



PHARMACY SERVICES
MEDICAL SUPPLY



Naloxone Use in the Management of Opioid Overdose

Deborah Yackuboskey CRNP, MSN



What are Opioids?

Opioids are substances which are derived from the opium poppy, or their synthetic analogues. Examples include codeine, heroin, hydrocodone, methadone, morphine, oxycodone and tramadol. They have the potential to cause substance dependence characterized by:

- A strong desire to take opioids
- Impaired control over their use
- Persistent use
- Increased tolerance for use
- Physical withdrawal symptoms when discontinued

What are Opioids used for and how do they work?

Opioids are prescribed to relieve or manage symptoms of pain. Hydrocodone (Vicodin) is most commonly prescribed and is used for a variety of painful conditions including injury-related pain. Morphine is used before and after surgical procedures to manage severe pain, while codeine is used to manage mild to moderate pain. Opioids frequently are prescribed to manage pain associated with the following:



- Cancer
- Migraines
- Terminal illness
- Diabetic neuropathy
- Severe trauma or injury
- Surgery
- Childbirth

Within the brain, spinal cord, gastrointestinal tract, and body organs, opioid substances attach to proteins known as opioid receptors, thus reducing the perception of pain. Opioids also act on the areas of the brain that control emotions, which then diminishes the effects of the painful stimulus. As a side effect they can cause a state of euphoria which is found desirable to recreational users.

Side Effects of Opioid Use

Constipation is the most common and most severe side effect of opioid use.

Other side effects may include, but are not limited to:

- Weakness
- Insomnia
- Nausea
- Vomiting
- Loss of appetite
- Tingling or redness of the skin
- Visual disturbances

What is Opioid Dependency?

Dependence occurs when the body develops a tolerance to the opioid substance. When dependency occurs the person needs higher doses in order to achieve the same effect and stopping the drug results in severe withdrawal symptoms. Dependency can occur in persons who legitimately are prescribed opioids for pain control, as well as recreational users. Euphoria, a side effect that occurs is often described by users as “mellow”, in which the person experiences inner peace. Users feel like they are “floating away” from the cares of everyday life. Due to the increasing need for higher doses of opioids in order to maintain the desired effect, the user is placed at a higher risk for overdose.

Opioid Overdose

Due to the effects that opioid substances have on the brain and central nervous system, respiratory depression is the most serious adverse effect of overdose, as it can be immediately life-threatening. Opioid overdose can be identified by a combination of three signs and symptoms referred to as the “opioid overdose triad”. These symptoms include:

- Pinpoint pupils
- Unconsciousness
- Respiratory depression

The use of opioids with alcohol and other sedating medications increases the risk of respiratory depression and death.

Emergency interventions for Opioid Overdose

Death related to opioid overdose is preventable if the person receives early intervention via 911, basic life support and timely administration of an opioid antagonist such as naloxone.

Naloxone can be administered via intravenous (IV), intramuscular (IM), subcutaneous (SC) and intranasal routes.



Initial response when dealing with opioid overdose is:

- 1. Call 911**
- 2. Initiate rescue breathing**
- 3. Administer Naloxone**

Rescue Breathing

1. Survey the scene to insure that it is safe for you and the victim.
2. Check the victim for level of consciousness by tapping, shaking or asking if they are “okay.”



3. Check for breathing by tilting the victim’s head back and putting your ear to the victim’s mouth to listen for breaths. Watch for the chest to rise and fall at the same time. This should not be done for more than 10 seconds.

4. Check the victim’s mouth to see if there is anything in the mouth that is blocking the airway. Remove, if able.



5. Cover the victim’s mouth with your mouth and pinch the victim’s nostrils shut. **Note -if available, use a breathing barrier.**

6. Blow two breaths into the victim’s mouth. Watch for the chest to rise and fall. **Note – if the chest does not rise, retilt the head.**

7. Continue rescue breaths by giving 1 breath every 5 seconds for the adult victim.

What is Naloxone?

Naloxone is an opioid antagonist which blocks or reverses the effects of opioid substances, including extreme drowsiness, respiratory depression or loss of consciousness. It displaces the opioid substance off the opioid receptor, reversing the effects of the opioid. As mentioned previously, naloxone may be administered via IV, IM, SC or intranasal routes. Nasal naloxone is the preferred route due to ease of delivery, speed of delivery, gentler awakening, safety and cost effectiveness.



NARCAN[®] (naloxone HCl) **NASAL SPRAY**

QUICK START GUIDE **Opioid Overdose Response Instructions**

Use NARCAN[®] (naloxone hydrochloride) Nasal Spray for known or suspected opioid overdose in adults and children.

Important: For use in the nose only.

Do not remove or test the NARCAN Nasal Spray until ready to use.

1 Identify Opioid Overdose and Check for Response

Ask person if he or she is okay and shout name.

Shake shoulders and firmly rub the middle of their chest.

Check for signs of an opioid overdose:

- Will not wake up or respond to your voice or touch
- Breathing is very slow, irregular, or has stopped
- Center part of their eye is very small, sometimes called "pinpoint pupils"

Lay the person on their back to receive a dose of NARCAN Nasal Spray.



2 Give NARCAN Nasal Spray

REMOVE NARCAN Nasal Spray from the box.

Peel back the tab with the circle to open the NARCAN Nasal Spray.

Hold the NARCAN Nasal Spray with your thumb on the bottom of the plunger and your first and middle fingers on either side of the nozzle.

Gently insert the tip of the nozzle into either nostril.

• Tilt the person's head back and provide support under the neck with your hand. Gently insert the tip of the nozzle into **one nostril**, until your fingers on either side of the nozzle are against the bottom of the person's nose.

Press the plunger firmly to give the dose of NARCAN Nasal Spray.

• Remove the NARCAN Nasal Spray from the nostril after giving the dose.



3 Call for emergency medical help, Evaluate, and Support

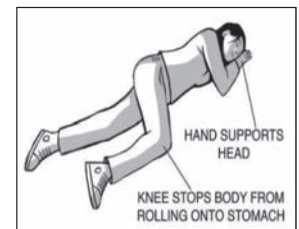
Get emergency medical help right away.

Move the person on their side (recovery position) after giving NARCAN Nasal Spray.

Watch the person closely.

If the person does not respond by waking up, to voice or touch, or breathing normally another dose may be given. NARCAN Nasal Spray may be dosed every 2 to 3 minutes, if available.

Repeat Step 2 using a new NARCAN Nasal Spray to give another dose in the other nostril. If additional NARCAN Nasal Sprays are available, repeat step 2 every 2 to 3 minutes until the person responds or emergency medical help is received.



How to Prevent Opioid Overdose?

- Take opioid medications exactly as prescribed.
- Do not take opioids that belong to someone else.
- Do not mix opioids with alcohol, other central nervous stimulating medications, or illicit drugs.
- Know the signs and symptoms of overdose and how to intervene.
- Keep opioids out of the reach of children.

In Summary

Opioids are substances derived from the opium poppy, or synthetic analogues. They are primarily prescribed for the management of pain and act by binding to opioid receptors in the brain, spinal cord, gastrointestinal tract, and body organs. They have the potential to cause substance dependence that is characterized by a strong desire to take opioids, impaired control over their use, persistent use, increased tolerance, and physical withdrawal symptoms when discontinued. Individuals with substance dependence are at high risk for drug overdose which can result in respiratory depression, or even death.

Naloxone is an opioid antagonist which is administered to counteract an opioid overdose. Additional interventions for overdose include calling 911 and rescue breathing. Remember, opioid overdose is a medical emergency where minutes count!

Interested in Naloxone?

Naloxone is available through Diamond Pharmacy Services. Contact us today to find out more about the easy ordering process. We can help you get your department equipped.

Contact:

Nick McFerron

1.800.882.6337 x7335

nmcferron@diamondpharmacy.com



PHARMACY SERVICES

645 Kolter Drive

Indiana, PA 15701

www.diamondpharmacy.com