Naloxone Standing Order for Opioid Overdose

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Continuing Education Activity Details:

Activity Type: Knowledge-based
Target Audience: Pharmacists and Pharmacy technicians
Cost: Free for PPA members (not available to non-members)
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Objectives for Pharmacists:
At the completion of this activity the participant will be able to:

1. Define the uses for the medication Naloxone
2. Describe the formulations of Naloxone that are available
3. Discuss the Naloxone Standing Order
4. Recognize the signs and symptoms of opioid overdose
5. List the appropriate steps of Naloxone administration for a suspected opioid overdose

Objectives for Pharmacy Technicians:
At the completion of this activity the participant will be able to:

1. Outline the uses for the medication Naloxone
2. Describe the formulations of Naloxone that are available
3. Explain the Naloxone Standing Order and how it applies to pharmacies

Introduction
Naloxone is a medication that is indicated for the reversal of opioid overdose that occurs due to the use of one or more opioid products, such as prescription opioid medications or heroin.
The purpose of the Naloxone Standing Order for Opioid Overdose is to ensure that citizens of the Commonwealth of Pennsylvania who are at risk of having an opioid related overdose are able to access the medication Naloxone. This also includes family, friends, or other persons who may be able to assist someone at risk of experiencing an opioid related overdose.

Other states have allowed first responders to use Naloxone, which has saved hundreds of lives. There is also no evidence to support that having Naloxone increased overdose rates.

**Naloxone Standing Order**

- Physician General Dr. Rachel Levine signed “Standing Order DOH -002-2015, Naloxone Prescription for Overdose” into effect in October 2015.

- The Naloxone Standing Order will ensure that citizens of the Commonwealth of Pennsylvania who are at risk of having an opioid related overdose are able to access the medication Naloxone. This also includes family, friends, or other persons who may be able to assist someone at risk of experiencing an opioid related overdose.

- The standing order is not intended to be used by organizations that employ or contract with medical staff who are able to write for Naloxone prescriptions. These organizations should utilize their medical professionals to write prescriptions for medical personnel who would be expected to correctly administer Naloxone, and who are appropriately trained in Naloxone administration (ex. Nurses).

- The standing order may be used by eligible persons stated above as a prescription, or third party prescription, to obtain Naloxone from a pharmacy if they are unable to obtain Naloxone or a Naloxone prescription from their usual healthcare provider or another source (ex. Emergency department).

- The order authorizes pharmacists to dispense Naloxone and the devices for its administration in the forms described within the standing order, and later in this activity. It is not necessary for the pharmacist to inquire who exactly will be using the drug, or the reason for the drug’s use.

- Pharmacists may bill a third party insurance for Naloxone.

- The two forms of nasal Naloxone are covered by Medicaid and certain insurances, while the auto injector EVZIO requires a prior authorization for approval.

**Signs and Symptoms of Opioid Overdose**

- History of current narcotic or opioid use
- Fentanyl patches on skin or needle in the body
- Unresponsive or unconscious
- Blue lips and/or nail beds
- Snoring or gurgling sounds (due to partial upper airway obstruction)
- Clammy skin
- Pinpoint pupils
- Not breathing, or slow/shallow respirations

** Individuals experiencing cardiac arrest share many signs and symptoms with those experiencing narcotic overdose (unresponsiveness, snoring or gurgling sounds, blue lips and/or nail beds, not breathing). If these individuals have no pulse, they are in cardiac arrest and require CPR.

**Naloxone**

- Naloxone is a pure opiate antagonist
  - Acts as a competitive antagonist at μ, κ, and σ opiate receptors in the central nervous system
  - Highest affinity for the μ receptor
    - Rapidly metabolized in the liver, and its major metabolite is naloxone-3-glucuronide

- Naloxone is indicated for the treatment of opiate-induced depression, including respiratory depression, caused by natural and synthetic opiates such as anileridine, codeine, diphenoxylate, fentanyl, heroin, hydromorphone, levorphanol, meperidine, methadone, morphine, oxymorphone, concentrated opium alkaloids hydrochlorides, and propoxyphene.

- Naloxone antagonizes opioid induced sedation or sleep, increases respiratory rate and volume, and returns blood pressure to normal if depressed.

- The effects of the opioid may return as the effects of Naloxone wear off, since the duration of action of Naloxone is generally shorter than opioids.
  - Onset: Sub-Q or IM: Within 2-5 minutes
- Half-life: Adults: 30-81 minutes, EVZIO auto-injector: 1.28 hours

- In usual doses in patients who have not recently received opioids, Naloxone has little to no pharmacologic effect.

- Naloxone does not produce tolerance, physical, or psychological dependence.

- Administration of Naloxone should be accompanied by other resuscitative measures such as administration of oxygen, mechanical ventilation, or artificial respiration.

- Naloxone will not reverse the effects of overdose associated with other depressants such as benzodiazepines or alcohol.

**Naloxone Formulations and Administration**

- Any time that an overdose is suspected, immediately call 911 for EMS before administering treatment.

- Naloxone should only be given if opioid overdose is suspected.

- In cardiac arrest or pulseless patients, call 911 for EMS and begin CPR if trained to do so. In cardiac arrest CPR is the most important treatment, and any attempt to administer Naloxone should not interrupt chest compressions or rescue breathing.

- In respiratory arrest or a non-breathing patient: rescue breathing takes priority over Naloxone administration. Administer Naloxone if possible during rescue breathing.

- Naloxone should not be administered to anyone who has a hypersensitivity to Naloxone or any components of its package insert.

- Naloxone may be used during pregnancy weighing the risk vs benefit
  - Based on animal studies, there have been no birth defects in pregnant or nursing mothers
  - There also have not been adequate studies in humans to make a determination

- Naloxone is available by intranasal route, using a mucosal atomizer device (MAD), or by the nasal spray NARCAN, and by intramuscular route using an auto injector EVZIO.

  - **Intranasal route – mucosal atomizer device (MAD) Instructions**
    1. Pop off yellow caps from the delivery syringe and one red cap from the Naloxone vial
2. Screw the Naloxone vial gently into the delivery syringe

3. Screw the mucosal atomizer device onto the top of the syringe

4. Spray half (1mL) of the Naloxone in one nostril and half in the other nostril (Be sure to administer as a quick burst to ensure the Naloxone is atomized. Slow administration causes liquid to trickle in which slows delivery to the bloodstream).

5. Turn patient on their side after administration of first dose to reduce risk of aspiration if patient vomits.

6. Continue to monitor for breathing and pulse. If not breathing, give rescue breathing. If no pulse, start CPR if trained to do so.

7. If patient doesn't awaken after 4 minutes, then administer a second full dose of Naloxone if available.

8. Remain with the person monitoring breathing/pulse and giving rescue breathing or CPR if needed until the person is under care of a medical professional.

- **Intranasal route – nasal spray Naloxone (NARCAN)**

  1. Place the patient in supine position. Be sure that the device is inserted into either nostril of the patient and support the back of the neck to allow the head to tilt back. Do not prime or test the device prior to administration.

  2. To administer the dose, press firmly on the device plunger.

  3. Remove the device nozzle from the nostril after use.

  4. Turn patient on their side after administration of first dose.

  5. Continue to monitor for breathing and pulse. If not breathing, give rescue breathing. If no pulse, start CPR if trained to do so.

  6. If the patient does not respond after 2-3 minutes, or if they respond and relapse into respiratory depression, administer a second dose into the alternate nostril.

  7. Do not attempt to reuse NARCAN nasal spray, each device contains one dose of Naloxone and cannot be reused.
Intramuscular auto injector (EVZIO)

- Currently the only available auto injector (EVZIO) comes with automated voice instructions to guide you through administration.
  - Follow the automated voice instructions
- If the auto injector does not come with automated voice instructions, or the voice instructions are otherwise disabled, follow the steps below:
  1. For EVZIO: Pull off the red safety guard
  2. Hold injector with a fisted hand if possible, and press firmly against outer thigh until you hear a click or hiss. EVZIO can be used through clothing. It delivers 0.4mg Naloxone.
  3. Continue to hold pressure for a full 10 seconds to ensure the entire delivery of the medication. The needle will inject and then retract back into the auto-injector after use.
  4. Turn patient on their side after administration of first dose.
  5. Continue to monitor for breathing and pulse. If not breathing, start rescue breathing. If no pulse, start CPR if trained to do so.
  6. If no response in 3-5 minutes, repeat with a new auto injection device.
  7. Remain with the person monitoring breathing/pulse and giving rescue breathing or CPR if needed until the person is under care of a medical professional.

Adverse Reactions of Naloxone

**Opioid Depression**

- Sudden reversal of opioid depression may result in nausea, vomiting, sweating, abnormal heart beats, fluid in the lungs, acute opioid withdrawal syndrome, increased blood pressure, shaking, shivering, seizures and hot flashes.

**Opioid Dependence**
Sudden reversal of opioid effects in people who are dependent on opioids may cause acute opioid withdrawal symptoms which include: body aches, fever, sweating, runny nose, sneezing, yawning, and weakness.

Summary

- Naloxone is indicated for the reversal of opioid overdose that occurs due to the use of one or more opioid products such as prescription opioid medications or heroin.

- The Naloxone standing order ensures that citizens of the Commonwealth of Pennsylvania have access to Naloxone in the event that they, a family member, friend, or any other person experiences an opioid related overdose.

- Pharmacists are able to dispense Naloxone and the devices for its administration in the forms described within the standing order.

- The three types of Naloxone that are available to the public are the intranasal mucosal atomizer device, the intranasal nasal spray NARCAN, and the intramuscular auto injector EVZIO.

References

