Learning About Opioid Overdose

Overdoses involving opioids continue to rise, with over 47,000 fatal opioid overdoses in 2017. Non-fatal overdoses are several times more common than fatal opioid overdoses.\(^1\) Naloxone (also known as Narcan, one of its brand names) is a safe, effective drug that can temporarily reverse opioid overdoses if administered in time.

Naloxone only works on overdoses from opioids: prescription painkillers, heroin, and synthetic opioids such as fentanyl and related drugs. It can’t reverse overdoses caused by other substances (for example, stimulants, alcohol or benzodiazepines).

Increasing access to and availability of naloxone is essential. Research shows that overdose education and naloxone distribution, when made available to community members, result in fewer overdose deaths.\(^2,3\)

**RISK FACTORS FOR OPIOID OVERDOSE**

Some circumstances increase risk for experiencing an opioid overdose:

- Taking high dosages of prescription opioid painkillers (even if taken as prescribed)
- Taking more opioids than prescribed
- Using illegal opioids such as heroin or illicitly manufactured fentanyl; these drugs may contain unknown substances that may increase potency, or have a higher than anticipated strength
- Combining opioids with alcohol or other drugs such as benzodiazepines or sedatives
- Discontinued use of opioids for an extended period of time (such as detoxification, treatment, recovery or incarceration), because the body’s capacity to safely process drugs drops rapidly
- Medical conditions, including but not limited to: sleep apnea, respiratory infections or illnesses, kidney or liver disease or dysfunction, cardiac illness or HIV/AIDS

People who take opioids, even as prescribed, can develop a tolerance. This is a natural process that does not signify dependence or addiction. Instead, it means that people may need to take more opioids to achieve the same effect as before. Tolerance can also be higher or lower depending on factors such as weight fluctuation, illness or other medical conditions, stress and age, which means tolerance can fluctuate unexpectedly. People should not increase their dosage on their own; if their current pain management medicines are not helping, they should talk to their doctor about their pain management needs.
SIGN AND SYMPTOMS OF AN OPIOID OVERDOSE

One, some or all of these symptoms may be present during an opioid overdose:

- Slow, shallow, or stopped breathing
- Falling asleep or losing consciousness
- Being non-responsive to wake-up attempts
- Choking or gurgling sounds

- Limp body
- Pale, blue, grayish or cold, clammy skin
- Fingernail beds and lips turn blue or purplish black
- Small “pinpoint” pupils

If someone is unconscious and not responding to wake-up attempts, call 911. Whatever the cause, the victim is experiencing a medical emergency and medical professionals should be alerted. The victim may have another medical condition or may have taken another medication leading to unconsciousness. If it is possible that the victim is suffering from an opioid overdose, administer naloxone; it may save their life and will not hurt them if the emergency has another cause.

Fentanyl overdoses may look slightly different than overdoses from prescription opioids or heroin. Victims may experience body and chest wall rigidity and be stiff instead of limp. In this case, the responder may not be able to respond in the way they would for the more common overdose scenario in which the person is limp. Because fentanyl is significantly stronger than opioid pain killers or heroin, fentanyl overdoses tend to need more naloxone to reverse; no matter how much is used, it can’t hurt the victim.

Teach your employees to recognize the signs and symptoms of an opioid overdose using the NSC Signs and Symptoms of an Opioid Overdose video – recognizing the signs can save someone’s life.

RESPONDING TO AN OPIOID OVERDOSE

When approaching a suspected medical emergency, always assess the scene to see if it is safe to approach the person. If so, follow these five steps:

1. Evaluate for signs of an opioid overdose. Are they responding to light stimuli such as shouting their name or rubbing their breastbone with your knuckles?
2. If it is not safe to approach the victim or if they are not responding to light stimuli, call 911.
3. Administer naloxone according to package or other instructions (if available). Wait 2 – 3 minutes and administer again if breathing does not start.
4. Lay the person on their side to keep their airway open.
5. Monitor the person’s response and stay with the person until emergency medical services arrives.

The safety of the person responding to the suspected opioid overdose is essential. In addition to assessing the scene for safety hazards such as traffic, fire and other concerns, there are some unique safety concerns associated with responding to an opioid overdose. These include:

- Exposure to drug residue and powders
- Exposure to needles, other sharps or blood
- Need for personal protective equipment such as medical gloves and a one-way valve breathing mask
ADMINISTERING NALOXONE

Naloxone should be administered as quickly as possible in the event of a suspected opioid overdose. During an overdose, the most common symptom is slowed, shallow or stopped breathing. This happens because opioids slow down respiration when they slow down the central nervous system. Naloxone blocks the brain’s opioid receptors, preventing the opioids from taking effect and allowing the person to start breathing again.

Naloxone can take 2 – 3 minutes to work. It is easy to see if it is working because the person will start to breathe again, even if they don’t wake up entirely. If 2 – 3 minutes go by and the person is still unresponsive, administer another dose of naloxone. It is common for opioid overdoses, especially those that involve fentanyl or other synthetic opioids, to require more than one dose of naloxone. There is no risk of overdosing on naloxone, and multiple doses will not have an adverse effect.

AFTER AN OPIOID OVERDOSE

Naloxone works only temporarily. It wears off in 20 – 90 minutes, depending on the type used. This means that opioid intoxication and the overdose can come back. A person who has overdosed and been revived with naloxone should be encouraged to go to the hospital. If they refuse, someone should stay with them for at least two hours to make sure the overdose does not come back.

Key Steps for Employers

Ensure that the workforce understands the following:

- Risk factors for opioid overdose
- Signs and symptoms of opioid overdose
- How to respond to opioid overdose
- How to administer naloxone, if you have a workplace naloxone program
- What do to after an overdose is reversed, or an overdose event

As with any long-term disease, relapse is a normal part of the recovery process. Treatment of long-term and chronic diseases often involves changing deeply rooted behaviors, which takes time. In fact, relapse rates for drug use are similar to rates for other chronic medical illnesses. Relapse does not mean that the person or treatment has failed – rather, it means that the treatment regimen in place is not the correct treatment for that person.

Medical advice and information in this document were approved by NSC physicians who advise the Council on our substance use harm initiatives. These doctors also are members of the NSC Physician Speakers Bureau.