**Opioid EWSS**

**Case Definition**

**Drug Poisoning ED visits**

***Project:***Opioid Early Warning and Surveillance System

***Data Source:***Acute Care Enhanced Surveillance (ACES) system

***Document Version:*** 2

**Purpose:** To identify emergency department (ED) visit records in the Acute Care Enhanced Surveillance system (ACES) for suspected unintentional drug poisonings.

**Eligibility Criteria**

Include ED visits in ACES where:

1. the visit is classified as OPI or TOX syndrome by ACES (using the ACES Standard Syndromes, v2018 classifier); **AND**
2. the client is 10 years of age or older; **AND**
3. the Canadian Triage and Acuity Score (CTAS) for the visit is 0, 1, 2, 3 or missing; **AND**
4. the text for the chief complaint meets any of the following criteria (a or b or c or d):
   1. it includes any derivatives of the terms “drug poisoning” or “overdose” (*e.g.*, “overdose ingestion”, “OD”, “suspected OD”) **AND**
      1. does not specify a drug/drug type **AND**
      2. does not indicate that the overdose was a result of an intent to cause self harm or suicide (*e.g.* “intentional”, “suicidal”).
   2. it includes any derivatives of the terms “drug poisoning” or “overdose” **AND**
      1. specifies a drug that qualifies for inclusion (see additional details) **AND**
      2. does not indicate that the drug was consumed with the intent to cause self harm or suicide.
   3. it includes mention of substance use (*e.g.* “substance misuse”, “intoxication”, “ingestion”, “took too many drugs”) **AND**
      1. does not specify a drug/drug type **AND**
      2. does not indicate that the reason for the ED visit was only drug withdrawal (note a chief complaint that includes the term “/withdrawal” can be included, *e.g.* “substance use (intoxication/withdrawal)”*)* **AND**
      3. does not indicate that the drug was consumed with the intent to cause self harm or suicide.
   4. it includes mention of use of specific drugs that qualify for inclusion (see additional details) **AND**
      1. does not indicate that the reason for the ED visit was only drug withdrawal (note a chief complaint that includes the term “/withdrawal” can be included, *e.g.* “drug use/withdrawal, crack use”*)* **AND**
      2. does not indicate drug seeking behaviour (*e.g.* “requesting oxy”) **AND**
      3. does indicate that the reason for the ED visit is to request for treatment for drug problems (*e.g.* “requesting detox”) **AND**
      4. does not mention missed doses **AND**
      5. does not indicate that the drug was consumed with the intent to cause self harm or suicide.

**Additional Details**

**Drug Eligibility**

Drugs that qualify for inclusion are psychoactive substances that are commonly used recreationally for the positive experiences which they elicit and include:

controlled substances under federal legislation that are often produced and distributed illicitly

drugs with potential for resulting in poisonings, especially when used in combination with opioids

drugs that are commonly consumed with opioids

drugs that often contaminate opioids and/or drugs that are often contaminated by opioids

**Drugs that qualify for inclusion:**

* opioids, including
  + drugs used for opioid agonist therapy, such as methadone, and
  + drugs containing codeine
* drugs given to reverse the effects of an opioid overdose (*e.g.* naloxone)
* stimulants
* benzodiazepines
* hallucinogens (including cannabis)
* dissociative anesthetics (*e.g.* Special K)

**Drugs and substances that do not qualify for inclusion:**

alcohol

drugs (including prescription medications) that that do not target the nervous system, for example:

antibiotics

blood thinners

non-steroidal anti-inflammatory drugs (NSAIDs)

drugs (including prescription medications) that target the nervous system but are not likely to be used recreationally, for example:

selective serotonin reuptake inhibitors (SSRIs)

acetaminophen

unnamed drugs (including prescription medications) that are used to treat named non-pain related medical conditions, where the drug is unlikely to belong to a category of drug that qualifies for inclusion, for example:

drugs used to treat epilepsy

drugs used to treat hypertension

drugs used to treat diabetes

chemicals or toxic products not intended for human consumption (*e.g.* cleaning products, hydrogen peroxide, antifreeze)

**Drug List**

PPH maintains a list of all drugs that have been mentioned in the text of chief complaints of ED visits classified as OPI or TOX syndromes. This drug list indicates whether each drug qualifies for inclusion based on the criteria described above.

When new drugs are mentioned in an ACES record of an ED visit, an epidemiologist will add the drug to the drug list and indicate whether ED visits related to toxic effects of the drug qualify for inclusion.

**Glossary**

**ACES Standard Syndromes:** ACES uses a natural language processing algorithm to classify text in a hospital record’s chief complaint into one of approximately 80 syndromes (syndromes are groups of symptoms or health indicators with similar causes and/or affected body systems). The syndromes which qualify for inclusion for ED visits for suspected drug poisonings are:

**OPI syndrome:** includes chief complaint text indicating opioid intoxication, opioid addiction, opioid overdose, or opioid withdrawal

**TOX syndrome:** includes chief complaint text indicating the ED visit was related to the toxic effects of substances (other than alcohol or opioids), withdrawal from substances (other than alcohol or opioids), substance abuse (other than alcohol or opioids)

**Canadian Triage Acuity Score (CTAS):** CTAS levels reflect the urgency of a client’s need for care and are assigned based on presenting complaint, and symptom type and severity. The 5 levels of CTAS are:

1 = resuscitation

2 = emergent

3 = urgent

4 = less urgent

5 = non urgent

*Note*: In ACES a CTAS level of 0 is used to indicate CTAS is missing.

**Chief Complaint:** This is the record made at triage of a person’s reason for visiting an emergency department, as interpreted by the triage nurse. The chief complaint is recorded in a free text field, data entry into this field is not standardized and practice varies across individuals and hospitals.

**Psychoactive drugs:** drugs that alter a person’s mental state; they may cause changes in mood, awareness, thoughts, feelings or behaviour.

**Document Revision History**

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| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Comments** |
| 1 | 2019-05-28 | AR | Initial case definition. Finalized and approved by Dr. Salvaterra (Medical Officer of Health) May 28, 2019. |
| 1a (*draft)* | 2022-05-31 | SP | Revisions to clarify eligibility criteria include:  ED visits with a CTAS of 3 must meet the same conditions for the text of the chief complaint as ED visits of a CTAS less than 3;  adding a description of the types of drugs for which ED visits should be included;  removing the detailed drug list from this document and replacing it with a drug dictionary.  Revisions to improve event detection include:  Using the ACES Standard Syndromes, v2018 classifier rather than the v2014 classifier (the v2014 classifier didn’t appropriately classify visits with a chief complaint of ‘drug use’). |
| 1b (*draft)* | 2022-06-23 | SP | Revisions to clarify eligibility criteria include:  adding a condition to indicate that when the reason for the ED visit was only drug withdrawal, the ED visit should be excluded. |
| 2 | 2022-06-30 | SP | Finalized and implemented draft revisions described above (changes made in versions 1a and 1b). |
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