Disclaimer

• This presentation was created to assist in the education of EMTs in Naloxone administration. This presentation is available for public use and copying/distribution is encouraged.

• It is the intent that this program may serve as the lecture based portion of a BLS Medical Director’s Naloxone program. A psychomotor training component is STRONGLY RECOMMENDED to enhance the didactic knowledge presented.

• The staff of OEMS recognize that an individual medical director may modify this presentation to serve his/her organization’s needs.

• The materials contained in this presentation are provided for general information purposes only and do not represent endorsement for any particular product or manufacturer.
New Jersey Law

- P.L. 2013 c.46
- “Opioid Antidote and Overdose Protection Act” (May 2013)
- Provides immunity for witnesses and victims of overdose who activate emergency services
- Permits physicians to prescribe naloxone to “patients”, defined as someone who may be in position to assist another individual during an overdose.
  - Thus establishes a physician-patient relationship
- Also provides grant information
New Jersey Law

• Broad immunity to the prescriber and the “patient” provided.

• Prescriber required to ensure the prescribed understands:
  • Opioid overdose prevention and recognition
  • Importance of calling 911
  • Care for the overdose victim
Certificate of Waiver for EMT and Paramedic

• Applies to all certified New Jersey Emergency Medical Technicians and Paramedics.

• Need to successfully complete an educational program recognized by the Department.

• Administer the medication in accordance with established protocol.

• Generate a record for the individual treated in a form acceptable by the Department.
Opioids

• Substances that reduce pain
  • Perception of pain is reduced
  • Pain tolerance is increased

• Chemical substance that binds to receptors in the brain and central nervous system

• Natural substance – opium plant

• Numerous synthetic chemicals that do the same

• Used in pain management
  • A cornerstone of modern medicine
  • Sometimes all we can offer patients
Common Opioids

- Heroin
- Codeine (Tylenol #3)
- Morphine (Kadian, Avinza)
- Fentanyl (Actiq, Duragesic, Fentora)
- Hydrocodone (Vicodin, Lortab, Vicoprofen)
- Oxycodone (Percocet, Oxycontin)
- Hydromorphone (Dilaudid)
- Methadone
- Meperidine (Demerol)
- Tramadol (Ultram, Ultracet)
- Buprenorphine (Buprenex, Suboxone, Subutex)
Opioids

• Studies show addiction may increase when the patient has pain
• Tolerance and chemical dependence can occur
• In many areas, prescription narcotics are just as likely, if not more likely, to be the cause of overdose
  • Purer
  • ‘Safer’ to get
  • ‘Easier’ to get
Frequently Prescribed Combination Opioid Medications

- Lorcet®, Lortab®, Norco®, Vicodan®: Hydrocodone + acetaminophen
- Percocet®: Oxycodone + acetaminophen
- Percodan®: Oxycodone + aspirin

**Illegal opioids**
- Opium
- Heroin
Routes of Administration of Opioids by Laypersons

- Oral
- Transcutaneous
- Intravenous
- Subcutaneous ("skin popping" during the abuse of opioids)
Opioid Overdose

Overdose

- Too much of the medication
- Typical:
  - *Unconscious*
  - *Slow or no respirations*
  - *Pinpoint pupils (miosis)*
- Hypoxia (from no breathing) can take 2-4 minutes.
Signs and Symptoms of an Opioid Overdose

- Miosis (pinpoint pupils)
- Decreased/Change mental status
- Respiratory depression or Arrest
  - Hypoxia (from no breathing) can take 2-4 minutes.
- Decreased intestinal motility
Risk Factors with Opioid Overdose

- Hypoxia
- Hypercarbia
- Aspiration
- Cardiopulmonary arrest

The incidence of risk factors increases when other substances such as alcohol, benzodiazepines, or other medications have also been taken by the patient.
Naloxone (Narcan®)

- Medication used to reverse the effects of opioids (i.e. respiratory depression)
- In New Jersey, typically carried by Paramedics
Naloxone (Narcan®)

- Developed in the 1960s
- Opioid antagonist
- Emergency overdose treatment in the prehospital and hospital settings
- Increased demand for naloxone
  - Greater variety of available opioids
  - Increased opioid use and abuse
Physiology of Naloxone (Narcan®)

- Naloxone displaces the opioid from the opioid receptor in the nervous system
- Duration of Action: 30-90 minutes
Physiology of Naloxone (Narcan®)

This may result in the sudden onset of the signs and symptoms of opioid withdrawal:

- Agitation/Combative
- Tachycardia
- Pulmonary edema
- Nausea
- Vomiting
- Seizures
Additional Adverse Effects

- Cardiac arrest/Ventricular fibrillation
- Dyspnea
- Abdominal cramps
- Diarrhea
- Diaphoresis
- Increased blood pressure
- Tremulousness

The adverse effects following naloxone administration, particularly in chronic opioid users and abusers, may place the patient, emergency personnel and bystanders at risk.
Routes of Administration of Naloxone (Narcan®)

- Intranasal (IN)
- Intramuscular (IM)
- Intravenous (IV)
- Endotracheal

EMTs may only administer naloxone via intranasal or intramuscular via auto-injector!
Naloxone (Narcan®)

- The half-life of naloxone is relatively brief (as short as 30 minutes)

- All patients who receive naloxone must be monitored closely for recurrent symptoms such as:
  - altered mental status
  - respiratory depression
  - circulatory compromise

_Some purer Opioid can “outlast” initial Narcan® dose_
Naloxone (Narcan®)

- Minimal effect if no opioids are in the body
- Most common route for first responders is intranasal (IN):
  - Safer to use than other routes
  - Limited blood borne exposure
  - Medication is absorbed through a number of blood vessels right below the skin
Benefits of Intranasal or Intramuscular Route for Naloxone (Narcan®) Administration

- Equivalent clinical efficacy compared to intravenous naloxone
- Intravenous access may be impossible to establish in chronic intravenous drug abusers
Naloxone (Narcan®) Storage

- Keep out of light and temperature extremes
  - Store at “room temperature”
    - Check Package
    - Check Expiration Date
    - Check color in syringe or injector
- Protect package
- Keep in locked medication storage *(similar to Epinephrine auto injector)*
Prior to the administration of naloxone by all EMS providers, all patients should initially receive the appropriate medical interventions:

- Airway
- Breathing
- Circulation
Patient Assessment

- Scene Size-up and primary assessment

- Assess and secure airway utilizing an OPA. If a gag reflex is present utilize an NPA, if indicated, after Naloxone administration

- **Administer 100% oxygen** using a BVM device at 15 liters/minute

- Suction as needed
Patient Assessment continued

- Ensure ALS has been requested

- If the patient has no pulse, begin CPR with use of an AED.

- Obtain baseline vitals and obtain a SAMPLE history

- Conduct a secondary assessment
Response to an Opiate Overdose

Survival from drug related cardiac arrest is rare, therefore, it is important to monitor ABCs.
Considerations to a Response to an Opiate Overdose

- Is it an overdose or something else (hypoglycemia, head injury, shock, stroke)?

- Is it an overdose AND something else?
  - Cardiac Arrest
    - Can still give naloxone, but likely will not help
  - OD on other substances that will not respond to naloxone
    - Alcohol
    - Benzodiazepines (Valium, Xanax, Ativan)
    - Other sedatives
  - Medical Condition
    - Low blood sugar
    - Infection
    - Stroke
Response to an Opiate Overdose

**Look for the Signs...**

*Overdose on opioids typically:*

- Unconscious
- Slow or no breathing (<10/min)
- Small “pinpoint” pupils (miosis)
- Pulse variable
Contraindications for Naloxone (Narcan®) Use

- Medication has expired
- Known hypersensitivity or allergy
- The medication is discolored or particulate is noted, where appropriate
- There is no age restriction, but for patients under 5 years old on-line consultation with medical control and/or Medical Director protocol is required.
- The patient has met the maximum prescribed dose per the NJDOH Protocol
  - Any deviation during patient care must be under the direction of medical command (i.e., NJPIES, Medical Director or the ED receiving facility).
Cautions for Naloxone (Narcan®) Use

Use with Caution:

- Patients with History of SVT or other arrhythmias
- Patients with known cardiac disease
- Patients with possible head injury or brain tumor
- Poly-substance overdose
Intranasal Administration Technique

**HOW TO GIVE NASAL SPRAY NARCAN**

1. **Pull or pry off yellow caps**
   - Syringe

2. **Pry off red cap**
   - Naloxone

3. **Grip clear plastic wings.**

4. **Screw capsule of naloxone into barrel of syringe.**

5. **Insert white cone into nostril; give a short, vigorous push on end of capsule to spray naloxone into nose: one half of the capsule into each nostril.**

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NJ Health
New Jersey Department of Health
Intranasal Administration Technique

• The tip of the syringe should be placed near or just inside the nostril

• Placement of the syringe too far inside the nasal cavity may traumatize the nasal passages or cause epistaxis
Dosage for Intranasal Administration

- Vial has 2mg of naloxone in 2mL
- Give 1mg (1ml) in each nostril, quickly
- Medication is atomized and absorbed through vessels in the nasal cavity
Intramuscular Administration Technique

1. Remove auto injector from outer case.
2. Pull off the safety guard.
3. Place the auto injector firmly against the outer thigh, through clothing, if needed.
4. Continue to press firmly and hold in place for 5 seconds.

**Note:** All agencies should follow manufacturer guidelines where appropriate and in coordination with their Medical Director.
Dosage for Intramuscular Administration

- The auto injector administers 0.4 mg (0.4 mL) dose of naloxone into the muscle.
- The auto injector will have a retractable needle that the user will not see before, during, or after an injection.
- The auto injector may include voice prompts to assist with administration.
- The auto injector should be disposed of immediately after use in a sharps container.
Precautions with Naloxone (Narcan®) – What to Expect

The administration of naloxone may result in the rapid onset of the signs and symptoms of opioid withdrawal:

- Agitation (combative)
- Tachycardia
- Pulmonary edema
- Nausea
- Vomiting
- Seizures
Response to an Opiate Overdose

• After administration, repeat primary and secondary assessments
• Monitor the patient’s response
• Be prepared to suction the airway
• Provide supportive care as appropriate:
  o Airway
  o Breathing (Be prepared to support respirations)
  o Circulation
Documenting the use of Naloxone (Narcan®) shall be completed via the following steps:

- Providers are required to complete a patient care report.
- In addition to the agency’s patient care report; providers are required to complete the brief Department web-based Naloxone (Narcan®) Reporting form.
- Both forms must be completed within 24 hours of medication administration.
To access the brief Department web-based Naloxone (Narcan®) Reporting form:

- Log on to: http://www.state.nj.us/health/ems/
- Click on the “Naloxone (Narcan®) Program” grey tab located on the left side of the page
- Select “Medication Administration Report” and click on the link to access the report
- Complete the entire registration form and hit submit. (You are not able to save the form and return later)
- You will receive a confirmation number once you have completed and submitted the form
Office of Emergency Medical Services

Important Information:

Attention all Visitors to OEMS:
Due to increased security, ALL visitors to the Office of Emergency Medical Services MUST have a scheduled appointment with OEMS staff. No "walk-ins" will be permitted. Visitors must have a valid government photo ID with them to present to security upon entering the building. Thank you for your anticipated cooperation.

Security Alert:

Be Alert for Individuals Seeking Information About Emergency Response Agencies
Specific information Available here [pdf 83k]

Help NJ EMS Program

Connecting those who have lost so much with the kindess of others...

So many NJ EMS agencies have lost equipment, vehicles and buildings to Super Storm Sandy. As these agencies continue to rebuild, we are fortunate that so many have offered kind and inspirational words, while others have offered donations of equipment and supplies. If you like to volunteer or make a donation please go to www.ready.nj.gov or visit the National Donations Management Network.

- FCC Narrow-banding Mandate Deadline [pdf 558k]
- Questions and Answers regarding Narrow-banding Mandate
- Universal Transport Form Questions and Answers (pdf 839k)

Spotlight

- Basic Drug Recognition for Police, Fire & EMS July 8, 2014, Sayreville, New Jersey [pdf]
- Human Trafficking Red Flags for Emergency Responders
- Hurricane Sandy Responder Support [pdf 2m]
- Statewide Incident Rehab, Guidelines for Emergency Responders
- New Public Law regarding First Responders use and/or taking photographs in the field [pdf 10k]
- E.V.E.N.T. - National EMS Voluntary Event Notification Tool
Documentation and Reporting
Documentation and Reporting

For agencies utilizing a NEMSIS Gold Compliant ePCR:

Contact your system administrator for proper documentation for medication administration.

<table>
<thead>
<tr>
<th>Medication</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naloxone</td>
<td>2 MG</td>
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</table>

Route: IN
Concentration: L
Registration with the Department

All Agencies are required to be registered with the Department prior to implementation of the program

- Any authorized agency representative may register their agency
- Please make sure to have the following information available before beginning the registration process (you will not be able to save and return to the form later):
  - Agency demographic information
  - Agency contact demographic information
  - Medical Command Physician demographic information
Registration with the Department

To register an agency for the Naloxone (Narcan®) Program:

- Log onto [http://www.state.nj.us/health/ems](http://www.state.nj.us/health/ems)
- Click on the “Naloxone (Narcan®) Program” grey tab located on the left side of the page
- Select “Agency Registration” and click on the link to access registration.
- Complete the entire registration form and hit submit
- You will receive a confirmation number once you have completed and submitted the form
Summary

• BLS Agency must register with the Department via [http://www.state.nj.us/health/ems/](http://www.state.nj.us/health/ems/)

• BLS Agency must have a Medical Director

• BLS Agency must abide by the NJDOH protocol

• Training is mandatory

• BLS Agency must report the administration within 24 hours
The medical director retains the authority to limit or prohibit the administration of intranasal naloxone.

The administration of naloxone by the endotracheal or intravenous routes is prohibited for EMTs.
Questions

For questions regarding Naloxone program, please contact the Office of EMS at (609) 633-7777
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