



MEMORANDUM

TO: Emergency medicine providers; EMS responders

FROM: Illinois Department of Public Health

DATE: March 2, 2017

SUBJECT: **Increase in Fentanyl and Carfentanyl-related overdoses**

I. OVERVIEW

There continues to be a rise in opioid overdoses and deaths in Illinois as well as nationwide. The production and distribution of illicitly manufactured fentanyl has increased to unprecedented levels. In 2016, the first known carfentanyl-associated death occurred in Illinois. There was also a rise in fentanyl-associated deaths during this past year. This alert serves as an awareness to emergency medicine and EMS providers and a reminder of key clinical and safety considerations.

II. BACKGROUND

Fentanyl is a synthetic opioid pain reliever that is 50-100 times more potent than morphine and may be prescribed for severe pain (e.g., in advanced cancer patients). Carfentanyl (also spelled carfentanil), is a potent fentanyl analog that has recently contributed to opioid deaths across the country, including in Illinois. Carfentanyl is 10,000 times more potent than morphine and may be fatal in small doses. It is used to sedate large animals and is never prescribed for humans.

Fentanyl- and carfentanyl-related harm, overdoses, and deaths have been linked to illicitly manufactured drug products, sold through illegal drug markets for their potent heroin-like effects. Sometimes, fentanyl and carfentanyl are combined with heroin and/or cocaine—with or without the user’s knowledge—to increase the euphoric effects. In some cases, heroin is cut with fentanyl by drug producers. In other cases, individuals purchase pure fentanyl without realizing it. When these individuals ingest (inject or snort) the “normal” amount of drug, the stronger potency of the fentanyl or carfentanyl leads to greatly increased risk for overdose and death. Fentanyl and carfentanyl cannot be detected by sight, smell, or taste. Additionally, there are reports of other substances, such as stimulants and anti-cholinergic agents, being mixed or abused along with heroin and other opioids.

A. Patient Presentations

Classic Opioid Toxidrome:

- Coma
- Pinpoint pupils
- Respiratory depression

Additional Symptoms/ Complications:

- Altered mental state
- Shock
- Pulmonary edema
- Bradycardia
- Hypotension
- Hypothermia

These signs and symptoms are greatly enhanced and prolonged if fentanyl or carfentanyl are ingested.

If additional substances are ingested along with opioids, the clinical presentation may vary. This can include variation in the pupil examination, as well as increased agitation, hallucinations, and seizures after opioid reversal. A normal pupil examination does **not** exclude opioid intoxication, especially when other substances may have been ingested.

B. Important considerations for first responders and medical providers

- When opioid overdose is suspected, naloxone (opioid reversal agent) should be used per typical protocol, with awareness that **more and prolonged administrations of naloxone may need to be used in the case of fentanyl or carfentanyl poisoning.**
- As with any suspected opioid overdose, special attention should be paid to the airway with a low threshold for airway support.
- Fentanyl and carfentanyl can be absorbed through the skin and accidental inhalation of airborne powder can also occur.
- First responders should practice standard safety precautions, and at the minimum use gloves and a mask when attending to individuals with suspected overdoses.
- Atypical overdose presentations can occur, and the lack of pinpoint pupils should not exclude a possible diagnosis of an opioid overdose.
- Especially if additional substances are ingested, patients may exhibit aggressive behavior, seizures and hallucinations after opioid withdrawal.

C. Overdose Prevention and Harm Reduction:

- Encourage patients (and their family and friends) to carry naloxone:
 - Any licensed physician can write a prescription for naloxone, which patients can fill in a pharmacy. Any licensed physician can also write a prescription for naloxone for friends and family of a patient who is using opioids.
 - The Illinois Heroin Crisis Act of 2015 requires that Medicaid/MCOs cover naloxone and Medication Assisted Treatment (MAT).
- Talk to patients about their readiness to engage in treatment:
 - Let them know that MAT has good outcomes for people with opioid use disorder. Methadone, buprenorphine, and extended release injectable naltrexone are all FDA-approved medications for opioid use disorder.
 - If patients express interest but are not sure where to obtain treatment, they can call the Illinois Department of Human Services' Division of Alcoholism and Substance Abuse at (312) 814-2840 for a list of addiction treatment locations.
- Educate patients (and their family and friends) on harm reduction techniques to avoid overdose and death:
 - Avoid using drugs alone.
 - Avoid mixing drugs when possible, especially multiple “downers” that can cause respiratory depression.
 - Carry an overdose rescue kit (naloxone) and be sure others know you have.

III. ADDITIONAL RESOURCES

For more information, please visit the IDPH website: <http://dph.illinois.gov/topics-services/prevention-wellness/prescription-opioids-and-heroin>