-10-CM ICD-10-CM
F10.251 F10.259 F10.26 F10.27 F10.280 F10.281	Alcohol dependence with alcohol-induced psychotic disorder with hallucinations Alcohol dependence with alcohol-induced psychotic disorder, unspecified Alcohol dependence with alcohol-induced persisting amnestic disorder Alcohol dependence with alcohol-induced persisting dementia Alcohol dependence with alcohol-induced anxiety disorder	Diagnosis Diagnosis Diagnosis Diagnosis	ICD-10-CM ICD-10-CM
F10.259 F10.26 F10.27 F10.280 F10.281	Alcohol dependence with alcohol-induced psychotic disorder, unspecified Alcohol dependence with alcohol-induced persisting amnestic disorder Alcohol dependence with alcohol-induced persisting dementia Alcohol dependence with alcohol-induced anxiety disorder	Diagnosis Diagnosis Diagnosis	ICD-10-CM
F10.26 F10.27 F10.280 F10.281	Alcohol dependence with alcohol-induced persisting amnestic disorder Alcohol dependence with alcohol-induced persisting dementia Alcohol dependence with alcohol-induced anxiety disorder	Diagnosis Diagnosis	
F10.27 F10.280 F10.281	Alcohol dependence with alcohol-induced persisting dementia Alcohol dependence with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10.280 F10.281	Alcohol dependence with alcohol-induced anxiety disorder	=	
F10.281		Diagnosis	ICD-10-CM
	Alcohol dependence with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
	, mooner dependence man around made de conduct d'arante de la conduction d	Diagnosis	ICD-10-CM
F10.282	Alcohol dependence with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10.288	Alcohol dependence with other alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.29	Alcohol dependence with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.920	Alcohol use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F10.921	Alcohol use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F10.929	Alcohol use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F10.930	Alcohol use, unspecified with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F10.931	Alcohol use, unspecified with withdrawal delirium	Diagnosis	ICD-10-CM
F10.932	Alcohol use, unspecified with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F10.939	Alcohol use, unspecified with withdrawal, unspecified	Diagnosis	ICD-10-CM
F10.94	Alcohol use, unspecified with alcohol-induced mood disorder	Diagnosis	ICD-10-CM
F10.950	Alcohol use, unspecified with alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F10.951	Alcohol use, unspecified with alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F10.959	Alcohol use, unspecified with alcohol-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F10.96	Alcohol use, unspecified with alcohol-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F10.97	Alcohol use, unspecified with alcohol-induced persisting dementia	Diagnosis	ICD-10-CM
F10.980	Alcohol use, unspecified with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10.981	Alcohol use, unspecified with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
F10.982	Alcohol use, unspecified with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10.988	Alcohol use, unspecified with other alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.99	Alcohol use, unspecified with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM
G62.1	Alcoholic polyneuropathy	Diagnosis	ICD-10-CM
HZ2ZZZZ	Detoxification Services for Substance Abuse Treatment	Procedure	ICD-10-PCS
HZ30ZZZ	Individual Counseling for Substance Abuse Treatment, Cognitive	Procedure	ICD-10-PCS
HZ31ZZZ	Individual Counseling for Substance Abuse Treatment, Behavioral	Procedure	ICD-10-PCS
HZ32ZZZ	Individual Counseling for Substance Abuse Treatment, Cognitive-Behavioral	Procedure	ICD-10-PCS
HZ33ZZZ	Individual Counseling for Substance Abuse Treatment, 12-Step	Procedure	ICD-10-PCS
HZ34ZZZ	Individual Counseling for Substance Abuse Treatment, Interpersonal	Procedure	ICD-10-PCS
HZ35ZZZ	Individual Counseling for Substance Abuse Treatment, Vocational	Procedure	ICD-10-PCS
HZ36ZZZ	Individual Counseling for Substance Abuse Treatment, Psychoeducation	Procedure	ICD-10-PCS
HZ37ZZZ	Individual Counseling for Substance Abuse Treatment, Motivational Enhancement	Procedure	ICD-10-PCS
HZ38ZZZ	Individual Counseling for Substance Abuse Treatment, Confrontational	Procedure	ICD-10-PCS
HZ39ZZZ	Individual Counseling for Substance Abuse Treatment, Continuing Care	Procedure	ICD-10-PCS
HZ3BZZZ	Individual Counseling for Substance Abuse Treatment, Spiritual	Procedure	ICD-10-PCS
HZ40ZZZ	Group Counseling for Substance Abuse Treatment, Cognitive	Procedure	ICD-10-PCS

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		Code	
Code	Description	Category	Code Type
HZ93ZZZ	Pharmacotherapy for Substance Abuse Treatment, Antabuse	Procedure	ICD-10-PCS
HZ96ZZZ	Pharmacotherapy for Substance Abuse Treatment, Clonidine	Procedure	ICD-10-PCS
142.6	Alcoholic cardiomyopathy	Diagnosis	ICD-10-CM
K29.20	Alcoholic gastritis without bleeding	Diagnosis	ICD-10-CM
K29.21	Alcoholic gastritis with bleeding	Diagnosis	ICD-10-CM
K70.0	Alcoholic fatty liver	Diagnosis	ICD-10-CM
K70.10	Alcoholic hepatitis without ascites	Diagnosis	ICD-10-CM
K70.11	Alcoholic hepatitis with ascites	Diagnosis	ICD-10-CM
K70.2	Alcoholic fibrosis and sclerosis of liver	Diagnosis	ICD-10-CM
K70.30	Alcoholic cirrhosis of liver without ascites	Diagnosis	ICD-10-CM
K70.31	Alcoholic cirrhosis of liver with ascites	Diagnosis	ICD-10-CM
K70.40	Alcoholic hepatic failure without coma	Diagnosis	ICD-10-CM
K70.41	Alcoholic hepatic failure with coma	Diagnosis	ICD-10-CM
K70.9	Alcoholic liver disease, unspecified	Diagnosis	ICD-10-CM
P04.3	Newborn affected by maternal use of alcohol	Diagnosis	ICD-10-CM
Q86.0	Fetal alcohol syndrome (dysmorphic)	Diagnosis	ICD-10-CM
T51.0X1A	Toxic effect of ethanol, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T51.0X2A	Toxic effect of ethanol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.0X3A	Toxic effect of ethanol, assault, initial encounter	Diagnosis	ICD-10-CM
T51.0X4A	Toxic effect of ethanol, undetermined, initial encounter	Diagnosis	ICD-10-CM
V65.42	Counseling on substance use and abuse	Diagnosis	ICD-9-CM
V79.1	Screening for alcoholism	Diagnosis	ICD-9-CM
Z71.41	Alcohol abuse counseling and surveillance of alcoholic	Diagnosis	ICD-10-CM
Z71.42	Counseling for family member of alcoholic	Diagnosis	ICD-10-CM
	Anxiety Disorders	·	
293.84	Anxiety disorder in conditions classified elsewhere	Diagnosis	ICD-9-CM
300.00	Anxiety state, unspecified	Diagnosis	ICD-9-CM
300.01	Panic disorder without agoraphobia	Diagnosis	ICD-9-CM
300.02	Generalized anxiety disorder	Diagnosis	ICD-9-CM
300.09	Other anxiety states	Diagnosis	ICD-9-CM
300.10	Hysteria, unspecified	Diagnosis	ICD-9-CM
300.20	Phobia, unspecified	Diagnosis	ICD-9-CM
300.21	Agoraphobia with panic disorder	Diagnosis	ICD-9-CM
300.22	Agoraphobia without mention of panic attacks	Diagnosis	ICD-9-CM
300.23	Social phobia	Diagnosis	ICD-9-CM
300.29	Other isolated or specific phobias	Diagnosis	ICD-9-CM
300.3	Obsessive-compulsive disorders	Diagnosis	ICD-9-CM
300.5	Neurasthenia	Diagnosis	ICD-9-CM
300.89	Other somatoform disorders	Diagnosis	ICD-9-CM
300.9	Unspecified nonpsychotic mental disorder	Diagnosis	ICD-9-CM
308.0	Predominant disturbance of emotions	Diagnosis	ICD-9-CM

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		Code	
Code	Description	Category	Code Type
308.2	Predominant psychomotor disturbance as reaction to stress	Diagnosis	ICD-9-CM
308.3	Other acute reactions to stress	Diagnosis	ICD-9-CM
308.4	Mixed disorders as reaction to stress	Diagnosis	ICD-9-CM
308.9	Unspecified acute reaction to stress	Diagnosis	ICD-9-CM
309.81	Posttraumatic stress disorder	Diagnosis	ICD-9-CM
313.0	Overanxious disorder specific to childhood and adolescence	Diagnosis	ICD-9-CM
313.1	Misery and unhappiness disorder specific to childhood and adolescence	Diagnosis	ICD-9-CM
313.21	Shyness disorder of childhood	Diagnosis	ICD-9-CM
313.22	Introverted disorder of childhood	Diagnosis	ICD-9-CM
313.3	Relationship problems specific to childhood and adolescence	Diagnosis	ICD-9-CM
313.82	Identity disorder of childhood or adolescence	Diagnosis	ICD-9-CM
313.83	Academic underachievement disorder of childhood or adolescence	Diagnosis	ICD-9-CM
F06.4	Anxiety disorder due to known physiological condition	Diagnosis	ICD-10-CM
F40.00	Agoraphobia, unspecified	Diagnosis	ICD-10-CM
F40.01	Agoraphobia with panic disorder	Diagnosis	ICD-10-CM
F40.02	Agoraphobia without panic disorder	Diagnosis	ICD-10-CM
F40.10	Social phobia, unspecified	Diagnosis	ICD-10-CM
F40.11	Social phobia, generalized	Diagnosis	ICD-10-CM
F40.210	Arachnophobia	Diagnosis	ICD-10-CM
F40.218	Other animal type phobia	Diagnosis	ICD-10-CM
F40.220	Fear of thunderstorms	Diagnosis	ICD-10-CM
F40.228	Other natural environment type phobia	Diagnosis	ICD-10-CM
F40.230	Fear of blood	Diagnosis	ICD-10-CM
F40.231	Fear of injections and transfusions	Diagnosis	ICD-10-CM
F40.232	Fear of other medical care	Diagnosis	ICD-10-CM
F40.233	Fear of injury	Diagnosis	ICD-10-CM
F40.240	Claustrophobia	Diagnosis	ICD-10-CM
F40.241	Acrophobia	Diagnosis	ICD-10-CM
F40.242	Fear of bridges	Diagnosis	ICD-10-CM
F40.243	Fear of flying	Diagnosis	ICD-10-CM
F40.248	Other situational type phobia	Diagnosis	ICD-10-CM
F40.290	Androphobia	Diagnosis	ICD-10-CM
F40.291	Gynephobia	Diagnosis	ICD-10-CM
F40.298	Other specified phobia	Diagnosis	ICD-10-CM
F40.8	Other phobic anxiety disorders	Diagnosis	ICD-10-CM
F40.9	Phobic anxiety disorder, unspecified	Diagnosis	ICD-10-CM
F41.0	Panic disorder [episodic paroxysmal anxiety]	Diagnosis	ICD-10-CM
F41.1	Generalized anxiety disorder	Diagnosis	ICD-10-CM
F41.3	Other mixed anxiety disorders	Diagnosis	ICD-10-CM
F41.8	Other specified anxiety disorders	Diagnosis	ICD-10-CM
F41.9	Anxiety disorder, unspecified	Diagnosis	ICD-10-CM
F42	Obsessive-compulsive disorder	Diagnosis	ICD-10-CM

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Code	Description	Category	Code Type
F42.2	Mixed obsessional thoughts and acts	Diagnosis	ICD-10-CM
F42.3	Hoarding disorder	Diagnosis	ICD-10-CM
F42.4	Excoriation (skin-picking) disorder	Diagnosis	ICD-10-CM
F42.8	Other obsessive-compulsive disorder	Diagnosis	ICD-10-CM
F42.9	Obsessive-compulsive disorder, unspecified	Diagnosis	ICD-10-CM
F43.0	Acute stress reaction	Diagnosis	ICD-10-CM
F43.10	Post-traumatic stress disorder, unspecified	Diagnosis	ICD-10-CM
F43.11	Post-traumatic stress disorder, acute	Diagnosis	ICD-10-CM
F43.12	Post-traumatic stress disorder, chronic	Diagnosis	ICD-10-CM
F44.9	Dissociative and conversion disorder, unspecified	Diagnosis	ICD-10-CM
F45.8	Other somatoform disorders	Diagnosis	ICD-10-CM
F48.8	Other specified nonpsychotic mental disorders	Diagnosis	ICD-10-CM
F48.9	Nonpsychotic mental disorder, unspecified	Diagnosis	ICD-10-CM
F93.8	Other childhood emotional disorders	Diagnosis	ICD-10-CM
F99	Mental disorder, not otherwise specified	Diagnosis	ICD-10-CM
R45.2	Unhappiness	Diagnosis	ICD-10-CM
R45.5	Hostility	Diagnosis	ICD-10-CM
R45.6	Violent behavior	Diagnosis	ICD-10-CM
R45.7	State of emotional shock and stress, unspecified	Diagnosis	ICD-10-CM
	Bipolar Disorders		
296.00	Bipolar I disorder, single manic episode, unspecified	Diagnosis	ICD-9-CM
296.01	Bipolar I disorder, single manic episode, mild	Diagnosis	ICD-9-CM
296.02	Bipolar I disorder, single manic episode, moderate	Diagnosis	ICD-9-CM
296.03	Bipolar I disorder, single manic episode, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.04	Bipolar I disorder, single manic episode, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.05	Bipolar I disorder, single manic episode, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.06	Bipolar I disorder, single manic episode, in full remission	Diagnosis	ICD-9-CM
296.10	Manic disorder, recurrent episode, unspecified	Diagnosis	ICD-9-CM
296.11	Manic disorder, recurrent episode, mild	Diagnosis	ICD-9-CM
296.12	Manic disorder, recurrent episode, moderate	Diagnosis	ICD-9-CM
296.13	Manic disorder, recurrent episode, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.14	Manic disorder, recurrent episode, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.15	Manic disorder, recurrent episode, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.16	Manic disorder, recurrent episode, in full remission	Diagnosis	ICD-9-CM
296.40	Bipolar I disorder, most recent episode (or current) manic, unspecified	Diagnosis	ICD-9-CM
296.41	Bipolar I disorder, most recent episode (or current) manic, mild	Diagnosis	ICD-9-CM
296.42	Bipolar I disorder, most recent episode (or current) manic, moderate	Diagnosis	ICD-9-CM
296.43	Bipolar I disorder, most recent episode (or current) manic, severe, without mention	Diagnosis	ICD-9-CM
_5 55	of psychotic behavior		
296.44	Bipolar I disorder, most recent episode (or current) manic, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM

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Code	Description	Category	Code Type
296.45	Bipolar I disorder, most recent episode (or current) manic, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.46	Bipolar I disorder, most recent episode (or current) manic, in full remission	Diagnosis	ICD-9-CM
296.50	Bipolar I disorder, most recent episode (or current) depressed, unspecified	Diagnosis	ICD-9-CM
296.51	Bipolar I disorder, most recent episode (or current) depressed, mild	Diagnosis	ICD-9-CM
296.52	Bipolar I disorder, most recent episode (or current) depressed, moderate	Diagnosis	ICD-9-CM
296.53	Bipolar I disorder, most recent episode (or current) depressed, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.54	Bipolar I disorder, most recent episode (or current) depressed, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.55	Bipolar I disorder, most recent episode (or current) depressed, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.56	Bipolar I disorder, most recent episode (or current) depressed, in full remission	Diagnosis	ICD-9-CM
296.60	Bipolar I disorder, most recent episode (or current) mixed, unspecified	Diagnosis	ICD-9-CM
296.61	Bipolar I disorder, most recent episode (or current) mixed, mild	Diagnosis	ICD-9-CM
296.62	Bipolar I disorder, most recent episode (or current) mixed, moderate	Diagnosis	ICD-9-CM
296.63	Bipolar I disorder, most recent episode (or current) mixed, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.64	Bipolar I disorder, most recent episode (or current) mixed, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.65	Bipolar I disorder, most recent episode (or current) mixed, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.66	Bipolar I disorder, most recent episode (or current) mixed, in full remission	Diagnosis	ICD-9-CM
296.7	Bipolar I disorder, most recent episode (or current) unspecified	Diagnosis	ICD-9-CM
296.80	Bipolar disorder, unspecified	Diagnosis	ICD-9-CM
296.81	Atypical manic disorder	Diagnosis	ICD-9-CM
296.82	Atypical depressive disorder	Diagnosis	ICD-9-CM
296.89	Other and unspecified bipolar disorders	Diagnosis	ICD-9-CM
296.90	Unspecified episodic mood disorder	Diagnosis	ICD-9-CM
296.99	Other specified episodic mood disorder	Diagnosis	ICD-9-CM
F30.10	Manic episode without psychotic symptoms, unspecified	Diagnosis	ICD-10-CM
F30.11	Manic episode without psychotic symptoms, mild	Diagnosis	ICD-10-CN
F30.12	Manic episode without psychotic symptoms, moderate	Diagnosis	ICD-10-CN
F30.13	Manic episode, severe, without psychotic symptoms	Diagnosis	ICD-10-CN
F30.2	Manic episode, severe with psychotic symptoms	Diagnosis	ICD-10-CN
F30.3	Manic episode in partial remission	Diagnosis	ICD-10-CN
F30.4	Manic episode in full remission	Diagnosis	ICD-10-CN
F30.8	Other manic episodes	Diagnosis	ICD-10-CN
F30.9	Manic episode, unspecified	Diagnosis	ICD-10-CN
F31.0	Bipolar disorder, current episode hypomanic	Diagnosis	ICD-10-CN
F31.10	Bipolar disorder, current episode manic without psychotic features, unspecified	Diagnosis	ICD-10-CM
F31.11	Bipolar disorder, current episode manic without psychotic features, mild	Diagnosis	ICD-10-CM

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	·	Code	
Code	Description	Category	Code Type
F31.12	Bipolar disorder, current episode manic without psychotic features, moderate	Diagnosis	ICD-10-CM
F31.13	Bipolar disorder, current episode manic without psychotic features, severe	Diagnosis	ICD-10-CM
F31.2	Bipolar disorder, current episode manic severe with psychotic features	Diagnosis	ICD-10-CM
F31.30	Bipolar disorder, current episode depressed, mild or moderate severity, unspecified	Diagnosis	ICD-10-CM
F31.31	Bipolar disorder, current episode depressed, mild	Diagnosis	ICD-10-CM
F31.32	Bipolar disorder, current episode depressed, moderate	Diagnosis	ICD-10-CM
F31.4	Bipolar disorder, current episode depressed, severe, without psychotic features	Diagnosis	ICD-10-CM
F31.5	Bipolar disorder, current episode depressed, severe, with psychotic features	Diagnosis	ICD-10-CM
F31.60	Bipolar disorder, current episode mixed, unspecified	Diagnosis	ICD-10-CM
F31.61	Bipolar disorder, current episode mixed, mild	Diagnosis	ICD-10-CM
F31.62	Bipolar disorder, current episode mixed, moderate	Diagnosis	ICD-10-CM
F31.63	Bipolar disorder, current episode mixed, severe, without psychotic features	Diagnosis	ICD-10-CM
F31.64	Bipolar disorder, current episode mixed, severe, with psychotic features	Diagnosis	ICD-10-CM
F31.70	Bipolar disorder, currently in remission, most recent episode unspecified	Diagnosis	ICD-10-CM
F31.71	Bipolar disorder, in partial remission, most recent episode hypomanic	Diagnosis	ICD-10-CM
F31.72	Bipolar disorder, in full remission, most recent episode hypomanic	Diagnosis	ICD-10-CM
F31.73	Bipolar disorder, in partial remission, most recent episode manic	Diagnosis	ICD-10-CM
F31.74	Bipolar disorder, in full remission, most recent episode manic	Diagnosis	ICD-10-CM
F31.75	Bipolar disorder, in partial remission, most recent episode depressed	Diagnosis	ICD-10-CM
F31.76	Bipolar disorder, in full remission, most recent episode depressed	Diagnosis	ICD-10-CM
F31.77	Bipolar disorder, in partial remission, most recent episode mixed	Diagnosis	ICD-10-CM
F31.78	Bipolar disorder, in full remission, most recent episode mixed	Diagnosis	ICD-10-CM
F31.81	Bipolar II disorder	Diagnosis	ICD-10-CM
F31.89	Other bipolar disorder	Diagnosis	ICD-10-CM
F31.9	Bipolar disorder, unspecified	Diagnosis	ICD-10-CM
F33.8	Other recurrent depressive disorders	Diagnosis	ICD-10-CM
F34.81	Disruptive mood dysregulation disorder	Diagnosis	ICD-10-CM
F34.89	Other specified persistent mood disorders	Diagnosis	ICD-10-CM
F34.9	Persistent mood [affective] disorder, unspecified	Diagnosis	ICD-10-CM
F39	Unspecified mood [affective] disorder	Diagnosis	ICD-10-CM
	Depression		
296.20	Major depressive disorder, single episode, unspecified	Diagnosis	ICD-9-CM
296.21	Major depressive disorder, single episode, mild	Diagnosis	ICD-9-CM
296.22	Major depressive disorder, single episode, moderate	Diagnosis	ICD-9-CM
296.23	Major depressive disorder, single episode, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.24	Major depressive disorder, single episode, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.25	Major depressive disorder, single episode, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.26	Major depressive disorder, single episode in full remission	Diagnosis	ICD-9-CM
296.30	Major depressive disorder, recurrent episode, unspecified	Diagnosis	ICD-9-CM
296.31	Major depressive disorder, recurrent episode, mild	Diagnosis	ICD-9-CM

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	(		
Code	Description	Category	Code Type
296.32	Major depressive disorder, recurrent episode, moderate	Diagnosis	ICD-9-CM
296.33	Major depressive disorder, recurrent episode, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.34	Major depressive disorder, recurrent episode, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.35	Major depressive disorder, recurrent episode, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.36	Major depressive disorder, recurrent episode, in full remission	Diagnosis	ICD-9-CM
296.51	Bipolar I disorder, most recent episode (or current) depressed, mild	Diagnosis	ICD-9-CM
296.52	Bipolar I disorder, most recent episode (or current) depressed, moderate	Diagnosis	ICD-9-CM
296.53	Bipolar I disorder, most recent episode (or current) depressed, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.54	Bipolar I disorder, most recent episode (or current) depressed, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.55	Bipolar I disorder, most recent episode (or current) depressed, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.56	Bipolar I disorder, most recent episode (or current) depressed, in full remission	Diagnosis	ICD-9-CM
296.60	Bipolar I disorder, most recent episode (or current) mixed, unspecified	Diagnosis	ICD-9-CM
296.61	Bipolar I disorder, most recent episode (or current) mixed, mild	Diagnosis	ICD-9-CM
296.62	Bipolar I disorder, most recent episode (or current) mixed, moderate	Diagnosis	ICD-9-CM
296.63	Bipolar I disorder, most recent episode (or current) mixed, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.64	Bipolar I disorder, most recent episode (or current) mixed, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.65	Bipolar I disorder, most recent episode (or current) mixed, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.66	Bipolar I disorder, most recent episode (or current) mixed, in full remission	Diagnosis	ICD-9-CM
296.89	Other and unspecified bipolar disorders	Diagnosis	ICD-9-CM
298.0	Depressive type psychosis	Diagnosis	ICD-9-CM
300.4	Dysthymic disorder	Diagnosis	ICD-9-CM
309.1	Prolonged depressive reaction as adjustment reaction	Diagnosis	ICD-9-CM
311	Depressive disorder, not elsewhere classified	Diagnosis	ICD-9-CM
F31.30	Bipolar disorder, current episode depressed, mild or moderate severity, unspecified	Diagnosis	ICD-10-CM
F31.31	Bipolar disorder, current episode depressed, mild	Diagnosis	ICD-10-CM
F31.32	Bipolar disorder, current episode depressed, moderate	Diagnosis	ICD-10-CM
F31.4	Bipolar disorder, current episode depressed, severe, without psychotic features	Diagnosis	ICD-10-CM
F31.5	Bipolar disorder, current episode depressed, severe, with psychotic features	Diagnosis	ICD-10-CM
F31.60	Bipolar disorder, current episode mixed, unspecified	Diagnosis	ICD-10-CM
F31.61	Bipolar disorder, current episode mixed, mild	Diagnosis	ICD-10-CM
F31.62	Bipolar disorder, current episode mixed, moderate	Diagnosis	ICD-10-CM
F31.63	Bipolar disorder, current episode mixed, severe, without psychotic features	Diagnosis	ICD-10-CM
F31.64	Bipolar disorder, current episode mixed, severe, with psychotic features	Diagnosis	ICD-10-CM
F31.75	Bipolar disorder, in partial remission, most recent episode depressed	Diagnosis	ICD-10-CM

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· · · ·	·	Code	
Code	Description	Category	Code Type
F31.76	Bipolar disorder, in full remission, most recent episode depressed	Diagnosis	ICD-10-CM
F31.77	Bipolar disorder, in partial remission, most recent episode mixed	Diagnosis	ICD-10-CM
F31.78	Bipolar disorder, in full remission, most recent episode mixed	Diagnosis	ICD-10-CM
F31.81	Bipolar II disorder	Diagnosis	ICD-10-CM
F32.0	Major depressive disorder, single episode, mild	Diagnosis	ICD-10-CM
F32.1	Major depressive disorder, single episode, moderate	Diagnosis	ICD-10-CM
F32.2	Major depressive disorder, single episode, severe without psychotic features	Diagnosis	ICD-10-CM
F32.3	Major depressive disorder, single episode, severe with psychotic features	Diagnosis	ICD-10-CM
F32.4	Major depressive disorder, single episode, in partial remission	Diagnosis	ICD-10-CM
F32.5	Major depressive disorder, single episode, in full remission	Diagnosis	ICD-10-CM
F32.9	Major depressive disorder, single episode, unspecified	Diagnosis	ICD-10-CM
F33.0	Major depressive disorder, recurrent, mild	Diagnosis	ICD-10-CM
F33.1	Major depressive disorder, recurrent, moderate	Diagnosis	ICD-10-CM
F33.2	Major depressive disorder, recurrent severe without psychotic features	Diagnosis	ICD-10-CM
F33.3	Major depressive disorder, recurrent, severe with psychotic symptoms	Diagnosis	ICD-10-CM
F33.40	Major depressive disorder, recurrent, in remission, unspecified	Diagnosis	ICD-10-CM
F33.41	Major depressive disorder, recurrent, in partial remission	Diagnosis	ICD-10-CM
F33.42	Major depressive disorder, recurrent, in full remission	Diagnosis	ICD-10-CM
F33.8	Other recurrent depressive disorders	Diagnosis	ICD-10-CM
F33.9	Major depressive disorder, recurrent, unspecified	Diagnosis	ICD-10-CM
F34.1	Dysthymic disorder	Diagnosis	ICD-10-CM
F43.21	Adjustment disorder with depressed mood	Diagnosis	ICD-10-CM
F43.23	Adjustment disorder with mixed anxiety and depressed mood	Diagnosis	ICD-10-CM
	Depressive Disorders		
296.20	Major depressive disorder, single episode, unspecified	Diagnosis	ICD-9-CM
296.21	Major depressive disorder, single episode, mild	Diagnosis	ICD-9-CM
296.22	Major depressive disorder, single episode, moderate	Diagnosis	ICD-9-CM
296.23	Major depressive disorder, single episode, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.24	Major depressive disorder, single episode, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.25	Major depressive disorder, single episode, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.26	Major depressive disorder, single episode in full remission	Diagnosis	ICD-9-CM
296.30	Major depressive disorder, recurrent episode, unspecified	Diagnosis	ICD-9-CM
296.31	Major depressive disorder, recurrent episode, mild	Diagnosis	ICD-9-CM
296.32	Major depressive disorder, recurrent episode, moderate	Diagnosis	ICD-9-CM
296.33	Major depressive disorder, recurrent episode, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.34	Major depressive disorder, recurrent episode, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.35	Major depressive disorder, recurrent episode, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.36	Major depressive disorder, recurrent episode, in full remission	Diagnosis	ICD-9-CM

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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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	
Code	Description	Category	Code Type
300.4	Dysthymic disorder	Diagnosis	ICD-9-CM
311	Depressive disorder, not elsewhere classified	Diagnosis	ICD-9-CM
F32.0	Major depressive disorder, single episode, mild	Diagnosis	ICD-10-CM
F32.1	Major depressive disorder, single episode, moderate	Diagnosis	ICD-10-CM
F32.2	Major depressive disorder, single episode, severe without psychotic features	Diagnosis	ICD-10-CM
F32.3	Major depressive disorder, single episode, severe with psychotic features	Diagnosis	ICD-10-CM
F32.4	Major depressive disorder, single episode, in partial remission	Diagnosis	ICD-10-CM
F32.5	Major depressive disorder, single episode, in full remission	Diagnosis	ICD-10-CM
F32.89	Other specified depressive episodes	Diagnosis	ICD-10-CM
F32.9	Major depressive disorder, single episode, unspecified	Diagnosis	ICD-10-CM
F32.A	Depression, unspecified	Diagnosis	ICD-10-CM
F33.0	Major depressive disorder, recurrent, mild	Diagnosis	ICD-10-CM
F33.1	Major depressive disorder, recurrent, moderate	Diagnosis	ICD-10-CM
F33.2	Major depressive disorder, recurrent severe without psychotic features	Diagnosis	ICD-10-CM
F33.3	Major depressive disorder, recurrent, severe with psychotic symptoms	Diagnosis	ICD-10-CM
F33.40	Major depressive disorder, recurrent, in remission, unspecified	Diagnosis	ICD-10-CM
F33.41	Major depressive disorder, recurrent, in partial remission	Diagnosis	ICD-10-CM
F33.42	Major depressive disorder, recurrent, in full remission	Diagnosis	ICD-10-CM
F33.8	Other recurrent depressive disorders	Diagnosis	ICD-10-CM
F33.9	Major depressive disorder, recurrent, unspecified	Diagnosis	ICD-10-CM
F34.1	Dysthymic disorder	Diagnosis	ICD-10-CM
	Personality Disorders		
301.0	Paranoid personality disorder	Diagnosis	ICD-9-CM
301.10	Affective personality disorder, unspecified	Diagnosis	ICD-9-CM
301.11	Chronic hypomanic personality disorder	Diagnosis	ICD-9-CM
301.12	Chronic depressive personality disorder	Diagnosis	ICD-9-CM
301.13	Cyclothymic disorder	Diagnosis	ICD-9-CM
301.20	Schizoid personality disorder, unspecified	Diagnosis	ICD-9-CM
301.21	Introverted personality	Diagnosis	ICD-9-CM
301.22	Schizotypal personality disorder	Diagnosis	ICD-9-CM
301.3	Explosive personality disorder	Diagnosis	ICD-9-CM
301.4	Obsessive-compulsive personality disorder	Diagnosis	ICD-9-CM
301.50	Histrionic personality disorder, unspecified	Diagnosis	ICD-9-CM
301.51	Chronic factitious illness with physical symptoms	Diagnosis	ICD-9-CM
301.59	Other histrionic personality disorder	Diagnosis	ICD-9-CM
301.6	Dependent personality disorder	Diagnosis	ICD-9-CM
301.7	Antisocial personality disorder	Diagnosis	ICD-9-CM
301.81	Narcissistic personality disorder	Diagnosis	ICD-9-CM
301.82	Avoidant personality disorder	Diagnosis	ICD-9-CM
000-		D:	ICD-9-CM
	Borderline personality disorder	Diagnosis	ICD-3-CIVI
301.83 301.84	Borderline personality disorder Passive-aggressive personality	Diagnosis Diagnosis	ICD-9-CM

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		Code	
Code	Description	Category	Code Type
301.9	Unspecified personality disorder	Diagnosis	ICD-9-CM
F21	Schizotypal disorder	Diagnosis	ICD-10-CM
F34.0	Cyclothymic disorder	Diagnosis	ICD-10-CM
F34.1	Dysthymic disorder	Diagnosis	ICD-10-CM
F60.0	Paranoid personality disorder	Diagnosis	ICD-10-CM
F60.1	Schizoid personality disorder	Diagnosis	ICD-10-CM
F60.2	Antisocial personality disorder	Diagnosis	ICD-10-CM
F60.3	Borderline personality disorder	Diagnosis	ICD-10-CM
F60.4	Histrionic personality disorder	Diagnosis	ICD-10-CM
F60.5	Obsessive-compulsive personality disorder	Diagnosis	ICD-10-CM
F60.6	Avoidant personality disorder	Diagnosis	ICD-10-CM
F60.7	Dependent personality disorder	Diagnosis	ICD-10-CM
F60.81	Narcissistic personality disorder	Diagnosis	ICD-10-CM
F60.89	Other specific personality disorders	Diagnosis	ICD-10-CM
F60.9	Personality disorder, unspecified	Diagnosis	ICD-10-CM
F68.10	Factitious disorder imposed on self, unspecified	Diagnosis	ICD-10-CM
F68.11	Factitious disorder imposed on self, with predominantly psychological signs and	Diagnosis	ICD-10-CM
	symptoms		
F68.12	Factitious disorder imposed on self, with predominantly physical signs and	Diagnosis	ICD-10-CM
	symptoms		
F68.13	Factitious disorder imposed on self, with combined psychological and physical signs	Diagnosis	ICD-10-CM
	and symptoms		
F69	Unspecified disorder of adult personality and behavior	Diagnosis	ICD-10-CM

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Code	Description	Category	Code Type
	Drug Use Disorders		
292.0	Drug withdrawal	Diagnosis	ICD-9-CM
292.11	Drug-induced psychotic disorder with delusions	Diagnosis	ICD-9-CM
292.12	Drug-induced psychotic disorder with hallucinations	Diagnosis	ICD-9-CM
292.2	Pathological drug intoxication	Diagnosis	ICD-9-CM
292.81	Drug-induced delirium	Diagnosis	ICD-9-CM
292.82	Drug-induced persisting dementia	Diagnosis	ICD-9-CM
292.83	Drug-induced persisting amnestic disorder	Diagnosis	ICD-9-CM
292.84	Drug-induced mood disorder	Diagnosis	ICD-9-CM
292.85	Drug induced sleep disorders	Diagnosis	ICD-9-CM
292.89	Other specified drug-induced mental disorder	Diagnosis	ICD-9-CM
292.9	Unspecified drug-induced mental disorder	Diagnosis	ICD-9-CM
304.00	Opioid type dependence, unspecified	Diagnosis	ICD-9-CM
304.01	Opioid type dependence, continuous	Diagnosis	ICD-9-CM
304.02	Opioid type dependence, episodic	Diagnosis	ICD-9-CM
304.10	Sedative, hypnotic or anxiolytic dependence, unspecified	Diagnosis	ICD-9-CM
304.11	Sedative, hypnotic or anxiolytic dependence, continuous	Diagnosis	ICD-9-CM
304.12	Sedative, hypnotic or anxiolytic dependence, episodic	Diagnosis	ICD-9-CM
304.2	Cocaine dependence	Diagnosis	ICD-9-CM
304.20	Cocaine dependence, unspecified	Diagnosis	ICD-9-CM
304.21	Cocaine dependence, continuous	Diagnosis	ICD-9-CM
304.22	Cocaine dependence, episodic	Diagnosis	ICD-9-CM
304.3	Cannabis dependence	Diagnosis	ICD-9-CM
304.30	Cannabis dependence, unspecified	Diagnosis	ICD-9-CM
304.31	Cannabis dependence, continuous	Diagnosis	ICD-9-CM
304.32	Cannabis dependence, episodic	Diagnosis	ICD-9-CM
304.4	Amphetamine and other psychostimulant dependence	Diagnosis	ICD-9-CM
304.40	Amphetamine and other psychostimulant dependence, unspecified	Diagnosis	ICD-9-CM
304.41	Amphetamine and other psychostimulant dependence, continuous	Diagnosis	ICD-9-CM
304.42	Amphetamine and other psychostimulant dependence, episodic	Diagnosis	ICD-9-CM
304.5	Hallucinogen dependence	Diagnosis	ICD-9-CM
304.50	Hallucinogen dependence, unspecified	Diagnosis	ICD-9-CM
304.51	Hallucinogen dependence, continuous	Diagnosis	ICD-9-CM
304.52	Hallucinogen dependence, episodic	Diagnosis	ICD-9-CM
304.6	Other specified drug dependence	Diagnosis	ICD-9-CM
304.60	Other specified drug dependence, unspecified	Diagnosis	ICD-9-CM
304.61	Other specified drug dependence, continuous	Diagnosis	ICD-9-CM
304.62	Other specified drug dependence, episodic	Diagnosis	ICD-9-CM
304.7	Combinations of opioid type drug with any other drug dependence	Diagnosis	ICD-9-CM
304.70	Combinations of opioid type drug with any other drug dependence, unspecified	Diagnosis	ICD-9-CM
304.71	Combinations of opioid type drug with any other drug dependence, continuous	Diagnosis	ICD-9-CM
304.72	Combinations of opioid type drug with any other drug dependence, episodic	Diagnosis	ICD-9-CM

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Code	Description	Category	Code Type
304.8	Combinations of drug dependence excluding opioid type drug	Diagnosis	ICD-9-CM
304.80	Combinations of drug dependence excluding opioid type drug, unspecified	Diagnosis	ICD-9-CM
304.81	Combinations of drug dependence excluding opioid type drug, continuous	Diagnosis	ICD-9-CM
304.82	Combinations of drug dependence excluding opioid type drug, episodic	Diagnosis	ICD-9-CM
304.9	Unspecified drug dependence	Diagnosis	ICD-9-CM
304.90	Unspecified drug dependence, unspecified	Diagnosis	ICD-9-CM
304.91	Unspecified drug dependence, continuous	Diagnosis	ICD-9-CM
304.92	Unspecified drug dependence, episodic	Diagnosis	ICD-9-CM
305.2	Nondependent cannabis abuse	Diagnosis	ICD-9-CM
305.20	Nondependent cannabis abuse, unspecified	Diagnosis	ICD-9-CM
305.21	Nondependent cannabis abuse, continuous	Diagnosis	ICD-9-CM
305.22	Nondependent cannabis abuse, episodic	Diagnosis	ICD-9-CM
305.3	Nondependent hallucinogen abuse	Diagnosis	ICD-9-CM
305.30	Nondependent hallucinogen abuse, unspecified	Diagnosis	ICD-9-CM
305.31	Nondependent hallucinogen abuse, continuous	Diagnosis	ICD-9-CM
305.32	Nondependent hallucinogen abuse, episodic	Diagnosis	ICD-9-CM
305.4	Nondependent sedative, hypnotic or anxiolytic abuse	Diagnosis	ICD-9-CM
305.40	Nondependent sedative, hypnotic or anxiolytic abuse, unspecified	Diagnosis	ICD-9-CM
305.41	Nondependent sedative hypnotic or anxiolytic abuse, continuous	Diagnosis	ICD-9-CM
305.42	Nondependent sedative, hypnotic or anxiolytic abuse, episodic	Diagnosis	ICD-9-CM
305.5	Nondependent opioid abuse	Diagnosis	ICD-9-CM
305.50	Nondependent opioid abuse, unspecified	Diagnosis	ICD-9-CM
305.51	Nondependent opioid abuse, continuous	Diagnosis	ICD-9-CM
305.52	Nondependent opioid abuse, episodic	Diagnosis	ICD-9-CM
305.6	Nondependent cocaine abuse	Diagnosis	ICD-9-CM
305.60	Nondependent cocaine abuse, unspecified	Diagnosis	ICD-9-CM
305.61	Nondependent cocaine abuse, continuous	Diagnosis	ICD-9-CM
305.62	Nondependent cocaine abuse, episodic	Diagnosis	ICD-9-CM
305.7	Nondependent amphetamine or related acting sympathomimetic abuse	Diagnosis	ICD-9-CM
305.70	Nondependent amphetamine or related acting sympathomimetic abuse, unspecified	Diagnosis	ICD-9-CM
305.71	Nondependent amphetamine or related acting sympathomimetic abuse, continuous	Diagnosis	ICD-9-CM
305.72	Nondependent amphetamine or related acting sympathomimetic abuse, episodic	Diagnosis	ICD-9-CM
305.8	Nondependent antidepressant type abuse	Diagnosis	ICD-9-CM
305.80	Nondependent antidepressant type abuse, unspecified	Diagnosis	ICD-9-CM
305.81	Nondependent antidepressant type abuse, continuous	Diagnosis	ICD-9-CM
305.82	Nondependent antidepressant type abuse, episodic	Diagnosis	ICD-9-CM
305.9	Other, mixed, or unspecified nondependent drug abuse	Diagnosis	ICD-9-CM
305.90	Other, mixed, or unspecified nondependent drug abuse, unspecified	Diagnosis	ICD-9-CM
305.91	Other, mixed, or unspecified nondependent drug abuse, continuous	Diagnosis	ICD-9-CM
305.92	Other, mixed, or unspecified nondependent drug abuse, episodic	Diagnosis	ICD-9-CM
648.3	Maternal drug dependence complicating pregnancy, childbirth, or the puerperium	Diagnosis	ICD-9-CM

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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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	
Code	Description	Category	Code Type
648.30	Maternal drug dependence complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care	Diagnosis	ICD-9-CM
648.31	Maternal drug dependence, with delivery	Diagnosis	ICD-9-CM
648.32	Maternal drug dependence, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
648.33	Maternal drug dependence, antepartum	Diagnosis	ICD-9-CM
648.34	Maternal drug dependence complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
655.5	Suspected damage to fetus from drugs, affecting management of mother	Diagnosis	ICD-9-CM
655.50	Suspected damage to fetus from drugs, affecting management of mother, unspecified as to episode of care	Diagnosis	ICD-9-CM
655.51	Suspected damage to fetus from drugs, affecting management of mother, delivered	Diagnosis	ICD-9-CM
655.53	Suspected damage to fetus from drugs, affecting management of mother, antepartum	Diagnosis	ICD-9-CM
760.72	Noxious influences affecting fetus or newborn via placenta or breast milk, narcotics	Diagnosis	ICD-9-CM
760.73	Noxious influences affecting fetus or newborn via placenta or breast milk, hallucinogenic agents	Diagnosis	ICD-9-CM
760.75	Noxious influences affecting fetus or newborn via placenta or breast milk, cocaine	Diagnosis	ICD-9-CM
779.5	Drug withdrawal syndrome in newborn	Diagnosis	ICD-9-CM
94.6	Alcohol and drug rehabilitation and detoxification	Procedure	ICD-9-CM
94.64	Drug rehabilitation	Procedure	ICD-9-CM
94.65	Drug detoxification	Procedure	ICD-9-CM
94.66	Drug rehabilitation and detoxification	Procedure	ICD-9-CM
94.67	Combined alcohol and drug rehabilitation	Procedure	ICD-9-CM
94.68	Combined alcohol and drug detoxification	Procedure	ICD-9-CM
94.69	Combined alcohol and drug rehabilitation and detoxification	Procedure	ICD-9-CM
965.0	Poisoning by opiates and related narcotics	Diagnosis	ICD-9-CM
965.00	Poisoning by opium (alkaloids), unspecified	Diagnosis	ICD-9-CM
965.01	Poisoning by heroin	Diagnosis	ICD-9-CM
965.02	Poisoning by methadone	Diagnosis	ICD-9-CM
965.09	Poisoning by opiates and related narcotics, other	Diagnosis	ICD-9-CM
E850.0	Accidental poisoning by heroin	Diagnosis	ICD-9-CM
E850.1	Accidental poisoning by methadone	Diagnosis	ICD-9-CM
E850.2	Accidental poisoning by other opiates and related narcotics	Diagnosis	ICD-9-CM
E854.1	Accidental poisoning by psychodysleptics (hallucinogens)	Diagnosis	ICD-9-CM
E935.0	Heroin causing adverse effect in therapeutic use	Diagnosis	ICD-9-CM
E935.1	Methadone causing averse effect in therapeutic use	Diagnosis	ICD-9-CM
F11.10	Opioid abuse, uncomplicated	Diagnosis	ICD-10-CM
F11.120	Opioid abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.121	Opioid abuse with intoxication delirium	Diagnosis	ICD-10-CM
F11.122	Opioid abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.129	Opioid abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.13	Opioid abuse with withdrawal	Diagnosis	ICD-10-CM

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	·	Code	
Code	Description	Category	Code Type
F11.14	Opioid abuse with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.150	Opioid abuse with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.151	Opioid abuse with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.159	Opioid abuse with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.181	Opioid abuse with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.182	Opioid abuse with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.188	Opioid abuse with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.19	Opioid abuse with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F11.20	Opioid dependence, uncomplicated	Diagnosis	ICD-10-CM
F11.220	Opioid dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.221	Opioid dependence with intoxication delirium	Diagnosis	ICD-10-CM
F11.222	Opioid dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.229	Opioid dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.23	Opioid dependence with withdrawal	Diagnosis	ICD-10-CM
F11.24	Opioid dependence with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.250	Opioid dependence with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.251	Opioid dependence with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.259	Opioid dependence with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.281	Opioid dependence with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.282	Opioid dependence with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.288	Opioid dependence with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.29	Opioid dependence with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F11.90	Opioid use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F11.920	Opioid use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.921	Opioid use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F11.922	Opioid use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.929	Opioid use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.93	Opioid use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F11.94	Opioid use, unspecified with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.950	Opioid use, unspecified with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.951	Opioid use, unspecified with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.959	Opioid use, unspecified with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.981	Opioid use, unspecified with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.982	Opioid use, unspecified with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.988	Opioid use, unspecified with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.99	Opioid use, unspecified with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F12.10	Cannabis abuse, uncomplicated	Diagnosis	ICD-10-CM
F12.120	Cannabis abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F12.121	Cannabis abuse with intoxication delirium	Diagnosis	ICD-10-CM
F12.122	Cannabis abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F12.129	Cannabis abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F12.13	Cannabis abuse with withdrawal	Diagnosis	ICD-10-CM

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		Code	
Code	Description	Category	Code Type
F12.150	Cannabis abuse with psychotic disorder with delusions	Diagnosis	ICD-10-CM
F12.151	Cannabis abuse with psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F12.159	Cannabis abuse with psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F12.180	Cannabis abuse with cannabis-induced anxiety disorder	Diagnosis	ICD-10-CM
F12.188	Cannabis abuse with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.19	Cannabis abuse with unspecified cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.20	Cannabis dependence, uncomplicated	Diagnosis	ICD-10-CM
F12.220	Cannabis dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F12.221	Cannabis dependence with intoxication delirium	Diagnosis	ICD-10-CM
F12.222	Cannabis dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F12.229	Cannabis dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F12.250	Cannabis dependence with psychotic disorder with delusions	Diagnosis	ICD-10-CM
F12.251	Cannabis dependence with psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F12.259	Cannabis dependence with psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F12.280	Cannabis dependence with cannabis-induced anxiety disorder	Diagnosis	ICD-10-CM
F12.288	Cannabis dependence with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.29	Cannabis dependence with unspecified cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.90	Cannabis use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F12.920	Cannabis use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F12.921	Cannabis use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F12.922	Cannabis use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F12.929	Cannabis use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F12.950	Cannabis use, unspecified with psychotic disorder with delusions	Diagnosis	ICD-10-CM
F12.951	Cannabis use, unspecified with psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F12.959	Cannabis use, unspecified with psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F12.980	Cannabis use, unspecified with anxiety disorder	Diagnosis	ICD-10-CM
F12.988	Cannabis use, unspecified with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.99	Cannabis use, unspecified with unspecified cannabis-induced disorder	Diagnosis	ICD-10-CM
F13.10	Sedative, hypnotic or anxiolytic abuse, uncomplicated	Diagnosis	ICD-10-CM
F13.120	Sedative, hypnotic or anxiolytic abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F13.121	Sedative, hypnotic or anxiolytic abuse with intoxication delirium	Diagnosis	ICD-10-CM
F13.129	Sedative, hypnotic or anxiolytic abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F13.130	Sedative, hypnotic or anxiolytic abuse with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F13.131	Sedative, hypnotic or anxiolytic abuse with withdrawal delirium	Diagnosis	ICD-10-CM
F13.132	Sedative, hypnotic or anxiolytic abuse with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F13.139	Sedative, hypnotic or anxiolytic abuse with withdrawal, unspecified	Diagnosis	ICD-10-CM
F13.14	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced mood disorder	Diagnosis	ICD-10-CM
F13.150	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F13.151	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM

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Code	Description	Category	Code Type
F13.159	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F13.180	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced anxiety disorder	Diagnosis	ICD-10-CM
F13.181	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced sexual dysfunction	Diagnosis	ICD-10-CM
F13.182	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced sleep disorder	Diagnosis	ICD-10-CM
F13.188	Sedative, hypnotic or anxiolytic abuse with other sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.19	Sedative, hypnotic or anxiolytic abuse with unspecified sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.20	Sedative, hypnotic or anxiolytic dependence, uncomplicated	Diagnosis	ICD-10-CM
F13.220	Sedative, hypnotic or anxiolytic dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F13.221	Sedative, hypnotic or anxiolytic dependence with intoxication delirium	Diagnosis	ICD-10-CM
F13.229	Sedative, hypnotic or anxiolytic dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F13.230	Sedative, hypnotic or anxiolytic dependence with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F13.231	Sedative, hypnotic or anxiolytic dependence with withdrawal delirium	Diagnosis	ICD-10-CM
F13.232	Sedative, hypnotic or anxiolytic dependence with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F13.239	Sedative, hypnotic or anxiolytic dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM
F13.24	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced mood disorder	Diagnosis	ICD-10-CM
F13.250	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F13.251	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F13.259	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F13.26	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F13.27	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting dementia	Diagnosis	ICD-10-CM
F13.280	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced anxiety disorder	Diagnosis	ICD-10-CM
F13.281	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sexual dysfunction	Diagnosis	ICD-10-CM
F13.282	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sleep disorder	Diagnosis	ICD-10-CM
F13.288	Sedative, hypnotic or anxiolytic dependence with other sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM

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Code	Description	Category	Code Type
F13.29	Sedative, hypnotic or anxiolytic dependence with unspecified sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.90	Sedative, hypnotic, or anxiolytic use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F13.920	Sedative, hypnotic or anxiolytic use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F13.921	Sedative, hypnotic or anxiolytic use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F13.929	Sedative, hypnotic or anxiolytic use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F13.930	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F13.931	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal delirium	Diagnosis	ICD-10-CM
F13.932	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal with perceptual disturbances	Diagnosis	ICD-10-CM
F13.939	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal, unspecified	Diagnosis	ICD-10-CM
F13.94	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced mood disorder	Diagnosis	ICD-10-CM
F13.950	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F13.951	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F13.959	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F13.96	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F13.97	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced persisting dementia	Diagnosis	ICD-10-CM
F13.980	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced anxiety disorder	Diagnosis	ICD-10-CM
F13.981	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced sexual dysfunction	Diagnosis	ICD-10-CM
F13.982	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced sleep disorder	Diagnosis	ICD-10-CM
F13.988	Sedative, hypnotic or anxiolytic use, unspecified with other sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.99	Sedative, hypnotic or anxiolytic use, unspecified with unspecified sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F14.10	Cocaine abuse, uncomplicated	Diagnosis	ICD-10-CM
F14.120	Cocaine abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F14.121	Cocaine abuse with intoxication with delirium	Diagnosis	ICD-10-CM
F14.122	Cocaine abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F14.129	Cocaine abuse with intoxication, unspecified	Diagnosis	ICD-10-CM

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	·	Code	
Code	Description	Category	Code Type
F14.13	Cocaine abuse, unspecified with withdrawal	Diagnosis	ICD-10-CM
F14.14	Cocaine abuse with cocaine-induced mood disorder	Diagnosis	ICD-10-CM
F14.150	Cocaine abuse with cocaine-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F14.151	Cocaine abuse with cocaine-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F14.159	Cocaine abuse with cocaine-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F14.180	Cocaine abuse with cocaine-induced anxiety disorder	Diagnosis	ICD-10-CM
F14.181	Cocaine abuse with cocaine-induced sexual dysfunction	Diagnosis	ICD-10-CM
F14.182	Cocaine abuse with cocaine-induced sleep disorder	Diagnosis	ICD-10-CM
F14.188	Cocaine abuse with other cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.19	Cocaine abuse with unspecified cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.20	Cocaine dependence, uncomplicated	Diagnosis	ICD-10-CM
F14.220	Cocaine dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F14.221	Cocaine dependence with intoxication delirium	Diagnosis	ICD-10-CM
F14.222	Cocaine dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F14.229	Cocaine dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F14.23	Cocaine dependence with withdrawal	Diagnosis	ICD-10-CM
F14.24	Cocaine dependence with cocaine-induced mood disorder	Diagnosis	ICD-10-CM
F14.250	Cocaine dependence with cocaine-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F14.251	Cocaine dependence with cocaine-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F14.259	Cocaine dependence with cocaine-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F14.280	Cocaine dependence with cocaine-induced anxiety disorder	Diagnosis	ICD-10-CM
F14.281	Cocaine dependence with cocaine-induced sexual dysfunction	Diagnosis	ICD-10-CM
F14.282	Cocaine dependence with cocaine-induced sleep disorder	Diagnosis	ICD-10-CM
F14.288	Cocaine dependence with other cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.29	Cocaine dependence with unspecified cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.90	Cocaine use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F14.920	Cocaine use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F14.921	Cocaine use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F14.922	Cocaine use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F14.929	Cocaine use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F14.93	Cocaine use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F14.94	Cocaine use, unspecified with cocaine-induced mood disorder	Diagnosis	ICD-10-CM
F14.950	Cocaine use, unspecified with cocaine-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F14.951	Cocaine use, unspecified with cocaine-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F14.959	Cocaine use, unspecified with cocaine-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F14.980	Cocaine use, unspecified with cocaine-induced anxiety disorder	Diagnosis	ICD-10-CM
F14.981	Cocaine use, unspecified with cocaine-induced sexual dysfunction	Diagnosis	ICD-10-CM
F14.982	Cocaine use, unspecified with cocaine-induced sleep disorder	Diagnosis	ICD-10-CM
F14.988	Cocaine use, unspecified with other cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.99	Cocaine use, unspecified with unspecified cocaine-induced disorder	Diagnosis	ICD-10-CM
F15.10	Other stimulant abuse, uncomplicated	Diagnosis	ICD-10-CM

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F15.121 Other stimulant abu F15.122 Other stimulant abu F15.129 Other stimulant abu F15.13 Other stimulant abu	se with intoxication, uncomplicated se with intoxication delirium se with intoxication with perceptual disturbance se with intoxication, unspecified se with withdrawal se with stimulant-induced mood disorder se with stimulant-induced psychotic disorder with delusions se with stimulant-induced psychotic disorder with	Diagnosis Diagnosis Diagnosis Diagnosis Diagnosis Diagnosis Diagnosis Diagnosis	ICD-10-CM ICD-10-CM ICD-10-CM ICD-10-CM ICD-10-CM ICD-10-CM
F15.121 Other stimulant abu F15.122 Other stimulant abu F15.129 Other stimulant abu F15.13 Other stimulant abu	se with intoxication delirium se with intoxication with perceptual disturbance se with intoxication, unspecified se with withdrawal se with stimulant-induced mood disorder se with stimulant-induced psychotic disorder with delusions	Diagnosis Diagnosis Diagnosis Diagnosis Diagnosis	ICD-10-CM ICD-10-CM ICD-10-CM ICD-10-CM
F15.122 Other stimulant abu F15.129 Other stimulant abu F15.13 Other stimulant abu	se with intoxication with perceptual disturbance se with intoxication, unspecified se with withdrawal se with stimulant-induced mood disorder se with stimulant-induced psychotic disorder with delusions	Diagnosis Diagnosis Diagnosis Diagnosis	ICD-10-CM ICD-10-CM ICD-10-CM
F15.129 Other stimulant abu F15.13 Other stimulant abu	se with intoxication, unspecified se with withdrawal se with stimulant-induced mood disorder se with stimulant-induced psychotic disorder with delusions	Diagnosis Diagnosis Diagnosis	ICD-10-CM ICD-10-CM
F15.13 Other stimulant abu	se with withdrawal se with stimulant-induced mood disorder se with stimulant-induced psychotic disorder with delusions	Diagnosis Diagnosis	ICD-10-CM
	se with stimulant-induced mood disorder se with stimulant-induced psychotic disorder with delusions	Diagnosis	
545.44 OIL II L I	se with stimulant-induced psychotic disorder with delusions	_	ICD-10-CM
F15.14 Other stimulant abu	• •	Diagnosis	
F15.150 Other stimulant abu	se with stimulant-induced psychotic disorder with		ICD-10-CM
F15.151 Other stimulant abu		Diagnosis	ICD-10-CM
	so with stimulant indused psychotic disorder, unspecified	Diagnosis	ICD 10 CM
	se with stimulant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
	se with stimulant-induced anxiety disorder	Diagnosis	ICD-10-CM
	se with stimulant-induced sexual dysfunction	Diagnosis	ICD-10-CM
	se with stimulant-induced sleep disorder se with other stimulant-induced disorder	Diagnosis	ICD-10-CM
		Diagnosis	ICD-10-CM
	se with unspecified stimulant-induced disorder	Diagnosis	ICD-10-CM
•	endence, uncomplicated	Diagnosis	ICD-10-CM
	endence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
•	endence with intoxication delirium	Diagnosis	ICD-10-CM
	endence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
	endence with intoxication, unspecified	Diagnosis	ICD-10-CM
	endence with withdrawal	Diagnosis	ICD-10-CM
	endence with stimulant-induced mood disorder	Diagnosis	ICD-10-CM
F15.250 Other stimulant dep delusions	endence with stimulant-induced psychotic disorder with	Diagnosis	ICD-10-CM
F15.251 Other stimulant dep hallucinations	endence with stimulant-induced psychotic disorder with	Diagnosis	ICD-10-CM
	endence with stimulant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
	endence with stimulant-induced anxiety disorder	Diagnosis	ICD-10-CM
•	endence with stimulant-induced sexual dysfunction	Diagnosis	ICD-10-CM
•	endence with stimulant-induced sleep disorder	Diagnosis	ICD-10-CM
•	endence with other stimulant-induced disorder	Diagnosis	ICD-10-CM
·	endence with unspecified stimulant-induced disorder	Diagnosis	ICD-10-CM
•	, unspecified, uncomplicated	Diagnosis	ICD-10-CM
	unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
	unspecified with intoxication delirium	Diagnosis	ICD-10-CM
	unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
	unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
	unspecified with withdrawal	Diagnosis	ICD-10-CM
	, unspecified with stimulant-induced mood disorder	Diagnosis	ICD-10-CM
	unspecified with stimulant-induced psychotic disorder with	Diagnosis	ICD-10-CM

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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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	
Code	Description	Category	Code Type
F15.951	Other stimulant use, unspecified with stimulant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F15.959	Other stimulant use, unspecified with stimulant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F15.980	Other stimulant use, unspecified with stimulant-induced anxiety disorder	Diagnosis	ICD-10-CM
F15.981	Other stimulant use, unspecified with stimulant-induced sexual dysfunction	Diagnosis	ICD-10-CM
F15.982	Other stimulant use, unspecified with stimulant-induced sleep disorder	Diagnosis	ICD-10-CM
F15.988	Other stimulant use, unspecified with other stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.99	Other stimulant use, unspecified with unspecified stimulant-induced disorder	Diagnosis	ICD-10-CM
F16.10	Hallucinogen abuse, uncomplicated	Diagnosis	ICD-10-CM
F16.120	Hallucinogen abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F16.121	Hallucinogen abuse with intoxication with delirium	Diagnosis	ICD-10-CM
F16.122	Hallucinogen abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F16.129	Hallucinogen abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F16.14	Hallucinogen abuse with hallucinogen-induced mood disorder	Diagnosis	ICD-10-CM
F16.150	Hallucinogen abuse with hallucinogen-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F16.151	Hallucinogen abuse with hallucinogen-induced psychotic disorder with	Diagnosis	ICD-10-CM
	hallucinations	_	
F16.159	Hallucinogen abuse with hallucinogen-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F16.180	Hallucinogen abuse with hallucinogen-induced anxiety disorder	Diagnosis	ICD-10-CM
F16.183	Hallucinogen abuse with hallucinogen persisting perception disorder (flashbacks)	Diagnosis	ICD-10-CM
F16.188	Hallucinogen abuse with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.19	Hallucinogen abuse with unspecified hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.20	Hallucinogen dependence, uncomplicated	Diagnosis	ICD-10-CM
F16.220	Hallucinogen dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F16.221	Hallucinogen dependence with intoxication with delirium	Diagnosis	ICD-10-CM
F16.229	Hallucinogen dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F16.24	Hallucinogen dependence with hallucinogen-induced mood disorder	Diagnosis	ICD-10-CM
F16.250	Hallucinogen dependence with hallucinogen-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F16.251	Hallucinogen dependence with hallucinogen-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F16.259	Hallucinogen dependence with hallucinogen-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F16.280	Hallucinogen dependence with hallucinogen-induced anxiety disorder	Diagnosis	ICD-10-CM
F16.283	Hallucinogen dependence with hallucinogen persisting perception disorder (flashbacks)	Diagnosis	ICD-10-CM
F16.288	Hallucinogen dependence with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.29	Hallucinogen dependence with unspecified hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.90	Hallucinogen use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F16.920	Hallucinogen use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F16.921	Hallucinogen use, unspecified with intoxication with delirium	Diagnosis	ICD-10-CM

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		Code	
Code	Description	Category	Code Type
16.929	Hallucinogen use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F16.94	Hallucinogen use, unspecified with hallucinogen-induced mood disorder	Diagnosis	ICD-10-CM
F16.950	Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F16.951	Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F16.959	Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F16.980	Hallucinogen use, unspecified with hallucinogen-induced anxiety disorder	Diagnosis	ICD-10-CM
16.983	Hallucinogen use, unspecified with hallucinogen persisting perception disorder (flashbacks)	Diagnosis	ICD-10-CM
F16.988	Hallucinogen use, unspecified with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.99	Hallucinogen use, unspecified with unspecified hallucinogen-induced disorder	Diagnosis	ICD-10-CM
17.203	Nicotine dependence unspecified, with withdrawal	Diagnosis	ICD-10-CM
17.208	Nicotine dependence, unspecified, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
17.209	Nicotine dependence, unspecified, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
17.213	Nicotine dependence, cigarettes, with withdrawal	Diagnosis	ICD-10-CM
17.218	Nicotine dependence, cigarettes, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
17.219	Nicotine dependence, cigarettes, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
17.223	Nicotine dependence, chewing tobacco, with withdrawal	Diagnosis	ICD-10-CM
17.228	Nicotine dependence, chewing tobacco, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
17.229	Nicotine dependence, chewing tobacco, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
17.293	Nicotine dependence, other tobacco product, with withdrawal	Diagnosis	ICD-10-CM
17.298	Nicotine dependence, other tobacco product, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
17.299	Nicotine dependence, other tobacco product, with unspecified nicotine-induced	Diagnosis	ICD-10-CM
18.10	Inhalant abuse, uncomplicated	Diagnosis	ICD-10-CM
18.120	Inhalant abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
18.121	Inhalant abuse with intoxication delirium	Diagnosis	ICD-10-CM
18.129	Inhalant abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
18.14	Inhalant abuse with inhalant-induced mood disorder	Diagnosis	ICD-10-CM
18.150	Inhalant abuse with inhalant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
18.151	Inhalant abuse with inhalant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F18.159	Inhalant abuse with inhalant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
18.17	Inhalant abuse with inhalant-induced dementia	Diagnosis	ICD-10-CM
18.180	Inhalant abuse with inhalant-induced anxiety disorder	Diagnosis	ICD-10-CM
F18.188	Inhalant abuse with other inhalant-induced disorder	Diagnosis	ICD-10-CM
18.19	Inhalant abuse with unspecified inhalant-induced disorder	Diagnosis	ICD-10-CM
18.20	Inhalant dependence, uncomplicated	Diagnosis	ICD-10-CM
18.220	Inhalant dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
18.221	Inhalant dependence with intoxication delirium	Diagnosis	ICD-10-CM
F18.229	Inhalant dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F18.24	Inhalant dependence with inhalant-induced mood disorder	Diagnosis	ICD-10-CM

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		Code	
Code	Description	Category	Code Type
F18.250	Inhalant dependence with inhalant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F18.251	Inhalant dependence with inhalant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F18.259	Inhalant dependence with inhalant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F18.27	Inhalant dependence with inhalant-induced dementia	Diagnosis	ICD-10-CM
F18.280	Inhalant dependence with inhalant-induced anxiety disorder	Diagnosis	ICD-10-CM
F18.288	Inhalant dependence with other inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.29	Inhalant dependence with unspecified inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.90	Inhalant use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F18.920	Inhalant use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F18.921	Inhalant use, unspecified with intoxication with delirium	Diagnosis	ICD-10-CM
F18.929	Inhalant use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F18.94	Inhalant use, unspecified with inhalant-induced mood disorder	Diagnosis	ICD-10-CM
F18.950	Inhalant use, unspecified with inhalant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F18.951	Inhalant use, unspecified with inhalant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F18.959	Inhalant use, unspecified with inhalant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F18.97	Inhalant use, unspecified with inhalant-induced persisting dementia	Diagnosis	ICD-10-CM
F18.980	Inhalant use, unspecified with inhalant-induced anxiety disorder	Diagnosis	ICD-10-CM
F18.988	Inhalant use, unspecified with other inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.99	Inhalant use, unspecified with unspecified inhalant-induced disorder	Diagnosis	ICD-10-CM
F19.10	Other psychoactive substance abuse, uncomplicated	Diagnosis	ICD-10-CM
F19.120	Other psychoactive substance abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F19.121	Other psychoactive substance abuse with intoxication delirium	Diagnosis	ICD-10-CM
F19.122	Other psychoactive substance abuse with intoxication with perceptual disturbances	Diagnosis	ICD-10-CM
F19.129	Other psychoactive substance abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F19.130	Other psychoactive substance abuse with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F19.131	Other psychoactive substance abuse with withdrawal delirium	Diagnosis	ICD-10-CM
F19.132	Other psychoactive substance abuse with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F19.139	Other psychoactive substance abuse with withdrawal, unspecified	Diagnosis	ICD-10-CM
F19.14	Other psychoactive substance abuse with psychoactive substance-induced mood disorder	Diagnosis	ICD-10-CM
F19.150	Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F19.151	Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F19.159	Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F19.16	Other psychoactive substance abuse with psychoactive substance-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F19.17	Other psychoactive substance abuse with psychoactive substance-induced persisting dementia	Diagnosis	ICD-10-CM

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Code	Description	Category	Code Type
F19.180	Other psychoactive substance abuse with psychoactive substance-induced anxiety disorder	Diagnosis	ICD-10-CM
F19.181	Other psychoactive substance abuse with psychoactive substance-induced sexual dysfunction	Diagnosis	ICD-10-CM
F19.182	Other psychoactive substance abuse with psychoactive substance-induced sleep disorder	Diagnosis	ICD-10-CM
F19.188	Other psychoactive substance abuse with other psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.19	Other psychoactive substance abuse with unspecified psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.20	Other psychoactive substance dependence, uncomplicated	Diagnosis	ICD-10-CM
F19.220	Other psychoactive substance dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F19.221	Other psychoactive substance dependence with intoxication delirium	Diagnosis	ICD-10-CM
F19.222	Other psychoactive substance dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F19.229	Other psychoactive substance dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F19.230	Other psychoactive substance dependence with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F19.231	Other psychoactive substance dependence with withdrawal delirium	Diagnosis	ICD-10-CM
F19.232	Other psychoactive substance dependence with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F19.239	Other psychoactive substance dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM
F19.24	Other psychoactive substance dependence with psychoactive substance-induced mood disorder	Diagnosis	ICD-10-CM
F19.250	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F19.251	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F19.259	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F19.26	Other psychoactive substance dependence with psychoactive substance-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F19.27	Other psychoactive substance dependence with psychoactive substance-induced persisting dementia	Diagnosis	ICD-10-CM
F19.280	Other psychoactive substance dependence with psychoactive substance-induced anxiety disorder	Diagnosis	ICD-10-CM
F19.281	Other psychoactive substance dependence with psychoactive substance-induced sexual dysfunction	Diagnosis	ICD-10-CM
F19.282	Other psychoactive substance dependence with psychoactive substance-induced sleep disorder	Diagnosis	ICD-10-CM
F19.288	Other psychoactive substance dependence with other psychoactive substance-induced disorder	Diagnosis	ICD-10-CM

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		Code	
Code	Description	Category	Code Type
F19.29	Other psychoactive substance dependence with unspecified psychoactive substance induced disorder	Diagnosis	ICD-10-CM
F19.90	Other psychoactive substance use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F19.920	Other psychoactive substance use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F19.921	Other psychoactive substance use, unspecified with intoxication with delirium	Diagnosis	ICD-10-CM
F19.922	Other psychoactive substance use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F19.929	Other psychoactive substance use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F19.930	Other psychoactive substance use, unspecified with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F19.931	Other psychoactive substance use, unspecified with withdrawal delirium	Diagnosis	ICD-10-CM
F19.932	Other psychoactive substance use, unspecified with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F19.939	Other psychoactive substance use, unspecified with withdrawal, unspecified	Diagnosis	ICD-10-CM
F19.94	Other psychoactive substance use, unspecified with psychoactive substance-induced mood disorder	Diagnosis	ICD-10-CM
F19.950	Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F19.951	Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F19.959	Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F19.96	Other psychoactive substance use, unspecified with psychoactive substance-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F19.97	Other psychoactive substance use, unspecified with psychoactive substance-induced persisting dementia	Diagnosis	ICD-10-CM
F19.980	Other psychoactive substance use, unspecified with psychoactive substance-induced anxiety disorder	Diagnosis	ICD-10-CM
F19.981	Other psychoactive substance use, unspecified with psychoactive substance-induced sexual dysfunction	Diagnosis	ICD-10-CM
F19.982	Other psychoactive substance use, unspecified with psychoactive substance-induced sleep disorder	Diagnosis	ICD-10-CM
F19.988	Other psychoactive substance use, unspecified with other psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.99	Other psychoactive substance use, unspecified with unspecified psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F55.0	Abuse of antacids	Diagnosis	ICD-10-CM
F55.1	Abuse of herbal or folk remedies	Diagnosis	ICD-10-CM
F55.2	Abuse of laxatives	Diagnosis	ICD-10-CM
F55.3	Abuse of steroids or hormones	Diagnosis	ICD-10-CM
F55.4	Abuse of vitamins	Diagnosis	ICD-10-CM
F55.8	Abuse of other non-psychoactive substances	Diagnosis	ICD-10-CM
HZ2ZZZZ	Detoxification Services for Substance Abuse Treatment	Procedure	ICD-10-PCS

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	·	Code	
Code	Description	Category	Code Type
HZ30ZZZ	Individual Counseling for Substance Abuse Treatment, Cognitive	Procedure	ICD-10-PCS
HZ31ZZZ	Individual Counseling for Substance Abuse Treatment, Behavioral	Procedure	ICD-10-PCS
HZ32ZZZ	Individual Counseling for Substance Abuse Treatment, Cognitive-Behavioral	Procedure	ICD-10-PCS
HZ33ZZZ	Individual Counseling for Substance Abuse Treatment, 12-Step	Procedure	ICD-10-PCS
HZ34ZZZ	Individual Counseling for Substance Abuse Treatment, Interpersonal	Procedure	ICD-10-PCS
HZ35ZZZ	Individual Counseling for Substance Abuse Treatment, Vocational	Procedure	ICD-10-PCS
HZ36ZZZ	Individual Counseling for Substance Abuse Treatment, Psychoeducation	Procedure	ICD-10-PCS
HZ37ZZZ	Individual Counseling for Substance Abuse Treatment, Motivational Enhancement	Procedure	ICD-10-PCS
HZ38ZZZ	Individual Counseling for Substance Abuse Treatment, Confrontational	Procedure	ICD-10-PCS
HZ39ZZZ	Individual Counseling for Substance Abuse Treatment, Continuing Care	Procedure	ICD-10-PCS
HZ3BZZZ	Individual Counseling for Substance Abuse Treatment, Spiritual	Procedure	ICD-10-PCS
HZ40ZZZ	Group Counseling for Substance Abuse Treatment, Cognitive	Procedure	ICD-10-PCS
HZ93ZZZ	Pharmacotherapy for Substance Abuse Treatment, Antabuse	Procedure	ICD-10-PCS
HZ96ZZZ	Pharmacotherapy for Substance Abuse Treatment, Clonidine	Procedure	ICD-10-PCS
O35.5XX0	Maternal care for (suspected) damage to fetus by drugs, not applicable or	Diagnosis	ICD-10-CM
	unspecified		
O35.5XX1	Maternal care for (suspected) damage to fetus by drugs, fetus 1	Diagnosis	ICD-10-CM
O35.5XX2	Maternal care for (suspected) damage to fetus by drugs, fetus 2	Diagnosis	ICD-10-CM
O35.5XX3	Maternal care for (suspected) damage to fetus by drugs, fetus 3	Diagnosis	ICD-10-CM
O35.5XX4	Maternal care for (suspected) damage to fetus by drugs, fetus 4	Diagnosis	ICD-10-CM
O35.5XX5	Maternal care for (suspected) damage to fetus by drugs, fetus 5	Diagnosis	ICD-10-CM
O35.5XX9	Maternal care for (suspected) damage to fetus by drugs, other fetus	Diagnosis	ICD-10-CM
O99.320	Drug use complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
099.321	Drug use complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
099.322	Drug use complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99.323	Drug use complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99.324	Drug use complicating childbirth	Diagnosis	ICD-10-CM
O99.325	Drug use complicating the puerperium	Diagnosis	ICD-10-CM
P04.41	Newborn affected by maternal use of cocaine	Diagnosis	ICD-10-CM
P04.49	Newborn affected by maternal use of other drugs of addiction	Diagnosis	ICD-10-CM
P96.1	Neonatal withdrawal symptoms from maternal use of drugs of addiction	Diagnosis	ICD-10-CM
P96.2	Withdrawal symptoms from therapeutic use of drugs in newborn	Diagnosis	ICD-10-CM
T40.0X1A	Poisoning by opium, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.0X2A	Poisoning by opium, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.0X3A	Poisoning by opium, assault, initial encounter	Diagnosis	ICD-10-CM
T40.0X4A	Poisoning by opium, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.0X5A	Adverse effect of opium, initial encounter	Diagnosis	ICD-10-CM
T40.0X5S	Adverse effect of opium, sequela	Diagnosis	ICD-10-CM
T40.1X1A	Poisoning by heroin, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.1X2A	Poisoning by heroin, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.1X3A	Poisoning by heroin, assault, initial encounter	Diagnosis	ICD-10-CM
T40.1X4A	Poisoning by heroin, undetermined, initial encounter	Diagnosis	ICD-10-CM

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		Code	
Code	Description	Category	Code Type
T40.2X1A	Poisoning by other opioids, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.2X2A	Poisoning by other opioids, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.2X3A	Poisoning by other opioids, assault, initial encounter	Diagnosis	ICD-10-CM
T40.2X4A	Poisoning by other opioids, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.3X1A	Poisoning by methadone, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.3X2A	Poisoning by methadone, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.3X3A	Poisoning by methadone, assault, initial encounter	Diagnosis	ICD-10-CM
T40.3X4A	Poisoning by methadone, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.3X5A	Adverse effect of methadone, initial encounter	Diagnosis	ICD-10-CM
T40.3X5S	Adverse effect of methadone, sequela	Diagnosis	ICD-10-CM
T40.411A	Poisoning by fentanyl or fentanyl analogs, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.412A	Poisoning by fentanyl or fentanyl analogs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.413A	Poisoning by fentanyl or fentanyl analogs, assault, initial encounter	Diagnosis	ICD-10-CM
T40.414A	Poisoning by fentanyl or fentanyl analogs, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.415A	Adverse effect of fentanyl or fentanyl analogs, initial encounter	Diagnosis	ICD-10-CM
T40.421A	Poisoning by tramadol, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.422A	Poisoning by tramadol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.423A	Poisoning by tramadol, assault, initial encounter	Diagnosis	ICD-10-CM
T40.424A	Poisoning by tramadol, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.425A	Adverse effect of tramadol, initial encounter	Diagnosis	ICD-10-CM
T40.491A	Poisoning by other synthetic narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.492A	Poisoning by other synthetic narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.493A	Poisoning by other synthetic narcotics, assault, initial encounter	Diagnosis	ICD-10-CM
T40.494A	Poisoning by other synthetic narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.495A	Adverse effect of other synthetic narcotics, initial encounter	Diagnosis	ICD-10-CM
T40.4X1A	Poisoning by other synthetic narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.4X2A	Poisoning by other synthetic narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.4X3A	Poisoning by other synthetic narcotics, assault, initial encounter	Diagnosis	ICD-10-CM
T40.4X4A	Poisoning by other synthetic narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.601A	Poisoning by unspecified narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.602A	Poisoning by unspecified narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.603A	Poisoning by unspecified narcotics, assault, initial encounter	Diagnosis	ICD-10-CM
T40.604A	Poisoning by unspecified narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.691A	Poisoning by other narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.692A	Poisoning by other narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.693A	Poisoning by other narcotics, assault, initial encounter	Diagnosis	ICD-10-CM
T40.694A	Poisoning by other narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.711A	Poisoning by cannabis, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.721A	Poisoning by synthetic cannabinoids, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.7X1A	Poisoning by cannabis (derivatives), accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.8X1A	Poisoning by lysergide [LSD], accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM

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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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	
Code	Description	Category	Code Type
T40.901A	Poisoning by unspecified psychodysleptics [hallucinogens], accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.991A	Poisoning by other psychodysleptics [hallucinogens], accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
V65.42	Counseling on substance use and abuse	Diagnosis	ICD-9-CM
Z71.51	Drug abuse counseling and surveillance of drug abuser	Diagnosis	ICD-10-CM
Z71.52	Counseling for family member of drug abuser	Diagnosis	ICD-10-CM
Z71.6	Tobacco abuse counseling	Diagnosis	ICD-10-CN
	Schizophrenia		
295.00	Simple schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.01	Simple schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.02	Simple schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.03	Simple schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.04	Simple schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.05	Simple schizophrenia, in remission	Diagnosis	ICD-9-CM
295.10	Disorganized schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.11	Disorganized schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.12	Disorganized schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.13	Disorganized schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.14	Disorganized schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.15	Disorganized schizophrenia, in remission	Diagnosis	ICD-9-CM
295.20	Catatonic schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.21	Catatonic schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.22	Catatonic schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.23	Catatonic schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.24	Catatonic schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.25	Catatonic schizophrenia, in remission	Diagnosis	ICD-9-CM
295.30	Paranoid schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.31	Paranoid schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.32	Paranoid schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.33	Paranoid schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.34	Paranoid schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.35	Paranoid schizophrenia, in remission	Diagnosis	ICD-9-CM
295.40	Schizophreniform disorder, unspecified	Diagnosis	ICD-9-CM
295.41	Schizophreniform disorder, subchronic	Diagnosis	ICD-9-CM
295.42	Schizophreniform disorder, chronic	Diagnosis	ICD-9-CM
295.43	Schizophreniform disorder, subchronic with acute exacerbation	Diagnosis	ICD-9-CM
295.44	Schizophreniform disorder, chronic with acute exacerbation	Diagnosis	ICD-9-CM
295.45	Schizophreniform disorder, in remission	Diagnosis	ICD-9-CM
295.50	Latent schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.51	Latent schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.52	Latent schizophrenia, chronic condition	Diagnosis	ICD-9-CM

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		Code	
Code	Description	Category	Code Type
295.53	Latent schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.54	Latent schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.55	Latent schizophrenia, in remission	Diagnosis	ICD-9-CM
295.60	Schizophrenic disorders, residual type, unspecified	Diagnosis	ICD-9-CM
295.61	Schizophrenic disorders, residual type, subchronic	Diagnosis	ICD-9-CM
295.62	Schizophrenic disorders, residual type, chronic	Diagnosis	ICD-9-CM
295.63	Schizophrenic disorders, residual type, subchronic with acute exacerbation	Diagnosis	ICD-9-CM
295.64	Schizophrenic disorders, residual type, chronic with acute exacerbation	Diagnosis	ICD-9-CM
295.65	Schizophrenic disorders, residual type, in remission	Diagnosis	ICD-9-CM
295.70	Schizoaffective disorder, unspecified	Diagnosis	ICD-9-CM
295.71	Schizoaffective disorder, subchronic	Diagnosis	ICD-9-CM
295.72	Schizoaffective disorder, chronic	Diagnosis	ICD-9-CM
295.73	Schizoaffective disorder, subchronic with acute exacerbation	Diagnosis	ICD-9-CM
295.74	Schizoaffective disorder, chronic with acute exacerbation	Diagnosis	ICD-9-CM
295.75	Schizoaffective disorder, in remission	Diagnosis	ICD-9-CM
295.80	Other specified types of schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.81	Other specified types of schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.82	Other specified types of schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.83	Other specified types of schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.84	Other specified types of schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.85	Other specified types of schizophrenia, in remission	Diagnosis	ICD-9-CM
295.90	Unspecified schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.91	Unspecified schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.92	Unspecified schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.93	Unspecified schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.94	Unspecified schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.95	Unspecified schizophrenia, in remission	Diagnosis	ICD-9-CM
F20.0	Paranoid schizophrenia	Diagnosis	ICD-10-CN
F20.1	Disorganized schizophrenia	Diagnosis	ICD-10-CM
F20.2	Catatonic schizophrenia	Diagnosis	ICD-10-CN
F20.3	Undifferentiated schizophrenia	Diagnosis	ICD-10-CM
F20.5	Residual schizophrenia	Diagnosis	ICD-10-CM
F20.81	Schizophreniform disorder	Diagnosis	ICD-10-CM
F20.89	Other schizophrenia	Diagnosis	ICD-10-CN
F20.9	Schizophrenia, unspecified	Diagnosis	ICD-10-CN
F25.0	Schizoaffective disorder, bipolar type	Diagnosis	ICD-10-CN
F25.1	Schizoaffective disorder, depressive type	Diagnosis	ICD-10-CN
F25.8	Other schizoaffective disorders	Diagnosis	ICD-10-CN
F25.9	Schizoaffective disorder, unspecified	Diagnosis	ICD-10-CM
	Schizophrenia and Other Psychotic Disorders		
293.81	Psychotic disorder with delusions in conditions classified elsewhere	Diagnosis	ICD-9-CM

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		Code	
Code	Description	Category	Code Type
293.82	Psychotic disorder with hallucinations in conditions classified elsewhere	Diagnosis	ICD-9-CM
295.00	Simple schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.01	Simple schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.02	Simple schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.03	Simple schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.04	Simple schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.05	Simple schizophrenia, in remission	Diagnosis	ICD-9-CM
295.10	Disorganized schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.11	Disorganized schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.12	Disorganized schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.13	Disorganized schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.14	Disorganized schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.15	Disorganized schizophrenia, in remission	Diagnosis	ICD-9-CM
295.20	Catatonic schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.21	Catatonic schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.22	Catatonic schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.23	Catatonic schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.24	Catatonic schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.25	Catatonic schizophrenia, in remission	Diagnosis	ICD-9-CM
295.30	Paranoid schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.31	Paranoid schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.32	Paranoid schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.33	Paranoid schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.34	Paranoid schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.35	Paranoid schizophrenia, in remission	Diagnosis	ICD-9-CM
295.40	Schizophreniform disorder, unspecified	Diagnosis	ICD-9-CM
295.41	Schizophreniform disorder, subchronic	Diagnosis	ICD-9-CM
295.42	Schizophreniform disorder, chronic	Diagnosis	ICD-9-CM
295.43	Schizophreniform disorder, subchronic with acute exacerbation	Diagnosis	ICD-9-CM
295.44	Schizophreniform disorder, chronic with acute exacerbation	Diagnosis	ICD-9-CM
295.45	Schizophreniform disorder, in remission	Diagnosis	ICD-9-CM
295.50	Latent schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.51	Latent schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.52	Latent schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.53	Latent schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.54	Latent schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.55	Latent schizophrenia, in remission	Diagnosis	ICD-9-CM
295.60	Schizophrenic disorders, residual type, unspecified	Diagnosis	ICD-9-CM
295.61	Schizophrenic disorders, residual type, subchronic	Diagnosis	ICD-9-CM
295.62	Schizophrenic disorders, residual type, chronic	Diagnosis	ICD-9-CM
295.63	Schizophrenic disorders, residual type, subchronic with acute exacerbation	Diagnosis	ICD-9-CM
295.64	Schizophrenic disorders, residual type, chronic with acute exacerbation	Diagnosis	ICD-9-CM

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		Code	
Code	Description	Category	Code Type
295.65	Schizophrenic disorders, residual type, in remission	Diagnosis	ICD-9-CM
295.70	Schizoaffective disorder, unspecified	Diagnosis	ICD-9-CM
295.71	Schizoaffective disorder, subchronic	Diagnosis	ICD-9-CM
295.72	Schizoaffective disorder, chronic	Diagnosis	ICD-9-CM
295.73	Schizoaffective disorder, subchronic with acute exacerbation	Diagnosis	ICD-9-CM
295.74	Schizoaffective disorder, chronic with acute exacerbation	Diagnosis	ICD-9-CM
295.75	Schizoaffective disorder, in remission	Diagnosis	ICD-9-CM
295.80	Other specified types of schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.81	Other specified types of schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.82	Other specified types of schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.83	Other specified types of schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.84	Other specified types of schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.85	Other specified types of schizophrenia, in remission	Diagnosis	ICD-9-CM
295.90	Unspecified schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.91	Unspecified schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.92	Unspecified schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.93	Unspecified schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.94	Unspecified schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.95	Unspecified schizophrenia, in remission	Diagnosis	ICD-9-CM
297.0	Paranoid state, simple	Diagnosis	ICD-9-CM
297.1	Delusional disorder	Diagnosis	ICD-9-CM
297.2	Paraphrenia	Diagnosis	ICD-9-CM
297.3	Shared psychotic disorder	Diagnosis	ICD-9-CM
297.8	Other specified paranoid states	Diagnosis	ICD-9-CM
297.9	Unspecified paranoid state	Diagnosis	ICD-9-CM
298.0	Depressive type psychosis	Diagnosis	ICD-9-CM
298.1	Excitative type psychosis	Diagnosis	ICD-9-CM
298.2	Reactive confusion	Diagnosis	ICD-9-CM
298.3	Acute paranoid reaction	Diagnosis	ICD-9-CM
298.4	Psychogenic paranoid psychosis	Diagnosis	ICD-9-CM
298.8	Other and unspecified reactive psychosis	Diagnosis	ICD-9-CM
298.9	Unspecified psychosis	Diagnosis	ICD-9-CM
F06.0	Psychotic disorder with hallucinations due to known physiological condition	Diagnosis	ICD-10-CM
F06.2	Psychotic disorder with delusions due to known physiological condition	Diagnosis	ICD-10-CM
20.0	Paranoid schizophrenia	Diagnosis	ICD-10-CM
20.1	Disorganized schizophrenia	Diagnosis	ICD-10-CM
20.2	Catatonic schizophrenia	Diagnosis	ICD-10-CN
20.3	Undifferentiated schizophrenia	Diagnosis	ICD-10-CN
20.5	Residual schizophrenia	Diagnosis	ICD-10-CN
20.81	Schizophreniform disorder	Diagnosis	ICD-10-CM
F20.89	Other schizophrenia	Diagnosis	ICD-10-CM

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		Code	
Code	Description	Category	Code Type
F20.9	Schizophrenia, unspecified	Diagnosis	ICD-10-CM
F21	Schizotypal disorder	Diagnosis	ICD-10-CM
F22	Delusional disorders	Diagnosis	ICD-10-CM
F23	Brief psychotic disorder	Diagnosis	ICD-10-CM
F24	Shared psychotic disorder	Diagnosis	ICD-10-CM
F25.0	Schizoaffective disorder, bipolar type	Diagnosis	ICD-10-CM
F25.1	Schizoaffective disorder, depressive type	Diagnosis	ICD-10-CM
F25.8	Other schizoaffective disorders	Diagnosis	ICD-10-CM
F25.9	Schizoaffective disorder, unspecified	Diagnosis	ICD-10-CM
F28	Other psychotic disorder not due to a substance or known physiological condition	Diagnosis	ICD-10-CM
F29	Unspecified psychosis not due to a substance or known physiological condition	Diagnosis	ICD-10-CM
F32.3	Major depressive disorder, single episode, severe with psychotic features	Diagnosis	ICD-10-CM
F33.3	Major depressive disorder, recurrent, severe with psychotic symptoms	Diagnosis	ICD-10-CM
F44.89	Other dissociative and conversion disorders	Diagnosis	ICD-10-CM
	Opioid Use Disorder (OUD 1) (defined as OUD 2, 3, or 4)		
304.0	Opioid type dependence	Diagnosis	ICD-9-CM
304.00	Opioid type dependence, unspecified	Diagnosis	ICD-9-CM
304.01	Opioid type dependence, continuous	Diagnosis	ICD-9-CM
304.02	Opioid type dependence, episodic	Diagnosis	ICD-9-CM
304.7	Combinations of opioid type drug with any other drug dependence	Diagnosis	ICD-9-CM
304.70	Combinations of opioid type drug with any other drug dependence, unspecified	Diagnosis	ICD-9-CM
304.71	Combinations of opioid type drug with any other drug dependence, continuous	Diagnosis	ICD-9-CM
304.72	Combinations of opioid type drug with any other drug dependence, episodic	Diagnosis	ICD-9-CM
305.5	Nondependent opioid abuse	Diagnosis	ICD-9-CM
305.50	Nondependent opioid abuse, unspecified	Diagnosis	ICD-9-CM
305.51	Nondependent opioid abuse, continuous	Diagnosis	ICD-9-CM
305.52	Nondependent opioid abuse, episodic	Diagnosis	ICD-9-CM
760.72	Noxious influences affecting fetus or newborn via placenta or breast milk, narcotics	Diagnosis	ICD-9-CM
965.0	Poisoning by opiates and related narcotics	Diagnosis	ICD-9-CM
965.00	Poisoning by opium (alkaloids), unspecified	Diagnosis	ICD-9-CM
965.01	Poisoning by heroin	Diagnosis	ICD-9-CM
965.02	Poisoning by methadone	Diagnosis	ICD-9-CM
965.09	Poisoning by opiates and related narcotics, other	Diagnosis	ICD-9-CM
970.1	Poisoning by opiate antagonists	Diagnosis	ICD-9-CM
E85.00	Accidental poisoning by heroin	Diagnosis	ICD-9-CM
E85.01	Accidental poisoning by methadone	Diagnosis	ICD-9-CM
E85.02	Accidental poisoning by other opiates and related narcotics	Diagnosis	ICD-9-CM
E93.50	Heroin causing adverse effect in therapeutic use	Diagnosis	ICD-9-CM
E93.51	Methadone causing averse effect in therapeutic use	Diagnosis	ICD-9-CM
E93.52	Other opiates and related narcotics causing adverse effect in therapeutic use	Diagnosis	ICD-9-CM
E94.01	Opiate antagonists causing adverse effect in therapeutic use	Diagnosis	ICD-9-CM
F11.10	Opioid abuse, uncomplicated	Diagnosis	ICD-10-CM
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CodeDescriptionCategoryCode TypeF11.120Opioid abuse with intoxication, uncomplicatedDiagnosisICD-10-CMF11.121Opioid abuse with intoxication deliriumDiagnosisICD-10-CMF11.122Opioid abuse with intoxication with perceptual disturbanceDiagnosisICD-10-CMF11.129Opioid abuse with intoxication, unspecifiedDiagnosisICD-10-CMF11.13Opioid abuse with withdrawalDiagnosisICD-10-CMF11.14Opioid abuse with opioid-induced mood disorderDiagnosisICD-10-CM
F11.121 Opioid abuse with intoxication delirium Diagnosis ICD-10-CM F11.122 Opioid abuse with intoxication with perceptual disturbance Diagnosis ICD-10-CM F11.129 Opioid abuse with intoxication, unspecified Diagnosis ICD-10-CM F11.13 Opioid abuse with withdrawal Diagnosis ICD-10-CM
F11.122 Opioid abuse with intoxication with perceptual disturbance Diagnosis ICD-10-CM F11.129 Opioid abuse with intoxication, unspecified Diagnosis ICD-10-CM F11.13 Opioid abuse with withdrawal Diagnosis ICD-10-CM
F11.129 Opioid abuse with intoxication, unspecified Diagnosis ICD-10-CM F11.13 Opioid abuse with withdrawal Diagnosis ICD-10-CM
F11.13 Opioid abuse with withdrawal Diagnosis ICD-10-CM
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F11.14 Opioid abuse with opioid-induced mood disorder Diagnosis ICD-10-CIV
F11.150 Opioid abuse with opioid-induced psychotic disorder with delusions Diagnosis ICD-10-CM
F11.151 Opioid abuse with opioid-induced psychotic disorder with hallucinations Diagnosis ICD-10-CM
F11.159 Opioid abuse with opioid-induced psychotic disorder, unspecified Diagnosis ICD-10-CM
F11.181 Opioid abuse with opioid-induced sexual dysfunction Diagnosis ICD-10-CM
F11.182 Opioid abuse with opioid-induced sleep disorder Diagnosis ICD-10-CM
F11.188 Opioid abuse with other opioid-induced disorder Diagnosis ICD-10-CM
F11.19 Opioid abuse with unspecified opioid-induced disorder Diagnosis ICD-10-CM
F11.20 Opioid dependence, uncomplicated Diagnosis ICD-10-CM
F11.220 Opioid dependence with intoxication, uncomplicated Diagnosis ICD-10-CM
F11.221 Opioid dependence with intoxication delirium Diagnosis ICD-10-CM
F11.222 Opioid dependence with intoxication with perceptual disturbance Diagnosis ICD-10-CM
F11.229 Opioid dependence with intoxication, unspecified Diagnosis ICD-10-CM
F11.23 Opioid dependence with withdrawal Diagnosis ICD-10-CM
F11.24 Opioid dependence with opioid-induced mood disorder Diagnosis ICD-10-CM
F11.250 Opioid dependence with opioid-induced psychotic disorder with delusions Diagnosis ICD-10-CM
F11.251 Opioid dependence with opioid-induced psychotic disorder with hallucinations Diagnosis ICD-10-CM
F11.259 Opioid dependence with opioid-induced psychotic disorder, unspecified Diagnosis ICD-10-CM
F11.281 Opioid dependence with opioid-induced sexual dysfunction Diagnosis ICD-10-CM
F11.282 Opioid dependence with opioid-induced sleep disorder Diagnosis ICD-10-CM
F11.288 Opioid dependence with other opioid-induced disorder Diagnosis ICD-10-CM
F11.29 Opioid dependence with unspecified opioid-induced disorder Diagnosis ICD-10-CM
F11.90 Opioid use, unspecified, uncomplicated Diagnosis ICD-10-CM
F11.920 Opioid use, unspecified with intoxication, uncomplicated Diagnosis ICD-10-CM
F11.921 Opioid use, unspecified with intoxication delirium Diagnosis ICD-10-CM
F11.922 Opioid use, unspecified with intoxication with perceptual disturbance Diagnosis ICD-10-CM
F11.929 Opioid use, unspecified with intoxication, unspecified Diagnosis ICD-10-CM
F11.93 Opioid use, unspecified with withdrawal Diagnosis ICD-10-CM
F11.94 Opioid use, unspecified with opioid-induced mood disorder Diagnosis ICD-10-CM
F11.950 Opioid use, unspecified with opioid-induced psychotic disorder with delusions Diagnosis ICD-10-CM
F11.951 Opioid use, unspecified with opioid-induced psychotic disorder with hallucinations Diagnosis ICD-10-CM
F11.959 Opioid use, unspecified with opioid-induced psychotic disorder, unspecified Diagnosis ICD-10-CM
F11.981 Opioid use, unspecified with opioid-induced sexual dysfunction Diagnosis ICD-10-CM
F11.982 Opioid use, unspecified with opioid-induced sleep disorder Diagnosis ICD-10-CM
F11.988 Opioid use, unspecified with other opioid-induced disorder Diagnosis ICD-10-CM
F11.99 Opioid use, unspecified with unspecified opioid-induced disorder Diagnosis ICD-10-CM

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		Code	
Code	Description	Category	Code Type
G2067	Medication assisted treatment, methadone; weekly bundle including dispensing and/or administration, substance use counseling, individual and group therapy, and toxicology testing, if performed (provision of the services by a Medicare-enrolled opioid treatment program)	Procedure	HCPCS
G2068	Medication assisted treatment, buprenorphine (oral); weekly bundle including dispensing and/or administration, substance use counseling, individual and group therapy, and toxicology testing if performed (provision of the services by a Medicare enrolled opioid treatment program)	Procedure -	HCPCS
G2069	Medication assisted treatment, buprenorphine (injectable); weekly bundle including dispensing and/or administration, substance use counseling, individual and group therapy, and toxicology testing if performed (provision of the services by a Medicare enrolled opioid treatment program)		HCPCS
G2070	Medication assisted treatment, buprenorphine (implant insertion); weekly bundle including dispensing and/or administration, substance use counseling, individual and group therapy, and toxicology testing if performed (provision of the services by a Medicare-enrolled opioid treatment program)	Procedure	HCPCS
G2071	Medication assisted treatment, buprenorphine (implant removal); weekly bundle including dispensing and/or administration, substance use counseling, individual and group therapy, and toxicology testing if performed (provision of the services by a Medicare-enrolled opioid treatment program)	Procedure	HCPCS
G2072	Medication assisted treatment, buprenorphine (implant insertion and removal); weekly bundle including dispensing and/or administration, substance use counseling, individual and group therapy, and toxicology testing if performed (provision of the services by a Medicare-enrolled opioid treatment program)	Procedure	HCPCS
G2073	Medication assisted treatment, naltrexone; weekly bundle including dispensing and/or administration, substance use counseling, individual and group therapy, and toxicology testing if performed (provision of the services by a Medicare-enrolled opioid treatment program)	Procedure	HCPCS
G2078	Take home supply of methadone; up to 7 additional day supply (provision of the services by a Medicare-enrolled opioid treatment program); list separately in addition to code for primary procedure	Procedure	HCPCS
G2079	Take home supply of buprenorphine (oral); up to 7 additional day supply (provision of the services by a Medicare-enrolled opioid treatment program); list separately in addition to code for primary procedure	Procedure	HCPCS
H0020	Alcohol and/or drug services; methadone administration and/or service (provision of the drug by a licensed program)	Procedure	HCPCS
HZ81ZZZ	Medication Management for Substance Abuse Treatment, Methadone Maintenance	Procedure	ICD-10-PCS
HZ84ZZZ	Medication Management for Substance Abuse Treatment, Naltrexone	Procedure	ICD-10-PCS
HZ85ZZZ	Medication Management for Substance Abuse Treatment, Naloxone	Procedure	ICD-10-PCS
HZ86ZZZ	Medication Management for Substance Abuse Treatment, Clonidine	Procedure	ICD-10-PCS
HZ91ZZZ	Pharmacotherapy for Substance Abuse Treatment, Methadone Maintenance Pharmacotherapy for Substance Abuse Treatment, Naltrexone	Procedure Procedure	ICD-10-PCS ICD-10-PCS
HZ94ZZZ	Filarmacomerapy for Substance Abuse freatment, Nattrexone	riocedure	10-10-402

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		Code	
Code	Description	Category	Code Type
HZ95ZZZ	Pharmacotherapy for Substance Abuse Treatment, Naloxone	Procedure	ICD-10-PCS
HZ96ZZZ	Pharmacotherapy for Substance Abuse Treatment, Clonidine	Procedure	ICD-10-PCS
J0571	Buprenorphine, oral, 1 mg	Procedure	HCPCS
J0572	Buprenorphine/naloxone, oral, less than or equal to 3 mg buprenorphine	Procedure	HCPCS
J0573	Buprenorphine/naloxone, oral, greater than 3 mg, but less than or equal to 6 mg buprenorphine	Procedure	HCPCS
J0574	Buprenorphine/naloxone, oral, greater than 6 mg, but less than or equal to 10 mg buprenorphine	Procedure	HCPCS
J0575	Buprenorphine/naloxone, oral, greater than 10 mg buprenorphine	Procedure	HCPCS
J0592	Injection, buprenorphine HCl, 0.1 mg	Procedure	HCPCS
J1230	Injection, methadone HCl, up to 10 mg	Procedure	HCPCS
S0109	Methadone, oral, 5 mg	Procedure	HCPCS
T40.0X1A	Poisoning by opium, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.0X1D	Poisoning by opium, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.0X1S	Poisoning by opium, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.0X2A	Poisoning by opium, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.0X2D	Poisoning by opium, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.0X2S	Poisoning by opium, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.0X3A	Poisoning by opium, assault, initial encounter	Diagnosis	ICD-10-CM
T40.0X3D	Poisoning by opium, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.0X3S	Poisoning by opium, assault, sequela	Diagnosis	ICD-10-CM
T40.0X4A	Poisoning by opium, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.0X4D	Poisoning by opium, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.0X4S	Poisoning by opium, undetermined, sequela	Diagnosis	ICD-10-CM
T40.0X5A	Adverse effect of opium, initial encounter	Diagnosis	ICD-10-CM
T40.0X5D	Adverse effect of opium, subsequent encounter	Diagnosis	ICD-10-CM
T40.0X5S	Adverse effect of opium, sequela	Diagnosis	ICD-10-CM
T40.1X1A	Poisoning by heroin, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.1X1D	Poisoning by heroin, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.1X1S	Poisoning by heroin, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.1X2A	Poisoning by heroin, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.1X2D	Poisoning by heroin, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.1X2S	Poisoning by heroin, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.1X3A	Poisoning by heroin, assault, initial encounter	Diagnosis	ICD-10-CM
T40.1X3D	Poisoning by heroin, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.1X3S	Poisoning by heroin, assault, sequela	Diagnosis	ICD-10-CM
T40.1X4A	Poisoning by heroin, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.1X4D	Poisoning by heroin, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.1X4S	Poisoning by heroin, undetermined, sequela	Diagnosis	ICD-10-CM
T40.2X1A	Poisoning by other opioids, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.2X1D	Poisoning by other opioids, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.2X1S	Poisoning by other opioids, accidental (unintentional), sequela	Diagnosis	ICD-10-CM

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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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	
Code	Description	Category	Code Type
T40.2X2A	Poisoning by other opioids, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.2X2D	Poisoning by other opioids, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.2X2S	Poisoning by other opioids, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.2X3A	Poisoning by other opioids, assault, initial encounter	Diagnosis	ICD-10-CM
T40.2X3D	Poisoning by other opioids, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.2X3S	Poisoning by other opioids, assault, sequela	Diagnosis	ICD-10-CM
T40.2X4A	Poisoning by other opioids, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.2X4D	Poisoning by other opioids, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.2X4S	Poisoning by other opioids, undetermined, sequela	Diagnosis	ICD-10-CM
T40.2X5A	Adverse effect of other opioids, initial encounter	Diagnosis	ICD-10-CM
T40.2X5D	Adverse effect of other opioids, subsequent encounter	Diagnosis	ICD-10-CM
T40.2X5S	Adverse effect of other opioids, sequela	Diagnosis	ICD-10-CM
T40.3X1A	Poisoning by methadone, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.3X1D	Poisoning by methadone, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.3X1S	Poisoning by methadone, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.3X2A	Poisoning by methadone, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.3X2D	Poisoning by methadone, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.3X2S	Poisoning by methadone, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.3X3A	Poisoning by methadone, assault, initial encounter	Diagnosis	ICD-10-CM
T40.3X3D	Poisoning by methadone, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.3X3S	Poisoning by methadone, assault, sequela	Diagnosis	ICD-10-CM
T40.3X4A	Poisoning by methadone, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.3X4D	Poisoning by methadone, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.3X4S	Poisoning by methadone, undetermined, sequela	Diagnosis	ICD-10-CM
T40.3X5A	Adverse effect of methadone, initial encounter	Diagnosis	ICD-10-CM
T40.3X5D	Adverse effect of methadone, subsequent encounter	Diagnosis	ICD-10-CM
T40.3X5S	Adverse effect of methadone, sequela	Diagnosis	ICD-10-CM
T40.411A	Poisoning by fentanyl or fentanyl analogs, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.411D	Poisoning by fentanyl or fentanyl analogs, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.411S	Poisoning by fentanyl or fentanyl analogs, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.412A	Poisoning by fentanyl or fentanyl analogs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.412D	Poisoning by fentanyl or fentanyl analogs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.412S	Poisoning by fentanyl or fentanyl analogs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.413A	Poisoning by fentanyl or fentanyl analogs, assault, initial encounter	Diagnosis	ICD-10-CM
T40.413D	Poisoning by fentanyl or fentanyl analogs, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.413S	Poisoning by fentanyl or fentanyl analogs, assault, sequela	Diagnosis	ICD-10-CM
T40.414A	Poisoning by fentanyl or fentanyl analogs, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.414D	Poisoning by fentanyl or fentanyl analogs, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.414S	Poisoning by fentanyl or fentanyl analogs, undetermined, sequela	Diagnosis	ICD-10-CM

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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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	
Code	Description	Category	Code Type
T40.415A	Adverse effect of fentanyl or fentanyl analogs, initial encounter	Diagnosis	ICD-10-CM
T40.415D	Adverse effect of fentanyl or fentanyl analogs, subsequent encounter	Diagnosis	ICD-10-CM
T40.415S	Adverse effect of fentanyl or fentanyl analogs, sequela	Diagnosis	ICD-10-CM
T40.421A	Poisoning by tramadol, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.421D	Poisoning by tramadol, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.421S	Poisoning by tramadol, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.422A	Poisoning by tramadol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.422D	Poisoning by tramadol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.422S	Poisoning by tramadol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.423A	Poisoning by tramadol, assault, initial encounter	Diagnosis	ICD-10-CM
T40.423D	Poisoning by tramadol, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.423S	Poisoning by tramadol, assault, sequela	Diagnosis	ICD-10-CM
T40.424A	Poisoning by tramadol, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.424D	Poisoning by tramadol, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.424S	Poisoning by tramadol, undetermined, sequela	Diagnosis	ICD-10-CM
T40.425A	Adverse effect of tramadol, initial encounter	Diagnosis	ICD-10-CM
T40.425D	Adverse effect of tramadol, subsequent encounter	Diagnosis	ICD-10-CM
T40.425S	Adverse effect of tramadol, sequela	Diagnosis	ICD-10-CM
T40.491A	Poisoning by other synthetic narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.491D	Poisoning by other synthetic narcotics, accidental (unintentional), subsequent	Diagnosis	ICD-10-CM
	encounter		
T40.491S	Poisoning by other synthetic narcotics, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.492A	Poisoning by other synthetic narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.492D	Poisoning by other synthetic narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.492S	Poisoning by other synthetic narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.493A	Poisoning by other synthetic narcotics, assault, initial encounter	Diagnosis	ICD-10-CM
T40.493D	Poisoning by other synthetic narcotics, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.493S	Poisoning by other synthetic narcotics, assault, sequela	Diagnosis	ICD-10-CM
T40.494A	Poisoning by other synthetic narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.494D	Poisoning by other synthetic narcotics, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.494S	Poisoning by other synthetic narcotics, undetermined, sequela	Diagnosis	ICD-10-CM
T40.495A	Adverse effect of other synthetic narcotics, initial encounter	Diagnosis	ICD-10-CM
T40.495D	Adverse effect of other synthetic narcotics, subsequent encounter	Diagnosis	ICD-10-CM
T40.495S	Adverse effect of other synthetic narcotics, sequela	Diagnosis	ICD-10-CM
T40.4X1A	Poisoning by other synthetic narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.4X1D	Poisoning by other synthetic narcotics, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.4X1S	Poisoning by other synthetic narcotics, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.4X2A	Poisoning by other synthetic narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.4X2D	Poisoning by other synthetic narcotics, intentional self-harm, subsequent encounter	•	ICD-10-CM
T40.4X2S	Poisoning by other synthetic narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.4X3A	Poisoning by other synthetic narcotics, assault, initial encounter	Diagnosis	ICD-10-CM
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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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

T40.4X3D Poisoning by other synthetic narcotics, assault, subsequent encounter Diagnosis ICD-10 T40.4X373 Poisoning by other synthetic narcotics, assault, sequela Diagnosis ICD-10 T40.4X4D Poisoning by other synthetic narcotics, undetermined, initial encounter Diagnosis ICD-10 T40.4X4D Poisoning by other synthetic narcotics, undetermined, subsequent encounter Diagnosis ICD-10 T40.4X4D Poisoning by other synthetic narcotics, undetermined, sequela Diagnosis ICD-10 T40.4X4S Poisoning by other synthetic narcotics, undetermined, sequela Diagnosis ICD-10 T40.4X5D Adverse effect of other synthetic narcotics, subsequent encounter Diagnosis ICD-10 T40.4X5D Adverse effect of other synthetic narcotics, sequela Diagnosis ICD-10 T40.6X1D Poisoning by unspecified narcotics, accidental (unintentional), initial encounter Diagnosis ICD-10 T40.601D Poisoning by unspecified narcotics, accidental (unintentional), subsequent Diagnosis ICD-10 T40.601D Poisoning by unspecified narcotics, intentional self-harm, initial encounter Diagnosis ICD-10 T40.602D Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter Diagnosis ICD-10 T40.602D Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter Diagnosis ICD-10 T40.603D Poisoning by unspecified narcotics, assault, initial encounter Diagnosis ICD-10 T40.603D Poisoning by unspecified narcotics, assault, initial encounter Diagnosis ICD-10 T40.603D Poisoning by unspecified narcotics, assault, initial encounter Diagnosis ICD-10 T40.603D Poisoning by unspecified narcotics, assault, initial encounter Diagnosis ICD-10 T40.603D Poisoning by unspecified narcotics, undetermined, initial encounter Diagnosis ICD-10 T40.604D Poisoning by unspecified narcotics, undetermined, initial encounter Diagnosis ICD-10 T40.604D Poisoning by unspecified narcotics, undetermined, subsequent encounter Diagnosis ICD-10 T40.605D Adverse effect of unspecified narcotics, undetermined, subsequent Diagnosis ICD-10 T40.605D Adverse effect of unspecified narcotics, sequela Diagn	-	·	Code	
T40.4X35 Poisoning by other synthetic narcotics, assault, sequela T40.4X4A Poisoning by other synthetic narcotics, undetermined, initial encounter Diagnosis ICD-10 T40.4X4A Poisoning by other synthetic narcotics, undetermined, subsequent encounter Diagnosis ICD-10 T40.4X45 Poisoning by other synthetic narcotics, undetermined, sequela Diagnosis ICD-10 T40.4X5A Adverse effect of other synthetic narcotics, initial encounter Diagnosis ICD-10 T40.4X5A Adverse effect of other synthetic narcotics, subsequent encounter Diagnosis ICD-10 T40.4X5S Adverse effect of other synthetic narcotics, subsequent encounter Diagnosis ICD-10 T40.6X5S Adverse effect of other synthetic narcotics, subsequent encounter Diagnosis ICD-10 T40.601A Poisoning by unspecified narcotics, accidental (unintentional), initial encounter Diagnosis ICD-10 Disoning by unspecified narcotics, accidental (unintentional), subsequent encounter  T40.601D Poisoning by unspecified narcotics, accidental (unintentional), sequela Diagnosis ICD-10 T40.602D Poisoning by unspecified narcotics, intentional self-harm, initial encounter Diagnosis ICD-10 T40.602D Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter Diagnosis ICD-10 T40.603D Poisoning by unspecified narcotics, intentional self-harm, sequela Diagnosis ICD-10 T40.603D Poisoning by unspecified narcotics, assault, subsequent encounter Diagnosis ICD-10 T40.603D Poisoning by unspecified narcotics, assault, sequela Diagnosis ICD-10 T40.604D Poisoning by unspecified narcotics, assault, sequela Diagnosis ICD-10 T40.604D Poisoning by unspecified narcotics, undetermined, subsequent encounter Diagnosis ICD-10 T40.604D Poisoning by unspecified narcotics, undetermined, subsequent encounter Diagnosis ICD-10 T40.605D Adverse effect of unspecified narcotics, undetermined, sequela Diagnosis ICD-10 T40.605D Adverse effect of unspecified narcotics, undetermined, sequela Diagnosis ICD-10 T40.605D Adverse effect of unspecified narcotics, sequela Diagnosis ICD-10 T40.605D Poisoning by other narcotics,	Code	Description	Category	Code Type
T40.4X4A Poisoning by other synthetic narcotics, undetermined, initial encounter Diagnosis ICD-10 T40.4X4B Poisoning by other synthetic narcotics, undetermined, subsequent encounter Diagnosis ICD-10 T40.4X5A Adverse effect of other synthetic narcotics, initial encounter Diagnosis ICD-10 T40.4X5A Adverse effect of other synthetic narcotics, sequela Diagnosis ICD-10 T40.4X5B Adverse effect of other synthetic narcotics, sequela Diagnosis ICD-10 T40.4X5B Adverse effect of other synthetic narcotics, sequela Diagnosis ICD-10 T40.601A Poisoning by unspecified narcotics, accidental (unintentional), initial encounter Diagnosis ICD-10 T40.601D Poisoning by unspecified narcotics, accidental (unintentional), subsequent Diagnosis ICD-10 T40.601B Poisoning by unspecified narcotics, accidental (unintentional), subsequent Diagnosis ICD-10 T40.601B Poisoning by unspecified narcotics, intentional self-harm, initial encounter Diagnosis ICD-10 T40.602A Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter Diagnosis ICD-10 T40.602B Poisoning by unspecified narcotics, intentional self-harm, sequela Diagnosis ICD-10 T40.603A Poisoning by unspecified narcotics, intentional self-harm, sequela Diagnosis ICD-10 T40.603D Poisoning by unspecified narcotics, assault, initial encounter Diagnosis ICD-10 T40.603D Poisoning by unspecified narcotics, assault, initial encounter Diagnosis ICD-10 T40.604A Poisoning by unspecified narcotics, undetermined, subsequent encounter Diagnosis ICD-10 T40.604A Poisoning by unspecified narcotics, undetermined, subsequent encounter Diagnosis ICD-10 T40.605A Adverse effect of unspecified narcotics, undetermined, subsequent Diagnosis ICD-10 T40.605A Adverse effect of unspecified narcotics, subsequent encounter Diagnosis ICD-10 T40.605A Adverse effect of unspecified narcotics, subsequent encounter Diagnosis ICD-10 T40.605D Adverse effect of unspecified narcotics, subsequent Poisoning Dy other narcotics, accidental (unintentional), subsequent Diagnosis ICD-10 T40.691D Poisoning by other n	T40.4X3D	Poisoning by other synthetic narcotics, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.4X4D Poisoning by other synthetic narcotics, undetermined, subsequent encounter Diagnosis ICD-10 T40.4X45 Poisoning by other synthetic narcotics, undetermined, sequela Diagnosis ICD-10 T40.4X5A Adverse effect of other synthetic narcotics, initial encounter Diagnosis ICD-10 T40.4X5D Adverse effect of other synthetic narcotics, subsequent encounter Diagnosis ICD-10 T40.4X5D Adverse effect of other synthetic narcotics, sequela Diagnosis ICD-10 T40.601A Poisoning by unspecified narcotics, accidental (unintentional), initial encounter Diagnosis ICD-10 Poisoning by unspecified narcotics, accidental (unintentional), subsequent Diagnosis ICD-10 T40.601D Poisoning by unspecified narcotics, accidental (unintentional), sequela Diagnosis ICD-10 T40.602D Poisoning by unspecified narcotics, intentional self-harm, initial encounter Diagnosis ICD-10 T40.602D Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter Diagnosis ICD-10 T40.603D Poisoning by unspecified narcotics, intentional self-harm, sequela Diagnosis ICD-10 T40.603D Poisoning by unspecified narcotics, assault, initial encounter Diagnosis ICD-10 T40.603D Poisoning by unspecified narcotics, assault, subsequent encounter Diagnosis ICD-10 T40.603D Poisoning by unspecified narcotics, undetermined, initial encounter Diagnosis ICD-10 T40.603D Poisoning by unspecified narcotics, undetermined, subsequent encounter Diagnosis ICD-10 T40.604D Poisoning by unspecified narcotics, undetermined, subsequent encounter Diagnosis ICD-10 T40.604D Poisoning by unspecified narcotics, undetermined, subsequent encounter Diagnosis ICD-10 T40.605D Adverse effect of unspecified narcotics, sequela Diagnosis ICD-10 T40.605A Adverse effect of unspecified narcotics, sequela Diagnosis ICD-10 T40.605D Adverse effect of unspecified narcotics, sequela Diagnosis ICD-10 T40.605D Adverse effect of unspecified narcotics, sequela Diagnosis ICD-10 T40.605D Adverse effect of unspecified narcotics, sequela Diagnosis ICD-10 T40.603D Poisoning by other narcotics, accidental (unint	T40.4X3S	Poisoning by other synthetic narcotics, assault, sequela	Diagnosis	ICD-10-CM
T40.4X45 Poisoning by other synthetic narcotics, undetermined, sequela  Adverse effect of other synthetic narcotics, initial encounter  10 jagnosis  100-10  140.4X50 Adverse effect of other synthetic narcotics, subsequent encounter  10 jagnosis  100-10  140.4X55 Adverse effect of other synthetic narcotics, subsequent encounter  140.4X55 Adverse effect of other synthetic narcotics, sequela  140.6011 Poisoning by unspecified narcotics, accidental (unintentional), initial encounter  140.6012 Poisoning by unspecified narcotics, accidental (unintentional), subsequent  140.6015 Poisoning by unspecified narcotics, accidental (unintentional), sequela  140.602A Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter  140.602D Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter  140.602D Poisoning by unspecified narcotics, intentional self-harm, sequela  140.603D Poisoning by unspecified narcotics, intentional self-harm, sequela  140.603D Poisoning by unspecified narcotics, assault, initial encounter  140.603D Poisoning by unspecified narcotics, assault, initial encounter  140.603D Poisoning by unspecified narcotics, assault, sequela  140.603D Poisoning by unspecified narcotics, undetermined, initial encounter  140.604D Poisoning by unspecified narcotics, undetermined, subsequent encounter  140.604D Poisoning by unspecified narcotics, undetermined, subsequent encounter  140.604D Poisoning by unspecified narcotics, undetermined, subsequent encounter  140.605A Adverse effect of unspecified narcotics, sundetermined, subsequent encounter  140.605A Adverse effect of unspecified narcotics, subsequent encounter  140.605A Adverse effect of unspecified narcotics, subsequent encounter  140.605A Adverse effect of unspecified narcotics, sequela  140.605B Adverse effect of unspecified narcotics, sequela  140.	T40.4X4A	Poisoning by other synthetic narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.4X5A Adverse effect of other synthetic narcotics, initial encounter Diagnosis ICD-10- T40.4X5D Adverse effect of other synthetic narcotics, subsequent encounter Diagnosis ICD-10- T40.4X5D Adverse effect of other synthetic narcotics, sequela Diagnosis ICD-10- T40.601A Poisoning by unspecified narcotics, accidental (unintentional), initial encounter Diagnosis ICD-10- Recounter Diagnosis IC	T40.4X4D	Poisoning by other synthetic narcotics, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.4X5D Adverse effect of other synthetic narcotics, subsequent encounter Diagnosis ICD-10 T40.4X5S Adverse effect of other synthetic narcotics, sequela Diagnosis ICD-10 T40.601A Poisoning by unspecified narcotics, accidental (unintentional), initial encounter Diagnosis ICD-10 T40.601D Poisoning by unspecified narcotics, accidental (unintentional), subsequent Diagnosis ICD-10 T40.601S Poisoning by unspecified narcotics, accidental (unintentional), sequela Diagnosis ICD-10 T40.602A Poisoning by unspecified narcotics, intentional self-harm, initial encounter Diagnosis ICD-10 T40.602B Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter Diagnosis ICD-10 T40.603C Poisoning by unspecified narcotics, intentional self-harm, sequela Diagnosis ICD-10 T40.603B Poisoning by unspecified narcotics, assault, initial encounter Diagnosis ICD-10 T40.603B Poisoning by unspecified narcotics, assault, subsequent encounter Diagnosis ICD-10 T40.603B Poisoning by unspecified narcotics, assault, sequela Diagnosis ICD-10 T40.604A Poisoning by unspecified narcotics, undetermined, initial encounter Diagnosis ICD-10 T40.604B Poisoning by unspecified narcotics, undetermined, subsequent encounter Diagnosis ICD-10 T40.605D Adverse effect of unspecified narcotics, undetermined, sequela Diagnosis ICD-10 T40.605D Adverse effect of unspecified narcotics, subsequent encounter Diagnosis ICD-10 T40.605D Adverse effect of unspecified narcotics, subsequent encounter Diagnosis ICD-10 T40.691D Poisoning by other narcotics, accidental (unintentional), initial encounter Diagnosis ICD-10 T40.691D Poisoning by other narcotics, accidental (unintentional), subsequent encounter Diagnosis ICD-10 T40.692P Poisoning by other narcotics, accidental (unintentional), subsequent encounter Diagnosis ICD-10 T40.693A Poisoning by other narcotics, accidental (unintentional), subsequent encounter Diagnosis ICD-10 T40.693A Poisoning by other narcotics, assault, subsequent encounter Diagnosis ICD-10 T40.693A Poisoning by other narcotics, assault,	T40.4X4S	Poisoning by other synthetic narcotics, undetermined, sequela	Diagnosis	ICD-10-CM
T40.4X5S Adverse effect of other synthetic narcotics, sequela  T40.601A Poisoning by unspecified narcotics, accidental (unintentional), initial encounter  Poisoning by unspecified narcotics, accidental (unintentional), subsequent encounter  T40.601S Poisoning by unspecified narcotics, accidental (unintentional), sequela  Diagnosis ICD-10- T40.602A Poisoning by unspecified narcotics, intentional self-harm, initial encounter  Diagnosis ICD-10- T40.602A Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter  Diagnosis ICD-10- T40.602S Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter  Diagnosis ICD-10- T40.603A Poisoning by unspecified narcotics, intentional self-harm, sequela  Diagnosis ICD-10- T40.603B Poisoning by unspecified narcotics, assault, initial encounter  Diagnosis ICD-10- T40.603D Poisoning by unspecified narcotics, assault, subsequent encounter  Diagnosis ICD-10- T40.603D Poisoning by unspecified narcotics, assault, sequela  Diagnosis ICD-10- T40.604D Poisoning by unspecified narcotics, undetermined, initial encounter  Diagnosis ICD-10- T40.604D Poisoning by unspecified narcotics, undetermined, subsequent encounter  Diagnosis ICD-10- T40.605D Adverse effect of unspecified narcotics, undetermined, sequela  Diagnosis ICD-10- T40.605D Adverse effect of unspecified narcotics, subsequent encounter  Diagnosis ICD-10- T40.605D Adverse effect of unspecified narcotics, sequela  Diagnosis ICD-10- T40.691D Poisoning by other narcotics, accidental (unintentional), initial encounter  Diagnosis ICD-10- T40.691D Poisoning by other narcotics, accidental (unintentional), subsequent encounter  Diagnosis ICD-10- T40.692A Poisoning by other narcotics, accidental (unintentional), subsequent encounter  Diagnosis ICD-10- T40.693A Poisoning by other narcotics, intentional self-harm, subsequent encounter  Diagnosis ICD-10- T40.693A Poisoning by other narcotics, assault, subsequent encounter  Diagnosis ICD-10- T40.693A Poisoning by other narcotics, assault, subsequent enc	T40.4X5A	Adverse effect of other synthetic narcotics, initial encounter	Diagnosis	ICD-10-CM
T40.601A Poisoning by unspecified narcotics, accidental (unintentional), initial encounter Diagnosis ICD-10- Poisoning by unspecified narcotics, accidental (unintentional), subsequent encounter Diagnosis ICD-10- Poisoning by unspecified narcotics, accidental (unintentional), sequela Diagnosis ICD-10- T40.602A Poisoning by unspecified narcotics, intentional self-harm, initial encounter Diagnosis ICD-10- T40.602B Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter Diagnosis ICD-10- T40.602B Poisoning by unspecified narcotics, intentional self-harm, sequela Diagnosis ICD-10- T40.603B Poisoning by unspecified narcotics, intentional self-harm, sequela Diagnosis ICD-10- T40.603B Poisoning by unspecified narcotics, assault, initial encounter Diagnosis ICD-10- T40.603B Poisoning by unspecified narcotics, assault, sequela Diagnosis ICD-10- T40.604B Poisoning by unspecified narcotics, undetermined, initial encounter Diagnosis ICD-10- T40.604B Poisoning by unspecified narcotics, undetermined, subsequent encounter Diagnosis ICD-10- T40.604B Poisoning by unspecified narcotics, undetermined, sequela Diagnosis ICD-10- T40.605A Adverse effect of unspecified narcotics, initial encounter Diagnosis ICD-10- T40.605A Adverse effect of unspecified narcotics, subsequent encounter Diagnosis ICD-10- T40.605D Adverse effect of unspecified narcotics, sequela Diagnosis ICD-10- T40.605D Adverse effect of unspecified narcotics, subsequent encounter Diagnosis ICD-10- T40.691A Poisoning by other narcotics, accidental (unintentional), initial encounter Diagnosis ICD-10- T40.691A Poisoning by other narcotics, accidental (unintentional), subsequent encounter Diagnosis ICD-10- T40.692B Poisoning by other narcotics, accidental (unintentional), sequela Diagnosis ICD-10- T40.693B Poisoning by other narcotics, intentional self-harm, initial encounter Diagnosis ICD-10- T40.693B Poisoning by other narcotics, intentional self-harm, initial encounter Diagnosis ICD-10- T40.693B Poisoning by other narcotics, undetermined, initia	T40.4X5D	Adverse effect of other synthetic narcotics, subsequent encounter	Diagnosis	ICD-10-CM
T40.601D Poisoning by unspecified narcotics, accidental (unintentional), subsequent encounter  T40.601S Poisoning by unspecified narcotics, accidental (unintentional), sequela  T40.602A Poisoning by unspecified narcotics, intentional self-harm, initial encounter  T40.602D Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter  T40.603C Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter  T40.603A Poisoning by unspecified narcotics, intentional self-harm, sequela  Diagnosis ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.4X5S	Adverse effect of other synthetic narcotics, sequela	Diagnosis	ICD-10-CM
encounter  740.6015 Poisoning by unspecified narcotics, accidental (unintentional), sequela Diagnosis ICD-10-140.602A Poisoning by unspecified narcotics, intentional self-harm, initial encounter Diagnosis ICD-10-140.602D Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter Diagnosis ICD-10-140.602S Poisoning by unspecified narcotics, intentional self-harm, sequela Diagnosis ICD-10-140.603A Poisoning by unspecified narcotics, assault, initial encounter Diagnosis ICD-10-140.603A Poisoning by unspecified narcotics, assault, seduced Diagnosis ICD-10-140.603B Poisoning by unspecified narcotics, assault, seduced Diagnosis ICD-10-140.603C Poisoning by unspecified narcotics, undetermined, initial encounter Diagnosis ICD-10-140.604D Poisoning by unspecified narcotics, undetermined, subsequent encounter Diagnosis ICD-10-140.604D Poisoning by unspecified narcotics, undetermined, sequela Diagnosis ICD-10-140.605A Adverse effect of unspecified narcotics, initial encounter Diagnosis ICD-10-140.605A Adverse effect of unspecified narcotics, subsequent encounter Diagnosis ICD-10-140.605C Adverse effect of unspecified narcotics, subsequent encounter Diagnosis ICD-10-140.605A Poisoning by other narcotics, accidental (unintentional), initial encounter Diagnosis ICD-10-140.605A Poisoning by other narcotics, accidental (unintentional), sequela Diagnosis ICD-10-140.605A Poisoning by other narcotics, accidental (unintentional), sequela Diagnosis ICD-10-140.6091A Poisoning by other narcotics, intentional self-harm, initial encounter Diagnosis ICD-10-140.6092A Poisoning by other narcotics, intentional self-harm, subsequent encounter Diagnosis ICD-10-140.6092A Poisoning by other narcotics, intentional self-harm, sequela Diagnosis ICD-10-140.6093A Poisoning by other narcotics, intentional self-harm, subsequent encounter Diagnosis ICD-10-140.6093A Poisoning by other narcotics, undetermined, sequela Diagnosis ICD-10-140.6094A Poisoning by other narcotics, undetermined, sequela Diagnosis ICD-10-140.6095A Adverse ef	T40.601A	Poisoning by unspecified narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.602A Poisoning by unspecified narcotics, intentional self-harm, initial encounter Diagnosis ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.601D		Diagnosis	ICD-10-CM
T40.602D Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter Diagnosis ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.601S	Poisoning by unspecified narcotics, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.602S Poisoning by unspecified narcotics, intentional self-harm, sequela Diagnosis ICD-10-140.603A Poisoning by unspecified narcotics, assault, initial encounter Diagnosis ICD-10-140.603D Poisoning by unspecified narcotics, assault, subsequent encounter Diagnosis ICD-10-140.603S Poisoning by unspecified narcotics, assault, subsequent encounter Diagnosis ICD-10-140.603A Poisoning by unspecified narcotics, undetermined, initial encounter Diagnosis ICD-10-140.604A Poisoning by unspecified narcotics, undetermined, subsequent encounter Diagnosis ICD-10-140.604S Poisoning by unspecified narcotics, undetermined, sequela Diagnosis ICD-10-140.605A Adverse effect of unspecified narcotics, initial encounter Diagnosis ICD-10-140.605D Adverse effect of unspecified narcotics, subsequent encounter Diagnosis ICD-10-140.605D Adverse effect of unspecified narcotics, subsequent encounter Diagnosis ICD-10-140.605A Poisoning by other narcotics, sequela Diagnosis ICD-10-140.691A Poisoning by other narcotics, accidental (unintentional), initial encounter Diagnosis ICD-10-140.691A Poisoning by other narcotics, accidental (unintentional), subsequent encounter Diagnosis ICD-10-140.691A Poisoning by other narcotics, accidental (unintentional), subsequent encounter Diagnosis ICD-10-140.692A Poisoning by other narcotics, intentional self-harm, initial encounter Diagnosis ICD-10-140.692A Poisoning by other narcotics, intentional self-harm, subsequent encounter Diagnosis ICD-10-140.693A Poisoning by other narcotics, assault, initial encounter Diagnosis ICD-10-140.693A Poisoning by other narcotics, assault, subsequent encounter Diagnosis ICD-10-140.693A Poisoning by other narcotics, assault, subsequent encounter Diagnosis ICD-10-140.694A Poisoning by other narcotics, undetermined, initial encounter Diagnosis ICD-10-140.694A Poisoning by other narcotics, undetermined, sequela Diagnosis ICD-10-140.695A Adverse effect of other narcotics, subsequent encounter Diagnosis ICD-10-140.695A Adverse effect of other narcotics, subsequent encounter Dia	T40.602A	Poisoning by unspecified narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.603A Poisoning by unspecified narcotics, assault, initial encounter Diagnosis ICD-10- T40.603D Poisoning by unspecified narcotics, assault, subsequent encounter Diagnosis ICD-10- T40.603S Poisoning by unspecified narcotics, assault, sequela Diagnosis ICD-10- T40.604A Poisoning by unspecified narcotics, undetermined, initial encounter Diagnosis ICD-10- T40.604D Poisoning by unspecified narcotics, undetermined, subsequent encounter Diagnosis ICD-10- T40.604D Poisoning by unspecified narcotics, undetermined, sequela Diagnosis ICD-10- T40.605A Poisoning by unspecified narcotics, undetermined, sequela Diagnosis ICD-10- T40.605A Adverse effect of unspecified narcotics, initial encounter Diagnosis ICD-10- T40.605D Adverse effect of unspecified narcotics, subsequent encounter Diagnosis ICD-10- T40.605A Adverse effect of unspecified narcotics, sequela Diagnosis ICD-10- T40.6091A Poisoning by other narcotics, accidental (unintentional), initial encounter Diagnosis ICD-10- T40.691D Poisoning by other narcotics, accidental (unintentional), sequela Diagnosis ICD-10- T40.692A Poisoning by other narcotics, intentional self-harm, initial encounter Diagnosis ICD-10- T40.692A Poisoning by other narcotics, intentional self-harm, subsequent encounter Diagnosis ICD-10- T40.692B Poisoning by other narcotics, intentional self-harm, subsequent encounter Diagnosis ICD-10- T40.693A Poisoning by other narcotics, assault, initial encounter Diagnosis ICD-10- T40.693B Poisoning by other narcotics, assault, subsequent encounter Diagnosis ICD-10- T40.694A Poisoning by other narcotics, assault, subsequent encounter Diagnosis ICD-10- T40.694A Poisoning by other narcotics, undetermined, subsequent encounter Diagnosis ICD-10- T40.694A Poisoning by other narcotics, undetermined, subsequent encounter Diagnosis ICD-10- T40.695A Adverse effect of other narcotics, undetermined, sequela Diagnosis ICD-10- T40.695A Adverse effect of other narcotics, subsequent encounter Diagnosis ICD-10- T40.695B Adverse effect of other narcotics, subsequent encounte	T40.602D	Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.603DPoisoning by unspecified narcotics, assault, subsequent encounterDiagnosisICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.602S	Poisoning by unspecified narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.603S Poisoning by unspecified narcotics, assault, sequela  Diagnosis ICD-10- T40.604A Poisoning by unspecified narcotics, undetermined, initial encounter  Diagnosis ICD-10- T40.604D Poisoning by unspecified narcotics, undetermined, subsequent encounter  Diagnosis ICD-10- T40.604S Poisoning by unspecified narcotics, undetermined, sequela  Diagnosis ICD-10- T40.605A Adverse effect of unspecified narcotics, initial encounter  Diagnosis ICD-10- Diagnosis ICD	T40.603A	Poisoning by unspecified narcotics, assault, initial encounter	Diagnosis	ICD-10-CN
T40.604A Poisoning by unspecified narcotics, undetermined, initial encounter Diagnosis ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.603D	Poisoning by unspecified narcotics, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.604DPoisoning by unspecified narcotics, undetermined, subsequent encounterDiagnosisICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.603S	Poisoning by unspecified narcotics, assault, sequela	Diagnosis	ICD-10-CN
T40.604S Poisoning by unspecified narcotics, undetermined, sequela Diagnosis ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.604A	Poisoning by unspecified narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.605AAdverse effect of unspecified narcotics, initial encounterDiagnosisICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.604D	Poisoning by unspecified narcotics, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.605DAdverse effect of unspecified narcotics, subsequent encounterDiagnosisICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.604S	Poisoning by unspecified narcotics, undetermined, sequela	Diagnosis	ICD-10-CM
T40.605S Adverse effect of unspecified narcotics, sequela T40.691A Poisoning by other narcotics, accidental (unintentional), initial encounter Diagnosis ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.605A	Adverse effect of unspecified narcotics, initial encounter	Diagnosis	ICD-10-CN
T40.691A Poisoning by other narcotics, accidental (unintentional), initial encounter Diagnosis ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.605D	Adverse effect of unspecified narcotics, subsequent encounter	Diagnosis	ICD-10-CM
T40.691D Poisoning by other narcotics, accidental (unintentional), subsequent encounter Diagnosis ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.605S	Adverse effect of unspecified narcotics, sequela	Diagnosis	ICD-10-CN
T40.691S Poisoning by other narcotics, accidental (unintentional), sequela Diagnosis ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.691A	Poisoning by other narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CN
T40.691S Poisoning by other narcotics, accidental (unintentional), sequela Diagnosis ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.691D		Diagnosis	ICD-10-CM
T40.692D Poisoning by other narcotics, intentional self-harm, subsequent encounter  T40.692S Poisoning by other narcotics, intentional self-harm, sequela  T40.693A Poisoning by other narcotics, assault, initial encounter  T40.693D Poisoning by other narcotics, assault, subsequent encounter  T40.693S Poisoning by other narcotics, assault, sequela  T40.694A Poisoning by other narcotics, undetermined, initial encounter  T40.694D Poisoning by other narcotics, undetermined, subsequent encounter  T40.694D Poisoning by other narcotics, undetermined, subsequent encounter  T40.694S Poisoning by other narcotics, undetermined, sequela  T40.695A Adverse effect of other narcotics, initial encounter  T40.695D Adverse effect of other narcotics, subsequent encounter  T40.695S Adverse effect of other narcotics, subsequent encounter  Diagnosis ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.691S		Diagnosis	ICD-10-CM
T40.692D Poisoning by other narcotics, intentional self-harm, subsequent encounter  T40.692S Poisoning by other narcotics, intentional self-harm, sequela  T40.693A Poisoning by other narcotics, assault, initial encounter  T40.693D Poisoning by other narcotics, assault, subsequent encounter  T40.693S Poisoning by other narcotics, assault, sequela  T40.694A Poisoning by other narcotics, undetermined, initial encounter  T40.694D Poisoning by other narcotics, undetermined, subsequent encounter  T40.694D Poisoning by other narcotics, undetermined, subsequent encounter  T40.694S Poisoning by other narcotics, undetermined, sequela  T40.695A Adverse effect of other narcotics, initial encounter  T40.695D Adverse effect of other narcotics, subsequent encounter  T40.695S Adverse effect of other narcotics, subsequent encounter  Diagnosis ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.692A	Poisoning by other narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.692S Poisoning by other narcotics, intentional self-harm, sequela  T40.693A Poisoning by other narcotics, assault, initial encounter  T40.693D Poisoning by other narcotics, assault, subsequent encounter  T40.693S Poisoning by other narcotics, assault, sequela  T40.694A Poisoning by other narcotics, undetermined, initial encounter  T40.694D Poisoning by other narcotics, undetermined, subsequent encounter  T40.694D Poisoning by other narcotics, undetermined, subsequent encounter  T40.694S Poisoning by other narcotics, undetermined, sequela  T40.695A Adverse effect of other narcotics, initial encounter  T40.695D Adverse effect of other narcotics, subsequent encounter  T40.695S Adverse effect of other narcotics, sequela  Diagnosis ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.692D		Diagnosis	ICD-10-CM
T40.693D Poisoning by other narcotics, assault, subsequent encounter  T40.693S Poisoning by other narcotics, assault, sequela  T40.694A Poisoning by other narcotics, undetermined, initial encounter  T40.694D Poisoning by other narcotics, undetermined, subsequent encounter  T40.694D Poisoning by other narcotics, undetermined, subsequent encounter  T40.694S Poisoning by other narcotics, undetermined, sequela  T40.695A Adverse effect of other narcotics, initial encounter  T40.695D Adverse effect of other narcotics, subsequent encounter  T40.695S Adverse effect of other narcotics, subsequent encounter  Diagnosis ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.692S		Diagnosis	ICD-10-CN
T40.693D Poisoning by other narcotics, assault, subsequent encounter  T40.693S Poisoning by other narcotics, assault, sequela  T40.694A Poisoning by other narcotics, undetermined, initial encounter  T40.694D Poisoning by other narcotics, undetermined, subsequent encounter  T40.694D Poisoning by other narcotics, undetermined, subsequent encounter  T40.694S Poisoning by other narcotics, undetermined, sequela  T40.695A Adverse effect of other narcotics, initial encounter  T40.695D Adverse effect of other narcotics, subsequent encounter  T40.695S Adverse effect of other narcotics, subsequent encounter  T40.695S Adverse effect of other narcotics, sequela  Diagnosis ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.693A		_	ICD-10-CN
T40.694A Poisoning by other narcotics, undetermined, initial encounter  T40.694D Poisoning by other narcotics, undetermined, subsequent encounter  T40.694S Poisoning by other narcotics, undetermined, sequela  T40.695A Adverse effect of other narcotics, initial encounter  T40.695D Adverse effect of other narcotics, subsequent encounter  T40.695S Adverse effect of other narcotics, subsequent encounter  Diagnosis  ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.693D	Poisoning by other narcotics, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.694A Poisoning by other narcotics, undetermined, initial encounter  T40.694D Poisoning by other narcotics, undetermined, subsequent encounter  T40.694S Poisoning by other narcotics, undetermined, sequela  T40.695A Adverse effect of other narcotics, initial encounter  T40.695D Adverse effect of other narcotics, subsequent encounter  T40.695S Adverse effect of other narcotics, subsequent encounter  Diagnosis ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.693S		=	ICD-10-CN
T40.694D Poisoning by other narcotics, undetermined, subsequent encounter T40.694S Poisoning by other narcotics, undetermined, sequela Diagnosis ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.694A	Poisoning by other narcotics, undetermined, initial encounter	_	ICD-10-CN
T40.694S Poisoning by other narcotics, undetermined, sequela Diagnosis ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.694D		_	ICD-10-CN
T40.695A Adverse effect of other narcotics, initial encounter Diagnosis ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-	T40.694S		•	ICD-10-CM
T40.695D Adverse effect of other narcotics, subsequent encounter  T40.695S Adverse effect of other narcotics, sequela  Opioid Use Disorder 2 (OUD 2)  Opioid type dependence  Diagnosis  ICD-10-10-10-10-10-10-10-10-10-10-10-10-10-			=	ICD-10-CN
T40.695S Adverse effect of other narcotics, sequela  Opioid Use Disorder 2 (OUD 2)  304.0 Opioid type dependence Diagnosis ICD-9-C			•	ICD-10-CM
Opioid Use Disorder 2 (OUD 2)  304.0 Opioid type dependence Diagnosis ICD-9-C		•	•	ICD-10-CN
304.0 Opioid type dependence Diagnosis ICD-9-C				
	304.0		Diagnosis	ICD-9-CM
204:00 Opiola type dependence, unspecined Didgnosis ICD-3-C	304.00	Opioid type dependence, unspecified	Diagnosis	ICD-9-CM

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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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	
Code	Description	Category	Code Type
304.01	Opioid type dependence, continuous	Diagnosis	ICD-9-CM
304.02	Opioid type dependence, episodic	Diagnosis	ICD-9-CM
304.7	Combinations of opioid type drug with any other drug dependence	Diagnosis	ICD-9-CM
304.70	Combinations of opioid type drug with any other drug dependence, unspecified	Diagnosis	ICD-9-CM
304.71	Combinations of opioid type drug with any other drug dependence, continuous	Diagnosis	ICD-9-CM
304.72	Combinations of opioid type drug with any other drug dependence, episodic	Diagnosis	ICD-9-CM
305.5	Nondependent opioid abuse	Diagnosis	ICD-9-CM
305.50	Nondependent opioid abuse, unspecified	Diagnosis	ICD-9-CM
305.51	Nondependent opioid abuse, continuous	Diagnosis	ICD-9-CM
305.52	Nondependent opioid abuse, episodic	Diagnosis	ICD-9-CM
760.72	Noxious influences affecting fetus or newborn via placenta or breast milk, narcotics	Diagnosis	ICD-9-CM
965.0	Poisoning by opiates and related narcotics	Diagnosis	ICD-9-CM
965.00	Poisoning by opium (alkaloids), unspecified	Diagnosis	ICD-9-CM
965.01	Poisoning by heroin	Diagnosis	ICD-9-CM
965.02	Poisoning by methadone	Diagnosis	ICD-9-CM
965.09	Poisoning by opiates and related narcotics, other	Diagnosis	ICD-9-CM
E85.00	Accidental poisoning by heroin	Diagnosis	ICD-9-CM
E85.01	Accidental poisoning by methadone	Diagnosis	ICD-9-CM
E85.02	Accidental poisoning by other opiates and related narcotics	Diagnosis	ICD-9-CM
E93.50	Heroin causing adverse effect in therapeutic use	Diagnosis	ICD-9-CM
E93.51	Methadone causing averse effect in therapeutic use	Diagnosis	ICD-9-CM
F11.10	Opioid abuse, uncomplicated	Diagnosis	ICD-10-CM
F11.120	Opioid abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.121	Opioid abuse with intoxication delirium	Diagnosis	ICD-10-CM
F11.122	Opioid abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.129	Opioid abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.14	Opioid abuse with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.150	Opioid abuse with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.151	Opioid abuse with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.159	Opioid abuse with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.181	Opioid abuse with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.182	Opioid abuse with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.188	Opioid abuse with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.19	Opioid abuse with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F11.20	Opioid dependence, uncomplicated	Diagnosis	ICD-10-CM
F11.220	Opioid dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.221	Opioid dependence with intoxication delirium	Diagnosis	ICD-10-CM
F11.222	Opioid dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.229	Opioid dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.23	Opioid dependence with withdrawal	Diagnosis	ICD-10-CM
F11.24	Opioid dependence with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.250	Opioid dependence with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM

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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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

-	ssed to Define Covariates in this nequest	Code	
Code	Description	Category	Code Type
F11.251	Opioid dependence with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.259	Opioid dependence with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.281	Opioid dependence with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.282	Opioid dependence with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.288	Opioid dependence with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.29	Opioid dependence with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F11.90	Opioid use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F11.920	Opioid use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.921	Opioid use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F11.922	Opioid use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.929	Opioid use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.93	Opioid use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F11.94	Opioid use, unspecified with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.950	Opioid use, unspecified with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.951	Opioid use, unspecified with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.959	Opioid use, unspecified with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.981	Opioid use, unspecified with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.982	Opioid use, unspecified with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.988	Opioid use, unspecified with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.99	Opioid use, unspecified with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
HZ81ZZZ	Medication Management for Substance Abuse Treatment, Methadone Maintenance	Procedure	ICD-10-PCS
HZ84ZZZ	Medication Management for Substance Abuse Treatment, Naltrexone	Procedure	ICD-10-PCS
HZ85ZZZ	Medication Management for Substance Abuse Treatment, Naloxone	Procedure	ICD-10-PCS
HZ86ZZZ	Medication Management for Substance Abuse Treatment, Clonidine	Procedure	ICD-10-PCS
HZ91ZZZ	Pharmacotherapy for Substance Abuse Treatment, Methadone Maintenance	Procedure	ICD-10-PCS
HZ94ZZZ	Pharmacotherapy for Substance Abuse Treatment, Naltrexone	Procedure	ICD-10-PCS
HZ95ZZZ	Pharmacotherapy for Substance Abuse Treatment, Naloxone	Procedure	ICD-10-PCS
HZ96ZZZ	Pharmacotherapy for Substance Abuse Treatment, Clonidine	Procedure	ICD-10-PCS
T40.0X1A	Poisoning by opium, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.0X2A	Poisoning by opium, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.0X3A	Poisoning by opium, assault, initial encounter	Diagnosis	ICD-10-CM
T40.0X4A	Poisoning by opium, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.1X1A	Poisoning by heroin, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.1X2A	Poisoning by heroin, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.1X3A	Poisoning by heroin, assault, initial encounter	Diagnosis	ICD-10-CM
T40.1X4A	Poisoning by heroin, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.2X1A	Poisoning by other opioids, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.2X2A	Poisoning by other opioids, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.2X3A	Poisoning by other opioids, assault, initial encounter	Diagnosis	ICD-10-CM
T40.2X4A	Poisoning by other opioids, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.3X1A	Poisoning by methadone, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.3X2A	Poisoning by methadone, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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	
Code	Description	Category	Code Type
T40.3X3A	Poisoning by methadone, assault, initial encounter	Diagnosis	ICD-10-CN
T40.3X4A	Poisoning by methadone, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.3X5A	Adverse effect of methadone, initial encounter	Diagnosis	ICD-10-CM
T40.411A	Poisoning by fentanyl or fentanyl analogs, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.412A	Poisoning by fentanyl or fentanyl analogs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.413A	Poisoning by fentanyl or fentanyl analogs, assault, initial encounter	Diagnosis	ICD-10-CM
T40.414A	Poisoning by fentanyl or fentanyl analogs, undetermined, initial encounter	Diagnosis	ICD-10-CN
T40.415A	Adverse effect of fentanyl or fentanyl analogs, initial encounter	Diagnosis	ICD-10-CN
T40.421A	Poisoning by tramadol, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.422A	Poisoning by tramadol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.423A	Poisoning by tramadol, assault, initial encounter	Diagnosis	ICD-10-CM
T40.424A	Poisoning by tramadol, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.425A	Adverse effect of tramadol, initial encounter	Diagnosis	ICD-10-CM
T40.491A	Poisoning by other synthetic narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.492A	Poisoning by other synthetic narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.493A	Poisoning by other synthetic narcotics, assault, initial encounter	Diagnosis	ICD-10-CM
T40.494A	Poisoning by other synthetic narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CN
T40.495A	Adverse effect of other synthetic narcotics, initial encounter	Diagnosis	ICD-10-CM
T40.4X1A	Poisoning by other synthetic narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CN
T40.4X2A	Poisoning by other synthetic narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CN
T40.4X3A	Poisoning by other synthetic narcotics, assault, initial encounter	Diagnosis	ICD-10-CN
T40.4X4A	Poisoning by other synthetic narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.601A	Poisoning by unspecified narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.602A	Poisoning by unspecified narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CN
T40.603A	Poisoning by unspecified narcotics, assault, initial encounter	Diagnosis	ICD-10-CM
T40.604A	Poisoning by unspecified narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.691A	Poisoning by other narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CN
T40.692A	Poisoning by other narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.693A	Poisoning by other narcotics, assault, initial encounter	Diagnosis	ICD-10-CN
T40.694A	Poisoning by other narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
	Opioid Use Disorder 3 (OUD 3)		
304.00	Opioid type dependence, unspecified	Diagnosis	ICD-9-CM
304.01	Opioid type dependence, continuous	Diagnosis	ICD-9-CM
304.02	Opioid type dependence, episodic	Diagnosis	ICD-9-CM
304.70	Combinations of opioid type drug with any other drug dependence, unspecified	Diagnosis	ICD-9-CM
304.71	Combinations of opioid type drug with any other drug dependence, continuous	Diagnosis	ICD-9-CM
304.72	Combinations of opioid type drug with any other drug dependence, episodic	Diagnosis	ICD-9-CM
305.50	Nondependent opioid abuse, unspecified	Diagnosis	ICD-9-CM
305.51	Nondependent opioid abuse, continuous	Diagnosis	ICD-9-CM
305.52	Nondependent opioid abuse, episodic	Diagnosis	ICD-9-CM

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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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

	oseu to Define Covariates in this nequest	Code	
Code	Description	Category	Code Type
965.00	Poisoning by opium (alkaloids), unspecified	Diagnosis	ICD-9-CM
965.01	Poisoning by heroin	Diagnosis	ICD-9-CM
965.02	Poisoning by methadone	Diagnosis	ICD-9-CM
965.09	Poisoning by opiates and related narcotics, other	Diagnosis	ICD-9-CM
970.1	Poisoning by opiate antagonists	Diagnosis	ICD-9-CM
E85.00	Accidental poisoning by heroin	Diagnosis	ICD-9-CM
E85.01	Accidental poisoning by methadone	Diagnosis	ICD-9-CM
E85.02	Accidental poisoning by other opiates and related narcotics	Diagnosis	ICD-9-CM
E93.50	Heroin causing adverse effect in therapeutic use	Diagnosis	ICD-9-CM
E93.51	Methadone causing averse effect in therapeutic use	Diagnosis	ICD-9-CM
E93.52	Other opiates and related narcotics causing adverse effect in therapeutic use	Diagnosis	ICD-9-CM
E94.01	Opiate antagonists causing adverse effect in therapeutic use	Diagnosis	ICD-9-CM
F11.10	Opioid abuse, uncomplicated	Diagnosis	ICD-10-CM
F11.120	Opioid abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.121	Opioid abuse with intoxication delirium	Diagnosis	ICD-10-CM
F11.122	Opioid abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.129	Opioid abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.13	Opioid abuse with withdrawal	Diagnosis	ICD-10-CM
F11.14	Opioid abuse with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.150	Opioid abuse with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.151	Opioid abuse with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.159	Opioid abuse with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.181	Opioid abuse with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.182	Opioid abuse with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.188	Opioid abuse with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.19	Opioid abuse with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F11.20	Opioid dependence, uncomplicated	Diagnosis	ICD-10-CM
F11.220	Opioid dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.221	Opioid dependence with intoxication delirium	Diagnosis	ICD-10-CM
F11.222	Opioid dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.229	Opioid dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.23	Opioid dependence with withdrawal	Diagnosis	ICD-10-CM
F11.24	Opioid dependence with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.250	Opioid dependence with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.251	Opioid dependence with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.259	Opioid dependence with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.281	Opioid dependence with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.282	Opioid dependence with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.288	Opioid dependence with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.29	Opioid dependence with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F11.90	Opioid use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F11.920	Opioid use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM

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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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

,	ssed to Define Covariates in this nequest	Code	
Code	Description	Category	Code Type
F11.921	Opioid use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F11.922	Opioid use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.929	Opioid use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.93	Opioid use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F11.94	Opioid use, unspecified with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.950	Opioid use, unspecified with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.951	Opioid use, unspecified with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.959	Opioid use, unspecified with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.981	Opioid use, unspecified with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.982	Opioid use, unspecified with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.988	Opioid use, unspecified with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.99	Opioid use, unspecified with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
T40.0X1A	Poisoning by opium, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.0X1D	Poisoning by opium, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.0X1S	Poisoning by opium, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.0X2A	Poisoning by opium, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.0X2D	Poisoning by opium, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.0X2S	Poisoning by opium, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.0X3A	Poisoning by opium, assault, initial encounter	Diagnosis	ICD-10-CM
T40.0X3D	Poisoning by opium, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.0X3S	Poisoning by opium, assault, sequela	Diagnosis	ICD-10-CM
T40.0X4A	Poisoning by opium, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.0X4D	Poisoning by opium, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.0X4S	Poisoning by opium, undetermined, sequela	Diagnosis	ICD-10-CM
T40.0X5A	Adverse effect of opium, initial encounter	Diagnosis	ICD-10-CM
T40.0X5D	Adverse effect of opium, subsequent encounter	Diagnosis	ICD-10-CM
T40.0X5S	Adverse effect of opium, sequela	Diagnosis	ICD-10-CM
T40.1X1A	Poisoning by heroin, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.1X1D	Poisoning by heroin, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.1X1S	Poisoning by heroin, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.1X2A	Poisoning by heroin, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.1X2D	Poisoning by heroin, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.1X2S	Poisoning by heroin, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.1X3A	Poisoning by heroin, assault, initial encounter	Diagnosis	ICD-10-CM
T40.1X3D	Poisoning by heroin, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.1X3S	Poisoning by heroin, assault, sequela	Diagnosis	ICD-10-CM
T40.1X4A	Poisoning by heroin, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.1X4D	Poisoning by heroin, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.1X4S	Poisoning by heroin, undetermined, sequela	Diagnosis	ICD-10-CM
T40.2X1A	Poisoning by other opioids, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.2X1D	Poisoning by other opioids, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.2X1S	Poisoning by other opioids, accidental (unintentional), sequela	Diagnosis	ICD-10-CM

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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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	
Code	Description	Category	Code Type
T40.2X2A	Poisoning by other opioids, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.2X2D	Poisoning by other opioids, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.2X2S	Poisoning by other opioids, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.2X3A	Poisoning by other opioids, assault, initial encounter	Diagnosis	ICD-10-CM
T40.2X3D	Poisoning by other opioids, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.2X3S	Poisoning by other opioids, assault, sequela	Diagnosis	ICD-10-CM
T40.2X4A	Poisoning by other opioids, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.2X4D	Poisoning by other opioids, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.2X4S	Poisoning by other opioids, undetermined, sequela	Diagnosis	ICD-10-CM
T40.2X5A	Adverse effect of other opioids, initial encounter	Diagnosis	ICD-10-CM
T40.2X5D	Adverse effect of other opioids, subsequent encounter	Diagnosis	ICD-10-CM
T40.2X5S	Adverse effect of other opioids, sequela	Diagnosis	ICD-10-CM
T40.3X1A	Poisoning by methadone, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.3X1D	Poisoning by methadone, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.3X1S	Poisoning by methadone, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.3X2A	Poisoning by methadone, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.3X2D	Poisoning by methadone, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.3X2S	Poisoning by methadone, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.3X3A	Poisoning by methadone, assault, initial encounter	Diagnosis	ICD-10-CM
T40.3X3D	Poisoning by methadone, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.3X3S	Poisoning by methadone, assault, sequela	Diagnosis	ICD-10-CM
T40.3X4A	Poisoning by methadone, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.3X4D	Poisoning by methadone, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.3X4S	Poisoning by methadone, undetermined, sequela	Diagnosis	ICD-10-CM
T40.3X5A	Adverse effect of methadone, initial encounter	Diagnosis	ICD-10-CM
T40.3X5D	Adverse effect of methadone, subsequent encounter	Diagnosis	ICD-10-CM
T40.3X5S	Adverse effect of methadone, sequela	Diagnosis	ICD-10-CM
T40.411A	Poisoning by fentanyl or fentanyl analogs, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.411D	Poisoning by fentanyl or fentanyl analogs, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.411S	Poisoning by fentanyl or fentanyl analogs, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.412A	Poisoning by fentanyl or fentanyl analogs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.412D	Poisoning by fentanyl or fentanyl analogs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.412S	Poisoning by fentanyl or fentanyl analogs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.413A	Poisoning by fentanyl or fentanyl analogs, assault, initial encounter	Diagnosis	ICD-10-CM
T40.413D	Poisoning by fentanyl or fentanyl analogs, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.413S	Poisoning by fentanyl or fentanyl analogs, assault, sequela	Diagnosis	ICD-10-CM
T40.414A	Poisoning by fentanyl or fentanyl analogs, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.414D	Poisoning by fentanyl or fentanyl analogs, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.414S	Poisoning by fentanyl or fentanyl analogs, undetermined, sequela	Diagnosis	ICD-10-CM

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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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	
Code	Description	Category	Code Type
T40.415A	Adverse effect of fentanyl or fentanyl analogs, initial encounter	Diagnosis	ICD-10-CM
T40.415D	Adverse effect of fentanyl or fentanyl analogs, subsequent encounter	Diagnosis	ICD-10-CM
T40.415S	Adverse effect of fentanyl or fentanyl analogs, sequela	Diagnosis	ICD-10-CM
T40.421A	Poisoning by tramadol, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.421D	Poisoning by tramadol, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.421S	Poisoning by tramadol, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.422A	Poisoning by tramadol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.422D	Poisoning by tramadol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.422S	Poisoning by tramadol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.423A	Poisoning by tramadol, assault, initial encounter	Diagnosis	ICD-10-CM
T40.423D	Poisoning by tramadol, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.423S	Poisoning by tramadol, assault, sequela	Diagnosis	ICD-10-CM
T40.424A	Poisoning by tramadol, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.424D	Poisoning by tramadol, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.424S	Poisoning by tramadol, undetermined, sequela	Diagnosis	ICD-10-CM
T40.425A	Adverse effect of tramadol, initial encounter	Diagnosis	ICD-10-CM
T40.425D	Adverse effect of tramadol, subsequent encounter	Diagnosis	ICD-10-CM
T40.425S	Adverse effect of tramadol, sequela	Diagnosis	ICD-10-CM
T40.491A	Poisoning by other synthetic narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.491D	Poisoning by other synthetic narcotics, accidental (unintentional), subsequent	Diagnosis	ICD-10-CM
T40.491S	Poisoning by other synthetic narcotics, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.492A	Poisoning by other synthetic narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.492D	Poisoning by other synthetic narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.492S	Poisoning by other synthetic narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.493A	Poisoning by other synthetic narcotics, assault, initial encounter	Diagnosis	ICD-10-CM
T40.493D	Poisoning by other synthetic narcotics, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.493S	Poisoning by other synthetic narcotics, assault, sequela	Diagnosis	ICD-10-CM
T40.494A	Poisoning by other synthetic narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.494D	Poisoning by other synthetic narcotics, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.494S	Poisoning by other synthetic narcotics, undetermined, sequela	Diagnosis	ICD-10-CM
T40.495A	Adverse effect of other synthetic narcotics, initial encounter	Diagnosis	ICD-10-CM
T40.495D	Adverse effect of other synthetic narcotics, subsequent encounter	Diagnosis	ICD-10-CM
T40.495S	Adverse effect of other synthetic narcotics, sequela	Diagnosis	ICD-10-CM
T40.4X1A	Poisoning by other synthetic narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.4X1D	Poisoning by other synthetic narcotics, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.4X1S	Poisoning by other synthetic narcotics, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.4X2A	Poisoning by other synthetic narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.4X2D	Poisoning by other synthetic narcotics, intentional self-harm, subsequent encounter	•	ICD-10-CM
T40.4X2S	Poisoning by other synthetic narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.4X3A	Poisoning by other synthetic narcotics, assault, initial encounter	Diagnosis	ICD-10-CM
T40.4X3D	Poisoning by other synthetic narcotics, assault, subsequent encounter	Diagnosis	ICD-10-CM

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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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	
Code	Description	Category	Code Type
T40.4X3S	Poisoning by other synthetic narcotics, assault, sequela	Diagnosis	ICD-10-CM
T40.4X4A	Poisoning by other synthetic narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.4X4D	Poisoning by other synthetic narcotics, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.4X4S	Poisoning by other synthetic narcotics, undetermined, sequela	Diagnosis	ICD-10-CM
T40.4X5A	Adverse effect of other synthetic narcotics, initial encounter	Diagnosis	ICD-10-CM
T40.4X5D	Adverse effect of other synthetic narcotics, subsequent encounter	Diagnosis	ICD-10-CM
T40.4X5S	Adverse effect of other synthetic narcotics, sequela	Diagnosis	ICD-10-CM
T40.601A	Poisoning by unspecified narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.601D	Poisoning by unspecified narcotics, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.601S	Poisoning by unspecified narcotics, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.602A	Poisoning by unspecified narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.602D	Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.602S	Poisoning by unspecified narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.603A	Poisoning by unspecified narcotics, assault, initial encounter	Diagnosis	ICD-10-CM
T40.603D	Poisoning by unspecified narcotics, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.603S	Poisoning by unspecified narcotics, assault, sequela	Diagnosis	ICD-10-CM
T40.604A	Poisoning by unspecified narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.604D	Poisoning by unspecified narcotics, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.604S	Poisoning by unspecified narcotics, undetermined, sequela	Diagnosis	ICD-10-CM
T40.605A	Adverse effect of unspecified narcotics, initial encounter	Diagnosis	ICD-10-CM
T40.605D	Adverse effect of unspecified narcotics, subsequent encounter	Diagnosis	ICD-10-CM
T40.605S	Adverse effect of unspecified narcotics, sequela	Diagnosis	ICD-10-CM
T40.691A	Poisoning by other narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.691D	Poisoning by other narcotics, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.691S	Poisoning by other narcotics, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.692A	Poisoning by other narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.692D	Poisoning by other narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.692S	Poisoning by other narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.693A	Poisoning by other narcotics, assault, initial encounter	Diagnosis	ICD-10-CM
T40.693D	Poisoning by other narcotics, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.693S	Poisoning by other narcotics, assault, sequela	Diagnosis	ICD-10-CM
T40.694A	Poisoning by other narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.694D	Poisoning by other narcotics, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.694S	Poisoning by other narcotics, undetermined, sequela	Diagnosis	ICD-10-CM
T40.695A	Adverse effect of other narcotics, initial encounter	Diagnosis	ICD-10-CM
T40.695D	Adverse effect of other narcotics, subsequent encounter	Diagnosis	ICD-10-CM
T40.695S	Adverse effect of other narcotics, sequela	Diagnosis	ICD-10-CM

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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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
	Opioid Use Disorder 4 (OUD 4)		
G2067	Medication assisted treatment, methadone; weekly bundle including dispensing and/or administration, substance use counseling, individual and group therapy, and toxicology testing, if performed (provision of the services by a Medicare-enrolled opioid treatment program)	Procedure	HCPCS
G2068	Medication assisted treatment, buprenorphine (oral); weekly bundle including dispensing and/or administration, substance use counseling, individual and group therapy, and toxicology testing if performed (provision of the services by a Medicare enrolled opioid treatment program)	Procedure	HCPCS
G2069	Medication assisted treatment, buprenorphine (injectable); weekly bundle including dispensing and/or administration, substance use counseling, individual and group therapy, and toxicology testing if performed (provision of the services by a Medicare enrolled opioid treatment program)		HCPCS
G2070	Medication assisted treatment, buprenorphine (implant insertion); weekly bundle including dispensing and/or administration, substance use counseling, individual and group therapy, and toxicology testing if performed (provision of the services by a Medicare-enrolled opioid treatment program)	Procedure	HCPCS
G2071	Medication assisted treatment, buprenorphine (implant removal); weekly bundle including dispensing and/or administration, substance use counseling, individual and group therapy, and toxicology testing if performed (provision of the services by a Medicare-enrolled opioid treatment program)	Procedure	HCPCS
G2072	Medication assisted treatment, buprenorphine (implant insertion and removal); weekly bundle including dispensing and/or administration, substance use counseling, individual and group therapy, and toxicology testing if performed (provision of the services by a Medicare-enrolled opioid treatment program)	Procedure	HCPCS
G2073	Medication assisted treatment, naltrexone; weekly bundle including dispensing and/or administration, substance use counseling, individual and group therapy, and toxicology testing if performed (provision of the services by a Medicare-enrolled opioid treatment program)	Procedure	HCPCS
G2078	Take home supply of methadone; up to 7 additional day supply (provision of the services by a Medicare-enrolled opioid treatment program); list separately in addition to code for primary procedure	Procedure	HCPCS
G2079	Take home supply of buprenorphine (oral); up to 7 additional day supply (provision of the services by a Medicare-enrolled opioid treatment program); list separately in addition to code for primary procedure	Procedure	HCPCS
H0020	Alcohol and/or drug services; methadone administration and/or service (provision of the drug by a licensed program)	Procedure	HCPCS
J0571	Buprenorphine, oral, 1 mg	Procedure	HCPCS
J0572	Buprenorphine/naloxone, oral, less than or equal to 3 mg buprenorphine	Procedure	HCPCS
J0573	Buprenorphine/naloxone, oral, greater than 3 mg, but less than or equal to 6 mg buprenorphine	Procedure	HCPCS

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Appendix F. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical 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	
Code	Description	Category	Code Type
J0574	Buprenorphine/naloxone, oral, greater than 6 mg, but less than or equal to 10 mg buprenorphine	Procedure	HCPCS
J0575	Buprenorphine/naloxone, oral, greater than 10 mg buprenorphine	Procedure	HCPCS
J0592	Injection, buprenorphine HCl, 0.1 mg	Procedure	HCPCS
J1230	Injection, methadone HCl, up to 10 mg	Procedure	HCPCS
S0109	Methadone, oral, 5 mg	Procedure	HCPCS

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This request executed the Cohort Identification and Descriptive Analysis (CIDA) module, version 11.3.0 to estimate rates of ANC screening adherence among clozapine users in the Sentinel Distributed Database (SDD).

**Query period:** Multiple Query Periods, specified per scenario. See below.

**Coverage requirement:** Medical & Drug Coverage

Pre-index enrollment requirement: Multiple Pre-Index Enrollment Requirements. See below.

Post-index enrollment requirement: 0 days

Post-episode enrollment requirement for Type 2 analyses: 0 days

Enrollment gap: 30 days

**Age groups:** 12-18, 19-35, 36-50, 51-64, 65-74, 75+ years **Stratifications:** Year-quarter, Geographic Census region

Restrictions: No

**Envelope macro:** Reclassify encounters during inpatient stay as inpatient

**Distribution of index-defining codes:** No

Never-exposed cohort: No

Freeze data: No

Exposure

										-Apost						
Scen	Corresponding Look in ario cder_mpl1r_wp183	Query Period	Pre-Index Enrollment Requirement (days)	Multiple Events Episode	Index Exposure	Cohort definition	Incident exposure washout period (days)	Incident with respect to:	Exclude evidence of days supply if exposure washout includes dispensings	Point?	Maximum Episode Duration (days)	Risk Evaluation Start (days)	Treatment episode gap	Exposure episode extension	Minimum exposure episode duration	Minimum days supplied
1	Look 1	01/01/2010 - 09/30/2015	30	Primary Episode	Clozapine	All valid exposure episodes during query period	30	Clozapine	Washout lookback period should search for evidence of days supply (N)	No	n/a**	n/a	30 days	0 days	1 day	n/a
2	Look 2	01/01/2010 - 09/30/2015	30	Primary Episode	Clozapine	All valid exposure episodes during query period	30	Clozapine	Washout lookback period should search for evidence of days supply (N)	No	n/a	n/a	30 days	0 days	1 day	n/a
3	Look 5	01/01/2010 - 09/30/2015	30	Primary Episode	Clozapine	All valid exposure episodes during query period	30	Clozapine	Washout lookback period should search for evidence of days supply (N)	No	n/a	n/a	30 days	0 days	6 months (184 days)	n/a

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	c G. specifications ben									Expos	ure					
Scenario	Corresponding Look in cder_mpl1r_wp183	Query Period	Pre-Index Enrollment Requirement (days)	Multiple Events Episode	Index Exposure	Cohort definition	Incident exposure washout period (days)	Incident with respect to:	Exclude evidence of days supply if exposure washout includes dispensings	Point?	Maximum Episode Duration (days)	Risk Evaluation Start (days)	Treatment episode gap	Exposure episode extension	Minimum exposure episode duration	Minimum days supplied
4	Look 3	01/01/2010 - 09/30/2015	30	Primary Episode	Clozapine	All valid exposure episodes during query period	30	Clozapine	Washout lookback period should search for evidence of days supply (N)	No	n/a	n/a	30 days	0 days	6 months (184 days)	n/a
5	Look 6	01/01/2010 - 09/30/2015	30	Primary Episode	Clozapine	All valid exposure episodes during query period	30	Clozapine	Washout lookback period should search for evidence of days supply (N)	No	n/a	n/a	30 days	0 days	1 year (366 days)	n/a
6	Look 4	01/01/2010 - 09/30/2015	30	Primary Episode	Clozapine	All valid exposure episodes during query period	30	Clozapine	Washout lookback period should search for evidence of days supply (N)	No	n/a	n/a	30 days	0 days	1 year (366 days)	n/a
7	Look 7	01/01/2010 - 09/30/2015	30	Primary Episode	Clozapine	All valid exposure episodes during query period	30	Clozapine	Washout lookback period should search for evidence of days supply (N)	No	n/a	n/a	30 days	0 days	2 years (731 days)	n/a
8	Look 2/ Sensitivity	01/01/2010 - 09/30/2015	183	Primary Episode	Clozapine	All valid exposure episodes during query period	183	Clozapine	Washout lookback period should search for evidence of days supply (N)	No	n/a	n/a	30 days	0 days	1 day	n/a
9	ANC	01/01/2010 - 09/30/2015	30		ANC Screening (secondary definition)	All valid exposure episodes during query period	0	n/a	n/a	Yes	1	n/a	n/a	n/a	n/a	n/a

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										Expos	ure					
Scenario	Corresponding Look in cder_mpl1r_wp183	Query Period	Pre-Index Enrollment Requirement (days)	Multiple Events Episode	Index Exposure	Cohort definition	Incident exposure washout period (days)	Incident with respect to:	Exclude evidence of days supply if exposure washout includes dispensings	Point?	Maximum Episode Duration (days)	Risk Evaluation Start (days)	Treatment episode gap	Exposure episode extension	Minimum exposure episode duration	Minimum days supplied
10	Look 1	10/01/2015 - 12/31/2019	30	Primary Episode	Clozapine	All valid exposure episodes during query period	30	Clozapine	Washout lookback period should search for evidence of days supply (N)	No	n/a	n/a	30 days	0 days	1 day	n/a
11	Look 2	10/01/2015 - 12/31/2019	30	Primary Episode	Clozapine	All valid exposure episodes during query period	30	Clozapine	Washout lookback period should search for evidence of days supply (N)	No	n/a	n/a	30 days	0 days	1 day	n/a
12	Look 5	10/01/2015 - 12/31/2019	30	Primary Episode	Clozapine	All valid exposure episodes during query period	30	Clozapine	Washout lookback period should search for evidence of days supply (N)	No	n/a	n/a	30 days	0 days	6 months (184 days)	n/a
13	Look 3	10/01/2015 - 12/31/2019	30	Primary Episode	Clozapine	All valid exposure episodes during query period	30	Clozapine	Washout lookback period should search for evidence of days supply (N)	NIO	n/a	n/a	30 days	0 days	6 months (184 days)	n/a
14	Look 6	10/01/2015 - 12/31/2019	30	Primary Episode	Clozapine	All valid exposure episodes during query period	30	Clozapine	Washout lookback period should search for evidence of days supply (N)	No	n/a	n/a	30 days	0 days	1 year (366 days)	n/a
15	Look 4	10/01/2015 - 12/31/2019	30	Primary Episode	Clozapine	All valid exposure episodes during query period	30	Clozapine	Washout lookback period should search for evidence of days supply (N)	No	n/a	n/a	30 days	0 days	1 year (366 days)	n/a

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Appendix G. Specifications Defining Parameters for this Request

Пррешен	d. specifications ben	g . uruetc	is for this hequ							Expos	ure					
Scenario	Corresponding Look in cder_mpl1r_wp183	Query Period	Pre-Index Enrollment Requirement (days)	Multiple Events Episode	Index Exposure	Cohort definition	Incident exposure washout period (days)	Incident with respect to:	Exclude evidence of days supply if exposure washout includes dispensings	Point?	Maximum Episode Duration (days)	Risk Evaluation Start (days)	Treatment episode gap	Exposure episode extension	Minimum exposure episode duration	Minimum days supplied
16	Look 7	10/01/2015 - 12/31/2019	30	Primary Episode	Clozapine	All valid exposure episodes during query period	30	Clozapine	Washout lookback period should search for evidence of days supply (N)	No	n/a	n/a	30 days	0 days	2 years (731 days)	n/a
17	Look 2/ Sensitivity	10/01/2015 - 12/31/2019	183	Primary Episode	Clozapine	All valid exposure episodes during query period	183	Clozapine	Washout lookback period should search for evidence of days supply (N)	No	n/a	n/a	30 days	0 days	1 day	n/a
18	ANC	10/01/2015 - 12/31/2019	30		ANC Screening (secondary definition)	All valid exposure episodes during query period	0	n/a	n/a	Yes	1	n/a	n/a	n/a	n/a	n/a
19	Look 1	1/1/2020 - 10/31/2021	30	Primary Episode	Clozapine	All valid exposure episodes during query period	30	Clozapine	Washout lookback period should search for evidence of days supply (N)	No	n/a	n/a	30 days	0 days	1 day	n/a
20	Look 2	1/1/2020 - 10/31/2021	30	Primary Episode	Clozapine	All valid exposure episodes during query period	30	Clozapine	Washout lookback period should search for evidence of days supply (N)	No	n/a	n/a	30 days	0 days	1 day	n/a
21	Look 3	1/1/2020 - 10/31/2021	30	Primary Episode	Clozapine	All valid exposure episodes during query period	30	Clozapine	Washout lookback period should search for evidence of days supply (N)	No	n/a	n/a	30 days	0 days	6 months (184 days)	n/a

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										Expos	ure					
Scenario	Corresponding Look in cder_mpl1r_wp183	Query Period	Pre-Index Enrollment Requirement (days)	Multiple Events Episode	Index Exposure	Cohort definition	Incident exposure washout period (days)	Incident with respect to:	Exclude evidence of days supply if exposure washout includes dispensings	Point?	Maximum Episode Duration (days)	Risk Evaluation Start (days)	Treatment episode gap	Exposure episode extension	Minimum exposure episode duration	Minimum days supplied
22	ANC	1/1/2020 - 10/31/2021	30		ANC Screening (secondary definition)	All valid exposure episodes during query period	0	n/a	n/a	Yes	1	n/a	n/a	n/a	n/a	n/a

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Appendix G. Specifications Defining Parameters for this Request

			Exposu	ire					Inclusion/Exclusi	on Criteria		
Scenario	Maximum exposure episode duration	Care setting	Principal diagnosis position	Forced supply to attach to dispensings	Censor treatment episode at evidence of:	Create Baseline Table?	Inclusion/ Exclusion group	Criteria	Care setting	Principal diagnosis position	Evaluation period start	Evaluation period end
1	n/a	n/a	n/a	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the exposure code's RxSup value	Disenrollment, death, DP end date, query end date, episode end	Yes	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay;  *Non-acute institutional stay;  *Emergency department encounter;  *Ambulatory visit;  *Other ambulatory visit;  *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified
2	n/a	n/a	n/a	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the exposure code's RxSup value	Disenrollment, death, DP end date, query end date, episode end	Yes	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay;  *Non-acute institutional stay;  *Emergency department encounter;  *Ambulatory visit;  *Other ambulatory visit;  *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified
3	n/a	n/a	n/a	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the exposure code's RxSup value	Disenrollment, death, DP end date, query end date, episode end	Yes	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay; *Non-acute institutional stay; *Emergency department encounter; *Ambulatory visit; *Other ambulatory visit; *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified
4	n/a	n/a	n/a	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the exposure code's RxSup value	Disenrollment, death, DP end date, query end date, episode end	Yes	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay;  *Non-acute institutional stay;  *Emergency department encounter;  *Ambulatory visit;  *Other ambulatory visit;  *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified

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Appendix G. Specifications Defining Parameters for this Request

			Exposu	ire					Inclusion/Exclusi	on Criteria		
Scenario	Maximum exposure episode duration	Care setting	Principal diagnosis position	Forced supply to attach to dispensings	Censor treatment episode at evidence of:	Create Baseline Table?	Inclusion/ Exclusion group	Criteria	Care setting	Principal diagnosis position	Evaluation period start	Evaluation period end
5	n/a	n/a	n/a	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the exposure code's RxSup value	Disenrollment, death, DP end date, query end date, episode end	Yes	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay;  *Non-acute institutional stay;  *Emergency department encounter;  *Ambulatory visit;  *Other ambulatory visit;  *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified
6	n/a	n/a	n/a	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the exposure code's RxSup value	Disenrollment, death, DP end date, query end date, episode end	Yes	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay;  *Non-acute institutional stay;  *Emergency department encounter;  *Ambulatory visit;  *Other ambulatory visit;  *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified
7	n/a	n/a	n/a	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the exposure code's RxSup value	Disenrollment, death, DP end date, query end date, episode end	Yes	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay;  *Non-acute institutional stay;  *Emergency department encounter;  *Ambulatory visit;  *Other ambulatory visit;  *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified
8	n/a	n/a	n/a	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the exposure code's RxSup value	Disenrollment, death, DP end date, query end date, episode end	Yes	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay;  *Non-acute institutional stay;  *Emergency department encounter;  *Ambulatory visit;  *Other ambulatory visit;  *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified

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Appendix G. Specifications Defining Parameters for this Request

			Exposu	ire					Inclusion/Exclusi	on Criteria		
Scenario	Maximum exposure episode duration	Care setting	Principal diagnosis position	Forced supply to attach to dispensings	Censor treatment episode at evidence of:	Create Baseline Table?	Inclusion/ Exclusion group	Criteria	Care setting	Principal diagnosis position	Evaluation period start	l Evaluation period end
9	n/a	Any	n/a	n/a	Disenrollment, death, DP end date, query end date, episode end	No	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay;  *Non-acute institutional stay;  *Emergency department encounter;  *Ambulatory visit;  *Other ambulatory visit;  *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified
10	n/a	n/a	n/a	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the exposure code's RxSup value	Disenrollment, death, DP end date, query end date, episode end	Yes	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay;  *Non-acute institutional stay;  *Emergency department encounter;  *Ambulatory visit;  *Other ambulatory visit;  *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified
11	n/a	n/a	n/a	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the exposure code's RxSup value	Disenrollment, death, DP end date, query end date, episode end	Yes	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay; *Non-acute institutional stay; *Emergency department encounter; *Ambulatory visit; *Other ambulatory visit; *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified
12	n/a	n/a	n/a	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the exposure code's RxSup value	Disenrollment, death, DP end date, query end date, episode end	Yes	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay;  *Non-acute institutional stay;  *Emergency department encounter;  *Ambulatory visit;  *Other ambulatory visit;  *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified

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Appendix G. Specifications Defining Parameters for this Request

			Exposu	ire					Inclusion/Exclusi	on Criteria		
Scenario	Maximum exposure episode duration	Care setting	Principal diagnosis position	Forced supply to attach to dispensings	Censor treatment episode at evidence of:	Create Baseline Table?	Inclusion/ Exclusion group	Criteria	Care setting	Principal diagnosis position	Evaluation period start	Evaluation period end
13	n/a	n/a	n/a	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the exposure code's RxSup value	Disenrollment, death, DP end date, query end date, episode end	Yes	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay;  *Non-acute institutional stay;  *Emergency department encounter;  *Ambulatory visit;  *Other ambulatory visit;  *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified
14	n/a	n/a	n/a	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the exposure code's RxSup value	Disenrollment, death, DP end date, query end date, episode end	Yes	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay;  *Non-acute institutional stay;  *Emergency department encounter;  *Ambulatory visit;  *Other ambulatory visit;  *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified
15	n/a	n/a	n/a	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the exposure code's RxSup value	Disenrollment, death, DP end date, query end date, episode end	Yes	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay; *Non-acute institutional stay; *Emergency department encounter; *Ambulatory visit; *Other ambulatory visit; *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified
16	n/a	n/a	n/a	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the exposure code's RxSup value	Disenrollment, death, DP end date, query end date, episode end	Yes	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay;  *Non-acute institutional stay;  *Emergency department encounter;  *Ambulatory visit;  *Other ambulatory visit;  *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified

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Appendix G. Specifications Defining Parameters for this Request

			Exposu	ire					Inclusion/Exclusi	ion Criteria		
Scenario	Maximum exposure episode duration	Care setting	Principal diagnosis position	• • •	Censor treatment episode at evidence of:	Create Baseline Table?	Inclusion/ Exclusion group	Criteria	Care setting	Principal diagnosis position	Evaluation period start	Evaluation period end
17	n/a	n/a	n/a	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the exposure code's RxSup value	Disenrollment, death, DP end date, query end date, episode end	Yes	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay;  *Non-acute institutional stay;  *Emergency department encounter;  *Ambulatory visit;  *Other ambulatory visit;  *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified
18	n/a	Any	n/a	n/a	Disenrollment, death, DP end date, query end date, episode end	No	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay;  *Non-acute institutional stay;  *Emergency department encounter;  *Ambulatory visit;  *Other ambulatory visit;  *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified
19	n/a	n/a	n/a	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the exposure code's RxSup value	Disenrollment, death, DP end date, query end date, episode end	Yes	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay; *Non-acute institutional stay; *Emergency department encounter; *Ambulatory visit; *Other ambulatory visit; *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified
20	n/a	n/a	n/a	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the exposure code's RxSup value	Disenrollment, death, DP end date, query end date, episode end	Yes	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay;  *Non-acute institutional stay;  *Emergency department encounter;  *Ambulatory visit;  *Other ambulatory visit;  *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified

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			Exposu	re					Inclusion/Exclusi	on Criteria		
Scenario	Maximum exposure episode duration	Care setting	Principal diagnosis position	Forced supply to attach to dispensings	Censor treatment episode at evidence of:	Create Baseline Table?	Inclusion/ Exclusion group	Criteria	Care setting	Principal diagnosis position	Evaluation period start	Evaluation period end
21	n/a	n/a	n/a	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the exposure code's RxSup value	Disenrollment, death, DP end date, query end date, episode end	Yes	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay;  *Non-acute institutional stay;  *Emergency department encounter;  *Ambulatory visit;  *Other ambulatory visit;  *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified
22	n/a	Any	n/a	n/a	Disenrollment, death, DP end date, query end date, episode end	No	Name of inclusion or exclusion criteria specified	*Inclusion; *Exclusion	*Inpatient hospital stay;  *Non-acute institutional stay;  *Emergency department encounter;  *Ambulatory visit;  *Other ambulatory visit;  *Any care setting	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	Numeric specified	Numeric specified

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Appendix G. Specifications Defining Parameters for this Request

	Inclu	usion/Exclusion Criteria				Multiple	e Events Assessm	ent		
Scenario	Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	Number of instances the criteria should be found in evaluation period	Forced supply to attach to dispensings	Secondary Episode		Observation From (days)	Observation To Anchor	Observation To (days)		Minimum Adherence Scale
1	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	ANC Screening (ANC_pre)	Primary Episode Index Date	-30	Primary Episode Index Date	0	1	Count
2	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	ANC Screening (ANC_pre)	Primary Episode Index Date	1	Primary Episode Index Date	182	1	Count
3	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	ANC Screening (ANC_pre)	Primary Episode Index Date	1	Primary Episode Index Date	182	1	Count
4	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	ANC Screening (ANC_pre)	Primary Episode Index Date	183	Primary Episode Index Date	364	1	Count
5	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	ANC Screening (ANC_pre)	Primary Episode Index Date	183	Primary Episode Index Date	364	1	Count

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Appendix G. Specifications Defining Parameters for this Request

	Inclu	sion/Exclusion Criteria				Multiple	e Events Assessm	ent		
Scenario	Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	Number of instances the criteria should be found in evaluation period	Forced supply to attach to dispensings	Secondary Episode		Observation From (days)	Observation To Anchor	Observation To (days)		Minimum Adherence Scale
6	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	ANC Screening (ANC_pre)	Primary Episode Index Date	365	Primary Episode Index Date	729	1	Count
7	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	ANC Screening (ANC_pre)	Primary Episode Index Date	365	Primary Episode Index Date	729	1	Count
8	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	ANC Screening (ANC_pre)	Primary Episode Index Date	1	Primary Episode Index Date	182	1	Count
9	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	-	-	-	-	-	-	-
10	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	ANC Screening (ANC_post)	Primary Episode Index Date	-30	Primary Episode Index Date	0	1	Count

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Appendix G. Specifications Defining Parameters for this Request

	Inclu	usion/Exclusion Criteria				Multiple	Events Assessm	nent		
Scenario	Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	Number of instances the criteria should be found in evaluation period	Forced supply to attach to dispensings	Secondary Episode	Observation From Anchor	Observation From (days)	Observation To Anchor	Observation To (days)		Minimum Adherence Scale
11	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	ANC Screening (ANC_post)	Primary Episode Index Date	1	Primary Episode Index Date	182	1	Count
12	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	ANC Screening (ANC_post)	Primary Episode Index Date	1	Primary Episode Index Date	182	1	Count
13	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	ANC Screening (ANC_post)	Primary Episode Index Date	183	Primary Episode Index Date	364	1	Count
14	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	ANC Screening (ANC_post)	Primary Episode Index Date	183	Primary Episode Index Date	364	1	Count
15	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	ANC Screening (ANC_post)	Primary Episode Index Date	365	Primary Episode Index Date	729	1	Count

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Appendix G. Specifications Defining Parameters for this Request

	Inclu	usion/Exclusion Criteria				Multiple	e Events Assessm	nent		
Scenario	Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	Number of instances the criteria should be found in evaluation period	Forced supply to attach to dispensings	Secondary Episode	Observation From Anchor	Observation From (days)	Observation To Anchor	Observation To (days)		Minimum Adherence Scale
16	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	ANC Screening (ANC_post)	Primary Episode Index Date	365	Primary Episode Index Date	729	1	Count
17	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	ANC Screening (ANC_post)	Primary Episode Index Date	1	Primary Episode Index Date	182	1	Count
18	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	-	-	-	-	-	-	-
19	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	ANC Screening (ANC_cov)	Primary Episode Index Date	-30	Primary Episode Index Date	0	1	Count
20	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	ANC Screening (ANC_cov)	Primary Episode Index Date	1	Primary Episode Index Date	182	1	Count

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<u> </u>	Incl	usion/Exclusion Criteria				Multiple	Events Assessm	nent		
Scenario	Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	Number of instances the criteria should be found in evaluation period	Forced supply to attach to dispensings	Secondary Episode		Observation From (days)	Observation To Anchor	Observation To (days)	Minimum Adherence (days)	
21	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	ANC Screening (ANC_cov)	Primary Episode Index Date	183	Primary Episode Index Date	364	1	Count
22	*Evaluation period should search for evidence of days supply; *Evaluation period should search for only evidence of a dispensing date	Numeric specified (Code days)	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the inclusion/exclusion code's RxSup value	-	-	-	-	-	-	-

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Appendix G. Specifications Defining Parameters for this Request

	Adhe	rence Crite			rence Crite	rion 6												
	I	Adherence			Adherence	2		Adherence	2		Adherence			Adherence	) :		Adherence	
Scenario	Adherence Type	Start (days)	Adherence End (days)	Adherence Type	Start (days)													
1	EpiCount	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EpiGap	1	10	EpiGap	1	17	EpiGap	1	33	-	-	-	-	-	-	-	-	-
2	EpiCount	1	-	EpiCount	1	-	EpiCount	1	-	-	-	-	-	-	-	-	-	-
2	EpiGap	1	10	EpiGap	1	17	EpiGap	1	33	EpiCount	0	0	EpiCount	1		EpiCount	1	4
3	EpiCount	1	-	EpiCount	1	-	EpiCount	1	-	-	-	-	-	-	-	-	-	-
4	EpiGap	1	10	EpiGap	1	17	EpiGap	1	33	-	-	-	-	-	-	-	-	-
4	EpiCount	1	-	EpiCount	1	-	EpiCount	1	-	-	-	-	-	-	-	-	-	-
5	EpiGap	1	10	EpiGap	1	17	EpiGap	1	33	EpiCount	0	0	EpiCount	1		EpiCount	1	4
3	EpiCount	1	-	EpiCount	1	-	EpiCount	1	-	-	-	-	-	-	-	-	-	-
6	EpiGap	1	10	EpiGap	1	17	EpiGap	1	33	-	-	-	-	-	-	-	-	-
0	EpiCount	1	-	EpiCount	1	-	EpiCount	1	-	-	-	-	-	-	-	-	-	-
7	EpiGap	1	10	EpiGap	1	17	EpiGap	1	33	EpiCount	0	0	EpiCount	1		EpiCount	1	4
,	EpiCount	1	-	EpiCount	1	-	EpiCount	1	-	-	-	-	-	-	-	-	-	-

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Appendix G. Specifications Defining Parameters for this Request

	Adhe	rence Crite	rion 1		rence Crite			rence Crite			rence Crite	erion 4	Adhe	rence Crite			erence Crite	rion 6
Scenario	Adherence	Adherence Start (days)		Adherence Type	Adherence Start (days)	•	Adherence Type	Adherence Start (days)	!	Adherence Type	Adherence Start (days)	Adherence End (days)		Adherence Start (days)	Adherence End (days)		Adherence Start (days)	Adherence End (days)
8	EpiGap	1	10	EpiGap	1	17	EpiGap	1	33	-	-	-	-	-	-	-	-	-
J	EpiCount	1	-	EpiCount	1	-	EpiCount	1	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	EpiCount	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	EpiGap	1	10	EpiGap	1	17	EpiGap	1	33	-	-	-	-	-	-	-	-	-
	EpiCount	1	-	EpiCount	1	-	EpiCount	1	-	-	-	-	-	-	-	-	-	-
12	EpiGap	1	10	EpiGap	1	17	EpiGap	1	33	EpiCount	0	0	EpiCount	1		EpiCount	1	4
	EpiCount	1	-	EpiCount	1	-	EpiCount	1	-	-	-	-	-	-	-	-	-	-
13	EpiGap	1	10	EpiGap	1	17	EpiGap	1	33	-	-	-	-	-	-	-	-	-
	EpiCount	1	-	EpiCount	1	-	EpiCount	1	-	-	-	-	-	-	-	-	-	-
14	EpiGap	1	10	EpiGap	1	17	EpiGap	1	33	EpiCount	0	0	EpiCount	1		EpiCount	1	4
	EpiCount	1	-	EpiCount	1	-	EpiCount	1	-	-	-	-	-	-	-	-	-	-
15	EpiGap	1	10	EpiGap	1	17	EpiGap	1	33	-	-	-	-	-	-	-	-	-
	EpiCount	1	-	EpiCount	1	-	EpiCount	1	-	-	-	-	-	-	-	-	-	-
16	EpiGap	1	10	EpiGap	1	17	EpiGap	1	33	EpiCount	0	0	EpiCount	1		EpiCount	1	4

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Appendix G. Specifications Defining Parameters for this Request

		ence Crite	rion 1		rence Crite			rence Crite			ence Crite			ence Crite			rence Crite	rion 6
Scenario	Adherence	Adherence Start (days)	•	Adherence Type	Adherence Start (days)	9	Adherence Type	Adherence Start (days)	9	Adherence Type	Adherence Start (days)	e	Adherence Type	Adherence Start (days)	Adherence End (days)		Adherence Start (days)	Adherence End (days)
	EpiCount	1	-	EpiCount	1	-	EpiCount	1	-	-	-	-	-	-	-	-	-	-
17	EpiGap	1	10	EpiGap	1	17	EpiGap	1	33	-	-	-	-	-	-	-	-	-
17	EpiCount	1	-	EpiCount	1	-	EpiCount	1	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	EpiCount	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	EpiGap	1	10	EpiGap	1	17	EpiGap	1	33	-	-	-	-	-	-	-	-	-
20	EpiCount	1	-	EpiCount	1	-	EpiCount	1	-	-	-	-	-	-	-	-	-	-
24	EpiGap	1	10	EpiGap	1	17	EpiGap	1	33	-	-	-	-	-	-	-	-	-
21	EpiCount	1	-	EpiCount	1	-	EpiCount	1	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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**Appendix G. Specifications Defining Parameters for this Request** 

	Adh	erence Criteri			erence Criter			erence Criter			rence Criterio			erence Criteri			erence Criteri	on 12
Scenario		Adherence Start (days)	Adherence		Adherence Start (days)	Adherence End (days)		Adherence Start (days)	Adherence		Adherence Start (days)	Adherence		Adherence Start (days)		Adherence	Adherence Start (days)	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	EpiCount	5	7	EpiCount	8	11	EpiCount	12	14	EpiCount	15	20	EpiCount	21	24	EpiCount	25	27
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	EpiCount	5	7	EpiCount	8	11	EpiCount	12	14	EpiCount	15	20	EpiCount	21	24	EpiCount	25	27
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	EpiCount	5	7	EpiCount	8	11	EpiCount	12	14	EpiCount	15	20	EpiCount	21	24	EpiCount	25	27
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	EpiCount	5	7	EpiCount	8	11	EpiCount	12	14	EpiCount	15	20	EpiCount	21	24	EpiCount	25	27
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	EpiCount	5	7	EpiCount	8	11	EpiCount	12	14	EpiCount	15	20	EpiCount	21	24	EpiCount	25	27
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	EpiCount	5	7	EpiCount	8	11	EpiCount	12	14	EpiCount	15	20	EpiCount	21	24	EpiCount	25	27

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Appendix G. Specifications Defining Parameters for this Request

	Adh	erence Criteri	on 7	Adh	erence Criter	ion 8	Adh	erence Criter	ion 9	Adhe	rence Criterio			erence Criterio			rence Criterio	on 12
Scenario		Adherence Start (days)	Adherence End (days)		Adherence Start (days)			Adherence Start (days)	Adherence End (days)		Adherence Start (days)	Adherence End (days)	Adherence	Adherence Start (days)	Adherence		Adherence Start (days)	
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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**Appendix G. Specifications Defining Parameters for this Request** 

	Ad	herence Criterion			herence Criterion			Iherence Criterion			Iherence Criterion	16
Scenario	Adherence Type	Adherence Start (days)		Adherence Type	Adherence Start (days)		Adherence Type	Adherence Start (days)	-	Adherence Type	Adherence Start (days)	Adherence End (days)
1	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-
3	EpiCount	28	30	EpiCount	31	35	EpiCount	36		EpiCount	25	
4	-	-	-	-	-	-	-	-	-	-	-	-
5	EpiCount	28	30	EpiCount	31	35	EpiCount	36		EpiCount	12	
6	-	-	-	-	-	-	-	-	-	-	-	-
7	EpiCount	28	30	EpiCount	31	35	EpiCount	36		EpiCount	12	
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-
12	EpiCount	28	30	EpiCount	31	35	EpiCount	36		EpiCount	25	
13	-	-	-	-	-	-	-	-	-	-	-	-
14	EpiCount	28	30	EpiCount	31	35	EpiCount	36		EpiCount	12	

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## Appendix G. Specifications Defining Parameters for this Request

	Adl	nerence Criterion	13	Ad	herence Criterion			herence Criterion			erence Criterion	16
Scenario	Adherence Type	Adherence Start (days)	Adherence End (days)	Adherence Type	Adherence Start (days)		Adherence Type	Adherence Start (days)		Adherence Type	Adherence Start (days)	Adherence End (days)
15	-	-	-	-	-	-	-	-	-	-	-	-
16	EpiCount	28	30	EpiCount	31	35	EpiCount	36		EpiCount	12	
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-

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Appendix G. Specifications Defining Parameters for this Request

			teria 17, 18, and 1 . 5, and 6 for the f		_			Rate Criterion	18/5				Rate Criterion	19/6	
Scenario	Adherence Type	Rate Unit	Number of Days/Month	Adherence Start (days)	Adherence End (days)	Adherence Type	Rate Unit	Number of Days/Month	Adherence Start (days)	Adherence End (days)	Adherence Type	Rate Unit	Number of Days/Month	Adherence Start (days)	Adherence End (days)
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	EpiRate	Month	30	4	-	EpiRate	Month	30	2	-	EpiRate	Month	30	1	-
3	EpiRate	Month	30	4	-	EpiRate	Month	30	2	-	EpiRate	Month	30	1	-
4	EpiRate	Month	30	4	-	EpiRate	Month	30	2	-	EpiRate	Month	30	1	-
5	EpiRate	Month	30	4	-	EpiRate	Month	30	2	-	EpiRate	Month	30	1	-
6	EpiRate	Month	30	4	-	EpiRate	Month	30	2	-	EpiRate	Month	30	1	-
7	EpiRate	Month	30	4	-	EpiRate	Month	30	2	-	EpiRate	Month	30	1	-
8	EpiRate	Month	30	4	-	EpiRate	Month	30	2	-	EpiRate	Month	30	1	-
9	-	=	=	=	-	-	-	=	=	-	-	-	-	-	=
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	EpiRate	Month	30	4	-	EpiRate	Month	30	2	-	EpiRate	Month	30	1	-
12	EpiRate	Month	30	4	-	EpiRate	Month	30	2	-	EpiRate	Month	30	1	-
13	EpiRate	Month	30	4	-	EpiRate	Month	30	2	-	EpiRate	Month	30	1	-
14	EpiRate	Month	30	4	-	EpiRate	Month	30	2	-	EpiRate	Month	30	1	-
15	EpiRate	Month	30	4	-	EpiRate	Month	30	2	-	EpiRate	Month	30	1	-
16	EpiRate	Month	30	4	-	EpiRate	Month	30	2	-	EpiRate	Month	30	1	-
17	EpiRate	Month	30	4	-	EpiRate	Month	30	2	-	EpiRate	Month	30	1	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	EpiRate	Month	30	4	-	EpiRate	Month	30	2	-	EpiRate	Month	30	1	-
21	EpiRate	Month	30	4	-	EpiRate	Month	30	2	-	EpiRate	Month	30	1	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

<sup>\*</sup>Separate testing in Merative™ MarketScan® will be conducted by altering query period start between 4/1/2020 and 1/1/2020

International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Edition (CPT-4) codes are provided by Optum360.

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

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<sup>\*\*</sup>N/A = Not Applicable

ANC = Absolute Neutrophil Count



Appendix H. Specifications Defining Baseline Characteristics Parameters for this Request

				Baseline Ch	aracteristics		
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
Lithium	n/a*	n/a	-30	0	Evaluation period should search for evidence of days supply (N)	1	n/a
Atypical antipsychotics	n/a	n/a	-30	0	Evaluation period should search for evidence of days supply (N)	1	n/a
Typical antipsychotics	n/a	n/a	-30	0	Evaluation period should search for evidence of days supply (N)	1	n/a
All antipsychotics (typical and atypical)	n/a	n/a	-30	0	Evaluation period should search for evidence of days supply (N)	1	n/a
Antidepressants	n/a	n/a	-30	0	Evaluation period should search for evidence of days supply (N)	1	n/a
ADHD and other	IP	Any	Ever	0	n/a	1	n/a
behavior disorders	AV/OA/ED/IS	Any	Ever	0	n/a	2	n/a
	DX codes: IP	Any	Ever	0	n/a	1	n/a
Alcohol Use Disorders	DX codes: AV/OA/ED/IS	Any	Ever	0	n/a	2	n/a
	PX codes: Any	Any	Ever	0	n/a	1	n/a

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Appendix H. Specifications Defining Baseline Characteristics Parameters for this Request

				Baseline Ch	aracteristics		
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
Amiliatu Diagradana	IP	Any	Ever	0	n/a	1	n/a
Anxiety Disorders	AV/OA/ED/IS	Any	Ever	0	n/a	2	n/a
Bipolar Disorders	IP	Any	Ever	0	n/a	1	n/a
Bipolar Disorders	AV/OA/ED/IS	Any	Ever	0	n/a	2	n/a
Depression	Any	Any	Ever	0	n/a	1	n/a
Daniel Diagram	IP	Any	Ever	0	n/a	1	n/a
Depressive Disorders	AV/OA/ED/IS	Any	Ever	0	n/a	2	n/a
	DX codes: IP	Any	Ever	0	n/a	1	n/a
Drug Use Disorders	DX codes: AV/OA/ED/IS	Any	Ever	0	n/a	2	n/a
	PX codes: Any	Any	Ever	0	n/a	1	n/a
Opioid Use Disorder (OUD) 1 (defined as OUD 2, 3 or 4)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
ous s	IP	Any	Ever	0	n/a	1	n/a
OUD 2	AV/OA/ED/IS	Any	Ever	0	n/a	2	n/a

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Appendix H. Specifications Defining Baseline Characteristics Parameters for this Request

#### **Baseline Characteristics** Number of instances the Principal **Evaluation Evaluation** Forced supply diagnosis **Exclude evidence of days supply** period start period end covariate should be found to attach to (days) Covariate Care setting position (days) if covariate includes dispensings in evaluation period dispensings OUD 3 IP/ED 0 n/a n/a Ever 1 Any Evaluation period should search OUD 4 (RX and PX only) 0 Any Ever 1 n/a Any for evidence of days supply (N) ΙP 0 n/a 1 n/a Any Ever Personality Disorders AV/OA/ED/IS 0 n/a 2 n/a Any Ever ΙP 0 1 Any Ever n/a n/a Schizophrenia AV/OA/ED/IS 0 n/a 2 Any Ever n/a n/a ΙP 0 Schizophrenia and Any Ever 1 n/a Other Psychotic Disorders AV/OA/ED/IS 0 n/a 2 n/a Any Ever ΙP Any Ever 0 n/a 1 n/a ADHD Only Subset AV/OA/ED/IS 0 n/a 2 Any Ever n/a

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<sup>\*</sup>N/A = Not Applicable

IP = Inpatient Hospital Stay

AV = Ambulatory Visit

OA = Other Ambulatory Visit

ED = Emergency Department

IS = Non-Acute Institutional Stay



## Appendix I. Specifications Defining Medical Utilization and Comorbidity Score Parameters for this Request

#### Utilization **Medical utilization Medical utilization Drug utilization Drug utilization** evaluation period evaluation period evaluation period evaluation period end (days) start (days) Medical visit care settings start (days) end (days) \*Inpatient hospital stay; \*Non-acute institutional stay; \*Emergency department 0 encounter; 0 Ever -30 \*Ambulatory visit;

\*Other ambulatory visit;
\*Any care setting

#### **Comorbidity Score**

Comorbic	arty Score
Evaluation period start (days)	Evaluation period end (days)
Ever	0

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## Appendix J. Specifications Defining Stockpiling Parameters Used for this Request

#### Stockpiling

		Stock	Pilitig		
Stockpiling group	Same day dispensing processing for days supplied	Same day dispensing processing for amount supplied	Range of allowable days supplied values	Range of allowable amount supplied values	Overlap percentage
clozapine	Uses maximum	Uses maximum	Value must be greater than 0 (0<-HIGH)	Value must be greater than 0 (0<-HIGH)	n/a*

<sup>\*</sup> $\overline{N/A}$  = Not Applicable

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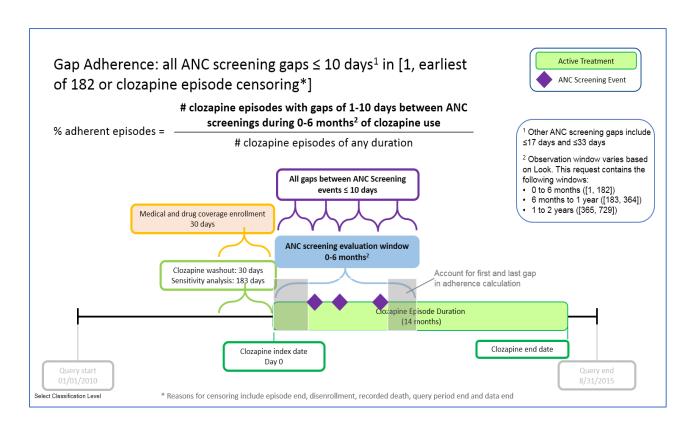
# Appendix K. Summary of Clozapine Exposure Duration and Absolute Neutrophil Count (ANC) Screening Event Assessment Windows for Each Cohort "Look" and Design Diagrams for Each Adherence Criteria Type (Gap, Rate, Count)

		Observation window (Day*)				
		-30 to 0	1 to 182	183 to 364	365 to 729	
Total episode duration (number of days)	1 to 183	Look 1	Look 2			
	184 to 365			Look 3		
	366 to 730				Look 4	
	>730					

<sup>\*</sup>Day 0 refers to the date of clozapine dispensing preceded by no evidence of clozapine days supply in the prior 30 days

		Observation window (Day*)				
		-30 to 0	1 to 182	183 to 364	365 to 729	
Total episode duration (number of days)	1 to 183					
	184 to 365					
	366 to 730		Look 5	Look 6		
	>730				Look 7	

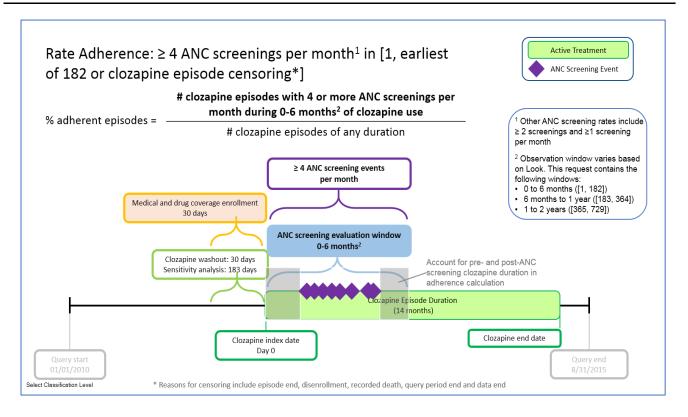
<sup>\*</sup>Day 0 refers to the date of clozapine dispensing preceded by no evidence of clozapine days supply in the prior 30 days

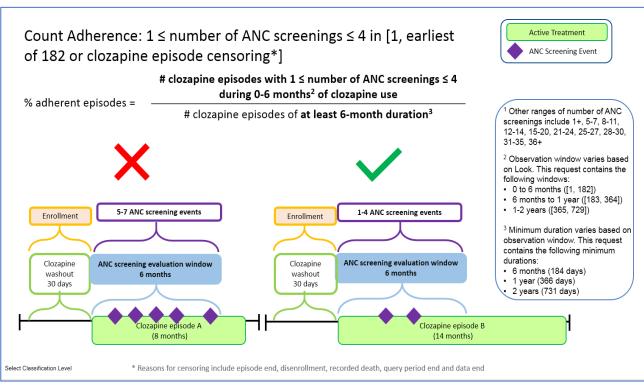


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Appendix K. Summary of Clozapine Exposure Duration and Absolute Neutrophil Count (ANC) Screening Event
Assessment Windows for Each Cohort "Look" and Design Diagrams for Each Adherence Criteria Type (Gap, Rate, Count)





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