# APPENDICES

Appendix A.1 Terms used by nDepth™ algorithm to identify (flag) OUP positive reports

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| --- | --- | --- | --- | --- |
| **Opioid terms** | | **Problem use terms** | | |
| codeine | analgesic | addict | abusing | aberrancy |
| codeine | narcotic | addicted | misusing | aberrant |
| codeine | opiate | addiction | overusing | diversion |
| fentanyl | opioid |  | over using | divert |
| hydrocodone |  |  | abuse |  |
| methadone |  |  | abuser |  |
| morphine |  |  | misuse |  |
| oxy |  |  | misuser |  |
| oxy-ir |  |  | overuse |  |
| oxycod |  |  | overuser |  |
| oxycodone |  |  | over use |  |
| oxyContin percocet polypharmacy vico  Vicodin |  | over user | | |

Appendix A.2 Highlighted phrases used in the semi-assisted manually review process

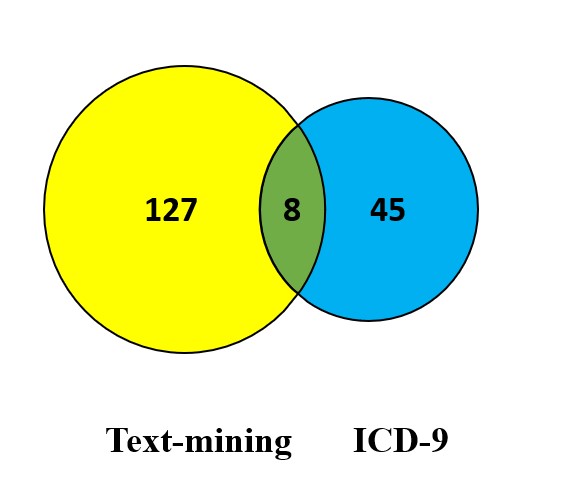
|  |  |  |
| --- | --- | --- |
| **Semi assisted manual review highlighted words** | | |
| abus\* | opioid use disorder | diversion/divert |
| misus\* | dependent | high |
| overus\* | dependency | euphoria |
| over us\* | heroin | abnormal urine drug screen |
| Addict\* | Crav\* | dirty urine |
| inconsistent urine | Lost prescriptions | alcohol abus\* |
| unauthorized dose increase | Less suggestive words | early refills |
| taking more than  prescribed | marijuana | immediate taper |
| Narcan | narcotic | naloxone |

Appendix A.3 ICD-9 codes used to define OUP

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| **Class Codes** | |
| **Diagnosis Category** | **ICD-9-CM Codes** |
| Opioid Abuse and dependence | 1. 304.00 (opioid dependence unspecified) 2. 304.01 (opioid dependence continuous) 3. 305.50 (opioid abuse unspecified) 4. 305.51 (opioid abuse continuous) 5. 304.71 (opioid/other dependence continuous) 6. 304.02 (opioid dependence episodic) 7. 304.70 (opioid/other dependence unspecified) 8. 305.52 (opioid abuse episodic) 9. 304.72 (opioid/other dependence episodic) |
| Poisoning | 1. Non-specific code 965 Poisoning by analgesics antipyretics and antirheumatics 2. Non-specific code 965.0 Poisoning by opiates and related narcotics 3. Specific code 965.00 Poisoning by opium (alkaloids), unspecified 4. Specific code 965.01 Poisoning by heroin 5. Specific code 965.02 Poisoning by methadone 6. Specific code 965.09 Poisoning by other opiates and related narcotics 7. E850.0 Accidental poisoning by heroin 8. E850.1 Accidental poisoning by methadone 9. E850.2 Accidental poisoning by other opiates and related narcotics |

Appendix A.4 Frequency distribution of positive ICD-9 codes for OUP

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| --- | --- | --- |
| **Frequency distribution of positive ICD-9 codes for OUP** | | |
| **ICD-9 Codes** | **Description** | **N (%)** |
| 304 | opioid dependence unspecified | 24 (49%) |
| 305.5 | opioid abuse unspecified | 9 (18%) |
| 304.01 | opioid dependence continuous | 5 (10%) |
| 965 | Non-specific code 965.0 Poisoning by opiates and related narcotics | 3 (6%) |
| 965.01 | Specific code 965.01 Poisoning by heroin | 3 (6%) |
| E850.2 | E850.2 Accidental poisoning by other opiates and related narcotics | 2 (4%) |
| E850.0 | E850.0 Accidental poisoning by heroin | 1 (2%) |
| 965.09 | Specific code 965.09 Poisoning by other opiates and related narcotics | 1 (2%) |
| 304.71 | opioid/other dependence continuous | 1 (2%) |
| **Grand Total** | | **49 (100) \*** |
| \*4 out of 45 patients had two positive ICD-9 codes for OUP | | |



Appendix A.5 Venn diagram of the overlap between the two positive cohorts of opioid Use problem in the study