## National Center for Health Statistics Research Data Center (NCHS RDC)

Linked Data on Hospitalizations, Mortality, and Drugs:
Data from the National Hospital Care Survey 2016,
National Death Index 2016-2017, and the Drug-Involved
Mortality 2016-2017

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### **OVERVIEW**

This document describes the research data set created by linking three data sources: (a) the 2016 National Hospital Care Survey (NHCS), (b) the 2016/2017 National Death Index (NDI), and (c) the 2016/2017 Drug-Involved Mortality restricted data (DIM). Details about the NHCS and NDI data sets and their linkage have been described elsewhere (see below).

### This document provides:

- a brief description of the three source data sets;
- information about the records and variables in the DIM data; and
- resources for additional information.

### SOURCE DATA SETS

**NHCS** collects inpatient (IP), emergency department (ED), and outpatient department (OPD) administrative claims or electronic health record (EHR) data from participating hospitals. This data set includes information captured during a hospital visit such as diagnoses, services provided at the hospital, and discharge status. Due to the low response rate of sampled hospitals, the 2016 NHCS is unweighted and the estimates are not nationally representative. For general information about the NHCS, see: <a href="https://www.cdc.gov/nchs/nhcs/index.htm">https://www.cdc.gov/nchs/nhcs/index.htm</a>. For information on the 2016 NHCS data available in the RDC, see: <a href="https://www.cdc.gov/rdc/data/b1/2016">https://www.cdc.gov/rdc/data/b1/2016</a> NHCS DATA-DICTIONARY.pdf.

**NDI** includes data on all deaths occurring within the United States and identifies persons who have died, as well as their causes of death. For general information on the NDI, see: <a href="https://www.cdc.gov/nchs/ndi/index.htm">https://www.cdc.gov/nchs/ndi/index.htm</a>. The 2016 NHCS data have been linked to the 2016 and 2017 NDI data to track mortality after hospital visits. For information on the methodology used to link NHCS and NDI data, see:

https://www.cdc.gov/nchs/data/datalinkage/NHCS16 NDI16 17 Methodology Analytic Consider.pdf. For a list of the mortality variables in the linked NHCS/NDI data set available in the RDC, see:

https://www.cdc.gov/nchs/data/datalinkage/NHCS 2014 Codebook Mortality Variables.pdf.

**DIM** includes information on specific drugs, drug classes, and non-specific references to drugs mentioned in the literal text on the death certificate. Identification of the specific drugs involved in a death is based on the Drug Mentioned with Involvement (DMI) methodology, which was developed collaboratively by NCHS and the U.S. Food and Drug Administration (FDA). A brief description of the DMI methodology is provided below; however researchers are encouraged to read the more detailed description at:

https://www.cdc.gov/nchs/data/nvsr/nvsr65/nvsr65 09.pdf. Only those NHCS patient records

that were eligible for and successfully linked to the 2016/2017 NDI can be linked to the 2016/2017 DIM files. Linked NHCS/NDI records are linked to the 2016/2017 DIM files using an exact match on the NHCS patient ID and a unique ID generated from the year of death, jurisdiction of death, and death certificate number.

### Example of Types of Data Available

The table below contains an example of the type of data available from the three data sources.

National Hospital Care Survey (NHCS)
Encounter
Age
Sex
Setting (e.g., emergency department, inpatient, or outpatient department)
Expected source of payment
Diagnoses
Procedures
Medications
Beginning service date
Ending service date
Length of stay
Intensive care unit stays (IP only)
Discharge status
Died in the hospital
Enhanced Opioid-Identification
Identification of opioid-involved encounter
Opioid-involved encounter identified by Natural Language Processing (NLP)
Opioid-involved encounter identified by medical codes and/or labels

National Hospital Care Survey (NHCS)
Opioid medications and antagonists identified by NLP and/or medical Codes
Opioid involved overdoses identified by NLP and/or medical codes
Specific opioids mentioned
Hospital
Geographic region
Urban/rural classification
Type of ownership (e.g., government, non-profit)
Type of service (e.g., general acute care, psychiatric, children's)
Number of beds
National Death Index (NDI)
Underlying cause of death
Multiple causes of death
Date of birth
Date of death
Age at death
Drug-Involved Mortality (DIM)
Specific substances mentioned
Drug classes mentioned
Non-specific substances mentioned
Note: The list provides examples of the types of information available and does not include all variables in the data sets.

The total number of records available in the linked dataset for emergency department (ED) visits and inpatient (IP) hospitalizations are in the table below.

Description	2016 NHCS Records <sup>1</sup>	2016 NHCS Opioid- Involved Visits <sup>1,4</sup>	2016 NHCS Opioid- Involved Overdose Visits <sup>1,4</sup>
Total 2016 NHCS visits (any type, any setting [ED visit or IP hospitalization])	9,624,026	1,370,827	21,693
Linked to 2016/2017 NDI, any cause of death	604,730	75,398	2,375
Linked to 2016/2017 NDI, cause of death is drug overdose <sup>2</sup> (any drug)	15,206	5,277	976
Linked to 2016/2017 NDI, cause of death is a drug overdose involving an opioid <sup>3</sup>	9,502	3,725	710

<sup>&</sup>lt;sup>1</sup> Excludes newborns (births in the ED or during IP hospitalization).

## INFORMATION ABOUT THE 2016 NHCS ENHANCED OPIOID-IDENTIFICATION VARIABLES

The encounter-level file of the NHCS Enhanced Opioid Identification file identifies opioid-involved hospital encounters in the ED and IP settings. The file was created using an enhanced algorithm that searched the 2016 NHCS dataset for opioid-involved encounters using medical codes and machine learning techniques. The code-based algorithm searched for opioid involved diagnosis, medication, procedure, service, and laboratory codes. The NLP algorithm identified opioid-involved encounters mentioned in the clinical notes. The methodology for the coded and NLP algorithm are described below.

### Opioid Definition and Search Terms

Opioids are defined as natural opioids, semi-synthetic opioids, prescription synthetic opioids, illicit opioids, and substances that produce opioid-like effects. Opioid-involvement is defined as search terms or medical codes that indicate opioid use prior to hospital arrival, opioids administered during the hospital stay, or opioids prescribed upon discharge. Opioid-overdoses were identified using T40 ICD-10-CM codes or F11 use/abuse/dependence codes or from



<sup>&</sup>lt;sup>2</sup> Drug overdose deaths were identified using ICD-10 underlying cause of death codes X40-X44, X60-X64, X85, and Y10-Y14.

<sup>&</sup>lt;sup>3</sup> Drug overdose deaths involving any opioid were identified using ICD-10 underlying cause of death codes X40-X44, X60-X64, X85, and Y10-Y14 with a multiple cause of death code of T40.0-T40.4 or T40.6.

<sup>&</sup>lt;sup>4</sup> See appendices for the code lists and search terms used to identify opioids and opioid overdoses.

opioid-overdose search terms found in the clinical notes using natural language processing (NLP). Opioid-overdoses that mentioned calendar year 2016 were included in the analysis. Overdoses that occurred prior to 2016 were excluded. Refer to the appendix for the complete code and search terms lists.

The final medication lists incorporated opioid search terms from the DMI Principal Variant list, the National Electronic Injury Surveillance System – Cooperative Adverse Drug Event Surveillance Project (NEISS-CADES), and the University of Kentucky's Enhanced State Opioid Overdose Surveillance (ESOOS) drug terms and queries. The list includes opioid medication brand names, generic names, metabolites, illicit opioids and their street names, acronyms, and misspellings. The final list was used in both the coded and NLP algorithms.

An interdisciplinary team of clinicians, researchers, and analysts collated the medical codes and search terms and mapped them to 13 frequently used opioids and opioid-antagonists (listed below). Opioids that did not map to the 13 categories were identified as other opioids (OTH\_OPIOID), and their names listed as free text and multiple substances are delimited by semicolons (OTHER\_OPIOID\_LIST). General mentions of opioids (e.g. "opiate", "narcotic") were mapped as "unspecified opioids" (UNSPECIFIED\_OPIOID).

- Buprenorphine/ Norbuprenorphine
- Codeine
- Fentanyl/ Fentanyl Analogs
- Heroin
- Hydrocodone

- Hydromorphone
- Levorphanol
- Meperidine
- Methadone
- Morphine
- Oxycodone
- Oxymorphone

- Tramadol
- Unspecified Opioid
- "Other" Opioid
- Naltrexone
- Naloxone

### Coded Algorithm

The coded algorithm identified opioids, opioid antagonists, and opioid-involved overdoses from the medical codes and labels of diagnoses codes, medication codes, services codes, and laboratory codes with positive results. The code systems used to identify opioid-involved encounters are ICD-10-CM codes for diagnoses, RxNORM and SNOMED codes for medications, ICD-10-PCS and HCPCS for services/procedures, and LOINC codes to identify positive opioid-involved laboratory screens. See the appendix for the list of codes included in the algorithm.

Keyword searches of the medical code labels are part of the coded algorithm because the labels are standardized within their respective code systems. Using this assumption, the search terms were limited to the correct spellings of opioid search terms. Keyword search was also used to identify positive or confirmatory qualitative laboratory results (e.g. "positive", "pos",

"confirmed"). LOINC codes without a positive result were not included in the Enhanced Opioid-Identification file.

### Machine Learning and Natural Language Processing Algorithm

The machine learning and natural language processing (NLP) algorithm identifies opioid-involved encounters mentioned in the clinical notes available in the 2016 NHCS data. Only EHR data sources with clinical notes are included in the NLP analysis.

The algorithm used Named Entity Recognition (NER) techniques and an existing list opioid-search term list to detect opioid-involved encounters (see appendix for search term list). NER is an NLP approach that searches for opioids by learning what words resemble opioid search terms. The search term list and NER were used together to identify exact matches from the opioid list and possible matches from the NER. The list of possible matches was manually reviewed by clinicians and researchers to determine if the possible matches were truly opioids. This approach allows the NER to capture opioid medications and novel misspellings that were not included in search term list.

The NER could also exclude encounters that fell outside the definition of "opioid-involved". The program was able to detect terms and phrases in the notes that negated opioid use (e.g. "did not use"). In addition, the NER also recognized dates embedded in the notes and identified opioid mentions that were outside the analysis time period. Opioids that were negated were reviewed and removed from the final NLP output.

The NER was also used to detect opioid overdoses. Once an overdose mention was detected, NER would search the surrounding text for an illicit or licit opioid search term. Notes that detected a non-opioid drug or detected no drug mentions were not classified as an opioid overdose.

### NHCS 2016 Enhanced Opioid-Identification Variables

The encounter level file includes variables for 13 opioids, two opioid antagonists, and non-specific mentions of opioids. The value of the variables is binary, one (1) indicates there was an opioid identified in the hospital encounter from the enhanced algorithm, and zero (0) indicates the opioid was not identified by the algorithm.

Additional variables identify whether the opioids were identified using NLP, opioids identified using codes/free text search, drug overdoses identified by NLP, and drug overdoses identified by codes/free text search.

Variable Name	Variable Description	Data Values
ENCOUNTER_ID	Char. Hospital encounter identifier associated with the hospital encounter. Researchers linking to the NHCS should use ENCOUNTER_ID as the common key.	>0
ID_SETTING	Char. The code that indicates the hospital setting or settings in which the encounter occurred. Researchers linking to the NHCS should use ID_SETTING as the common key.	>0
SOURCE	Char. Data source of the hospital encounter. Researchers linking to the NHCS should use SOURCE as the common key.	>0
HOSPID_A	Char. The 4-digit ID associated with the NHCS hospital in which the encounter occurred. Researchers linking to the NHCS should use HOSPID_ A as the common key.	>0
PATIENT_ID	Char. Patient identifier assigned by NCHS. Researchers linking to the NDI or DIM should use PATIENT_ID as the common key.	>0
OP_INVOLVED	Numeric. Identifies opioid-involved encounters that were found by the coded algorithm and Natural Language Processing (NLP) algorithm.	0,1
OP_INVOLVED_NLP	Numeric. Identifies opioid-involved encounters that were found by NLP algorithm.	0,1
OP_INVOLVED_CODE	Numeric. Identifies opioid-involved encounters that were found by the coded algorithm.	0,1

Variable Name	Variable Description	Data Values
OP_TOX	Numeric. Identifies opioid-involved encounters from positive toxicology results.	0,1
'Opioids, Opioid Antagonists'	Numeric. Identifies if one or more of the 13 opioids, or two opioid antagonists were documented in the hospital encounter.	0,1
OTH_OPIOID	<b>Numeric.</b> Identifies an opioid-involved encounter that is not one of the 13 opioids or two opioid antagonists.	0,1
OTHER_OPIOID_LIST	<b>Char.</b> Lists the names of opioids identified in the OTH_OPIOID	0,1
UNSPECIFIED_OPIOID	<b>Numeric.</b> Does the encounter indicate general, unspecified opioid use? ("opioid" or "opiate" mention)	0,1
OD	<b>Numeric.</b> Encounters identified as an opioid-involved overdose.	0,1
OD_CODE	<b>Numeric.</b> Opioid-involved overdose encounters identified by medical codes or free text search.	0,1
OD_NLP	<b>Numeric.</b> Opioid-involved overdose encounters identified by NLP.	0,1

# INFORMATION ABOUT THE RECORDS AND VARIABLES IN THE DIM DATA FILE

The decedent-level file of the DIM data contains a single record for each decedent who had at least one substance mentioned in the death certificate literal text. The identification of the drugs/substances involved in the death is based on the DMI methodology (<a href="https://www.cdc.gov/nchs/data/nvsr/nvsr65/nvsr65">https://www.cdc.gov/nchs/data/nvsr/nvsr65/nvsr65</a> 09.pdf). Briefly, the DMI methodology involves searching the literal text from three fields on the standard U.S. death certificate: the causes of death from Part I, significant conditions contributing to death from Part II, and a description of how the injury occurred. The literal text is searched for mentions of drugs and other substances, as well as terms that provide context about the involvement of the drug in the death (i.e., whether the drug contributed to the death). The substances mentioned in the death certificate literal text are assumed to be involved in the death unless contextual information in the literal text suggests otherwise.

#### Search Terms

Drugs and substances are identified using search terms. Search terms include generic drug names, brand names, common usage or street names, abbreviations, metabolites, misspellings, and other variations. The creation of the search term list involved multiple approaches including: (a) including single-word generic names listed in the Substance Abuse and Mental Health Services Administration (SAMHSA) Drug Abuse Warning Network (DAWN) Drug Reference Vocabulary (DRV), based on the Multum Lexicon database from Cerner Multum, Inc.; (b) including the terms added by SAMHSA for substances that are misused and abused (e.g., illicit drugs and inhalants) that were not included in the Multum Lexicon database; and (c) adding terms for drug classes, drug exposures not otherwise specified, terms containing more than one word, brand names (using the Drugs@FDA website), and obvious frequently occurring misspellings (from manual review of the literal text and from the FDA Adverse Event Reporting System data). The list of DMI search terms is available in the Excel workbook Search\_Terms\_and\_Principal\_Variants.xlsx at https://ftp.cdc.gov/pub/Health Statistics/NCHS/Program Code/oae/.

### **Principal Variants**

Each search term is mapped to a "principal variant," the overarching label assigned to a drug, a drug class, or exposure not otherwise specified. For example, terms such as "COCAIEN", "COCAINE CRACK", "COCAINE HYDROCHLORIDE", and "COCAINETOXICITY" are all assigned the principal variant "COCAINE". In general, the principal variant is the generic drug name. Some search terms—mostly for combination drug products—are assigned to two or more principal variants. Use of principal variants makes it possible to generate aggregate counts for all search terms that refer to the same drug or substance. Principal variants are also categorized



according to whether they refer to specific drugs or substances (e.g., methadone), classes of drugs or substances (e.g., opioids), or nonspecific references to exposures to drugs (e.g., words such as "DRUG", "MULTIDRUG", or "POLYPHARMACY").

Whenever possible, principal variants for specific substances are the unique preferred substance names listed in the joint FDA/United States Pharmacopeia (USP) Substance Registration System (SRS). Each preferred substance name is linked to a unique ingredient identifier (UNII) in the SRS, if available. The preferred name may differ from the term(s) commonly used in everyday practice or even the terms more often mentioned in literal text. For example, although the search term HEROIN is mentioned more often in literal text than the search term DIAMORPHINE, the search term HEROIN is mapped to the principal variant DIAMORPHINE. Consult the SRS for preferred names of potential substances of interest. More information about the SRS is available at <a href="https://www.fda.gov/ForIndustry/DataStandards/SubstanceRegistrationSystem-UniqueIngredientIdentifierUNII">https://www.fda.gov/ForIndustry/DataStandards/SubstanceRegistrationSystem-UniqueIngredientIdentifierUNII</a>, and at <a href="https://fdasis.nlm.nih.gov/srs/">https://fdasis.nlm.nih.gov/srs/</a>. In some instances,

UniqueIngredientIdentifierUNII, and at <a href="https://fdasis.nlm.nih.gov/srs/">https://fdasis.nlm.nih.gov/srs/</a>. In some instances, principal variants for classes of drugs and substances are classes listed in the American Hospital Formulary System (AHFS).

Some principal variants are alternatives to or shortened versions of the SRS preferred substance name or AHFS classes. Shortened or alternative principal variants are used because the substance-related SAS variable names in the decedent-level file cannot be longer than 32 characters. For example, the SRS preferred name 2-ETHYLIDENE-1,5-DIMETHYL-3,3-DIPHENYLPYRROLIDINE is 49 characters and is abbreviated as the principal variant EDDP. Furthermore, some principal variants are simplified versions of the SRS preferred name or AHFS class. For example, the SRS preferred name TOBACCO LEAF is simplified as the principal variant TOBACCO. The column Preferred name or class in the Excel workbook Search\_Terms\_and\_Principal\_Variants.xlsx lists the SRS preferred substance name in instances when the principal variants for specific substances are not the SRS preferred name. Researchers who use the SRS or AHFS to identify potential substances of interest should also consult the Excel workbook to ensure comprehensive capture of all mentions of interest.

Some search terms could not be mapped to a unique principal variant. When a search term may refer to two or three different substances, the search term is mapped to the principal variant AMBIGUOUS. The Excel workbook Search\_Terms\_and\_Principal\_Variants.xlsx lists the potential principal variants in the ambiguous variant variables, as well as the UNII for the potential principal variants (if available), in the columns ambiguous\_variant\_UNII\_1, ambiguous\_variant\_UNII\_2, and ambiguous\_variant\_UNII\_3.

In some instances, the search terms are mapped to the principal variant UNKNOWN, indicating that the search term may refer to four or more different substances.

The principal variants list is quite detailed (e.g., there may be unique principal variants for a "parent" drug as well as its metabolites), therefore researchers might consider grouping multiple principal variants into a larger "referent category" in order to identify all the deaths involving a particular drug. For example, the principal variant HYDROCODONE and the principal variant NORHYDROCODONE (a metabolite of hydrocodone) might be grouped together to create a referent drug category of HYDROCODONE. A recent report from NCHS provides an example of how principal variants were combined into a single referent group (https://www.cdc.gov/nchs/data/nvsr/nvsr67/nvsr67 09-508.pdf).

Because principal variants can contain symbols and spaces, SAS programs used to analyze the decedent-level file should include the following global SAS option: OPTIONS VALIDVARNAME = ANY. This option allows for the use of non-conforming SAS variable names. In addition, refer to each principal variant using the name literal convention (i.e., refer to substance-specific variables using "substance" (quotes required); for example, "- gamma.hydroxybutyric acid"n).

The list of DMI search terms and principal variants is available in the Excel workbook Search\_Terms\_and\_Principal\_Variants.xlsx at https://ftp.cdc.gov/pub/Health\_statistics/NCHS/Program\_Code/oae/.

### **DIM Variables**

The DIM decedent level file includes a variable for each principal variant. The value of the variable reflects the number of mentions of involvement of the drug/substance on the death certificate for that decedent.

Additional variables identify: (a) the number of unique principal variants mentioned, (b) the number of specific substances identified, (c) the number of unique drug classes identified, and (d) the number of non-specific drug references identified for a given decedent.

Variable Name	Variable Description	Data Values
PATIENT_ID	Char. Patient identifier assigned by NCHS. Researchers linking to the 2016 NHCS should use PATIENT_ID as the common key.	>0
count_PV_involved	Numeric. Quantifies the number of unique principal variants involved in the death. Principal variants can include specific substances (e.g., OXYCODONE or FENTANYL), classes of drugs or substances (e.g., OPIOID), non-specific substances (e.g., DRUG, CHEMICAL, or POLYPHARMACY), ambiguous substances (i.e., possibly referring to two or three different substances), or unknown (i.e., possibly referring to 4 or more different substances. If the count_PV_involved variable is equal to 0, then all drugs/substances mentioned in the death certificate literal text were categorized as not being involved in the death.	≥0
count_specific_subs_involved	<b>Numeric</b> . Quantifies the number of unique specific drugs/substances (e.g., HEROIN) involved in the death.	≥0
count_classes_involved	<b>Numeric</b> . Quantifies the number of unique drug classes (e.g., OPIOID) involved in the death.	≥0

Variable Name	Variable Description	Data Values
count_non_specific_subs_involved	Numeric. Quantifies the number of non- specific drugs/substances (e.g., DRUG, CHEMICAL, POLYPHARMACY) involved in the death.	≥0
'principal variant'	Numeric. The data set includes a variable for each principal variant. The value of the variable reflects the number of mentions of involvement of that drug/substance for that decedent. If the drug/substance was not categorized as having been involved in the death, the value for the variable will be null (".").	>0 or .
	Because some of principal variant variables do not conform to ordinary SAS name standards, it is recommended the following SAS option be used:  OPTION VALIDVARNAME = ANY.	

### RESOURCES FOR ADDITIONAL INFORMATION

National Hospital Care Survey. Available from: <a href="https://www.cdc.gov/nchs/nhcs/index.htm">https://www.cdc.gov/nchs/nhcs/index.htm</a>.

National Center for Health Statistics Research Data Center National Hospital Care Survey 2016 Data Dictionary. Available from: <a href="https://www.cdc.gov/rdc/data/b1/2016">https://www.cdc.gov/rdc/data/b1/2016</a> NHCS DATA-DICTIONARY.pdf.

National Death Index. Available from: <a href="https://www.cdc.gov/nchs/ndi/index.htm">https://www.cdc.gov/nchs/ndi/index.htm</a>.

The Linkage of the 2016 National Hospital Care Survey to the 2016/2017 National Death Index: Methodology Overview and Analytic Considerations. Available from:

https://www.cdc.gov/nchs/data/datalinkage/NHCS16 NDI16 17 Methodology Analytic Consider.pdf.

Codebook for NHCS Linked to the NDI, Mortality Variables. Available from: <a href="https://www.cdc.gov/nchs/data/datalinkage/NHCS">https://www.cdc.gov/nchs/data/datalinkage/NHCS</a> 2014 Codebook Mortality Variables.pdf.

Using Literal Text from the Death Certificate to Enhance Mortality Statistics: Characterizing Drug Involvement in Deaths. Available from:

https://www.cdc.gov/nchs/data/nvsr/nvsr65/nvsr65 09.pdf.

Drugs Most Frequently Involved in Drug Overdose Deaths: United States, 2011–2016. Available from: https://www.cdc.gov/nchs/data/nvsr/nvsr67/nvsr67 09-508.pdf.

## Appendix I: Opioid-Involved Diagnosis Codes

ICD-10-CM Code	Description
F11.9	Opioid use, unspecified
F11.90	Opioid use, unspecified, uncomplicated
F11.92	Opioid use, unspecified with intoxication
F11.920	Opioid use, unspecified with intoxication, uncomplicated
F11.921	Opioid use, unspecified with intoxication delirium
F11.922	Opioid use, unspecified with intoxication with perceptual disturbance
F11.929	Opioid use, unspecified with intoxication, unspecified
F11.93	Opioid use, unspecified with withdrawal
F11.94	Opioid use, unspecified with opioid-induced mood disorder
F11.95	Opioid use, unspecified with opioid-induced psychotic disorder
F11.950	Opioid use, unspecified with opioid-induced psychotic disorder with delusions
F11.951	Opioid use, unspecified with opioid-induced psychotic disorder with hallucinations
F11.959	Opioid use, unspecified with opioid-induced psychotic disorder, unspecified
F11.98	Opioid use, unspecified with other specified opioid-induced disorder
F11.981	Opioid use, unspecified with opioid-induced sexual dysfunction
F11.982	Opioid use, unspecified with opioid-induced sleep disorder
F11.988	Opioid use, unspecified with other opioid-induced disorder
F11.99	Opioid use, unspecified with unspecified opioid-induced disorder
F11.1	Opioid abuse
F11.10	Opioid abuse, uncomplicated
F11.11	Opioid abuse, in remission
F11.12	Opioid abuse with intoxication
F11.120	Opioid abuse with intoxication, uncomplicated
F11.121	Opioid abuse with intoxication delirium
F11.122	Opioid abuse with intoxication with perceptual disturbance
F11.129	Opioid abuse with intoxication, unspecified
F11.14	Opioid abuse with opioid-induced mood disorder
F11.15	Opioid abuse with opioid-induced psychotic disorder
F11.150	Opioid abuse with opioid-induced psychotic disorder with delusions
F11.151	Opioid abuse with opioid-induced psychotic disorder with hallucinations
F11.159	Opioid abuse with opioid-induced psychotic disorder, unspecified
F11.18	Opioid abuse with other opioid-induced disorder
F11.181	Opioid abuse with opioid-induced sexual dysfunction
F11.182	Opioid abuse with opioid-induced sleep disorder

ICD-10-CM Code	Description
F11.188	Opioid abuse with other opioid-induced disorder
F11.19	Opioid abuse with unspecified opioid-induced disorder
F11.2	Opioid dependence
F11.20	Opioid dependence, uncomplicated
F11.21	Opioid dependence, in remission
F11.22	Opioid dependence with intoxication
F11.220	Opioid dependence with intoxication, uncomplicated
F11.221	Opioid dependence with intoxication delirium
F11.222	Opioid dependence with intoxication with perceptual disturbance
F11.229	Opioid dependence with intoxication, unspecified
F11.23	Opioid dependence with withdrawal
F11.24	Opioid dependence with opioid-induced mood disorder
F11.25	Opioid dependence with opioid-induced psychotic disorder
F11.250	Opioid dependence with opioid-induced psychotic disorder with delusions
F11.251	Opioid dependence with opioid-induced psychotic disorder with hallucinations
F11.259	Opioid dependence with opioid-induced psychotic disorder, unspecified
F11.28	Opioid dependence with other opioid-induced disorder
F11.281	Opioid dependence with opioid-induced sexual dysfunction
F11.282	Opioid dependence with opioid-induced sleep disorder
F11.288	Opioid dependence with other opioid-induced disorder
F11.29	Opioid dependence with unspecified opioid-induced disorder
T40.0X1	Poisoning by opium, accidental (unintentional)
T40.0X1A	Poisoning by opium, accidental (unintentional), init encntr
T40.0X1D	Poisoning by opium, accidental (unintentional), subs encntr
T40.0X1S	Poisoning by opium, accidental (unintentional), sequela
T40.0X2	Poisoning by opium, intentional self-harm
T40.0X2A	Poisoning by opium, intentional self-harm, initial encounter
T40.0X2D	Poisoning by opium, intentional self-harm, subs encntr
T40.0X2S	Poisoning by opium, intentional self-harm, sequela
T40.0X3	Poisoning by opium, assault
T40.0X3A	Poisoning by opium, assault, initial encounter
T40.0X3D	Poisoning by opium, assault, subsequent encounter
T40.0X3S	Poisoning by opium, assault, sequela
T40.0X4	Poisoning by opium, undetermined
T40.0X4A	Poisoning by opium, undetermined, initial encounter
T40.0X4D	Poisoning by opium, undetermined, subsequent encounter
T40.0X4S	Poisoning by opium, undetermined, sequela
T40.1X1	Poisoning by heroin, accidental (unintentional)

ICD-10-CM Code	Description
T40.1X1A	Poisoning by heroin, accidental (unintentional), init encntr
T40.1X1D	Poisoning by heroin, accidental (unintentional), subs encntr
T40.1X1S	Poisoning by heroin, accidental (unintentional), sequela
T40.1X2	Poisoning by heroin, intentional self-harm
T40.1X2A	Poisoning by heroin, intentional self-harm, init encntr
T40.1X2D	Poisoning by heroin, intentional self-harm, subs encntr
T40.1X2S	Poisoning by heroin, intentional self-harm, sequela
T40.1X3	Poisoning by heroin, assault
T40.1X3A	Poisoning by heroin, assault, initial encounter
T40.1X3D	Poisoning by heroin, assault, subsequent encounter
T40.1X3S	Poisoning by heroin, assault, sequela
T40.1X4	Poisoning by heroin, undetermined
T40.1X4A	Poisoning by heroin, undetermined, initial encounter
T40.1X4D	Poisoning by heroin, undetermined, subsequent encounter
T40.1X4S	Poisoning by heroin, undetermined, sequela
T40.2X1	Poisoning by oth opioids, accidental (unintentional)
T40.2X1A	Poisoning by oth opioids, accidental (unintentional), init
T40.2X1D	Poisoning by oth opioids, accidental (unintentional), subs
T40.2X1S	Poisoning by oth opioids, accidental (unintentional), sequela
T40.2X2	Poisoning by oth opioids, intentional self-harm
T40.2X2A	Poisoning by oth opioids, intentional self-harm, init encntr
T40.2X2D	Poisoning by oth opioids, intentional self-harm, subs encntr
T40.2X2S	Poisoning by oth opioids, intentional self-harm, sequela
T40.2X3	Poisoning by other opioids, assault
T40.2X3A	Poisoning by other opioids, assault, initial encounter
T40.2X3D	Poisoning by other opioids, assault, subsequent encounter
T40.2X3S	Poisoning by other opioids, assault, sequela
T40.2X4	Poisoning by other opioids, undetermined
T40.2X4A	Poisoning by other opioids, undetermined, initial encounter
T40.2X4D	Poisoning by other opioids, undetermined, subs encntr
T40.2X4S	Poisoning by other opioids, undetermined, sequela
T40.3X1	Poisoning by methadone, accidental (unintentional)
T40.3X1A	Poisoning by methadone, accidental (unintentional), init
T40.3X1D	Poisoning by methadone, accidental (unintentional), subs
T40.3X1S	Poisoning by methadone, accidental (unintentional), sequela
T40.3X2	Poisoning by methadone, intentional self-harm
T40.3X2A	Poisoning by methadone, intentional self-harm, init encntr
T40.3X2D	Poisoning by methadone, intentional self-harm, subs encntr
T40.3X2S	Poisoning by methadone, intentional self-harm, sequela

ICD-10-CM Code	Description
T40.3X3	Poisoning by methadone, assault
T40.3X3A	Poisoning by methadone, assault, initial encounter
T40.3X3D	Poisoning by methadone, assault, subsequent encounter
T40.3X3S	Poisoning by methadone, assault
T40.3X4	Poisoning by methadone, undetermined
T40.3X4A	Poisoning by methadone, undetermined, initial encounter
T40.3X4D	Poisoning by methadone, undetermined, subsequent encounter
T40.3X4S	Poisoning by methadone, undetermined, sequela
T40.4X1	Poisoning by oth synthetic narcotics
T40.4X1A	Poisoning by oth synthetic narcotics, accidental, init
T40.4X1D	Poisoning by oth synthetic narcotics, accidental, subs
T40.4X1S	Poisoning by oth synthetic narcotics, accidental, sequela
T40.4X2	Poisoning by oth synthetic narcotics, self-harm
T40.4X2A	Poisoning by oth synthetic narcotics, self-harm, init
T40.4X2D	Poisoning by oth synthetic narcotics, self-harm, subs
T40.4X2S	Poisoning by oth synthetic narcotics, self-harm, sequela
T40.4X3	Poisoning by other synthetic narcotics, assault
T40.4X3A	Poisoning by other synthetic narcotics, assault, init encntr
T40.4X3D	Poisoning by other synthetic narcotics, assault, subs encntr
T40.4X3S	Poisoning by other synthetic narcotics, assault, sequela
T40.4X4	Poisoning by oth synthetic narcotics, undetermined
T40.4X4A	Poisoning by oth synthetic narcotics, undetermined, init
T40.4X4D	Poisoning by oth synthetic narcotics, undetermined, subs
T40.4X4S	Poisoning by oth synthetic narcotics, undetermined, sequela
T40.601	Poisoning by unsp narcotics, accidental
T40.601A	Poisoning by unsp narcotics, accidental, init
T40.601D	Poisoning by unsp narcotics, accidental, subs
T40.601S	Poisoning by unsp narcotics, accidental, sequela
T40.602	Poisoning by unsp narcotics, intentional self-harm
T40.602A	Poisoning by unsp narcotics, intentional self-harm, init
T40.602D	Poisoning by unsp narcotics, intentional self-harm, subs
T40.602S	Poisoning by unsp narcotics, intentional self-harm
T40.603	Poisoning by unspecified narcotics, assault
T40.603A	Poisoning by unspecified narcotics, assault, init encntr
T40.603D	Poisoning by unspecified narcotics, assault, subs encntr
T40.603S	Poisoning by unspecified narcotics, assault, sequela
T40.604	Poisoning by unsp narcotics, undetermined
T40.604A	Poisoning by unsp narcotics, undetermined, init encntr
T40.604D	Poisoning by unsp narcotics, undetermined, subs encntr

ICD-10-CM Code	Description
T40.604S	Poisoning by unsp narcotics, undetermined, sequela
T40.691	Poisoning by oth narcotics, accidental (unintentional)
T40.691A	Poisoning by oth narcotics, accidental (unintentional), init
T40.691D	Poisoning by oth narcotics, accidental (unintentional), subs
T40.691S	Poisoning by oth narcotics, accidental (unintentional), sequela
T40.692	Poisoning by oth narcotics, intentional self-harm
T40.692A	Poisoning by oth narcotics, intentional self-harm, init
T40.692D	Poisoning by oth narcotics, intentional self-harm, subs
T40.692S	Poisoning by oth narcotics, intentional self-harm, sequela
T40.693	Poisoning by other narcotics, assault
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
T40.694	Poisoning by other narcotics, undetermined
T40.694A	Poisoning by other narcotics, undetermined, init encntr
T40.694D	Poisoning by other narcotics, undetermined, subs encntr
T40.694S	Poisoning by other narcotics, undetermined, sequela
T40.0X5	Adverse effect of opium
T40.0X5A	Adverse effect of opium, initial encounter
T40.0X5D	Adverse effect of opium, subsequent encounter
T40.0X5S	Adverse effect of opium, sequela
T40.2X5	Adverse effect of other opioids
T40.2X5A	Adverse effect of other opioids, initial encounter
T40.2X5D	Adverse effect of other opioids, subsequent encounter
T40.2X5S	Adverse effect of other opioids, sequela
T40.3X5	Adverse effect of methadone
T40.3X5A	Adverse effect of methadone, initial encounter
T40.3X5D	Adverse effect of methadone, subsequent encounter
T40.3X5S	Adverse effect of methadone, sequela
T40.4X5	Adverse effect of other synthetic narcotics
T40.4X5A	Adverse effect of other synthetic narcotics, init encntr
T40.4X5D	Adverse effect of other synthetic narcotics, subs encntr
T40.4X5S	Adverse effect of other synthetic narcotics, sequela
T40.605	Adverse effect of unspecified narcotics
T40.605A	Adverse effect of unspecified narcotics, initial encounter
T40.605D	Adverse effect of unspecified narcotics, subs encntr
T40.605S	Adverse effect of unspecified narcotics, sequela
T40.695	Adverse effect of other narcotics
T40.695A	Adverse effect of other narcotics, initial encounter

ICD-10-CM Code	Description
T40.695D	Adverse effect of other narcotics, subsequent encounter
T40.695S	Adverse effect of other narcotics, sequela
T40.0X6	Underdosing of opium
T40.0X6A	Underdoing of opium, initial encounter
T40.0X6D	Undersosing of opium, subsequent encounter
T40.0X6S	Underdosing of opium, sequela
T40.2X6	Underdosing of other opioids
T40.2X6A	Underdosing of other opioids, initial encounter
T40.2X6D	Underdosing of other opioids, subsequent encounter
T40.2X6S	Underdosing of other opioids, sequela
T40.3X6	Underdosing of methadone
T40.3X6A	Underdosing of methadone, initial encounter
T40.3X6D	Underdosing of methadone, subsequent encounter
T40.3X6S	Underdosing of methadone, sequela
T40.4X6	Underdosing of other synthetic narcotics
T40.4X6A	Underdosing of other synthetic narcotics, init encntr
T40.4X6D	Underdosing of other synthetic narcotics, subs encntr
T40.4X6S	Underdosing of other synthetic narcotics, sequela
T40.606	Underdosing of unspecified narcotics
T40.606A	Underdosing of unspecified narcotics, initial encounter
T40.606D	Underdosing of unspecified narcotics, subs encntr
T40.606S	Underdosing of unspecified narcotics, sequela
T40.696	Underdosing of other narcotics
T40.696A	Underdosing of other narcotics, initial encounter
T40.696D	Underdosing of other narcotics, subsequent encounter
T40.696S	Underdosing of other narcotics, sequela
Z79.891	Long term (current) use of opiate analgesic
R78.1	Finding of opiate drug in blood
P04.14	Newborn affected by maternal use of opiates
P96.1	Neonatal withdrawal symptoms from maternal use of drugs of addiction

## Appendix II: Opioid-Involved Overdose Codes

ICD-10-CM Codes	Description
F11.92	Opioid use, unspecified with intoxication
F11.920	Opioid use, unspecified with intoxication, uncomplicated
F11.921	Opioid use, unspecified with intoxication delirium
F11.922	Opioid use, unspecified with intoxication with perceptual disturbance
F11.929	Opioid use, unspecified with intoxication, unspecified
F11.12	Opioid abuse with intoxication
F11.120	Opioid abuse with intoxication, uncomplicated
F11.121	Opioid abuse with intoxication delirium
F11.122	Opioid abuse with intoxication with perceptual disturbance
F11.129	Opioid abuse with intoxication, unspecified
F11.22	Opioid dependence with intoxication
F11.220	Opioid dependence with intoxication, uncomplicated
F11.221	Opioid dependence with intoxication delirium
F11.222	Opioid dependence with intoxication with perceptual disturbance
F11.229	Opioid dependence with intoxication, unspecified
T40.X1	Poisoning by opium, accidental (unintentional)
T40.0X1A	Poisoning by opium, accidental (unintentional), init encntr
T40.0X1D	Poisoning by opium, accidental (unintentional), subs encntr
T40.0X1S	Poisoning by opium, accidental (unintentional), sequela
T40.OX2	Poisoning by opium, intentional self-harm
T40.0X2A	Poisoning by opium, intentional self-harm, initial encounter
T40.0X2D	Poisoning by opium, intentional self-harm, subs encntr
T40.0X2S	Poisoning by opium, intentional self-harm, sequela
T40.0X3	Poisoning by opium, assault
T40.0X3A	Poisoning by opium, assault, initial encounter
T40.0X3D	Poisoning by opium, assault, subsequent encounter
T40.0X3S	Poisoning by opium, assault, sequela
T40.0X4	Poisoning by opium, undetermined
T40.0X4A	Poisoning by opium, undetermined, initial encounter
T40.0X4D	Poisoning by opium, undetermined, subsequent encounter
T40.0X4S	Poisoning by opium, undetermined, sequela
T40.1X1	Poisoning by heroin, accidental (unintentional)
T40.1X1A	Poisoning by heroin, accidental (unintentional), init encntr
T40.1X1D	Poisoning by heroin, accidental (unintentional), subs encntr
T40.1X1S	Poisoning by heroin, accidental (unintentional), sequela
T40.1X2	Poisoning by heroin, intentional self-harm

T40.1X2A	Poisoning by heroin, intentional self-harm, init encntr
T40.1X2D	Poisoning by heroin, intentional self-harm, subs encntr
T40.1X2S	Poisoning by heroin, intentional self-harm, sequela
T40.1X3	Poisoning by heroin, assault
T40.1X3A	Poisoning by heroin, assault, initial encounter
T40.1X3D	Poisoning by heroin, assault, subsequent encounter
T40.1X3S	Poisoning by heroin, assault, sequela
T40.1X4	Poisoning by heroin, undetermined
T40.1X4A	Poisoning by heroin, undetermined, initial encounter
T40.1X4D	Poisoning by heroin, undetermined, subsequent encounter
T40.1X4S	Poisoning by heroin, undetermined, sequela
T40.2X1	Poisoning by oth opioids, accidental (unintentional)
T40.2X1A	Poisoning by oth opioids, accidental (unintentional), init
T40.2X1D	Poisoning by oth opioids, accidental (unintentional), subs
T40.2X1S	Poisoning by oth opioids, accidental (unintentional), sequela
T40.2X2	Poisoning by oth opioids, intentional self-harm
T40.2X2A	Poisoning by oth opioids, intentional self-harm, init encntr
T40.2X2D	Poisoning by oth opioids, intentional self-harm, subs encntr
T40.2X2S	Poisoning by oth opioids, intentional self-harm, sequela
T40.2X3	Poisoning by other opioids, assault
T40.2X3A	Poisoning by other opioids, assault, initial encounter
T40.2X3D	Poisoning by other opioids, assault, subsequent encounter
T40.2X3S	Poisoning by other opioids, assault, sequela
T40.X4	Poisoning by other opioids, undetermined
T40.2X4A	Poisoning by other opioids, undetermined, initial encounter
T40.2X4D	Poisoning by other opioids, undetermined, subs encntr
T40.2X4S	Poisoning by other opioids, undetermined, sequela
T40.3X1	Poisoning by methadone, accidental (unintentional)
T40.3X1A	Poisoning by methadone, accidental (unintentional), init
T40.3X1D	Poisoning by methadone, accidental (unintentional), subs
T40.3X1S	Poisoning by methadone, accidental (unintentional), sequela
T40.3X2	Poisoning by methadone, intentional self-harm
T40.3X2A	Poisoning by methadone, intentional self-harm, init encntr
T40.3X2D	Poisoning by methadone, intentional self-harm, subs encntr
T40.3X2S	Poisoning by methadone, intentional self-harm, sequela
T40.3X3	Poisoning by methadone, assault
T40.3X3A	Poisoning by methadone, assault, initial encounter
T40.3X3D	Poisoning by methadone, assault, subsequent encounter
T40.3X3S	Poisoning by methadone, assault
T40.3X4	Poisoning by methadone, undetermined
T40.3X4A	Poisoning by methadone, undetermined, initial encounter

T40.3X4D	Poisoning by methadone, undetermined, subsequent encounter
T40.3X4S	Poisoning by methadone, undetermined, sequela
T40.4X1	Poisoning by oth synthetic narcotics
T40.4X1A	Poisoning by oth synthetic narcotics, accidental, init
T40.4X1D	Poisoning by oth synthetic narcotics, accidental, subs
T40.4X1S	Poisoning by oth synthetic narcotics, accidental, sequela
T40.4X2	Poisoning by oth synthetic narcotics, self-harm
T40.4X2A	Poisoning by oth synthetic narcotics, self-harm, init
T40.4X2D	Poisoning by oth synthetic narcotics, self-harm, subs
T40.4X2S	Poisoning by oth synthetic narcotics, self-harm, sequela
T40.4X3	Poisoning by other synthetic narcotics, assault
T40.4X3A	Poisoning by other synthetic narcotics, assault, init encntr
T40.4X3D	Poisoning by other synthetic narcotics, assault, subs encntr
T40.4X3S	Poisoning by other synthetic narcotics, assault, sequela
T40.4X4	Poisoning by oth synthetic narcotics, undetermined
T40.4X4A	Poisoning by oth synthetic narcotics, undetermined, init
T40.4X4D	Poisoning by oth synthetic narcotics, undetermined, subs
T40.4X4S	Poisoning by oth synthetic narcotics, undetermined, sequela
T40.601	Poisoning by unsp narcotics, accidental
T40.601A	Poisoning by unsp narcotics, accidental, init
T40.601D	Poisoning by unsp narcotics, accidental, subs
T40.601S	Poisoning by unsp narcotics, accidental, sequela
T40.602	Poisoning by unsp narcotics, intentional self-harm
T40.602A	Poisoning by unsp narcotics, intentional self-harm, init
T40.602D	Poisoning by unsp narcotics, intentional self-harm, subs
T40.602S	Poisoning by unsp narcotics, intentional self-harm
T40.603	Poisoning by unspecified narcotics, assault
T40.603A	Poisoning by unspecified narcotics, assault, init encntr
T40.603D	Poisoning by unspecified narcotics, assault, subs encntr
T40.603S	Poisoning by unspecified narcotics, assault, sequela
T40.604	Poisoning by unsp narcotics, undetermined
T40.604A	Poisoning by unsp narcotics, undetermined, init encntr
T40.604D	Poisoning by unsp narcotics, undetermined, subs encntr
T40.604S	Poisoning by unsp narcotics, undetermined, sequela
T40.691	Poisoning by oth narcotics, accidental (unintentional)
T40.691A	Poisoning by oth narcotics, accidental (unintentional), init
T40.691D	Poisoning by oth narcotics, accidental (unintentional), subs
T40.691S	Poisoning by oth narcotics, accidental (unintentional), sequela
T40.692	Poisoning by oth narcotics, intentional self-harm
T40.692A	Poisoning by oth narcotics, intentional self-harm, init
T40.692D	Poisoning by oth narcotics, intentional self-harm, subs

T40.692S	Poisoning by oth narcotics, intentional self-harm, sequela
T40.693	Poisoning by other narcotics, assault
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
T40.694	Poisoning by other narcotics, undetermined
T40.694A	Poisoning by other narcotics, undetermined, init encntr
T40.694D	Poisoning by other narcotics, undetermined, subs encntr
T40.694S	Poisoning by other narcotics, undetermined, sequela

## Appendix III: Opioid Medication

Drug Name	RxNORM Concept Unique Identifier (RxCUI)	SNOMED CODES
Buprenorphine		387173000,31684002,
· · ·	1819	774936005
Buprenorphine/Naloxone	352364	425741009, 744937001
Buprenorphine Hydrochloride	203841	2106609
Buprenorphine inj (injection)	1729358	781794006
Buprenorphine SL tab	371161	322498006, 322492007, 322496005, 322497001
Buprenorphine TD	1295269	769238002, 778570009,
Codeine	2670	387494007,85990009, 775354007
Acetaminophen / Codeine	817579	412556009, 775360007
Codeine / Promethazine	214444	786165006, 786750004
Codeine / Diclofenac	1008110	363598004
Codeine / Guaifenesin	214442	412356005, 775356009
Acetaminophen / Butalbital / Caffeine / Codeine	689561	768587007, 774947003
Acetaminophen / Butalbital /		
Codeine	689563	
Codeine / Phenylephrine /		
Promethazine	214449	412279009, 775361006
Acetaminophen / Codeine / Guaifenesin /		
Pseudoephedrine	1007572	412286001
Codeine Sulfate	91104	1476002
Codeine Phosphate	2672	261000
Codeine Hydrochloride	1115966	766880009
Codeine Tab	371613	350298003, 778849005,
Codeine Inj (Injectable)	371609, 1155183	781814002
Codeine/Acetaminophen tab	370754	767783007, 778848002,
Codeine/Acetaminophen liquid	1155597, 370751	767783007, 778848002,
Fentanyl	4337	373492002,40648001, 775934002
Fentanyl Citrate	142436	29190006
Fentanyl Hydrochloride	1652097	
Fentanyl Injection (Im/Iv)	1735002	78188408
Fentanyl Transdermal	1294794	769240007, 779245001,

Drug Name	RxNORM Concept Unique Identifier (RxCUI)	SNOMED CODES
Fentanyl Transmucosal		
Lozenge	1294774	784202001, 784203006,
		424374001, 422583006,
Fentanyl Disintegrating Tablet		424546005, 423178001,
	668362	423915006, 426740000
Fentanyl SI Spray	1294974	
Fentanyl Citrate Transmucosal	1159058	
Fentanyl Citrate Nasal	1159057	
Fentanyl Citrate Buccal (SI Film)	858086	443196002, 443140009, 443104007, 443105008, 443193005
Heroin	3304	387341002
Hydrocodone	5489	372671002,2032002, 776243007
Acetaminophin/Hydrocodone	214182	768400008, 776245000
Aspirin / Hydrocodone	214253	768404004, 774671008
Hydrocodone/Ibuprofen	214627	768401007, 776244001
Hydrocodone Bitartrate	142439	3874004
Hydrocodone Hydrochloride	236931	
Hydrocodone Polisterix	221107	736862006
Hydrocodone/Acetaminophen tab	370641	768403005, 779483002,
Hydrocodone/Acetaminophen liquid	1151548, 370759	768403005, 779483002,
Hydrocodone/Ibuprofen tab	370676	768402000, 779482007,
Hydromorphone	3423	44508008,414428000, 776264006
Atropine / Hydromorphone	1007561	
Guaifenesin / Hydromorphone	214594	
Hydromorphone		
Hydrochloride	203177	387485001
Hydromorphone Tab	370654	438139007, 779503002,
Hydromorphone Liquid	1164619, 370653	438139007, 779503002,
Hydromorphone INJ		785028004, 785027009,
(Injection)	1724207	781934002, 781935001
Hydromorphone ER (Extended Release)	902728	438139007, 779503002,

Drug Name	RxNORM Concept Unique Identifier (RxCUI)	SNOMED CODES
Levorphanol		387275004,50335004,
•	6378	776524006
Levorphanol Tartrate	153973	67347006
Levorphanol Tab	372593	768964007, 779695008,
Levorphanol INJ (Injectable)	1163479	
Meperidine	6754	387298007,54544005, 777149005
Meperidine / Promethazine	214699	420348003, 777150005
Acetaminophen / Meperidine	689788	
Atropine / Meperidine	689609	
Meperidine Hydrochloride	103755	2878005
Meperidine Tab	372766	772679009, 780178002,
Meperidine Liquid	1160384, 60800	772679009, 780178002,
Meperidine INJ (Injection)	1665037	781979003, 781978006
Methadone	6813	387286002,51758009, 776719005
Methadone Hydrochloride	218337	23883005
Methadone Tab	372808	350295000, 779834007,376782004, 322591003
Methadone Liquid	1161620, 372806	350295000, 779834007,766493009, 370238000, 766494003, 766492004, 784709009, 767081004
Methadone INJ (Injectable)	1161619, 372807	781982008
Morphine	7052	373529000,73572009, 773372004
Morphine / Naltrexone	866331	783809007, 783810002
Atropine / Morphine	689610	
Morphine Sulfate	30236	60886004
Morphine Sulfate Liposomal	477397	426952001
Morphine Tartrate	235774	442424007
Morphine IR (Immediate		
Release)	372959	350301004, 773374003,
Morphine Liquid	1156362, 106841	350301004, 773374003,
Morphine INJ (Injection)	1728776	782004007, 782006009, 782007000, 782005008, 785132007
Morphine Suppository (Rectal)	372957	346583000, 773375002,

Drug Name	RxNORM Concept Unique Identifier (RxCUI)	SNOMED CODES
Morphine CR (Continuous		
Release)	372960	350301004, 773374003,
Oxycodone		55452001,414984009,
Oxycodone	7804	777027001
Oxycodone/Acetaminophen	214183	772959003, 777028006
Oxycodone/Aspirin	214256	767923000, 774677007
Ibuprofen / Oxycodone	484259	414443003, 776290009
Naloxone / Oxycodone	1545902	715845001, 776864003
Naltrexone / Oxycodone	1806700	
Oxycodone Hydrochloride	82063	387024006
Oxycodone Terephthalate	159821	116352007
Oxycodone Tab	373198	430127000, 780093001,
Oxycodone Cap	373195	430127000, 780093001,
Oxycodone Liquid	1161681, 373196	430127000, 780093001,
Oxycodone/ Acetaminophen		
Tab	373200	772659001, 780092006,
Oxycodone/ Acetaminophen		
Cap	375581	772659001, 780092006,
Oxycodone/ Acetaminophen		
Liquid	1151889, 373199	772659001, 780092006,
Oxycodone Cr		430127000, 780093001,
Oxycodone Er	385094, 1790526	430127000, 780093001,
Oxycodone/ Acetaminophen		
ER tab	1491831	772659001, 780092006,
OXYMORPHONE		24751001,370266008,
	7814	777032000
Oxymorphone Hydrochloride	82064	69899006
Oxymorphone INJ (injection)	1809679	
		772660006,
		780099002,424178008,
Oxymorphone IR	643113	423970009
Oxymorphone CR	643115	772660006, 780099002,
Tramadol	10689	386858008,108507005, 777816004
Tramadol/Acetaminophen	352362	413396001, 777074005
Tramadol Hydrochloride	82110	108505002
Tramadol Tab	374173	767779007, 780674004,
Tramadol CR	374174	767779007, 780674004,
Naloxone	7242	372890007
Naltrexone	7243	373546002

## Appendix IV: Opioid-Involved Procedures and Services

Drug Name	Healthcare Common Procedure Coding System (HCPCS)
Buprenorphine	J0570, J0571
Buprenorphine/Naloxone	J0572, J0573, J0574, J0575
Buprenorphine inj (injection)	J0592
Codeine Inj (Injectable)	J0745
Fentanyl Injection (Im/Iv)	J1810, J3010
Hydromorphone INJ (Injection)	J1170
Levorphanol INJ (Injectable)	J1960
Meperidine INJ (Injection)	J2175, J2180
Methadone Liquid	J1230
Morphine INJ (Injection)	J2270, J2274
Oxymorphone INJ (injection)	J2410

## Appendix V: Opioid-Involved Laboratory Codes

LOINC	
Code	Description
16248-7	6-monoacetylmorphine free [Mass/volume] in Serum or Plasma by Confirmatory method
18343-4	6-Monoacetylmorphine (6-MAM) [Presence] in Serum or Plasma by Screen method
19321-9	6-Monoacetylmorphine (6-MAM) [Presence] in Urine by Screen method
19322-7	6-Monoacetylmorphine (6-MAM) [Presence] in Urine by Confirmatory method
19323-5	6-Monoacetylmorphine (6-MAM) cutoff [Mass/volume] in Urine for Screen method
19324-3	6-Monoacetylmorphine (6-MAM) cutoff [Mass/volume] in Urine for Confirmatory method
19593-3	6-Monoacetylmorphine (6-MAM) [Mass/volume] in Urine by Confirmatory method
43184-1	6-Monoacetylmorphine (6-MAM) [Presence] in Serum or Plasma by Confirmatory method
47004-7	6-monoacetylmorphine free [Mass/volume] in Urine by Confirmatory method
70197-9	6-Monoacetylmorphine (6-MAM) [Moles/volume] in Urine by Confirmatory method
72763-6	6-Monoacetylmorphine (6-MAM) [Mass/volume] in Saliva (oral fluid) by Confirmatory method
74677-6	6-Monoacetylmorphine (6-MAM) [Presence] in Saliva (oral fluid) by Confirmatory method
77755-7	6-Monoacetylmorphine (6-MAM) cutoff [Mass/volume] in Saliva (oral fluid) for Confirmatory method
78759-8	6-Monoacetylmorphine (6-MAM) [Presence] in Blood by Screen method
78760-6	6-Monoacetylmorphine (6-MAM) [Presence] in Body fluid by Screen method
80115-9	6-Monoacetylmorphine (6-MAM) [Mass/volume] in Blood by Confirmatory method
80116-7	6-Monoacetylmorphine (6-MAM) [Mass/volume] in Body fluid by Confirmatory method
87816-5	6-Monoacetylmorphine (6-MAM) [Presence] in Saliva (oral fluid) by Screen method
58359-1	Buprenorphine+Norbuprenorphine [Presence] in Urine by Screen method
79139-2	Buprenorphine [Presence] in Blood by Screen method
82372-4	Buprenorphine [Presence] in Gastric fluid by Screen method
77205-3	Buprenorphine [Presence] in Meconium by Screen method
73942-5	Buprenorphine [Presence] in Saliva (oral fluid) by Screen method
82369-0	Buprenorphine [Presence] in Serum or Plasma by Screen method
82373-2	Buprenorphine [Presence] in Unspecified specimen by Screen method
77787-0	Buprenorphine cutoff [Mass/volume] in Urine for Screen method
91027-3	Buprenorphine-3-glucuronide [Presence] in Urine by Screen method
77201-2	Buprenorphine+Norbuprenorphine [Presence] in Saliva (oral fluid) by Confirmatory method
72762-8	Buprenorphine [Mass/volume] in Saliva (oral fluid) by Confirmatory method
53846-2	Buprenorphine [Mass/volume] in Serum or Plasma by Confirmatory method
49752-9	Buprenorphine [Mass/volume] in Urine by Confirmatory method
75367-3	Buprenorphine [Mass/mass] in Meconium by Confirmatory method
79138-4	Buprenorphine [Presence] in Blood by Confirmatory method
77204-6	Buprenorphine [Presence] in Saliva (oral fluid) by Confirmatory method
16208-1	Buprenorphine [Presence] in Urine by Confirmatory method
78811-7	Buprenorphine cutoff [Mass/volume] in Saliva (oral fluid) for Confirmatory method
77764-9	Buprenorphine cutoff [Mass/volume] in Urine for Confirmatory method
89321-4	Buprenorphine-3-glucuronide [Mass/volume] in Serum or Plasma by Confirmatory method

LOINC	
Code	Description
82370-8	Norbuprenorphine [Presence] in Gastric fluid by Screen method
82374-0	Norbuprenorphine [Presence] in Serum or Plasma by Screen method
82371-6	Norbuprenorphine [Presence] in Urine by Screen method
82375-7	Norbuprenorphine [Presence] in Unspecified specimen by Screen method
89305-7	Norbuprenorphine-3-glucuronide [Presence] in Urine by Screen method
72746-1	Norbuprenorphine [Mass/volume] in Saliva (oral fluid) by Confirmatory method
53880-1	Norbuprenorphine [Mass/volume] in Serum or Plasma by Confirmatory method
49751-1	Norbuprenorphine [Mass/volume] in Urine by Confirmatory method
75379-8	Norbuprenorphine [Mass/mass] in Meconium by Confirmatory method
77206-1	Norbuprenorphine [Presence] in Saliva (oral fluid) by Confirmatory method
66131-4	Norbuprenorphine [Presence] in Serum or Plasma by Confirmatory method
58362-5	Norbuprenorphine [Presence] in Urine by Confirmatory method
78866-1	Norbuprenorphine cutoff [Mass/volume] in Saliva (oral fluid) for Confirmatory method
77774-8	Norbuprenorphine cutoff [Mass/volume] in Urine for Confirmatory method
89322-2	Norbuprenorphine-3-glucuronide [Mass/volume] in Serum or Plasma by Confirmatory method
19411-8	Codeine [Presence] in Urine by Screen method
19413-4	Codeine cutoff [Mass/volume] in Urine for Screen method
46262-2	Codeine Free [Presence] in Serum or Plasma by Screen method
89310-7	Codeine-6-glucuronide [Presence] in Urine by Screen method
72759-4	Codeine [Mass/volume] in Saliva (oral fluid) by Confirmatory method
86226-8	Codeine [Mass/volume] in Serum, Plasma or Blood by Confirmatory method
16250-3	Codeine [Mass/volume] in Urine by Confirmatory method
68542-0	Codeine [Mass/mass] in Meconium by Confirmatory method
74675-0	Codeine [Presence] in Saliva (oral fluid) by Confirmatory method
16197-6	Codeine [Presence] in Urine by Confirmatory method
13641-6	Codeine [Presence] in Urine by SAMHSA confirm method
70206-8	Codeine [Moles/volume] in Urine by Confirmatory method
77767-2	Codeine cutoff [Mass/volume] in Saliva (oral fluid) for Confirmatory method
19414-2	Codeine cutoff [Mass/volume] in Urine for Confirmatory method
16644-7	Codeine Free [Presence] in Serum or Plasma by Confirmatory method
19439-9	Diamorphine [Presence] in Urine by Screen method
19441-5	Diamorphine cutoff [Mass/volume] in Urine for Screen method
16756-9	Diamorphine [Mass/volume] in Serum or Plasma by Confirmatory method
16755-1	Diamorphine [Mass/volume] in Urine by Confirmatory method
16198-4	Diamorphine [Presence] in Urine by Confirmatory method
19442-3	Diamorphine cutoff [Mass/volume] in Urine for Confirmatory method
46257-2	Dihydrocodeine+Hydrocodol [Presence] in Serum or Plasma by Screen method
19446-4	Dihydrocodeine [Presence] in Urine by Screen method
19450-6	Dihydrocodeine cutoff [Mass/volume] in Urine for Screen method
46704-3	Dihydrocodeine Free+Hydrocodol Free [Mass/volume] in Serum or Plasma by Screen method

LOINC	
Code	Description
46703-5	Dihydrocodeine Free+Hydrocodol Free [Presence] in Serum or Plasma by Screen method
74811-1	Dihydrocodeine [Mass/volume] in Saliva (oral fluid) by Confirmatory method
86227-6	Dihydrocodeine [Mass/volume] in Serum, Plasma or Blood by Confirmatory method
19448-0	Dihydrocodeine [Mass/volume] in Urine by Confirmatory method
16211-5	Dihydrocodeine [Presence] in Urine by Confirmatory method
19451-4	Dihydrocodeine cutoff [Mass/volume] in Urine for Confirmatory method
16775-9	Dihydrocodeine Free [Presence] in Serum or Plasma by Confirmatory method
15401-3	Drugs identified in Blood by Screen method
34601-5	Drugs identified in Body fluid
12287-9	Drugs identified in Gastric fluid by Screen method
27034-8	Drugs identified in Hair by Screen method
64126-6	Drugs identified in Meconium by Confirmatory method
32797-3	Drugs identified in Meconium by Screen method
42326-9	Drugs identified in Mother's milk by Screen method
20785-2	Drugs identified in Serum or Plasma by Screen method
27208-8	Drugs identified in Stool by Screen method
20786-0	Drugs identified in Tissue by Screen method
16793-2	Drugs identified in Unknown substance by Screen method
41270-0	Drugs identified in Urine
40464-0	Drugs identified in Urine by Confirmatory method
12286-1	Drugs identified in Urine by Screen method
12289-5	Drugs identified in Vitreous fluid by Screen method
40585-2	Drugs identified in Unspecified specimen by Confirmatory method
20787-8	Drugs identified in Unspecified specimen by Screen method
51782-1	Drugs of abuse 7 and Alcohol and Tricyclics panel - Urine by Screen method
24349-3	Drugs of abuse 5 panel - Urine
65750-2	Drugs of abuse 5 panel - Urine by Screen method
72479-9	Drugs of abuse panel - Blood by Screen method
91054-7	Drugs of abuse panel - Body fluid
91056-2	Drugs of abuse panel - Hair
49046-6	Drugs of abuse panel - Meconium
91055-4	Drugs of abuse panel - Tissue
69739-1	Drugs of abuse panel - Urine by Screen method
87428-9	Drugs of abuse screen W Reflex confirm panel - Urine
58738-6	Drugs of abuse [Interpretation] in Meconium
58379-9	Fentanyl+Norfentanyl [Presence] in Urine by Screen method
73936-7	Fentanyl [Presence] in Blood by Screen method
87815-7	Fentanyl [Presence] in Saliva (oral fluid) by Screen method
59673-4	Fentanyl [Presence] in Urine by Screen method
79260-6	Fentanyl cutoff [Mass/volume] in Urine for Screen method

LOINC	
Code	Description
66130-6	Fentanyl+Norfentanyl [Presence] in Serum or Plasma by Confirmatory method
66129-8	Fentanyl+Norfentanyl [Presence] in Urine by Confirmatory method
74810-3	Acetyl fentanyl [Presence] in Urine by Confirmatory method
73938-3	Fentanyl [Mass/volume] in Blood by Confirmatory method
72760-2	Fentanyl [Mass/volume] in Saliva (oral fluid) by Confirmatory method
74136-3	Fentanyl [Mass/volume] in Serum, Plasma or Blood by Confirmatory method
58381-5	Fentanyl [Mass/volume] in Urine by Confirmatory method
40839-3	Fentanyl [Presence] in Urine by Confirmatory method
78827-3	Fentanyl cutoff [Mass/volume] in Saliva (oral fluid) for Confirmatory method
79259-8	Fentanyl cutoff [Mass/volume] in Urine for Confirmatory method
66129-8	Fentanyl+Norfentanyl [Presence] in Urine by Confirmatory method
86223-5	Acetyl norfentanyl [Mass/volume] in Serum, Plasma or Blood by Confirmatory method
73937-5	Norfentanyl [Mass/volume] in Blood by Confirmatory method
72745-3	Norfentanyl [Mass/volume] in Saliva (oral fluid) by Confirmatory method
74137-1	Norfentanyl [Mass/volume] in Serum, Plasma or Blood by Confirmatory method
58383-1	Norfentanyl [Mass/volume] in Urine by Confirmatory method
43200-5	Norfentanyl [Presence] in Urine by Confirmatory method
78867-9	Norfentanyl cutoff [Mass/volume] in Saliva (oral fluid) for Confirmatory method
77775-5	Norfentanyl cutoff [Mass/volume] in Urine for Confirmatory method
19482-9	Hydrocodone [Presence] in Urine by Screen method
19484-5	Hydrocodone cutoff [Mass/volume] in Urine for Screen method
74760-0	Hydrocodone and metabolites panel - Urine by Confirmatory method
72753-7	Hydrocodone [Mass/volume] in Saliva (oral fluid) by Confirmatory method
86229-2	Hydrocodone [Mass/volume] in Serum, Plasma or Blood by Confirmatory method
16252-9	Hydrocodone [Mass/volume] in Urine by Confirmatory method
68544-6	Hydrocodone [Mass/mass] in Meconium by Confirmatory method
74644-6	Hydrocodone [Presence] in Saliva (oral fluid) by Confirmatory method
19483-7	Hydrocodone [Presence] in Urine by Confirmatory method
79261-4	Hydrocodone cutoff [Mass/volume] in Saliva (oral fluid) for Confirmatory method
19485-2	Hydrocodone cutoff [Mass/volume] in Urine for Confirmatory method
19486-0	Hydromorphone [Presence] in Urine by Screen method
19487-8	Hydromorphone cutoff [Mass/volume] in Urine for Screen method
46260-6	Hydromorphone Free [Presence] in Serum or Plasma by Screen method
89309-9	Hydromorphone-3-glucuronide [Presence] in Urine by Screen method
72733-9	Hydromorphone [Mass/volume] in Saliva (oral fluid) by Confirmatory method
86230-0	Hydromorphone [Mass/volume] in Serum, Plasma or Blood by Confirmatory method
16998-7	Hydromorphone [Mass/volume] in Urine by Confirmatory method
68541-2	Hydromorphone [Mass/mass] in Meconium by Confirmatory method
74645-3	Hydromorphone [Presence] in Saliva (oral fluid) by Confirmatory method
18473-9	Hydromorphone [Presence] in Urine by Confirmatory method

LOINC	
Code	Description
77770-6	Hydromorphone cutoff [Mass/volume] in Saliva (oral fluid) for Confirmatory method
19488-6	Hydromorphone cutoff [Mass/volume] in Urine for Confirmatory method
46971-8	Hydromorphone Free [Mass/volume] in Urine by Confirmatory method
19516-4	Levorphanol [Presence] in Urine by Screen method
19518-0	Levorphanol cutoff [Mass/volume] in Urine for Screen method
20540-1	Levorphanol [Mass/volume] in Urine by Confirmatory method
16213-1	Levorphanol [Presence] in Urine by Confirmatory method
19519-8	Levorphanol cutoff [Mass/volume] in Urine for Confirmatory method
51984-3	Meperidine+Normeperidine [Presence] in Serum or Plasma by Screen method
58385-6	Meperidine+Normeperidine [Presence] in Urine by Screen method
35617-0	Meperidine [Mass/volume] in Serum or Plasma by Screen method
74108-2	Meperidine [Presence] in Saliva (oral fluid) by Screen method
87497-4	Meperidine [Presence] in Serum, Plasma or Blood by Screen method
19532-1	Meperidine [Presence] in Urine by Screen method
19534-7	Meperidine cutoff [Mass/volume] in Urine for Screen method
72384-1	Meperidine+Normeperidine [Presence] in Urine by Confirmatory method
72749-5	Meperidine [Mass/volume] in Saliva (oral fluid) by Confirmatory method
16253-7	Meperidine [Mass/volume] in Urine by Confirmatory method
16207-3	Meperidine [Presence] in Urine by Confirmatory method
19535-4	Meperidine cutoff [Mass/volume] in Urine for Confirmatory method
91039-8	Methadone+Metabolite [Presence] in Body fluid by Screen method
91046-3	Methadone+Metabolite [Presence] in Hair by Screen method
91030-7	Methadone+Metabolite [Presence] in Meconium by Screen method
91033-1	Methadone+Metabolite [Presence] in Serum, Plasma or Blood by Screen method
91050-5	Methadone+Metabolite [Presence] in Tissue by Screen method
42251-9	Methadone+Metabolite [Presence] in Urine by Screen method
70148-2	Methadone [Presence] in Urine by Screen method >150 ng/mL
70149-0	Methadone [Presence] in Urine by Screen method >300 ng/mL
72734-7	Methadone [Mass/volume] in Saliva (oral fluid) by Screen method
35618-8	Methadone [Mass/volume] in Serum or Plasma by Screen method
70147-4	Methadone [Mass/volume] in Urine by Screen method
72400-5	Methadone [Presence] in Blood by Screen method
72626-5	Methadone [Presence] in Saliva (oral fluid) by Screen method
59705-4	Methadone [Presence] in Serum or Plasma by Screen method
19550-3	Methadone [Presence] in Urine by Screen method
19552-9	Methadone cutoff [Mass/volume] in Urine for Screen method
73661-1	Methadone panel - Saliva (oral fluid) by Screen method
72475-7	Methadone+Metabolite [Presence] in Saliva (oral fluid) by Confirmatory method
45022-1	Methadone+Metabolite [Presence] in Serum or Plasma by Confirmatory method
72388-2	Methadone [Mass/volume] in Saliva (oral fluid) by Confirmatory method

LOINC	
Code	Description
16246-1	Methadone [Mass/volume] in Urine by Confirmatory method
48956-7	Methadone [Mass/volume] in Unspecified specimen by Confirmatory method
72387-4	Methadone [Presence] in Saliva (oral fluid) by Confirmatory method
47411-4	Methadone [Presence] in Serum or Plasma by Confirmatory method
16199-2	Methadone [Presence] in Urine by Confirmatory method
79249-9	Methadone cutoff [Mass/volume] in Saliva (oral fluid) for Confirmatory method
19553-7	Methadone cutoff [Mass/volume] in Urine for Confirmatory method
72476-5	Methadone panel - Saliva (oral fluid) by Confirmatory method
19599-0	Morphine cutoff [Mass/volume] in Urine for Screen method
46259-8	Morphine Free [Presence] in Serum or Plasma by Screen method
19601-4	Morphine Free [Presence] in Urine by Screen method
19603-0	Morphine Free cutoff [Mass/volume] in Urine for Screen method
89308-1	Morphine-6-Glucuronide [Presence] in Urine by Screen method
72752-9	Morphine [Mass/volume] in Saliva (oral fluid) by Confirmatory method
16251-1	Morphine [Mass/volume] in Urine by Confirmatory method
69027-1	Morphine [Mass/mass] in Meconium by Confirmatory method
74654-5	Morphine [Presence] in Saliva (oral fluid) by Confirmatory method
17290-8	Morphine [Presence] in Serum or Plasma by Confirmatory method
16196-8	Morphine [Presence] in Urine by Confirmatory method
13648-1	Morphine [Presence] in Urine by SAMHSA confirm method
70210-0	Morphine [Moles/volume] in Urine by Confirmatory method
77773-0	Morphine cutoff [Mass/volume] in Saliva (oral fluid) for Confirmatory method
19600-6	Morphine cutoff [Mass/volume] in Urine for Confirmatory method
20550-0	Morphine Free [Mass/volume] in Urine by Confirmatory method
19602-2	Morphine Free [Presence] in Urine by Confirmatory method
19604-8	Morphine Free cutoff [Mass/volume] in Urine for Confirmatory method
91039-8	Methadone+Metabolite [Presence] in Body fluid by Screen method
91046-3	Methadone+Metabolite [Presence] in Hair by Screen method
91030-7	Methadone+Metabolite [Presence] in Meconium by Screen method
91033-1	Methadone+Metabolite [Presence] in Serum, Plasma or Blood by Screen method
91050-5	Methadone+Metabolite [Presence] in Tissue by Screen method
42251-9	Methadone+Metabolite [Presence] in Urine by Screen method
70148-2	Methadone [Presence] in Urine by Screen method >150 ng/mL
70149-0	Methadone [Presence] in Urine by Screen method >300 ng/mL
72734-7	Methadone [Mass/volume] in Saliva (oral fluid) by Screen method
35618-8	Methadone [Mass/volume] in Serum or Plasma by Screen method
70147-4	Methadone [Mass/volume] in Urine by Screen method
72400-5	Methadone [Presence] in Blood by Screen method
72626-5	Methadone [Presence] in Saliva (oral fluid) by Screen method
59705-4	Methadone [Presence] in Serum or Plasma by Screen method

LOINC	
Code	Description
19550-3	Methadone [Presence] in Urine by Screen method
19552-9	Methadone cutoff [Mass/volume] in Urine for Screen method
73661-1	Methadone panel - Saliva (oral fluid) by Screen method
72475-7	Methadone+Metabolite [Presence] in Saliva (oral fluid) by Confirmatory method
45022-1	Methadone+Metabolite [Presence] in Serum or Plasma by Confirmatory method
72388-2	Methadone [Mass/volume] in Saliva (oral fluid) by Confirmatory method
16246-1	Methadone [Mass/volume] in Urine by Confirmatory method
48956-7	Methadone [Mass/volume] in Unspecified specimen by Confirmatory method
72387-4	Methadone [Presence] in Saliva (oral fluid) by Confirmatory method
47411-4	Methadone [Presence] in Serum or Plasma by Confirmatory method
16199-2	Methadone [Presence] in Urine by Confirmatory method
79249-9	Methadone cutoff [Mass/volume] in Saliva (oral fluid) for Confirmatory method
19553-7	Methadone cutoff [Mass/volume] in Urine for Confirmatory method
72476-5	Methadone panel - Saliva (oral fluid) by Confirmatory method
72730-5	Mitragynine/Creatinine [Mass Ratio] in Urine
75649-4	Mitragynine+7-Hydroxymitragynine [Presence] in Urine by Confirmatory method
72732-1	Mitragynine [Mass/volume] in Urine by Confirmatory method
73995-3	Mitragynine [Presence] in Urine by Confirmatory method
19597-4	Morphine [Presence] in Urine by Screen method
42618-9	Naloxone [Presence] in Urine by Screen method
89307-3	Naloxone-3-glucuronide [Presence] in Urine by Screen method
87807-4	Naloxone [Mass/volume] in Saliva (oral fluid) by Confirmatory method
77207-9	Naloxone [Mass/volume] in Urine by Confirmatory method
78864-6	Naloxone cutoff [Mass/volume] in Urine for Confirmatory method
87822-3	Naltrexone [Presence] in Saliva (oral fluid) by Screen method
19609-7	Naltrexone [Presence] in Urine by Screen method
19612-1	Naltrexone cutoff [Mass/volume] in Urine for Screen method
87823-1	Naltrexone [Mass/volume] in Saliva (oral fluid) by Confirmatory method
19610-5	Naltrexone [Mass/volume] in Urine by Confirmatory method
18334-3	Naltrexone [Presence] in Urine by Confirmatory method
19613-9	Naltrexone cutoff [Mass/volume] in Urine for Confirmatory method
31088-8	Narcotics and opioids [Identifier] in Bile fluid
29376-1	Narcotics and opioids [Identifier] in Blood
29377-9	Narcotics and opioids [Identifier] in Gastric fluid
12554-2	Narcotics and opioids [Identifier] in Urine
21431-2	Opiates [Presence] in Urine by Screen method >2000 ng/mL
70151-6	Opiates [Presence] in Urine by Screen method >300 ng/mL
74167-8	Opiates [Mass/volume] in Saliva (oral fluid) by Screen method
70150-8	Opiates [Mass/volume] in Urine by Screen method
26744-3	Opiates [Mass/mass] in Meconium by Screen method

LOINC	
Code	Description
51691-4	Opiates [Presence] in Blood by Screen method
91043-0	Opiates [Presence] in Body fluid by Screen method
8212-3	Opiates [Presence] in Gastric fluid by Screen method
40805-4	Opiates [Presence] in Hair by Screen method
8216-4	Opiates [Presence] in Meconium by Screen method
40806-2	Opiates [Presence] in Saliva (oral fluid) by Screen method
8219-8	Opiates [Presence] in Serum or Plasma by Screen method
91052-1	Opiates [Presence] in Tissue by Screen method
8226-3	Opiates [Presence] in Unknown substance by Screen method
8222-2	Opiates [Presence] in Urine by SAMHSA screen method
19295-5	Opiates [Presence] in Urine by Screen method
19299-7	Opiates cutoff [Mass/volume] in Urine for Screen method
19297-1	Opiates tested for in Urine by Screen method Narrative
19296-3	Opiates tested for in Urine by Screen method Nominal
17384-9	Opiates [Mass/volume] in Urine by Confirmatory method
8211-5	Opiates [Presence] in Gastric fluid by Confirmatory method
8215-6	Opiates [Presence] in Meconium by Confirmatory method
74656-0	Opiates [Presence] in Saliva (oral fluid) by Confirmatory method
8218-0	Opiates [Presence] in Serum or Plasma by Confirmatory method
8225-5	Opiates [Presence] in Unknown substance by Confirmatory method
18390-5	Opiates [Presence] in Urine by Confirmatory method
8221-4	Opiates [Presence] in Urine by SAMHSA confirm method
19300-3	Opiates cutoff [Mass/volume] in Urine for Confirmatory method
50620-4	Opiates cutoff [Mass/mass] in Meconium for Confirmatory method
69026-3	Opiates panel - Meconium by Confirmatory method
19298-9	Opiates positive [Identifier] in Urine by Confirmatory method
19642-8	Oxycodone [Presence] in Urine by Screen method
19644-4	Oxycodone cutoff [Mass/volume] in Urine for Screen method
19646-9	Oxymorphone [Presence] in Urine by Screen method
19649-3	Oxymorphone cutoff [Mass/volume] in Urine for Screen method
46256-4	Oxycodone Free [Presence] in Serum or Plasma by Screen method
46258-0	Oxymorphone Free [Presence] in Serum or Plasma by Screen method
50021-5	Oxycodone [Mass/volume] in Serum, Plasma or Blood by Screen method
58430-0	Oxycodone+Oxymorphone [Presence] in Urine by Screen method
60276-3	Oxycodone+Oxymorphone cutoff [Mass/volume] in Urine for Screen method
60276-3	Oxycodone+Oxymorphone cutoff [Mass/volume] in Urine for Screen method
69356-4	Oxycodone [Presence] in Saliva (oral fluid) by Screen method
71430-3	Oxycodone+Oxymorphone [Presence] in Saliva (oral fluid) by Screen method
72402-1	Oxycodone [Presence] in Blood by Screen method
72751-1	Oxycodone [Mass/volume] in Saliva (oral fluid) by Screen method

LOINC	
Code	Description
73996-1	Oxycodone [Presence] in Meconium by Screen method
77732-6	Oxycodone+Oxymorphone [Presence] in Serum, Plasma or Blood by Screen method
89301-6	Oxymorphone-3-glucuronide [Presence] in Urine by Screen method
91032-3	Oxycodone+Oxymorphone [Presence] in Meconium by Screen method
91044-8	Oxycodone+Oxymorphone [Presence] in Body fluid by Screen method
91053-9	Oxycodone+Oxymorphone [Presence] in Tissue by Screen method
16249-5	Oxycodone [Mass/volume] in Urine by Confirmatory method
17395-5	Oxymorphone [Mass/volume] in Urine by Confirmatory method
18325-1	Oxymorphone [Presence] in Urine by Confirmatory method
19643-6	Oxycodone [Presence] in Urine by Confirmatory method
19645-1	Oxycodone cutoff [Mass/volume] in Urine for Confirmatory method
19650-1	Oxymorphone cutoff [Mass/volume] in Urine for Confirmatory method
46973-4	Oxycodone Free [Mass/volume] in Urine by Confirmatory method
46974-2	Oxymorphone Free [Mass/volume] in Serum or Plasma by Confirmatory method
46975-9	Oxymorphone Free [Mass/volume] in Urine by Confirmatory method
61197-0	Oxycodone+Oxymorphone [Presence] in Urine by Confirmatory method
68543-8	Oxycodone [Mass/mass] in Meconium by Confirmatory method
69028-9	Oxymorphone [Mass/mass] in Meconium by Confirmatory method
70215-9	Oxycodone [Moles/volume] in Urine by Confirmatory method
72750-3	Oxycodone [Mass/volume] in Saliva (oral fluid) by Confirmatory method
72766-9	Oxymorphone [Mass/volume] in Saliva (oral fluid) by Confirmatory method
74657-8	Oxycodone [Presence] in Saliva (oral fluid) by Confirmatory method
74658-6	Oxycodone+Oxymorphone [Presence] in Saliva (oral fluid) by Confirmatory method
74658-6	Oxycodone+Oxymorphone [Presence] in Saliva (oral fluid) by Confirmatory method
74659-4	Oxymorphone [Presence] in Saliva (oral fluid) by Confirmatory method
77729-2	Oxymorphone [Mass/volume] in Serum, Plasma or Blood by Confirmatory method
77730-0	Oxycodone [Mass/volume] in Serum, Plasma or Blood by Confirmatory method
	Oxycodone+Oxymorphone [Interpretation] in Serum, Plasma or Blood Qualitative by Confirmatory
77731-8	method
77780-5	Oxymorphone cutoff [Mass/volume] in Saliva (oral fluid) for Confirmatory method
79255-6	Oxycodone cutoff [Mass/volume] in Saliva (oral fluid) for Confirmatory method
72740-4	traMADol [Mass/volume] in Saliva (oral fluid) by Confirmatory method
20561-7	traMADol [Mass/volume] in Urine by Confirmatory method
93720-1	traMADol [Mass/mass] in Meconium by Confirmatory method
79147-5	traMADol [Presence] in Blood by Confirmatory method
17718-8	traMADol [Presence] in Urine by Confirmatory method
19713-7	traMADol cutoff [Mass/volume] in Urine for Confirmatory method
72747-9	N-nortramadol [Mass/volume] in Saliva (oral fluid) by Confirmatory method
92904-2	N-nortramadol [Mass/volume] in Urine by Confirmatory method
93722-7	N-nortramadol [Mass/mass] in Meconium by Confirmatory method

LOINC	
Code	Description
87760-5	N-nortramadol/Creatinine [Mass Ratio] in Urine by Confirmatory method
72741-2	Nortramadol [Mass/volume] in Saliva (oral fluid) by Confirmatory method
18340-0	Nortramadol [Mass/volume] in Serum or Plasma by Confirmatory method
18339-2	Nortramadol [Presence] in Serum or Plasma by Confirmatory method
90750-1	O-nortramadol [Mass/volume] in Saliva (oral fluid) by Confirmatory method
82974-7	O-nortramadol [Mass/volume] in Serum, Plasma or Blood by Confirmatory method
92639-4	O-nortramadol [Mass/volume] in Urine by Confirmatory method
93721-9	O-nortramadol [Mass/mass] in Meconium by Confirmatory method
79148-3	traMADol [Presence] in Blood by Screen method
93719-3	traMADol [Presence] in Meconium by Screen method
74110-8	traMADol [Presence] in Saliva (oral fluid) by Screen method
19710-3	traMADol [Presence] in Urine by Screen method
19712-9	traMADol cutoff [Mass/volume] in Urine for Screen method

## Appendix VI: Opioid-Involved Search Terms

Search Term
Astramorph
De-Chlor G
De-Chlor Nx
Duragesic
Florinal With Codiene
Flowtuss
Hycofenix
Hydro Gp
Hydro-Pc Ii
Ну-Кхр
Hysingla
Kgs Hc
6-MAM
Abstral
Lortuss Ex
Maxifed G-Cd
M-End Pe
Mytussin Ac
Nalocet
Acetlyfentanyl
Acetylfentanyl
Acetylmorphine
Prolex Dh
P-V-Tussin
Relcof C
Actiq
Rms
Adanon
Statuss Green
Allay
Troxyca
Vantrela Ventuss
Amadol
Amidone
Amtussin
Zodryl Ac
Zodryl Dec
Zotex C
Anexsia

Search Term
0Xycontin
•
Apomorphine Avinza
Abstral
Accetylmorphine
Azdone
Acetomorphine
Acetyfentanyl
Acetyl And Fen
Acetylefentanyl
Acetylfental
Acetylfentanly
Bancap
Acetylfentnyl
Acetylfetanyl
Acetylfontanyl N Phenethyl Piperidyl Ace
Buprenorphine
Acryifentanyl
Acrylfentanyl
Butorphanol
Butrans
Alfenta
Alfentanil
Butyrfentanyl
Carfentanil
Cliradon
Codamine
Andhydrocone
Andmorphine
Codeine
Aniline N Phenythylpiperidine
Anilino N Phenethyipiperidine
Anilino N Phenethylpipendine
Anilino N Phenethylpiperdine
Anilino N Phenethylpiperidine
Anilino Phenethypiperidine
Anilio N Phenethylpiperidine
Anilo N Phenethylpiperidine
Animalgesics
Anpp
Codotuss

Search Term
Arymo
Ascomp
Avanzia
Codoxy
Avinza
Axycodone
Combunox
Condasin
Barenorphine
Belbuca
Bentanyl
Beprenorphine
Biotussin
Biprenorphine
Boprenorphine
Boxycodone
Bprenorphine
Bromplex Hd
Brontex
Brovex Cb
B-Tuss
Bunaveil
Buoenorphine
Buorenorphine
Bupenorphine
Bupernorphine
Buphenophine
Buphenorphine
Buphrenophine
Buphrenorphine
Bupranorphine
Buprehorphine
Bupremorphine
Bupren
Buprendorphine
Buprendrphine
Buprenex
Buprenez
Buprenmorphine
Buprennophine
Buprennorphine

Search Term
Buprenomorphine
Buprenoorphine
Buprenopheine
Buprenophine
Buprenophone
Buprenophrine
Buprenorhine
Buprenorophine
Buprenorphene
Buprenorphin
Conzip
•
Buprenorphinem
Buprenorphione
Buprenorphne
Buprenorphone
Buprenorphrine
Buprenorpine
Buprenorpnine
Buprenorpohine
Buprenosphine
Buprentrphie
Buprenx
Bupreonorphine
Bupreorphine
Buprernorphine
Buproenorphine
Bupronephrine
Bupronorphine
Buproprenorphine
Buptenorphine
Burenorphine
Burpenorphine
Burprennorphine
Burprenorphine
Coughtuss
Butorphinal
Butran
Cymidon
Darvocet
Butyrylfentanul
Butyrylfentanyl

Search Term
Buuprenorphine
Capital And Codeine
Carentanil
Carfordal
Carfentail
Carfentani
Darvon
Carfentanili
Carfentaniltoxicity
Carfentantanil
Carfentanyl
Carfentenil
Carfentil
Carfentinal
Carfentinil
Carrentanil
Cartentanil
Carvocet
Cassipa
Cd
Ceboxin
Cheracol With Codeine
Cheratussin
Cheratussin Dac
Chydromorphone
Ciboxin
Dazidox
Cocdeine
Codaien
Demerol
Codar Ar
Codar D
Codar Gf
Codein
Desmethyltramadol
Codeinepromethazine
Codeinone
Codeline
Codene
Codenine
Codetine

Search Term
Codien
Codiene
Codine
Codone
Despropionylfentanyl
Detuss
Coedine
Detussin
Dextromoramide
Dextropropoxyphene
Diacetylmorphine
Coxycodone
Coycodone
Cxycodone
Diamorphine
Darvacet
Dihydrocodeine
Dihydromorphinone
Dilaudid
Deceasedaccidentlyingestedtoxicamountsofdrugsmethadone
De-Chlor Hc
De-Chlor Mr
Dehydrocodeine
Delaudid
Dementiamorphine
Demeral
Dimorlin
Demerol
Demethyltramadol
Demoral
DepropionIfentanyl
Depropionylfentanyl
Desmethylpropxyph
Diskets
Desmethyltramamol
Despropionyfentanyl
Dolacet
Desproprionylfentanyl
Dolagesic
Dolene
Dextro Levo Methoprhan

Coard Tarre
Search Term
Dextro Levo Methorophan
Dextro Levo Methrorphan
Dextro Levo Metrhorphan
Dextrol Levomethorphine
Dextrolevomethorphan
Dolophine
Dextroplavometharphan
Dope
Diacetyl Morphine
Duocet
Diacetylmprhine
Dialandid
Dialudid
Duradyne
Diamorphine
Diaudid
Dichloro N Dimethylamino Cyclohexyl N Methylbenzamide
Dichloro N Dimithylamino Cyclohexy N Methylbenzamide
Didaudid
Dihdrocodeine
Dihidrocodeine
Dihydocodeine
Dihydracodiene
Dihydrocdeine
Dihydrocdenine
Dihydrocodceine
Dihydrocoddeine
Dihydrocodeen
Dihydrocodei
Dihydrocodein
Duragesic
Dihydrocodeinehydrocodol
Dihydrocodeinone
Dihydrocodeline
Dihydrocodetnone
Dihydrocodiene
Dihydrocodienone
Dihydrocodine
Dihydrocodoeine
Dihydrocodone
Eddp

Search Term
Dihyrocodeine
Diladid
Dilandid
Dilaudad
Dilauded
Endocet
Dilaudid
Dilaudid Cough
Dilautid
Endocodone
Dimorphine
Endodan
Diskets
Diskits
Dlhydrocodeine
Doedine
Entuss
Exalgo
Excof
Dolophin
Execlear
Dolophine
Execof
Dramadol
Drugdextrorphanlevorphanol
Drugheroin
Drughydrocodone
Drughydromorphone
Drugmorphine
Drugtramadol
Duefenanyl
Duladid
Fentanyl
Fentora
Fluorisobutyrylfentanyl
Durahesic
Duramorph
Duranylfentanyl
Durgesic
Durogesic
Dydrocodone

Search Term
Dyhydrocodeine
Ed Dp
Fluorobutylfentanyl
Embeda
Fortral
Endocet
Furanylfentanyl
Hdyrocodone
Endone
Heroin
Ethylidene Dimethyl Di
Ethylidene Dimethyl Diphenylpyrrolidine
Ethylidine Dimethyl Diphenylpyraolidine
Euprenophine
Evzio
Hexatussin
Hycet
Hycoclear
Hycodan
Exicodone
Exycodone
Exycodonean
Exylodone
F Bf
F Entanyl
Fantanil
Fantanyl
Febtanyl
Fedntanyl
Fenanyl
Fenatanyl
Fenatnyl
Fenenayl
Fenenyl
Fenhanyl
Fennatyl
Fenpanyl
Fenranyl
Fenrtanyl
Fent
Fentaanyl

Search Term
Fentabyl
·
Fentaly Fentaly
Fentaly
Fentalyl
Fentalyn
Fentamyl
Fentanal
Fentanayl
Fentanie
Fentanil
Fentanl
Fentanly
Fentanol
Fentanoly
Fentanoyl
Fentantl
Fentantyl
Fentanul
Fentany
Fentanyal
Hycomed
Fentanylamended
Fentanylanalog
Fentanyland
Fentanylc
Fentanyle
Fentanylintoxication
Fentanyltoxicity
Fentanytl
Fentariyl
Fentary
Fentaryl
Fentatnyl
Fentayl
Fentaylic
Fentaynl
Fentenyl
Fentingl
Fentinyl
Fentnanyl
Fentnayl

Search Term
Fentnyl
Fentonal
Fentonol
Fentonyl
Hycomine
Fentora
Fentyal
Fentyl
Fentynal
Fentynol
Fenyanyl
Fenyl
Fertany
Fetaanyl
Fetanyl
Fetnyl
Feutanyl
Fibf
Floricet With Codiene
Fluorisobutyrlfentanyl
Hycophen
Hydrocet
Fluorobutyrfentanyl
Fluorofentanyl
Fluoroisobutryrlfentanyl
Fluoroisobutyrfentanyl
Fluoroisobutyrylfentanyl
Flurisobutyrylfentanyl
Flurodentanyl
Flurofentanyl
Fluroisobutyrylfentanyl
Flurorofentanyl
Fntanyl
Fontanyl
Hydrocodone
Framadol
Frntanyl
Furanulfentanyl
Furanyfentanyl
Furanyifentanyl
Furanylfantanyl

Search Term
Furanylfentantl
Hydrofed
Furanylfentanylm
Furanyltentanyal
Furanyltentanyl
Furaylfentany
Furaylfentanyl
Furfanylfentanyl
Fusepaq Synapryn
Gevilan
Guiatuss Ac
Gydrocodone
Hdrocodone
Hydrogesic
Heriion
Herin
Herioin
Herion
Herione
Heroid
Heroiin
Heroijn
Heroim
Hydromet
Heroina
Heroinamended
Heroinand
Heroine
Heroingabapentin
Heroinopiate
Heroinself
Herointoxicity
Heroion
Heron
Heronie
Herrion
Herroin
Hydromide
Hheroin
Highromorphone
Hiomethedone

Search Term
Hodrocodone
Hudrocodone
Hudromorphone
Hy Drocodone
Hy Phen
Hybrocome
Hybroxycodone
Hydromorphinol
Hycet
Hydromorphone
Hydropane
Hydrotropine
Hydrotuss
Hypamine
Hycrocodone
Hycromorphone
Hydarcod Ne
Hyddromorphone
Hydfocodone
Hydiocodol
Hydocodone
Hydomorphone
Hydorcodone
Hydormorphone
Hydr Codone
Hydra Morphine
Hydracodone
Hydramorphone
Hydrcodone
Hydrcpdone
Hydrmorphone
Hydro Codone
Hydro Morphine
Hydro Morphone
Hydrocadone
Hydrocaodone
Hydrocdone
Hydrocedone
Hypercodone
Hydroco Done
Hydrococdone

Search Term
Hydrococne
Hydrococone
Hydrocod
Hydrocodal
Hydrocode
Hydrocodeine
Hydrocoden
Hydrocodene
Hydrocodeone
Hydrocodiene
Hydrocodine
Hydrocodne
Hydrocodo
Hydrocodoen
Hydrocodoine
Hydrocodol
Hydrocodole
Hydrocodon
Hydrocodonc
Hyphed
Hydrocodoneamended
Hydrocodoneand
Hydrocodonedetect
Hydrocodonedihydrocodeine
Hydrocodonefree
Hydrocodoneother
Hydrocodonoe
Hydrocodonr
Hydrocoldol
Hydroconde
Hydrocondone
Hydrocone
Hydrocordone
Hydrodocodone
Hydrodocone
Hydrododone
Hydrodone
Hytan
Hytussin
Hydrogodone
Hydromarphone

Search Term
Hydromerphone
Ibudone
Hydromet
Jetrium
Hydrommorphone
Hydromophine
Hydromophone
Hydromoprhone
Hydromor
Hydromorhine
Hydromorhone
Hydromorhpine
Hydromorph
Hydromorphane
Hydromorphene
Hydromorphine
Kadian
Hydromorpho
Hydromorphon
Ketobemidone
Hydromorpine
Hydromorpone
Hydromothore
Hydromprohone
Hydromprphone
Hydromrophone
Hydron Cp
Hydron Ex
Hydron Kgs
Hydroomorphone
Ketogan
Hydrophone
Hydropmorphone
Ketorax
Kratom
Hydrovodone
Hydroxocone
Hydroxycodone
Hydroxymorphone
Hyfrocodone
Hynocodone

Search Term Hyodocodol
Hyodrocode
Hyodrocodone
Kwelcof
Hypdrocodene
Hypdrocodone
Lazanda
Levo Dromoran
Hyprocodone
Hypromorphone
Hyrdocodone
Hyrdomorphone
Hyrdrocodine
Hyrdrocodoe
Hyrdrocodone
Hyrdromorphone
Hyrocodone
Hyrododone
Hyrodone
Hyromorphone
Levomethadyl
Levomethorphan
Levorphanol
Ibuprenorphine
Infumorph
Intoxicationfentanyl
Intoxicationheroin
Intoxicationhydrocodone
Intoxicationmorphine
Intoxicationoxycodone
Intoxicationtramodol
lonsys
lorphine
loxycodone
Liquicet
Lorcet
Kadian
Lortab
Ketodur
Margesic H
Ketogen

Search Term
Maxidone
Medcodin
Kraton
Kudian
Meperidine
Kydrocodone
Leroin
Methadone
Levodromoran
Levo-Dromoran
Levomethadil
Methadose
Levomethorpan
Methopholine
Levophanol
Levorphan
Levorphanal
Methorphan
Levorphenal
Levorphenol
Levorphinal
Levorphinol
Methylfentanyl
Lor Tab
Loratab
Metopon
Loricet
Loritab
Lortan
Lydrocodone
Magnacet
Mar-Cof Bp
Mar-Cof Cg
Mitragynine
Margesich
Mathadone
Monoacetylmorphine
Maxifed Cd
Maxiphen Cdx
Mc Contin
M-Clear Wc

Search Term
Meathadone
Morphine
Medperidine
Mehadone
Mehtdone
Mehtdone
M-End Max D
Meperdine
Meperedine
Morphine Diacetate
Meperitab
Merperidine
Merthadone
Metadona
Metadone
Metahadone
Metahdone
Metehadone
Metha Done
Methaadone
Methadaone
Methadine
Methado
Methadoen
Methadome
Methadon
Methadona
Morzet
Methadone Intensol
Methadoneamended
Methadoneand
Methadoneoxycodonehydrocodonediazepam
Ms Contin
Methadose
Methandone
Methaodne
Methaodone
Methaone
Methasone
Methdadone
Methdaone

Search Term
Methdone
Methedone
Methodone Nathodone
Methodadone
Methodine
Methodone
Methophan
Nalbuphine
Methorpan
Methorph
Nalorphine
Methorphinan
Methorpinan
Methrophan
Methyfentanyl
Naloxone
Naltrexone
Metorphan
Metragynin
Mglmorphine
Mgltramadol
Mirtagynine
Mirtragynine
Mitigo
Mitragyine
Mitragyna
Mitragynal
Narcan
Mitragynne
Mixedhydrocodone
Mmethadone
Mnorphine
Moephine
Monacetylmorphine
Monacteylmorphine
Monoacelylmorphine
Monoacelytmorphine
Monoacetlymorphine
Monoacetyl
Monoacetylmo
Narceine

Search Term
Monoacetylmorphoine
Monoacetylmorphone
Monoacetylmorphine
Monoacetymorphine
Monoacteylmorphine
Monoactylmorphine
Monoactymorphine
Monocaetylmorphine
Monocetylmorphine
Mophine
Moprhine
Moraphine
Morephin
Morhine
Morhpine
Morhpne Sulfate
Morohine
Morophine
Morphabond
Morphabond Er
Morpheen
Morpheme
Morphene
Morphhine
Morphi
Morphia
Morphiine
Morphin
Narcof
Narcotic
Morphineand
Morphinediacetate
Morphinedrug
Morphinem
Morphinetethanol
Morphinetoxicity
Morphinone
Morphione
Morphne
Morphoine
Morphon

Search Term
Morphone
Morphrine
Morpine
Morrphine
Mortphine
Narcotics
Mrophine
Mrphine
Narvox
Ms Contin
Ms Cotin
Ms Coutin
Mscontin
Mt Cyclohexy Diphenylethyl Piperazine
Mt Cyclohexyl Diphenylethyl Piperazine
Mthadone
Mxymorphone
Mydrocodone
N Phenethy Piper Idyl Acetanilide
N Phenethy Piperidy Acetanilide
N Phenethyl Piper Idyl Acetanilide
N Phenethyl Piperdyl Acetanilide
N Phenethyl Piperidine
N Phenyl Phenylethyl Piperidin Amine
Nalbuphin
Nasatuss
Nalex Ac
Nicomorphine
Norbuprenorphine
Norcet
Norco
Norfentanyl
Norhydrocodone
Normeperidine
Noroxycodone
Nariz Hc
Norpropoxyphene
Nortapentadol
Nazarin Hc
Nerion
Nethadone

Search Term
Neubain
Nicomorpheen
Nicomorphene
Notuss
Ninjacof Xg
Nmethadone
Noafentanyl
Nonbupronorphine
Nopropoxyphene
Norboprenorphine
Norbupenorphine
Norbuphrenorphrine
Norbuprennorphine
Norbuprenopine
Norbuprenorphin E
Novasus
Norbuprenorphire
Norbuprenorphone
Norbuprenorpine
Norbuprenorpohine
Norburenorphine
Norburpenorphine
Norburprenorphine
Nubain
Norcodeine
Norentanyl
Norfentanly
Nucynta
Norfetanyl
Norhydrocodeine
Oncet
Onsolis
Normorperdine
Noroxycod
Noroxycodene
Noroxycodo
Opana
Norphentanyl
Norporpoxyphene
Norpropoxhine
Norpropoxphene

Search Term
Norpropoxyp
Norpropoxypene
Opiate
Norpropyyphene
Norproxyphene
Nortamadol
Opiates
Nortramado
Nortramadol
Nortramodol
Notramadol
Opioid
Opium
Nropropoxyphene
Orlaam
Nubane
Nucinta
Nucofed
Oxanest
Numorphan
Nuphemorphine
Nydrocodone
O Desmethltramadol
O Desmethyltramaodol
O Desmethyltramodol
O Desmethytramad
Obredon
Ocycodone
Ocycontin
Ocymorphone
Ofheroin
Ofmorphine
Ofnortramadol
Oftramadol
Oipate
Omymorphone
Oxecta
Oxinorm
Onycontin
Oxycet
Opana

Search Term
Opana Er
Opate
Opeoid
Opi Id
Opiaate
Opiad
Opiae
Opiale
Opiat
Opiatae
Oxycodone
Opiated
Oxycontin
Opiatte
Opid
Opieat
Opieate
Opiiod
Opinte
Opiod
Opiode
Oxyfast
Opioide
Opiold
Opionid
Opiote
Opitae
Opitate
Opite
Opitte
Oxygesic
Opizter
Oplate
Oplated
Oplod
Oploid
Oplote
Opoid
Opoiod
Optiate
Oramorph Sr

Search Term
Oxyir
Orphine
Orycodone
Orymorphial
Orymorphone
Overdoseopiate
Overdoseoxycodone
Oxymorphone
Oxaydo
Oxcodone
Oxcoycodone
Oxcycodene
Oxcycodone
Oxdycodone
Oxynorm
Oxhycodone
Oxicodo
Oxicodone
Oxicontin
Oxidone
Oximorphone
Palfium
Oxmorephone
Oxmorphone
Oxmymorphone
Oxocodone
Oxomorphone
Oxtcodone
Oxumorphone
Oxxycodone
Oxy Codone
Oxy Contin
Oxy Morphine
Oxycdone
Oxycedone
Palphium
Oxycicodine
Oxycmorphone
Охусо
Oxycoatin
Oxycocdine

Search Term
Oxycocet
Oxycococodone
Oxycocodone
Oxycocon
Oxycocone
Oxycode Oxycodeine
Oxycoden
Oxycodene
Oxycodiene
Oxycodine
Oxycodione
Oxycodne
Oxycodo
Oxycododone
Oxycodoe
Oxycodoen
Oxycodoine
Oxycodol
Oxycodome
Oxycodon
Oxycodonbe
Panacet
Oxycodoneamended
Oxycodonem
Oxycodonemorphine
Oxycodonetramadol
Oxycodonetrazodone
Oxycodonic
Oxycodonne
Oxycodono
Oxycodore
Oxyconde
Oxycondine
Oxycondone
Oxyconone
Oxycontine
Oxyconting
Oxycontinin
Oxycontion
Oxycortin

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Search Term
Oxycotin
Oxycotine
Oxycotten
Oxycotton
Oxydcodone
Oxydocond
Oxydocone
Oxydodone
Oxydone
Oxyecodone
Paraflourofentanyl
Oxyfast
Pentazocine
Percobarb
Oxymophone
Oxymopphone
Oxymorene
Oxymorephone
Oxymorhone
Oxymorhphone
Oxymorhpine
Oxymorhpone
Oxymorohone
Oxymorophone
Oxymorph
Oxymorphan
Oxymorphane
Oxymorphine
Oxymorphne
Oxymorphoen
Oxymorphoine
Oxymorphome
Oxymorphon
Percocet
Oxymorphonemoxycodone
Oxymorphoone
Oxymorpine
Oxymorpone
Oxymporphine
Oxymporphone
Oxymprphone

Search Term
Oxymrorphone
Oxynmorphone Percodan
Oxynorphone
Oxyocodone
Oxyodone
Oxyomorphone
Oxyorphone
Oxyrontin
Oxysodone
Oxyxodone
Oxyxodonw
Oycodone
Oymorphone
Oyxcodone
Oyxmorphone
Oyycodone
Oyycontin
Ozymorphone
Percolone
Perloxx
Physeptone
Papaverine
Para Fluorobutyryl Tentany
Para Fluorobutyrylfentanyl
Para Fluoroisobtyrylfentanyl
Para Fluoroisobutyrlfentanyl
Para Fluoroisobutyryifentanyl
Para Flurobutyryl F
Pneumotussin
Parafluoroisobuturylfentanyl
Parafluoroisobutyrylfentanyl
Parafluroisobutyrylfentanyl
Paragoric
Pavrin
Pentanyl
Pentazocin
Polygesic
Pepavrine
Polyopiate
Poppy Husk Tea

Search Term
Percoet Percoet
Poppy Seed Extract Brew
Percoset
Poppy Seed Tea
Phenethyl Piperidyl Acetanilide
Phenylhistine Dh
Poppy Tea
Primalev
Poioid
Procet
Procof
Propoxyphene
Protuss
Racemethorphan
Remifentanil
Poppyhusktea
Poppyseedextractbrew
Poppyseedtea
Poppytea
Reprexain
Primlev
Primlev
Probuph
Rezira
Roxanol
Prolate
Propopoxyphene
Propoxaphene
Propoxephene
Propoxiphen
Propoxophene
Propoxphene
Propoxyhene
Propoxyohene
Propoxypheen
Propoxyphen
Roxicet
Propoxyphine
Propoxyphne
Propoxyphone
Propoxyphrne

Search Term
Propxphene
Propxyphene
Prospoxyphene
Protoxyphene
Roxicodone
Provex Pbc
Proxyphene
Pxymorhone
Qcycodone
Qxymorphone
Roxilox
Racemorphan
Remifenta
Roxiprin
Remifentanyl
Rentanyl
Retasin Hc
Revia
Roxycodone
Rezira
Robafen Ac
Roxanol-T
Roxycontin
Roxicet
Rybix
Roxicodone
Ryzolt
Roxinol
Sosegon
Roxucodone
Roxybond
Speedball
Stadol
Stagesic
Rybix Odt
Subellan
Ryzolt
Sentanyl
Simbadol
Simuc-Hd
Sodeine

Search Term
Sublimaze
Suboxone
Subsys
Subutex
Sufentanil
Subetex
Symtan
Sublocade
Suboxene
Suboxine
Talwin
Tapentadol
Thebaine
Su-Tuss Hd
Tilidine
Talvin
Tramadol
Tapendatol
Tapenetol
Tapentado
Tussafin
Tapental
Tapentendol
Tapentodol
Targiniq
Tarmadol
Tddmcodiene
Tentanyl
Tussend
Tilidin
Tussgen
Toherion
Topentadol
Tradadol
Tradol
Tramaadol
Tramadae
Tramadal
Tramadel
Tramadl
Tramadoe

Search Term
Tussicaps
Tramadoland
Tramadole
Tramadolo
Tramadone
Tramadoni
Tramaol
Tramatal
Tramatol
Tramdol
Tramdola
Tramedol
Tramidol
Tramodal
Tramodol
Tramolol
Tranadol
Trans Dichloro N Dimethylamine Cyclohexyl N
Methylbenzamide
Trans Dichloro N Dimethylamino Cyclohexy N
Methylvenzamide
Traqmadol
Traumadol
Trazadol
Tremadol
Tremodol
Triacin C
Triant-Hc
Trmadol
Tsramadol
Tussicle
Tussigon
Tussinate
Tussionex
Tussicaps
Tussplex
Tycolet
Tussigon
Tylox
Ugesic
Tussonex
Ultracet

Search Term
Tuxarin
Tuzistra
Ultram
Tylenol With Codeine
Valoron
Valtran
Vanacet
Vanacon
Ultram
Ultram Er
Ultrams
Ultran
Ultrim
Utram
Valoran
Vicoclear
Vicodin
Vicoprofen
Vicotuss
Vendone
Verdrocet
Vicaden
Vicadin
Vicidin
Vituz
Vicodan
Vicoden
Xartemis
Vicodin
Vicodon
Vicodone
Vicopren
Vicoprfen
Vicoprin
Xodol
Xolox
Vilan
Viodin
Visvex
Vivitrol
Zamicet

Search Term
Xodol
Xtampza
Xtampza Er
Xycodone
Xylon
Yramadol
Yxocodone
Z Tuss Ac
Zohydro
Zamicet
Zodryl Dac
Zolvit
Zohydro
Zutripro
Zubsolv
Zydone
Naloxine
Naloxoane
Naloxone
Nalozone
Narcan
Natoxone
Neloxone
Naltrexone
Overdose
Overduse
Poison