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ECHO Idaho: Opioid Addiction and Treatment

Naloxone: Saving Lives

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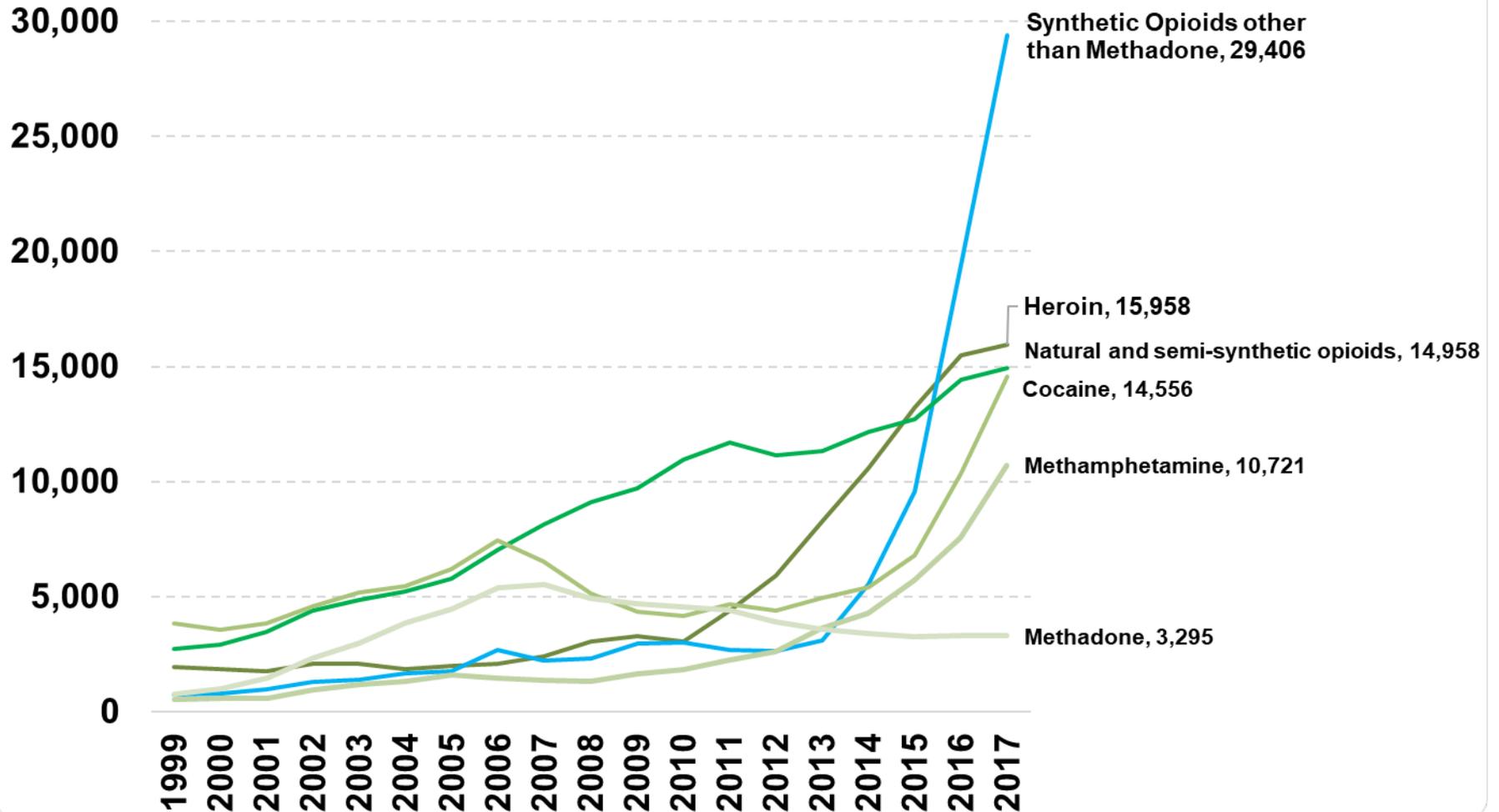
Professor, ISU College of Pharmacy

The speaker has no significant financial conflicts of interest to disclose.

Learning Objectives

- Explain naloxone's mechanism of action and its safety and efficacy profile
- Discuss the role of naloxone for out of hospital use
- Identify patient populations at risk for opioid/heroin overdoses
- Explain when and how to administer naloxone

Drugs Involved in U.S. Overdose Deaths, 1999 to 2017



<https://www.cdc.gov/drugoverdose/epidemic>



Naloxone: An Antidote

- Naloxone is an antidote for reversal of opioid induced respiratory and CNS depression
- Pure opioid antagonist that binds with high affinity to mu, kappa and delta receptors
 - Greatest affinity for mu receptors
- Naloxone then displaces opioid agonists
- Reverses clinical and toxic effects of opioids
 - May trigger sudden opioid withdrawal symptoms

Naloxone: Reversal

- Opioids
- Heroin
- May not reverse buprenorphine
- No effect on non-opioid overdoses
 - Cocaine
 - Methamphetamine
 - Bath salts
 - Benzodiazepines
 - Alcohol

Naloxone

- When given in an overdose:
 - Reverses respiratory and CNS depression
 - Restores breathing
 - Reverses pain control
 - May precipitate acute opioid withdrawal
 - Pain
 - Agitation, irritability
 - GI effects (N/V/D)
 - Diaphoresis
 - Tachycardia
- Onset of action is ~ 2-5 minutes
- No potential for abuse
- No harm to patients who have not taken opioids

Naloxone

- Half-life of 30-90 minutes
 - As naloxone wears off, opioids still circulating may bind to opioid receptors causing overdose symptoms to return



Risk Mitigation Strategies: Naloxone Expanded Access

- Community based programs with naloxone distribution has demonstrated effectiveness in preventing opioid-related overdose deaths
- From 1996-2014, the CDC reported that community-based naloxone distribution programs resulted in 26,463 overdose reversals

www.cdc.gov; CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016

Naloxone: Available Products

- Intranasal
 - Naloxone
 - Narcan (approved 11/15)
- Intramuscular
 - Naloxone
 - Evzio (auto-injector) (approved 4/14)

Intranasal Naloxone



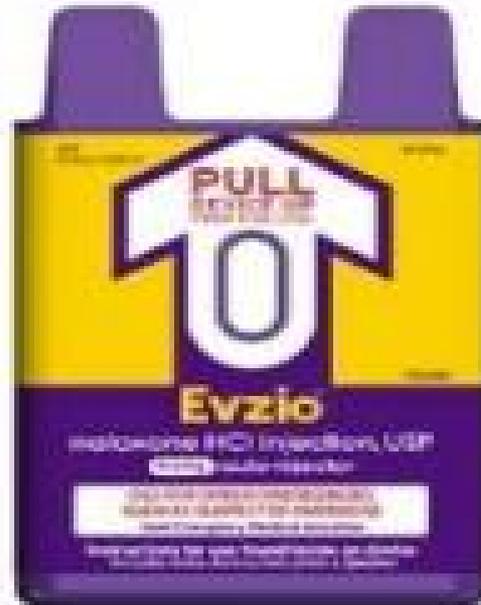
Narcan Nasal Spray



Naloxone Intramuscular



EVZIO



**EVZIO
Outer Case**

Naloxone Access Laws

- All states now have naloxone access laws
 - Laws vary by state
 - Standing order
 - Collaborative pharmacy practice agreement
 - Prescription
 - Pharmacist prescribes
 - Idaho pharmacist's have prescriptive authority
- Idaho passed a Good Samaritan law in 2018
 - provides limited immunity when acting in good faith when seeking medical assistance due to a drug-related medical emergency

Consider Naloxone For:

- Anyone that has a prescription for opioids, especially higher opioid dosages (≥ 50 MME/day)
- Anyone with a history of opioid or heroin abuse/overdose
- Anyone with a history of mental illness or substance abuse
- Family/friends of someone prescribed opioids, that has access to opioids or uses heroin
- Patients on other CNS acting meds (including benzodiazepines), methadone or alcohol
- Patients with renal or hepatic dysfunction or respiratory disease (including sleep apnea)
- Those who are recently released from incarceration, recently detoxed/recovery from opioid addiction or who were abstinent (tolerance decreases and relapse can be fatal)

When to Use Naloxone: Opioid Overdose vs Overmedication

S/S Overdose – Administer naloxone

- Pinpoint pupils
- Not arousable
- Not breathing or very slow breathing
- Choking, snorting, gurgling
- Bradycardia or no heartbeat
- Cold/clammy skin
- Blue lips/nailbeds

S/S of Overmedication – Do not use naloxone but continue to observe

- Pinpoint pupils
- Arousable
- Breathing but sleepy or intoxicated appearing
- Slurred speech

Naloxone: Administration

- Determine if an overdose
- Call 911
- Give naloxone
- Give rescue breaths
- Once breathing on own, turn person on side (rescue position)
- Stay with person until EMS arrives
- May administer a 2nd naloxone dose if no response after 2-3 minutes or symptoms return before EMS arrives

1 Identify Opioid Overdose and Check for Response

Ask person if he or she is okay and shout name.

Shake shoulders and firmly rub the middle of their chest.

Check for signs of an opioid overdose:

- Will not wake up or respond to your voice or touch
 - Breathing is very slow, irregular, or has stopped
 - Center part of their eye is very small, sometimes called "pinpoint pupils"
- Lay the person on their back to receive a dose of NARCAN Nasal Spray.



2 Give NARCAN Nasal Spray

REMOVE NARCAN Nasal Spray from the box.

Peel back the tab with the circle to open the NARCAN Nasal Spray.

Hold the NARCAN Nasal Spray with your thumb on the bottom of the plunger and your first and middle fingers on either side of the nozzle.

Gently insert the tip of the nozzle into either nostril.

• Tilt the person's head back and provide support under the neck with your hand. Gently insert the tip of the nozzle into **one nostril**, until your fingers on either side of the nozzle are against the bottom of the person's nose.

Press the plunger firmly to give the dose of NARCAN Nasal Spray.

• Remove the NARCAN Nasal Spray from the nostril after giving the dose.



3 Call for emergency medical help, Evaluate, and Support

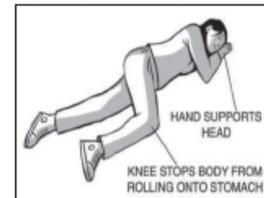
Get emergency medical help right away.

Move the person on their side (recovery position) after giving NARCAN Nasal Spray.

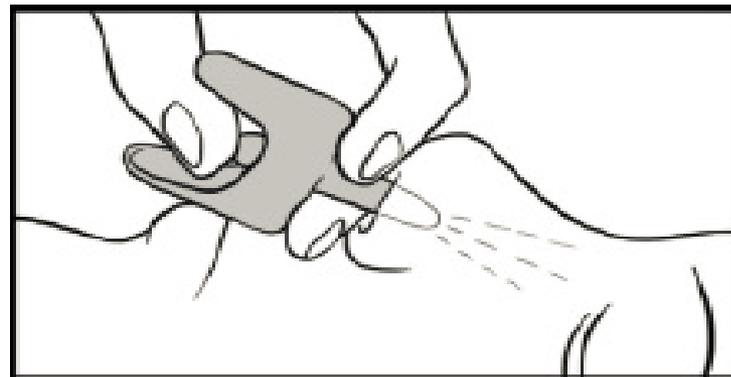
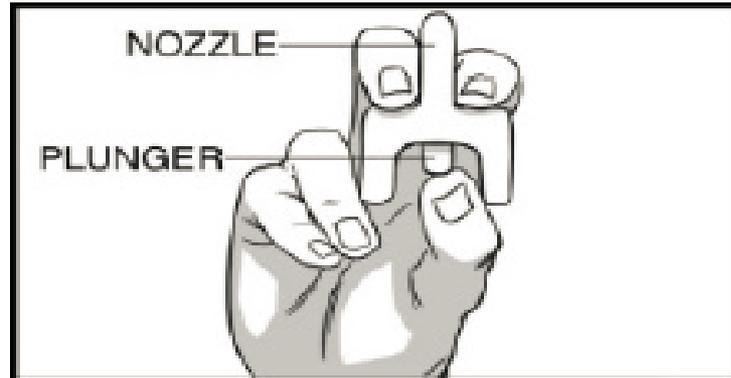
Watch the person closely.

If the person does not respond by waking up, to voice or touch, or breathing normally another dose may be given. NARCAN Nasal Spray may be dosed every 2 to 3 minutes, if available.

Repeat Step 2 using a new NARCAN Nasal Spray to give another dose in the other nostril. If additional NARCAN Nasal Sprays are available, repeat step 2 every 2 to 3 minutes until the person responds or emergency medical help is received.



Narcan Nasal Spray Administration



<https://www.narcan.com/>

Evzio Administration



NASAL SPRAY NALOXONE

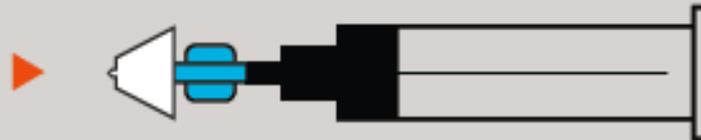
1

Remove yellow caps.



2

Twist on white cone (nasal atomizer).



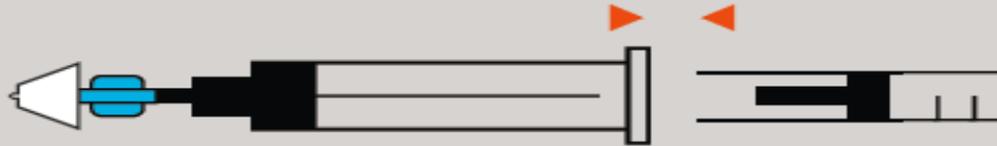
3

Remove cap (red or purple) off end of the naloxone ampule.

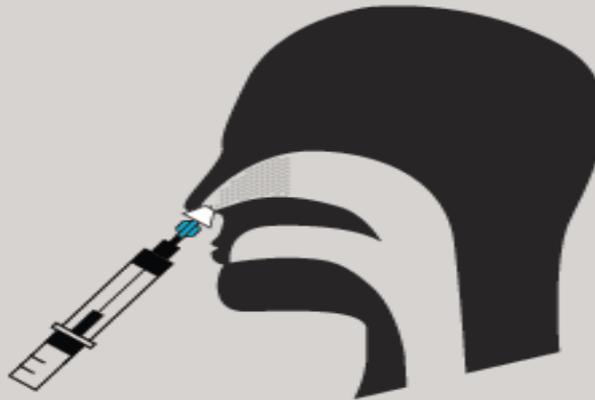


4

Gently twist the ampule of naloxone into syringe.



PUSH ON END OF AMPULE TO SPRAY. ▶



5

Insert white cone into nostril and aim slightly upwards; spray 1/2 of the naloxone ampule into each nostril with a quick, strong push on end of the ampule.

6

If no response in 2 to 3 minutes, administer second dose.

Key Points

- Naloxone is safe and effective in overdoses
- Naloxone should be provided to individuals at risk for an opioid overdose
- Naloxone is available in several different dosage forms

References

- www.cdc.gov
- CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016
- www.samhsa.gov
- www.who.int/substance_abuse
- Pharmacist's Letter: Naloxone
- <http://prescribetoprevent.org>
- www.connectthepieces.com
- www.odp.idaho.gov