Overdose Response Training

Dave Morgan, RPh
Safe Prescribing Consultant, Norfolk District Attorney’s Office

Daniel Muse, MD
Brockton Hospital

Sgt. Brian Holmes & Sgt. Donna McNamara
Stoughton Police Department

Lt. Patrick Glynn
Quincy Police Department
Learning Objectives

1. Know how opioids work
2. Recognize an opioid overdose
3. Respond to opioid overdose
   - Getting help
   - Rescue breathing
   - Administering naloxone
Police & Fire Programs in MA

- Gloucester Police
- Quincy Police
- Revere Fire
- Weymouth Fire
- Saugus Fire

Nearly 300 rescues
What are opioids/opiates?

- Opioids are **sedative narcotics**
- They are used in medicine mainly to relieve pain
- Opioids repress the urge to breathe- when someone is having an opioid overdose, they stop breathing and could die
The term opiate is often used as a synonym for *opioid*, but it is more. The term *opiate* is often used properly limited to the natural opium alkaloids and the semi-synthetics derived from them.
The Link Between Heroin and Prescription Drugs

Hydrocodone

Heroin

Oxycodone
Scope of the Prescription Drug Epidemic

1 equals 16

100 equals 1600 Percocets = $8000
### Most commonly used opioids

- **Heroin**
- **Codeine**
- **Demerol**
- **OxyContin**
- **Percocet**
- **Percodan**
- **Codeine**
- **Morphine**
- **Fentanyl**
- **Methadone**
- **Opium**

- **Hydrocodone**
- **Oxycodone**
- **Levorphanol**
- **Tylenol 3**
- **Vicodin**
- **Demerol**
- **Morphine**
- **Darvocet**
- **Dilaudid**
- **Opium**
- **Tylox**

---

**Michael W. Morrissey**

Norfolk District Attorney

[www.norfolkda.com](http://www.norfolkda.com)
How do opioids affect breathing?
What puts people at risk for ODs?

- Mixing drugs - benzos, alcohol & cocaine especially
- Changes in tolerance
- Physical health
- Previous experience of non-fatal overdose
- Variation in strength and content of ‘street’ drugs
Mixing opioids with benzos

- Combining opioids with benzodiazepines or alcohol leads to a worse outcome
- Benzos are psychoactive drugs that have sedative, hypnotic, anxiolytic, anticonvulsant, muscle relaxant, and amnesic actions
- The most commonly used benzos are: Klonopin, Valium, Ativan, Librium, and Xanax
What is Naloxone?

- Naloxone knocks the opiate off the opiate receptor - it does nothing other than blocking opiate receptors
- *Temporarily* takes away the “high,” giving the person the chance to breathe
- Naloxone works in 1 to 3 minutes and lasts 30 to 90 minutes
What is NARCAN?

- Naloxone can **neither** be abused nor cause overdose, only contraindication is known sensitivity, which is very rare.
- *Too much* Naloxone can cause withdrawal symptoms such as:
  - nausea/vomiting
  - diarrhea
  - chills
  - muscle discomfort
  - disorientation
  - combativeness
How does Naloxone effect overdose?

Restores breathing
NALOXONE
reversing an overdose

Narcan 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.
<table>
<thead>
<tr>
<th>Really high</th>
<th>Overdose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pupils pinned</td>
<td>Pupils pinned</td>
</tr>
<tr>
<td>Nodding, but arousable</td>
<td>Not arousable</td>
</tr>
<tr>
<td>Responds to sternal rub</td>
<td>No response to sternal rub</td>
</tr>
<tr>
<td>Speech is slurred</td>
<td>Breathing slow or stopped</td>
</tr>
<tr>
<td>Sleepy, intoxicated, but breathing</td>
<td>Less than 8 times per minute</td>
</tr>
<tr>
<td>8 or more times per minute</td>
<td>May hear choking sounds or a gurgling/snoring noise</td>
</tr>
<tr>
<td></td>
<td>Blue lips, blue fingertips</td>
</tr>
</tbody>
</table>

>> Stimulate and observe  >> Rescue breathe + give naloxone
What are the signs and symptoms of an OD?

- Blue skin tinge
- Body very limp
- Face very pale
- Pulse (heartbeat) is slow or not there at all
- Throwing up
- Passing out
- Choking sounds or a gurgling/snoring noise
- Breathing is very slow, irregular, or has stopped

<table>
<thead>
<tr>
<th>REALLY HIGH</th>
<th>OVERDOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muscles become relaxed</td>
<td>Deep snoring or gurgling (death rattle)</td>
</tr>
<tr>
<td>Speech is slowed/slurred</td>
<td>Very infrequent or no breathing</td>
</tr>
<tr>
<td>Sleepy looking</td>
<td>Pale, clammy skin</td>
</tr>
<tr>
<td>Nodding</td>
<td>Heavy nod</td>
</tr>
<tr>
<td>Will respond to stimulation like yelling, sternal rub, pinching, etc.</td>
<td>No response to stimulation</td>
</tr>
<tr>
<td></td>
<td>Slow heart beat/pulse</td>
</tr>
</tbody>
</table>
Environmental clues can help

1. Recognize overdose symptoms
2. Recognize drug paraphernalia
3. Recognize the drug

Recognize need for Naloxone

Look for symptoms, but if uncertain- land on the side of Naloxone
Don’t Forget Scene Safety: Potential Hazards

- Oncoming traffic
- Unstable surfaces
- Leaking gasoline
- Downed electrical lines
- Potential for violence
- Fire or smoke
- Hazardous materials
- Other dangers at crash or rescue scenes
- Crime scenes
- NEEDLES
- PEOPLE

Assume all body fluids present a possible risk for infection
Respond to an overdose

1. Alert EMS
2. CPR – Rescue breathing
3. Administer naloxone
Does the person have a pulse?

- Checking for a pulse, do it.
- If no pulse? Then initiate CPR
If an Opioid Overdose is Suspected

Step 1: Assess victim’s signs & symptoms
  • Call for EMS support

Step 2: Stimulate the person - sternal rub
  • If no pulse, start CPR

Step 3: Rescue breathing
Suspected Opioid Overdose, continued

Step 4: Administer Naloxone

Step 5: Monitor and Support
- If no pulse, start CPR
- If breathing remains absent or slow (< 8 per minute), continue rescue breathing + administer 2nd dose

- If breathing restored, then recovery position
The Recovery Position

Hand supports head

Knee stops body from rolling onto stomach
Rescue Kit Components

- Mucosal Atomization Device (MAD)
- Prefilled ampule of naloxone
- Luer-lock syringe
Naloxone administration

- Demonstration of atomizer, syringe and naloxone cartridge assembly
Intranasal Naloxone administration

- Delivery route has advantages:
- Its easy and convenient
- The nose is a very easy access point for medication delivery (even easier than the arm, especially in winter)
- No shots are needed
- It is painless
- It eliminates any risk of a needle sticking to you
Naloxone storage & deployment

- SPD - Attached to AED case which shall be kept in passenger compartment. No exceptions! Due to storage and exposure to the heat and cold
- K-9 Units, front desk, booking area.
National & regional drug threat

United States
- Cocaine: 36.9%
- Heroin: 12.9%
- Marijuana: 12.1%
- Methamphetamine: 27.6%
- Pharmaceuticals: 9.8%

New England Region
- Cocaine: 29.6%
- Heroin: 39.2%
- Marijuana: 16.2%
- Methamphetamine: 0.8%
- Pharmaceuticals: 13.9%

Source: National Drug Intelligence Center's National Drug Threat Survey 2009
The problem of fatal and non-fatal drug overdoses in Boston

Boston ranks higher than any other metropolitan area in the country for heroin mentions in emergency departments (DAWN, 2009)
Drug overdose is the number one cause of death among drug users in the United States (Latkin, 2004)

Overdoses kill more heroin injection drug users than AIDS, hepatitis, and other conditions that are related to their drug use (Sporer, 1999)

Between 1984 and 2004, deaths from mixing pharmaceuticals with alcohol and/or street drugs increased 3196% (Phillips, 2008)
The problem of drug overdoses in Massachusetts

- Car accidents is the number one cause of accidental death in the country, except for 16 states where more people die from drug overdose. Massachusetts is one of those 16 states (CDC, 2009)
- In 2008, 12 Massachusetts residents died every single week from drug overdoses (MDPH, 2008)
Questions & Answers

- Will Naloxone work on an alcohol OD?
- What if it is a crack/cocaine or speed/methamphetamine overdose?
- Are the ambulance and hospitals using the Nasal Naloxone?
- Others?
Questions & Answers

• Am I protected against a lawsuit for giving a person who is overdosing Naloxone?
• What is the risk period for an OD to reoccur after giving Naloxone?
• If the person isn’t overdosing and I give them Naloxone will it hurt them?