

Introduction to Naloxone Administration Curriculum



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2709 Mondovi Road
Eau Claire, WI 54701 USA
800.830.1416
+1.715.830.2040
www.realityworks.com

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About the Author



Krista Wenz has been a licensed paramedic for 34 years. She holds a bachelor's degree in Fire Safety Management and worked 23 years as a Firefighter-Paramedic for a large metropolitan fire department in California. Krista has extensive knowledge in emergency medicine, including experience as an Adjunct Instructor at community and private colleges teaching EMT and Paramedic students. She has additional experience working as a Mental Health Technician in a psychiatric ward and emergency crises, Drill Instructor, and Field Training Officer for multiple agencies, CPR, First-Aid, PALS, BLS, and ALS instructor, and EMS Captain for a rural fire department. Now retired from the fire service, Krista is passionate about passing on knowledge and experience for those interested in entering the emergency medical pre-hospital field.



Curriculum Structure

The *Introduction to Naloxone Administration* curriculum is composed of the following lessons. Approximate lesson times are included.

Lesson	Title	Approximate Time
One	FOCUS: Developing Awareness of Patient-Focused Care	15-20 minutes
One	LEARN: Introduction to Naloxone Administration Slide Presentation	30 minutes
One	REVIEW: Practice and Assessment of Naloxone Administration	15-20 minutes
	Total	1 hour

Lesson Structure

Each lesson begins with a Lesson Overview, Lesson Objectives, and a Lesson at a Glance table which lists the lesson activities, materials required, suggested preparation steps and approximate class time.

Lesson Sections

The actual lesson follows the overview, which will contain some of the sections described below.

FOCUS

Every lesson begins with a FOCUS activity intended to capture participants' attention. This may be in the form of a small or large class discussion, a game, a review of previous lesson information, or a demonstration. During this activity, participants are introduced to the topic of the lesson.

LEARN

The LEARN activity in each lesson varies in its presentation mode. It may be a slide presentation, group activity, or demonstration.

REVIEW

The majority of lessons end with a REVIEW activity intended to briefly review the lesson's key messages or main points.

Lesson One – Introduction to Naloxone Administration

Lesson Overview

In this lesson, students will learn about proper naloxone administration through the intramuscular route. Students will learn how to use a naloxone nasal atomizer and how to draw up naloxone from a vial using the proper size needle and syringe.

Pre-Lesson Knowledge

- Basic anatomy
- Signs and symptoms of an opioid overdose
- Proper patient care and documentation

Lesson Objectives

After completing this lesson, participants will be able to:

- Identify the intramuscular location for naloxone administration
- Demonstrate the use of a naloxone nasal atomizer
- Identify the accurate size needle and syringe to be used
- Properly draw up naloxone from a vial
- Adequately perform an intramuscular injection of naloxone

Lesson at a Glance

Activity	Materials	Preparation	Approximate class time
FOCUS	• <i>Introduction to Naloxone Administration (Focus on Empathy)</i> worksheet • <i>Introduction to Naloxone Administration (Focus on Empathy)</i> Instructor Resource • <i>Introduction to Naloxone Administration Pre-test</i> • <i>Introduction to Naloxone Administration Pre-test – Answer Key</i>	1. Print/photocopy <i>Introduction to Naloxone Administration (Focus on Empathy)</i> worksheet and <i>Introduction to Naloxone Administration Pre-test</i> (one per participant)	15-20 minutes
LEARN	• <i>Introduction to Naloxone Administration</i> slide presentation • Naloxone Training Kit	1. Prepare <i>Introduction to Naloxone Administration</i> slide presentation for viewing	30 minutes
REVIEW	• <i>Introduction to Naloxone Administration Post-test</i> • <i>Introduction to Naloxone Administration Post-test - Answer Key</i> • Naloxone Training Kit • Sharps container or simulated sharps container	1. Print/photocopy <i>Introduction to Naloxone Administration Post-test</i> (one per participant)	15-20 minutes

Instructor Note: Focus activities may also be completed prior to class.

Lesson One – Introduction to Naloxone Administration

FOCUS: Developing Awareness of Patient-Focused Care

15-20 minutes

Purpose:

To help students develop an awareness of patient-focused care. Take the *Introduction to Naloxone Administration Pre-test*.

Materials:

- *Introduction to Naloxone Administration (Focus on Empathy) worksheet*
- *Introduction to Naloxone Administration (Focus on Empathy) Instructor Resource*
- *Introduction to Naloxone Administration Pre-test*
- *Introduction to Naloxone Administration Pre-test – Answer Key*

Facilitation Steps:

1. Distribute the *Introduction to Naloxone Administration (Focus on Empathy) worksheets* prior to or at the beginning of class.
2. Have the *Introduction to Naloxone Administration (Focus on Empathy) Instructor Resource* page available.
3. Pair up students and have them complete the *Introduction to Naloxone Administration (Focus on Empathy) worksheet*.
4. Distribute the *Introduction to Naloxone Administration Pre-test* and have students complete it.
5. Either collect the pre-test or have students self-correct, using the *Introduction to Naloxone Administration Pre-test – Answer Key* as a resource.

Introduction to Naloxone Administration

(Focus on Empathy)

Skill: Administration of naloxone using the nasal atomizer

READ the following:

You and your partner have just started your shift. You receive a call for your EMS unit to respond to a possible overdose at the Barry Hotel. You arrive on the scene three minutes later and are directed to the back alley, where you find an unconscious male of approximately 30 years of age. He has a syringe stuck into his forearm with a pile of vomit next to himself and is not breathing. While you assist your partner with setting up the naloxone nasal atomizer, a lady comes running down the alley carrying a toddler, yelling for “Jerry.” You intercept her and find out that the patient is Jerry, her husband. Jerry was just released from rehab two hours ago. She is very upset, asking if he is going to die and saying that you should be doing something for him. You explain what your partner is doing and that you are giving him medicine to help him breathe and reverse the narcotic. While trying to get more medical history from her, she is not cooperative and throws herself on Jerry, crying and pounding on his chest while holding her crying child, asking the entire time if he’s going to die.

REFLECT on the situation:

What emotions do you think the wife is feeling?

What is the best response you can give when a loved one asks you if the patient is going to die?

What would you say to the lady regarding her toddler?

SHARE your thoughts with a peer when it’s discussion time.

Introduction to Naloxone Administration

(Focus on Empathy) Instructor Resource

Skill: Administration of naloxone using the nasal atomizer

READ the following:

You and your partner have just started your shift. You receive a call for your EMS unit to respond to a possible overdose at the Barry Hotel. You arrive on the scene three minutes later and are directed to the back alley, where you find an unconscious male of approximately 30 years of age. He has a syringe stuck into his forearm with a pile of vomit next to himself and is not breathing. While you assist your partner with setting up the naloxone nasal atomizer, a lady comes running down the alley carrying a toddler, yelling for “Jerry.” You intercept her and find out that the patient is Jerry, her husband. Jerry was just released from rehab two hours ago. She is very upset, asking if he is going to die and saying that you should be doing something for him. You explain what your partner is doing and that you are giving him medicine to help him breathe and reverse the narcotic. While trying to get more medical history from her, she is not cooperative and throws herself on Jerry, crying and pounding on his chest while holding her crying child, asking the entire time if he’s going to die.

REFLECT on the situation:

What emotions do you think the wife is feeling?

Fear, uncertainty, anger, helplessness.

What is the best response you can give when a loved one asks you if the patient is going to die?

We don’t want to give false hope, so it’s best to not tell them that they aren’t going to die. The best response is to tell them that we are doing everything we can, and explain the procedures we are doing along with the outcome we are trying to achieve.

What would you say to the lady regarding her toddler?

I would explain to her that her emotions and the situation with her husband are affecting her baby and making the situation worse. I would ask her if she would come with me and take them to a spot away from the patient to remove them from the situation. I would explain that I need to get back to help my partner, but that we can call for someone to take her to the hospital so she can be with her husband.

SHARE your thoughts with a peer when it’s discussion time.

Name: _____ Class: _____

Introduction to Naloxone Administration Pre-test

Select the best answer to the following multiple-choice questions:

1. What is the initial adult dosage of naloxone drawn up in a syringe intended for an intramuscular (IM) injection?
 - a. 0.4-2 mg
 - b. 0.4-1 mg
 - c. 1-2 mg
 - d. 1-1.5 mg
2. What needle size do you use for an IM injection?
 - a. 12-14 gauge
 - b. 16-18 gauge
 - c. 20-22 gauge
 - d. 22-25 gauge
3. What size of syringe do you use for an IM injection of naloxone?
 - a. 1 cc
 - b. 3 cc
 - c. 5 cc
 - d. 10 cc
4. What is the naloxone drug dosage for adults and children using the nasal atomizer?
 - a. 1 mg spray per nostril
 - b. 2 mg spray per nostril
 - c. 3 mg spray per nostril
 - d. 4 mg spray per nostril
5. What length needle is used for an IM injection?
 - a. ¼-½ inch
 - b. ½-1 inch
 - c. 1-1½ inches
 - d. 1½-2 inches

Introduction to Naloxone Administration

Pre-test – Answer Key

1. What is the initial adult dosage of naloxone drawn up in a syringe intended for an intramuscular (IM) injection?
 - a. **0.4-2 mg** *Refer to slide 5*
 - b. 0.4-1 mg
 - c. 1-2 mg
 - d. 1-1.5 mg
2. What needle size do you use for an IM injection?
 - a. 12-14 gauge
 - b. 16-18 gauge
 - c. 20-22 gauge
 - d. **22-25 gauge** *Refer to slide 9*
3. What size of syringe do you use for an IM injection of naloxone?
 - a. 1 cc
 - b. **3 cc** *Refer to slide 9*
 - c. 5 cc
 - d. 10 cc
4. What is the naloxone drug dosage for adults and children using the nasal atomizer?
 - a. **1 mg spray per nostril** *Refer to slides 5 and 6*
 - b. 2 mg spray per nostril
 - c. 3 mg spray per nostril
 - d. 4 mg spray per nostril
5. What length needle is used for an IM injection?
 - a. ¼-½ inch
 - b. ½-1 inch
 - c. **1-1½ inches** *Refer to slide 9*
 - d. 1½-2 inches

Refer to slide 9

Lesson One – Introduction to Naloxone Administration

LEARN: Naloxone Administration Slide Presentation

30 minutes

Purpose:

Participants will receive a thorough introduction to the intranasal administration of naloxone using a nasal atomizer, drawing up the proper dose of naloxone from a vial utilizing the proper needle and syringe, and administering naloxone intramuscularly using a needle and syringe.

Materials:

- *Introduction to Naloxone Administration* slide presentation
- Naloxone Training Kit
- Sharps container or simulated sharps container

Facilitation Steps:

Share the following information as you show the slide presentation.

Slide 1: Introduction slide to Naloxone Administration

Slide 2: Prior to this lesson, students should know the signs and symptoms of an overdose, have an understanding of opioids (and the increasing numbers of opioid-related emergencies), and have proper patient contact and documentation skills. They should also know basic anatomy and the difference between a subcutaneous injection (SQ) and an intramuscular (IM) injection.

Slide 3: Another brand name of naloxone is Evzio, but Narcan is the most commonly recognized. Naloxone is an FDA-approved drug that is found to be safe in almost any situation. It will not harm the patient if they didn't overdose and have another medical emergency. It is also safe for infants, children, and adults.

Slide 4: A smaller initial dose is recommended for adults compared to children due to the fact that most overdoses occur in adults and, if given

too much naloxone too rapidly, it can put the patient into withdrawals. The desired effect is for the patient to be breathing on their own, but not necessarily for them to become responsive. If they do become responsive, expect some of the following symptoms from the patient:

- Nausea and vomiting
- Stomach pain and diarrhea
- Fever and sweating
- Body aches and tenderness

Rapid heart rate, anxiety, restlessness, tremors, and/or shivering.

Slide 5: With opioid overdoses on the rise, intranasal naloxone and prefilled injections can be bought without a prescription. Make sure the students are aware that the patient may have been given naloxone by a family member or bystander prior to their arrival. If so, they need to take into account the dose and the approximate time at which it was administered.

Slide 6: Demonstrate with the naloxone nasal atomizer in your training kit.

Slide 7: Explain what to do if there is contamination, i.e. don new gloves, re-swab containers, swap out the needle, etc.

Slide 8: Demonstrate how to apply the needle to the syringe if it's not already attached, and how to locate the proper needle and gauge size on the packaging.

Slide 9: Demonstrate this procedure using the Naloxone Training Kit.

Slide 10: Demonstrate this procedure using the Naloxone Training Kit and explain the importance of slowly ejecting air so as not to lose the medication.

Slide 11: Explain how there are other routes for IM injections, but that other IM locations cannot always receive the amount of medicine that will

be given, whereas the thigh can handle a large volume.

Slide 12: Demonstrate this procedure using the Naloxone Training Kit.

Slide 13: Demonstrate using the large injection pad within the Naloxone Training Kit. This is a good time to explain the six rights of medication administration.

- Right Patient
- Right Medication
- Right Route
- Right Dose
- Right Time
- Right Documentation

Explain how if there is visible blood when they aspirate, which is rare, they need to choose a new site. The students should know how to explain the procedure to the patient, proper documentation procedures, and reevaluation of the patient after any medication administration. If symptoms don't resolve or worsen in 3-5 minutes, re-administer naloxone.

Lesson One – Introduction to Naloxone Administration

REVIEW: Practice and Assessment of Naloxone Administration

15-20 minutes

Purpose:

Participants will practice drawing up naloxone from a vial using a needle and syringe. They will practice administration of a naloxone intramuscular injection using the needle and syringe on the injection pad. They will then demonstrate using the naloxone nasal atomizer. Once the practice and assessment are complete, participants will complete a post-test.

Materials:

- *Introduction to Naloxone Administration Post-test*
- *Introduction to Naloxone Administration Post-test – Answer Key*
- Naloxone Training Kit
- Sharps container or simulated sharps container

Facilitation Steps:

1. Starting with slides 4 and 5, have the students determine the proper drug dosage needed for adults and children.
2. **Slide 6:** How to prepare and administer intranasal naloxone. Have the students select and prepare the nasal atomizer using the materials provided in the training kit.
3. **Slide 7:** Aseptic Technique: Using procedures and practices to prevent contamination of pathogens
4. **Slide 8:** Select and prepare the syringe.
 - a. Choose the needle size: The appropriate gauge for intramuscular injections is 22-25 gauge, 1-1½" long.
 - b. Syringe size: Use a 3 cc syringe for naloxone injections.
 - c. With gloved hands, remove the syringe and needle from the packaging.
 - d. Attach the needle to the syringe if it is not already attached, twisting and turning in a clockwise direction.
5. **Slide 9:** Prepare the syringe using a vial of naloxone.
 - a. Confirm proper medication and date of expiration
 - b. Remove the plastic lid.
 - c. Wipe stopper with antiseptic swab.
 - d. Fill the syringe with air equal to the volume of medication wanted.
 - e. Insert the needle and inject air into the empty space above the fluid line.
 - f. Slowly withdraw the medication, making sure that the plunger does not pull out of the syringe.
6. **Slide 10:** Preparing the syringe for injection.
 - a. Hold the syringe upright.
 - b. Allow bubbles to rise by flicking the side of the syringe.
 - c. Push out the remaining air.
 - d. Use caution. Do not lose medication when ejecting air.
7. **Slide 11:** Choosing the site for intramuscular (IM) injections. The lateral mid-thigh is the preferred injection site for adults and children. Review the slide for pictures of the proper location. Have students identify the proper location using themselves or a partner.
8. **Slide 12:** Preparing the site for injection.
 - a. Have all the supplies needed for the injection:
 - Personal protective equipment
 - Proper size needle and syringe
 - Naloxone
 - Alcohol swabs
 - 2x2's and/or bandages

- Sharps container
- b. Select the location (lateral mid-thigh is preferred)
 - c. Swab the location with an alcohol wipe
 - d. Avoid touching the site after cleaning
9. **Slide 13:** Administering the injection using the training injection pad.
- a. Insert at 90 degrees (straight in).
 - b. Pull the plunger back a quarter of an inch (aspirate) and look for blood.
 - c. If blood is visible, stop the injection (this is rare).
 - d. If blood is visible, continue injection.
 - e. Press the plunger all the way in.
 - f. Remove the needle. Use a safety device to cap it.
 - g. Press on the injection site with a 2x2 and/or apply a bandage.
 - h. Dispose of the needle and syringe in a sharps container.
10. **Slide 14:** Instruct students to take a few minutes to complete the *Introduction to Naloxone Administration Post-test*. Have students self-check their answers as you share from the answer key.

Name: _____ Class: _____

Introduction to Naloxone Administration Post-test

Select the best answer to the following multiple-choice questions:

1. What is the initial adult dosage of naloxone drawn up in a syringe intended for an IM injection?
 - a. 0.4-2 mg
 - b. 0.4-1 mg
 - c. 1-2 mg
 - d. 1-1.5 mg
2. What needle size do you use for an intramuscular injection?
 - a. 12-14 gauge
 - b. 16-18 gauge
 - c. 20-22 gauge
 - d. 22-25 gauge
3. What size of syringe do you use for an IM injection of naloxone?
 - a. 1 cc
 - b. 3 cc
 - c. 5 cc
 - d. 10 cc
4. What is the naloxone drug dosage for adults and children using the nasal atomizer?
 - a. 1 mg spray per nostril
 - b. 2 mg spray per nostril
 - c. 3 mg spray per nostril
 - d. 4 mg spray per nostril
5. What length needle is used for an IM injection?
 - a. ¼-½ inch
 - b. ½-1 inch
 - c. 1-1½ inches
 - d. 1½-2 inches

Introduction to Naloxone Administration

Post-test – Answer Key

1. What is the initial adult dosage of naloxone drawn up in a syringe intended for an IM injection?
 - a. **0.4-2 mg** *Refer to slide 5*
 - b. 0.4-1 mg
 - c. 1-2 mg
 - d. 1-1.5 mg
2. What needle size do you use for an intramuscular injection?
 - a. 12-14 gauge
 - b. 16-18 gauge
 - c. 20-22 gauge
 - d. **22-25 gauge** *Refer to slide 9*
3. What size of syringe do you use for an IM injection of naloxone?
 - a. 1 cc
 - b. **3 cc** *Refer to slide 9*
 - c. 5 cc
 - d. 10 cc
4. What is the naloxone drug dosage for adults and children using the nasal atomizer?
 - a. **1 mg spray per nostril** *Refer to slides 5 and 6*
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 - c. 3 mg spray per nostril
 - d. 4 mg spray per nostril
5. What length needle is used for an IM injection?
 - a. ¼-½ inch
 - b. ½-1 inch
 - c. **1-1½ inches** *Refer to slide 9*
 - d. 1½-2 inches

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