

CDC Heroin Overdose (version 4)

Query purpose: To assist state, local, tribal, territorial, and federal public health practitioners in monitoring emergency department (ED) visits for suspected heroin overdoses.

How it was developed: CDC scientists first started developing the definition using lessons learned from jurisdictions funded by CDC's Enhanced State Opioid Overdose Surveillance and researching guidance documents from sources including the National Center for Health Statistics, the Council of State and Territorial Epidemiologists, and Substance Abuse and Mental Health Services Administration. First, International Classification of Diseases, 10th Revision (ICD-10-CM) and 9th Revision (ICD-9-CM) Clinical Modification, and Systematized Nomenclature of Medicine (SNOMED) diagnosis codes indicating an acute heroin poisoning were identified; this was followed by identifying and adding overdose terms that could be presented in the chief complaint free text. Finally, heroin drug terms indicating that heroin was involved in the overdose were added.

How it works: The Chief Complaint Discharge Diagnosis field is used to query both the diagnosis codes and chief complaint free text with exclusions (as necessary) to develop the syndrome definition.

- Automatic inclusion (yes):
 - If a diagnosis code indicating a heroin poisoning is present, the ED visit is automatically included in the syndrome.
- Automatic inclusion (no):
 - If the ED visit does not include a diagnosis code for heroin poisoning, then the visit is not automatically included.
 - The visit is captured only if it includes two components:
 - 1) chief complaint text indicating an overdose or poisoning and
 - 2) chief complaint text indicating heroin involvement.
 - The list of exclusions is applied to the chief complaint text only when a discharge diagnosis code is not present for heroin poisoning.

For consideration: Overdoses related to illicitly manufactured fentanyl may be listed as a heroin overdose in the chief complaint and diagnosis codes. A large increase in heroin overdose ED visits may be attributable to increased supply and use of illicitly made fentanyl by heroin users. This occurs because illicitly manufactured fentanyl is commonly mixed with heroin and injected by people who historically use heroin. Because fentanyl is not commonly included in emergency department toxicology tests, an ED toxicology test may detect only heroin even though the overdose involved a mixture of heroin and illicitly manufactured fentanyl.

Table 1. Chief complaint and discharge diagnosis search terms for suspected heroin overdose (version 4)

Variable	Automatic inclusion?	Specific terms
<i>Inclusions</i>		
Discharge Diagnosis – ICD-9-CM poisoning	Yes	965.01, E850.0 (also included code with no period, e.g., “96501”)
Discharge Diagnosis – ICD-10-CM poisoning	Yes	T40.1X1A, T40.1X4A (also included codes with no period, e.g., “T401X1A”)

Discharge Diagnosis – SNOMED	Yes	295174006, 295175007, 295176008
Chief complaint – overdose term	No, include only if other heroin-related terms are also present	Poisoning (poison) Overdose (overdose, overdoses, averdose, averdoes, over does, overose) Nodding off Snort Ingestion (ingest, inject) Intoxication (intoxic) Unresponsive (unresponsiv) Loss of consciousness (syncope, syncope) Shortness of breath (SOB), short of breath Altered mental status (AMS)
Chief complaint – heroin term	No, include only if other overdose-related terms are also present	Heroin, herion, heroine, HOD, speedball, dope
<i>Exclusions</i>		
Chief complaint	Exclude	See list below in ESSENCE code

Table 2. ESSENCE query for suspected heroin overdose (version 4)

<code>(,^[/]T40.1X1A^,OR,^[;/]T401X1A^,OR,^[;/]T40.1X4A^,OR,^[;/]T401X4A^,OR,^[;/]965.01[/]^,OR,^[;/]96501[/]^,OR,^[;/]E850.0^,OR,^[;/]E8500^,or,^295174006^,or,^295175007^,or,^295176008^),or,(,(,^narcana^,or,^naloxo^,or,^poison^,or,^verdo[se][se]^,or,^over dose^,or,^overose^,or,^nodding^,or,^ nod ^,or,^snort^,or,^in[gj]est^,or,^intoxic^,or,^unresponsiv^,or,^loss of consciousness^,or,^syncop^,or,^shortness of breath^,or,^short of breath^,or,^altered mental status^),and,(,^her[io][oi]n^,or,^ hod ^,or,^speedball^,or,^speed ball^,or,^dope^),),andnot,(,^no loss of consciousness^,or,^denie[sd] loss of consciousness^,or,^negative loss of consciousness^,or,^denies any loss of consciousness^,or,^denies her[io][oi]n^,or,^deny her[io][oi]n^,or,^denied her[io][oi]n^,or,^denying her[io][oi]n^,or,^denies drug^,or,^deny drug^,or,^denied drug^,or,^denying drug^,or,^denies any drug^,or,^with dra^,or,^withdra^,or,^detoxification^,or,^detos^,or,^detoz^,or,^dtox^),)</code>

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