Module 4: Identifying and Responding to an Opioid Overdose
Objectives

• Given a patient case, identify the signs and symptoms of opioid overdose.

• Describe the steps necessary to respond to an opioid overdose.
Opioid Overdose
Case

What could have happened to Abe?

As you walk into the pharmacy, a loud snoring sound gets your attention. You see one of your clients, Abe, slumped over on a blood pressure machine. He is making loud gurgling noises. It looks like it is difficult for him to breath. His lips and fingers are blue.

Could Abe be experiencing an opioid overdose?
What happens during an opioid overdose?

Toxic amount of opioids overwhelms the body

Opioids bind to receptors in the brain’s respiratory center

Breathing slows

Oxygen levels in the blood decrease
  • Cyanosis
  • Lack of oxygen to vital organs
  • Brain damage

What is an opioid overdose?
The brain has many receptors for opioids. An overdose occurs when too much of any opioid, like heroin or Oxycontin®, fits in too many receptors slowing and then stopping the breathing.

Source: Harm Reduction Coalition. Adapted from graphic by Maya Doe-Simkins
What happens during an opioid overdose?

1. Toxic amount of opioids overwhelms the body
2. Opioid binds to receptors in the brain's respiratory center
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   - Lack of oxygen to vital organs
   - Brain damage

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Source: Harm Reduction Coalition. Adapted from graphic by Maya Doe-Simkins

All opioids are risky

Illicit Opioids
- Black Tar Heroin
- Packets of fentanyl-laced heroin

Prescription Opioids
- Fentanyl
- Oxycodone

If You Try To
“Sleep It Off”
You May Never Wake Up

Drug overdose is the #1 cause of accidental death for adults taking opioids (e.g., prescription pain medications, heroin)

Learn how to spot an overdose and how to reverse it with naloxone (Narcan®)
Scenario 1

Abe, one of your pharmacy clients, is slumped over on a blood pressure machine. He is making loud gurgling noises. It looks like it is difficult for him to breath. His lips and fingers are blue.

What signs and symptoms indicate this Abe could be experiencing an opioid overdose?

A. Loud snoring
B. Difficulty breathing
C. Blue lips and finger tips
D. All of the above
Scenario 1

Abe, one of your pharmacy clients, is slumped over on a blood pressure machine. He is making loud gurgling noises. It looks like it is difficult for him to breath. His lips and fingers are blue.

What signs and symptoms indicate this Abe could be experiencing an opioid overdose?

A. Loud snoring
B. Difficulty breathing
C. Blue lips and finger tips
D. All of the above
Key Points

- An opioid overdose causes a person’s breathing to slow and sometimes even stop which can lead to unconsciousness, coma, and possibly death.
- All opioids can cause an overdose.
- If there is any possibility someone could have overdosed on opioids, administer naloxone.

<table>
<thead>
<tr>
<th>Signs of an opioid overdose include:</th>
<th></th>
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<tbody>
<tr>
<td>Loud snoring or gurgling noises</td>
<td>Blue lips and/or fingers</td>
</tr>
<tr>
<td>Limp body</td>
<td>Slow or erratic pulse</td>
</tr>
<tr>
<td>Unresponsive</td>
<td>Slow or shallow breathing</td>
</tr>
<tr>
<td>Unconscious</td>
<td>Lack of breathing</td>
</tr>
<tr>
<td>Pale, gray, and/or clammy skin</td>
<td>Pinpoint pupils</td>
</tr>
</tbody>
</table>
Responding to an Opioid Overdose
Maryland Overdose Response Program

Educational Training Program

CORE CURRICULUM

May 31, 2017
Evolution of Naloxone Standing Order in Maryland

**2015**

- Original naloxone standing order issued December 14th 2015
- Authorized pharmacists to dispense naloxone to individuals who trained with and received a certificate from the Maryland Overdose Response Program (ORP)

**2017**

- Heroin and Opioid Prevention Effort (HOPE) and Treatment Act of 2017 (Maryland Senate Bill 967) signed into law on May 25th 2017
- New naloxone standing order authorized on June 1st 2017
- **Pharmacists can dispense naloxone to anyone regardless of certification or training with the ORP**
Responding to an opioid overdose

1. Rouse and stimulate
2. Call 9-1-1
3. Give naloxone
4. Further resuscitation
5. Care for the patient

1. Rouse and stimulate

- **Make some noise:**
  - Shake person’s shoulders and yell:
  - “[Name!] Are you all right? Wake up!”

- **Stimulate:**
  - If person does not respond to noise, make a fist, rub your knuckles firmly up and down the breast bone

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Sternal (Sterum) Rub

1. Rouse and stimulate
2. Call 9-1-1
3. Give naloxone
4. Further resuscitation
5. Care for the patient

Video demonstrating sternal rub:
http://vimeo.com/7976285

2. Call 9-1-1

• **Why should you call 9-1-1?:**
  – May not be an opioid overdose situation
  – Person could have other health problems or complications
  – Naloxone is only temporary

• **Tell the 9-1-1 operator:**
  – Your location
  – Your observations about the patient

• **Tell emergency responder on-site:**
  – What substances the person used
  – How much and when naloxone was administered
3. Give naloxone

What is naloxone?

**Mechanism of Action**
- Opioid antagonist that temporally reverses effects of opioids
- ONLY effective for **opioid overdose**

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2. Call 9-1-1
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*Naloxone reversing an overdose*
Naloxone has a stronger affinity to the opioid receptors than opioids like heroin or Percocet®, so it knocks the opioids off the receptors for a short time. This allows the person to breathe again and reverses the overdose.

*Source: Harm Reduction Coalition. Adapted from graphic by Maya Doe-Simkins*
Surgeon General’s Advisory on Naloxone

I, Surgeon General of the United States Public Health Service, VADM Jerome Adams, am emphasizing the importance of the overdose-reversing drug naloxone. For patients currently taking high doses of opioids as prescribed for pain, individuals misusing prescription opioids, individuals using illicit opioids such as heroin or fentanyl, health care practitioners, family and friends of people who have an opioid use disorder, and community members who come into contact with people at risk for opioid overdose, knowing how to use naloxone and keeping it within reach can save a life.

BE PREPARED. GET NALOXONE. SAVE A LIFE.

Think of naloxone like a(n) …

Antidote
Naloxone Administration

**Administration**

- Intranasally, subcutaneous, intramuscularly, intravenously

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**Intranasal**

- Narcan®
- Luer-Jet™ Luer Lock Prefilled Syringe

**Subcutaneous**

- Evzio®

**Intramuscular**

- Many generics

**Intravenous**
Naloxone Side Effects

• GI upset (nausea/vomiting)
• Opioid withdrawal symptoms, if opioid-dependent
  • Not life-threatening
  • Abdominal/muscle cramps, nausea, vomiting, diarrhea, runny nose, sweating, sneezing, fever, piloerection, tachycardia, yawning, increased blood pressure, trembling/shivering, weakness, agitation/irritability
• Seizures
4. Further resuscitation

Assess breathing: if the person is not breathing, or if breath is shallow or short

Give rescue breaths.

OR

If you are trained in cardiopulmonary resuscitation (CPR), administer traditional CPR, chest compressions with rescue breaths.

OR

Follow the 9-1-1 dispatcher’s instructions.

Continue until the person wakes up or medical help arrives.

1. Rouse and stimulate
2. Call 9-1-1
3. Give naloxone
4. Further resuscitation
5. Care for the patient
Rescue Breathing – Step by Step

**Step 1**: Lay the person on his/her back on a flat surface.

**Step 2**: Tilt the chin to open the airway.

**Step 3**: Remove anything blocking the airway.

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Rescue Breathing – Step by Step

**Step 4:** Pinch the person’s nose closed completely.

**Step 5:** Cover his/her mouth with your mouth and blow 2 regular breaths about 1 second each.

**Step 6:** Breathe again. Give 1 breath every 5 seconds.

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5. Care for the patient

After receiving naloxone, a person may:

- Feel **physically ill**/vomit.
- **Experience withdrawal** symptoms, which can be unpleasant, but not life-threatening.
- Become **agitated and upset** due to withdrawal symptoms or coming off high.
- Have a **seizure**, though this is rare.

1. Rouse and stimulate
2. Call 9-1-1
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5. Care for the patient

If you have to leave the person—even briefly—put him/her into the recovery position.

This keeps the airway clear and prevents choking/aspiration if vomiting occurs.

1. Rouse and stimulate
2. Call 9-1-1
3. Give naloxone
4. Further resuscitation
5. Care for the patient
Scenario 2

You run over to Abe. After say his loudly name, shaking his shoulders, rubbing your knuckles on his sternum, he is still unresponsive. What do you do next?

A. Administer naloxone
B. Perform rescue breathing
C. Move Abe into the recovery position
D. Call 9-1-1
Scenario 2

You run over to Abe. Say his name and shake his shoulders; however, he does not respond. Then you rub your knuckles on his sternum, but he is still unresponsive. What do you do next?

A. Administer naloxone
B. Perform rescue breathing
C. Move Abe into the recovery position
D. **Call 9-1-1**
Key Points

• Naloxone is an opioid antagonist that temporarily reverses the harmful effects of opioids and allows a person to breathe
• To respond to an opioid overdose, follow the following steps:

1. Rouse and stimulate
2. Call 9-1-1
3. Give naloxone
4. Further resuscitation
5. Care for the patient
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