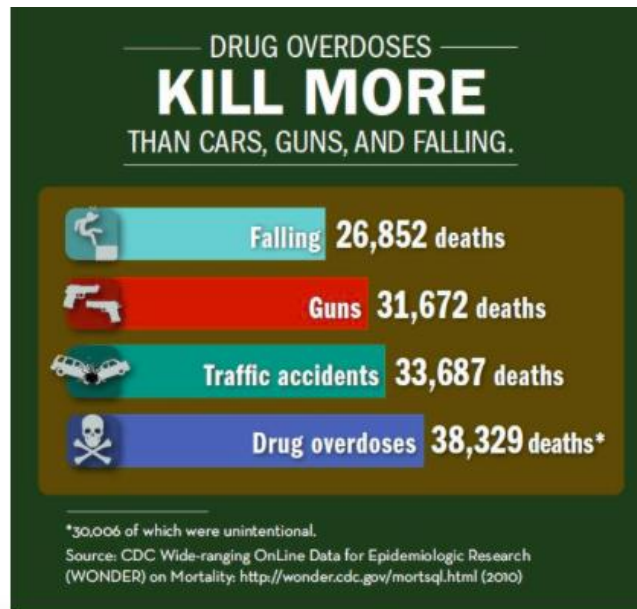


USE OF NALOXONE BY LAW ENFORCEMENT FOR OPIOID OVERDOSE



Objectives

- Background and statutes
- Define Naloxone
- Routes of administration
- Training requirements
- Immunity

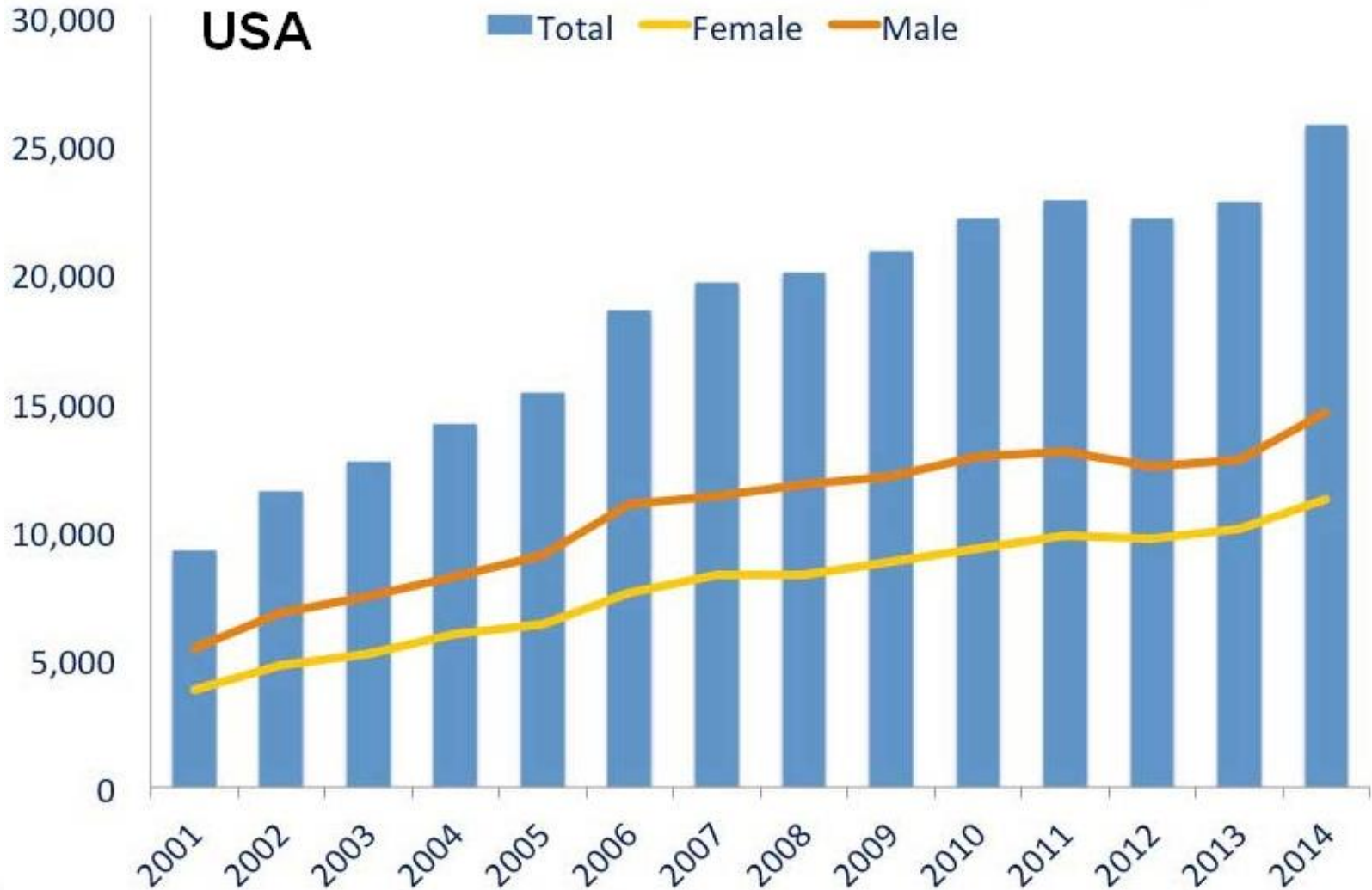


The Opioid Epidemic

- Drug overdose is the leading cause of unintentional injury death in America.
- Opioids include legal prescriptions and illegal drugs.
- More young adults and teens in AZ are using Heroin more than ever.
- 41,502 fatal overdoses in 2012
 - 39% due to opioids



Number of Deaths from Prescription Drugs



Source: National Center for Health Statistics, CDC Wonder

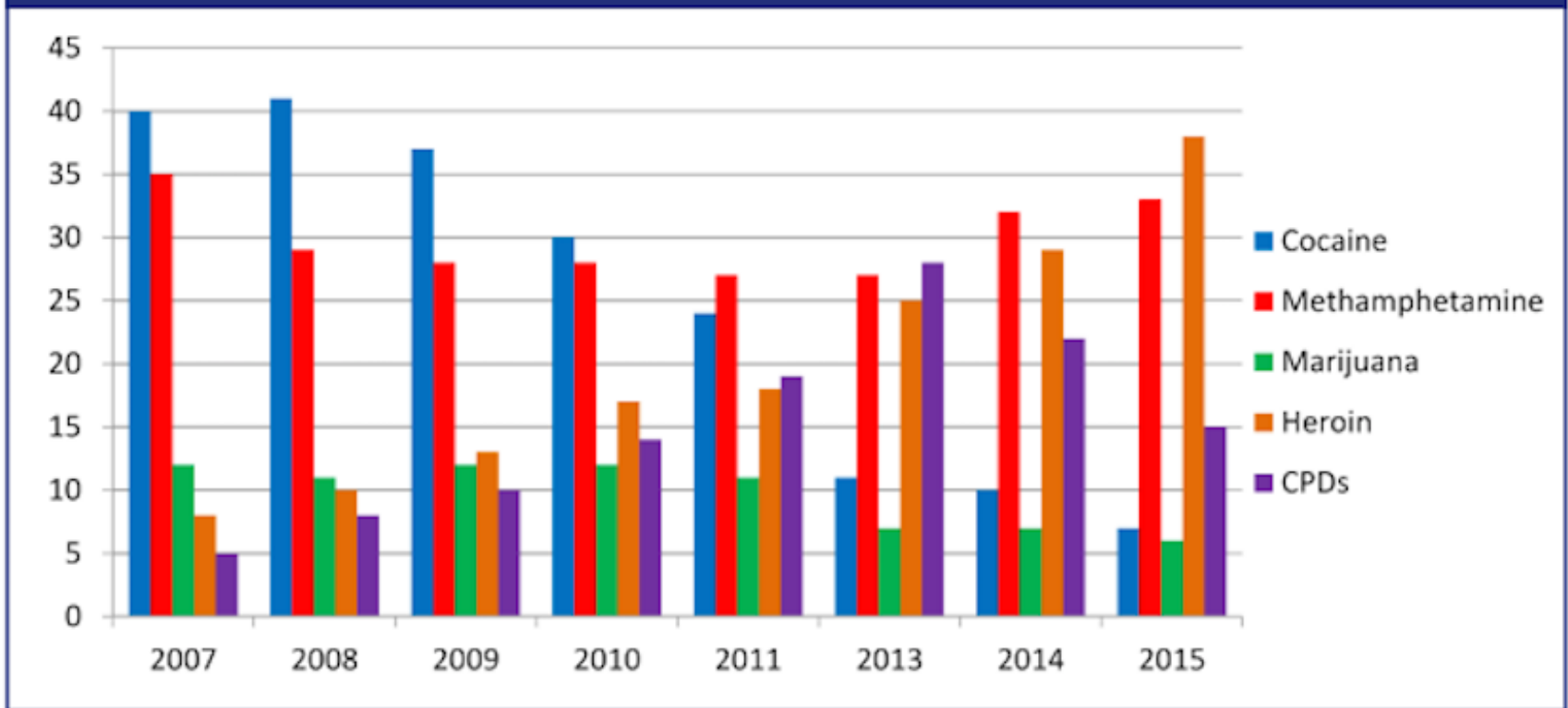


ARIZONA DEPARTMENT
OF HEALTH SERVICES

Health and Wellness for all Arizonans

Note the increasing Heroin trend

(U) CHART 2. PERCENTAGE OF NDTs RESPONDENTS REPORTING THE GREATEST DRUG THREAT, 2007 - 2015



SOURCE: NATIONAL DRUG THREAT SURVEY

Use of Naloxone by L.E. and EMTs

- Safe, effective, well established practice
- Few side effects
- First step in combating deaths from OD
- Time-sensitive emergency



A.R.S. 36-2228

- A. Requires a standing order issued by physician or nurse practitioner.
- B. Mandates training on proper administration of Naloxone before LE or EMT may administer Naloxone.
- C. Allows LE officer or EMT to administer naloxone.
- D. States that LE or EMT may administer to a person if officer believes that the person is suffering from opioid-related overdose



A.R.S. 36-2228 con't.

- E. Requires uniform training for both LE and EMT
1. Identify person suffering form opioid-related OD.
 2. Use of Naloxone.

F. Provides immunity for:

1. Physicians and nurse practitioners who issue standing order
- 2. Trained LE or EMTs who administer the drug.**

- G. Does NOT create a duty or standard of care for LE to administer an opioid antagonist.



ARS 36-2228: Training

- Requires uniform training module for both EMTs and Peace Officers
- Helps providers identify persons suffering from an opioid-related overdose
- Training on use of Naloxone



ARS 36-2228: Immunity

- Physicians or Nurse practitioners who issue a standing order and EMTs and Peace Officers who administer Naloxone pursuant to this training **ARE IMMUNE FROM CIVIL, PROFESSIONAL AND CRIMINAL LIABILITY**
- This includes any decision made, action taken, and injury that may result from the administration
- **As long as those persons acted with reasonable care and in good faith**
- **Exceptions are wanton or willful neglect**



What are Opioids/Opiates:

- Opioids – synthetic drugs
- Opiates – naturally derived from poppy plants
- Act as Depressants
 - Central Nervous System (CNS) or brain function
 - Respiratory system
 - Cardiovascular system
- Why are they abused?
 - Euphoria (to “get high”) and pain control



Use of Opioids/Opiates:

Appropriate Use

- Normally used for pain control
- Codeine and diphenoxyllate (Lomotil) can be used to relieve coughs and severe diarrhea

Inappropriate Use

- Sharing
- Not completing & saving for later
- Diverted
- Abused for euphoric effects



Patients at Risk for Opioid Overdose

- Young adults experimenting with drugs
- Opiate naive
- Chronic users recently released from jail or detox or recent history of relapse
- People with chronic illness and chronic pain; includes all ages and demographics
- The “Accidental Addict”



How Opioids Kill:

- Respiratory and CNS depression
- “Slows” everything down
- Decreases level of consciousness
- Decreases respiratory drive
- Decreases heart rate and blood pressure



Effect of Opioid Overdose

- Respiratory drive is taken away or aspiration (inhaling vomit)
- Lack of oxygen (hypoxia)
- Cardiopulmonary arrest (“code”)
- Increased incidence when combined with alcohol, benzodiazepines, or other medications



Most commonly used opioids

- Heroin
- Oxycodone (Percocet, Oxycontin)
- Hydrocodone (Vicodin, Norco, Lortab)
- Hydromorphone (Dilaudid)
- Methadone
- Morphine
- Fentanyl
- Codeine
- Buprenorphine (Subutex)
- Carfentanil & Sufentanil



Methods of Opioid Administration:

- Oral (pills)
- Intravenous (IV)
- Snorting
- Smoking
- Subcutaneous, e.g. under skin (skin popping)
- Per rectum (PR) – “boofing”
- Transcutaneous (ie. Fentanyl patches)



Why Naloxone (Narcan)?

- Developed in the 1960's
- Opioid antagonist (reversal drug)
- Used as an emergent OD treatment in hospital and pre-hospital settings
- Increased need for Narcan due to:
 - Greater variety of available opioids
 - Increased opioid use and abuse



Naloxone Mechanism of Action: How it works

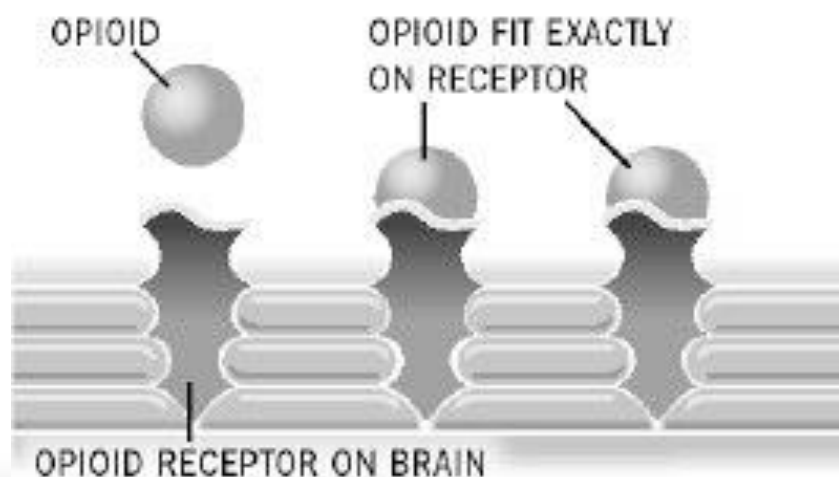
- Safe medication
- Blocks effects of opioids on brain
- Helps OD victim breathe again by **temporarily** reversing respiratory and CNS depression
- Should improve breathing in two to eight minutes
- May result in sudden onset of withdrawal symptoms



Naloxone Mechanism of Action

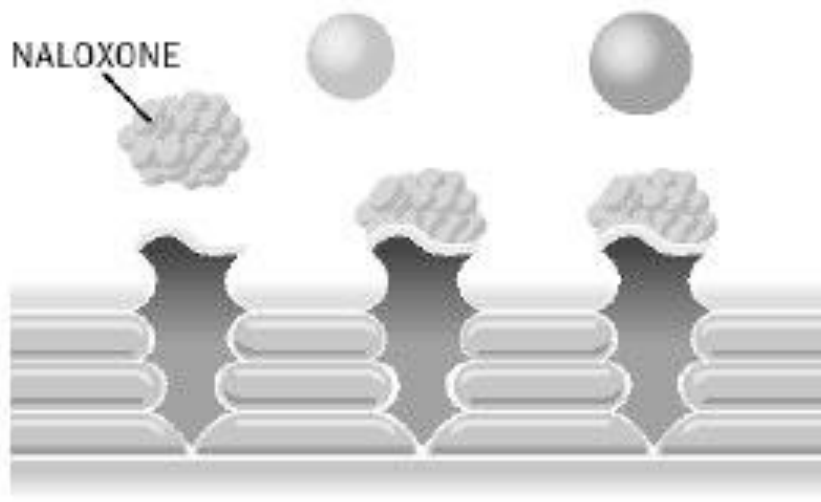
OPIOID OVERDOSE

The brain has many receptors for opioids. An overdose occurs when too much of an opioid, such as heroin or Oxycodone, fits in too many receptors, slowing and then stopping breathing.



NALOXONE REVERSING AN OVERDOSE

Naloxone has a stronger affinity to the opioid receptors, so it knocks the opioids off the receptors for a short time. This allows the person to breathe again and reverses the overdose.



Things to know about Naloxone

- Does not reverse other ODs
 - cocaine, methamphetamines, benzodiazepines (e.g., Xanax, Klonopin and Valium), alcohol, etc.
- In a person dependent on opioids may produce withdrawal symptoms.



Naloxone does NOT reverse overdoses due to:

- **Sedatives**

- Valium
- Ativan
- Xanax
- Alcohol



- **Stimulants**

- Cocaine
- Amphetamines



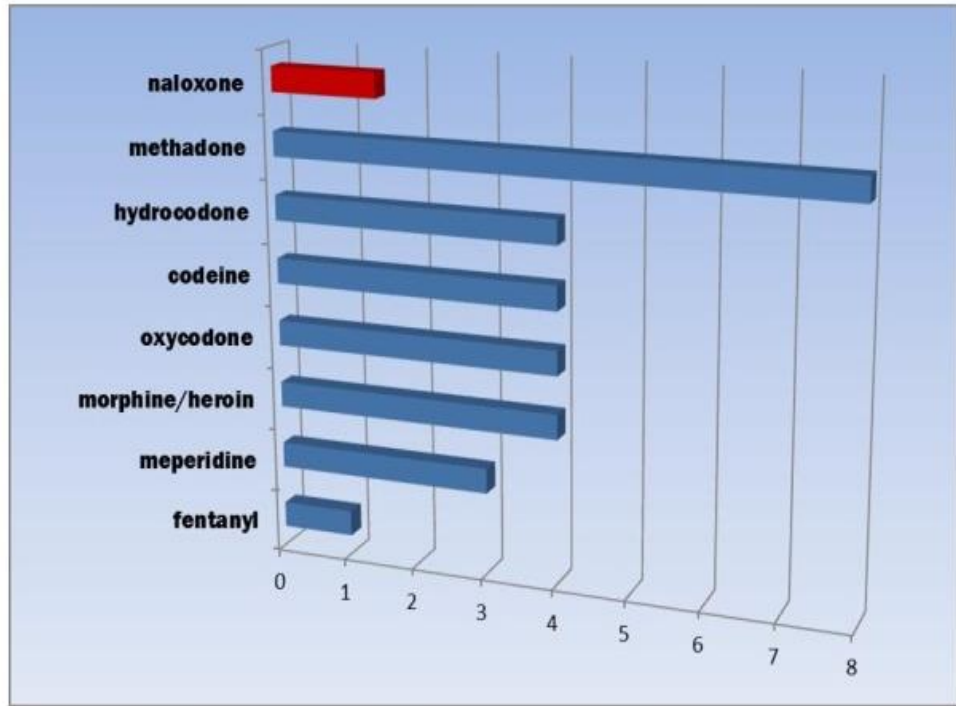
Symptoms of Opioid Withdrawal

- Agitation
- Tachycardia (rapid heart rate)
- Pulmonary edema (fluid in lungs)
- Nausea
- Vomiting
- Diarrhea
- Seizures (?)



Naloxone vs Opioid Drug Duration

Duration of Action of Opioids and Opioid Antagonists



Duration of Action (hours)

- Naloxone relatively short duration compared to opioid.
- Naloxone may wear off and, dependent upon amount of opioid, signs of OD may reappear.



Routes of Administration:

- LE or EMT's:
 - Intramuscular (IM)
 - *Intranasal (IN)
- Paramedics, AEMTs, EMT-I
 - Intramuscular (IM)
 - Intranasal (IN)
 - Intravenous (IV)
 - Intraosseous (IO)
 - Endotracheal (ET)



Benefits of Intranasal or Auto-Injector

- IV access may be difficult to establish in chronic IV drug abusers
- Decreased risk of **needle stick injury**
- Decreased risk for **infectious disease exposure**
- Simple, fast and convenient



Benefits of Intranasal Administration:

- Works quickly
 - Nasal mucosa has a large absorptive area
 - Drug goes directly into the bloodstream
- Nose is an easy access point
- Starts working as fast as IV administration
- Atomizer facilitates quick administration
- Painless



Benefits of Prepackaged Nasal Spray:

- Contains pre-measured dose, reduces medication dosing errors.
- Designed for self or peer-administration of medication
- Ease of use



When to use Naloxone

- Altered level of consciousness
- Respiratory depression or apnea
 - Slow, shallow breathing (< 10 breaths/minute)
 - Apnea (not breathing)
- Unable to wake up with painful stimuli
- With Associated:
 - Constricted (pinpoint) pupils, Profuse sweating (diaphoresis), Pale or cyanotic (blue), Needle/track marks



High versus Overdose

REALLY HIGH	OVERDOSE
Muscles become relaxed	Pale, clammy skin
Speech is slow/slurred	Very infrequent or no breathing
Sleepy looking	Deep snoring or gurgling (death rattle)
Responsive to stimuli (such as shaking, yelling, sternal rub, etc.)	Not responsive to stimuli (such as shaking, yelling, sternal rub, etc.)
Normal heart beat/pulse	Slow heart beat/pulse
Normal skin tone	Blue lips and / or fingertips



Reasons to suspect opioid overdose

- When informed by the dispatcher
- Opioid drugs found on scene
- Opioid drug paraphernalia found on scene (needles, syringes, chore boy, a burnt or charred spoon)
- Witnesses state victim was taking some sort of opioid prior to OD
- Known heroin user location



Paraphernalia commonly found on scene of overdose



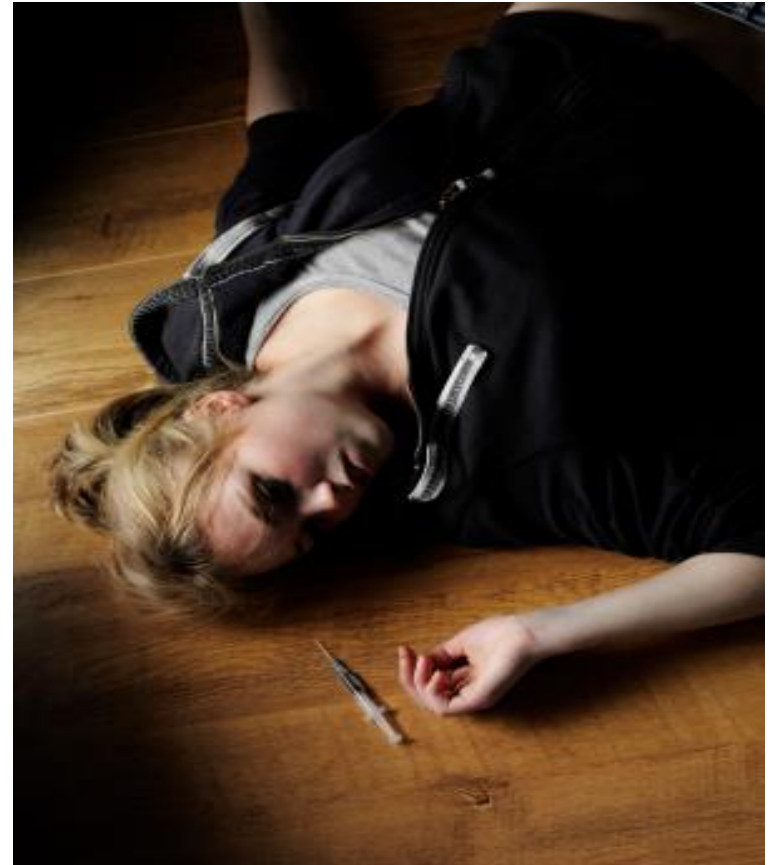
Fentanyl-related Issues



Constricted Pupil



Look for pupils $< 3\text{mm}$
1mm = about the width of the side of a
dime



Mimics of Opioid Overdose

- Cardiac Arrest
- Low blood sugar
- Head injury
- Stroke
- Shock
- Hypoxia (low oxygen)



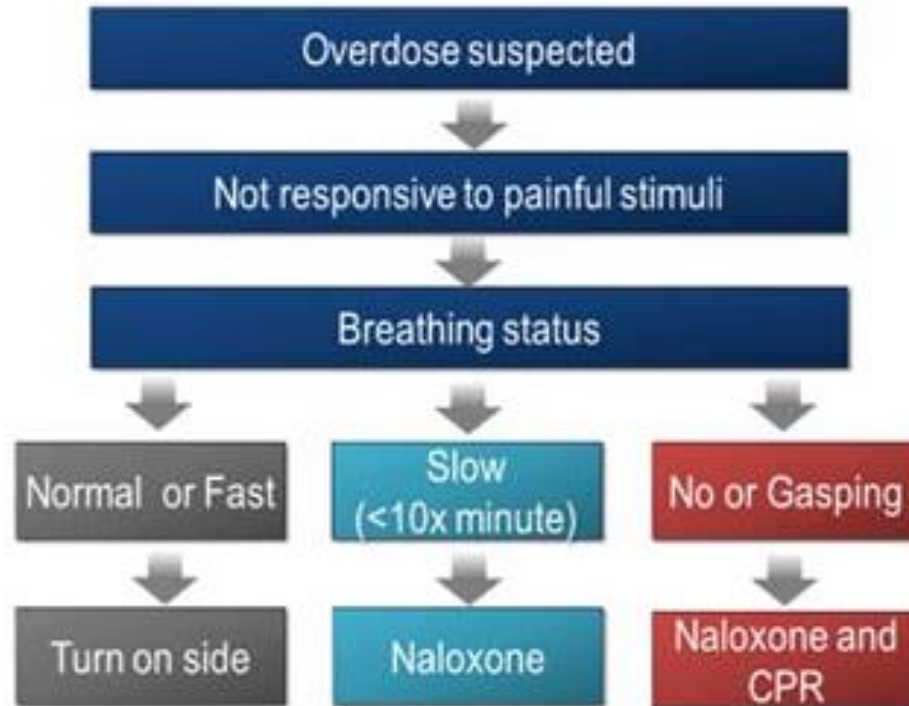
When should I give Naloxone?

- If you suspect an opioid overdose and the patient has signs/symptoms of an opioid overdose → give Naloxone
- Only give Naloxone if opioid OD is suspected & the person is unconscious
- Not every unconscious person is an opioid OD
- The dose of Naloxone may not be enough to reverse the effects of the opioid



Simple Naloxone Algorithm

When to Use Naloxone



Safety Considerations & Adverse Effects

- **Dispatch EMS**
- **Use caution:**
 - Rapid opioid withdrawal may cause nausea, vomiting, diarrhea, and combativeness
 - **Roll patient on their side to keep airway clear**
- If no response within 3-5 min, administer 2nd dose, if available
- Naloxone has a short duration of action
- Patients may develop recurrent respiratory and/or CNS depression



Scene Safety is your #1 Priority

- *Stay aware of surroundings* during victim evaluation, setup, and administration of Narcan especially if by yourself
- You may lose tactical advantage quickly due to most victims being on the ground and in close quarters with awkward access to the victim and difficult egress from the victim etc.
- You will generally be in a crouched or kneeling position with your hands full if an outside influence engages you, or your victim turns violent during the treatment
- If alone, request backup prior to administration of Narcan due to potential for violence from victim. OD victims *do not react the same*, the unpredictable nature of the victims requires intense situational awareness at all times



Body Substance Isolation

Use body substance isolation (BSI/PPE) prior to any direct victim treatment.

- Drug addicts, especially intravenous users, are at high risk for communicable diseases such as Hepatitis B, C, or HIV
- Bodily fluids will commonly be present, and the risk of you coming in contact with them will be extremely high
- Blood, vomit, saliva, urine, and feces are all capable of transmitting different diseases.
Protect yourself!

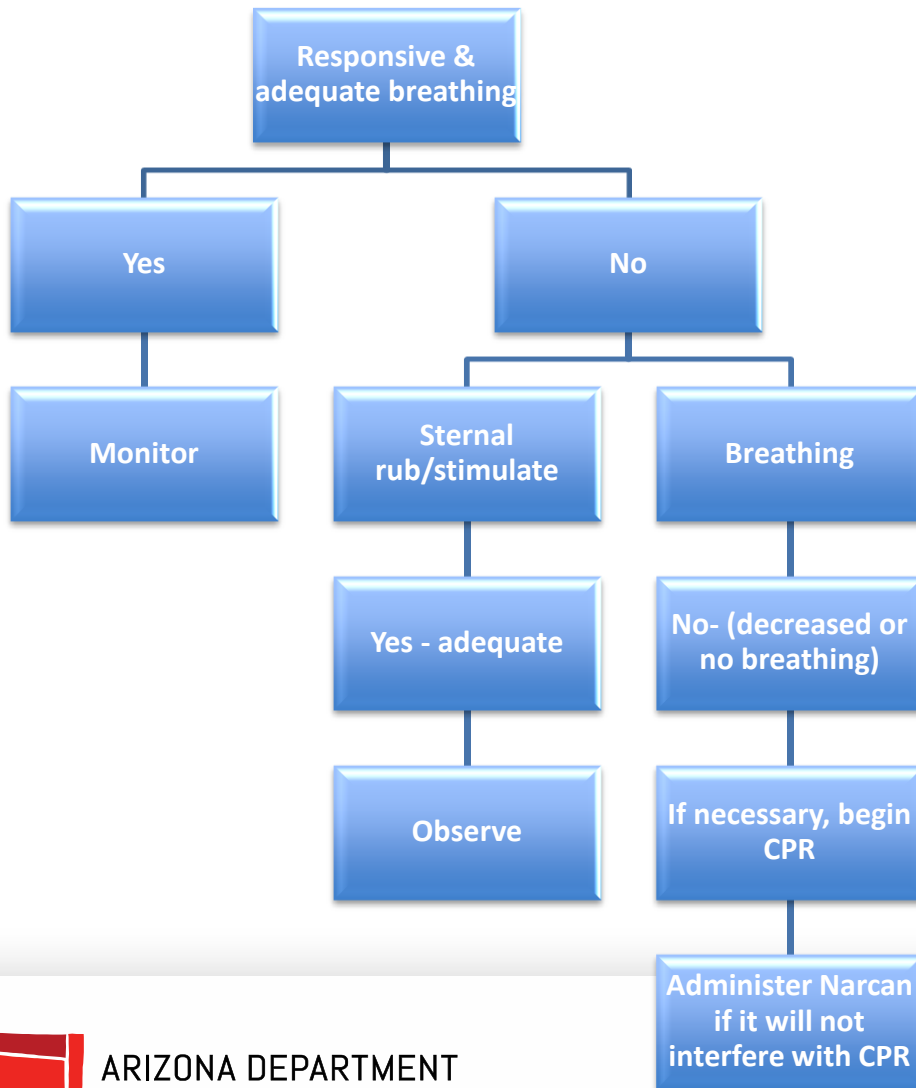


Needles

- Be aware of any exposed needles or other paraphernalia that you may potentially come in contact with
 - **Under no circumstance should you try and recap a needle.**
- EMS can safely dispose of needles for you
- If drug paraphernalia is kept as evidence, consider placing in puncture-resistant containers, e.g., paint cans



Procedure for Naloxone Administration



- **Recognize opiate OD**
 - Decreased LOC
 - Decreased/No Breathing
 - Opioid OD setting
- **Give sternal rub/stim**
- **If no – Administer Naloxone**
- **Recovery Position**

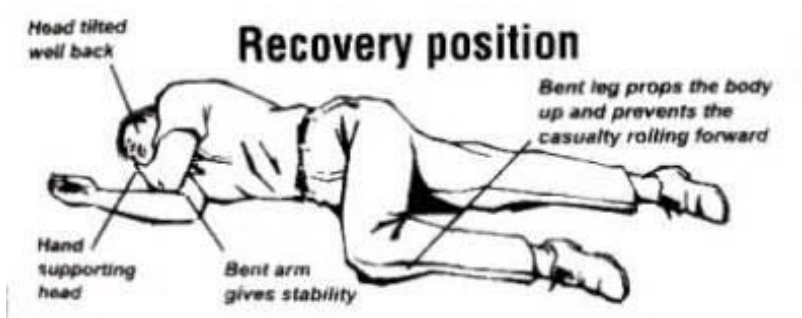


Sternal Rub

Sternum - bone in center of chest that joins ribs on either side



Recovery Position



1 Tilt head backwards, ensure clear airway and straighten head and neck



2 Place arm at side and other arm across chest with hand against cheek



3 Bring far knee up to a 90° angle



4 Roll person over towards you with knee at angle and ensure head is supported



Naloxone Dose (Adult & Pediatric)

- **Auto-injector (IM)**

- 0.4 mg IM dose
- If no response >2min, may repeat as necessary
- **Max dose 4 mg**

- **Intranasal (IN)**

- 1 mg in each nostril using Mucosal Atomizer Device (total of 2 mg)
- 4mg if using prepackaged dose
- If no response >2min, may repeat
- **Max dose of 4 mg.**



Two Intranasal Options



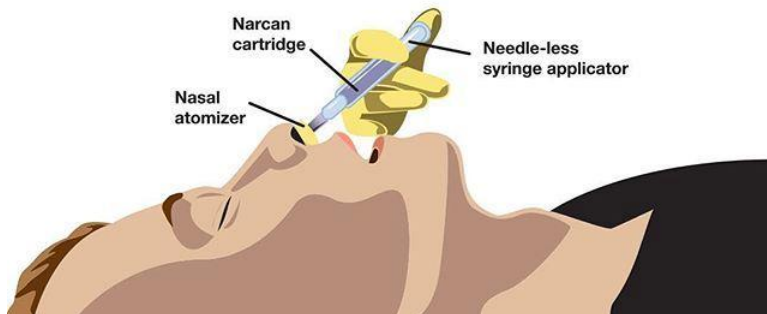
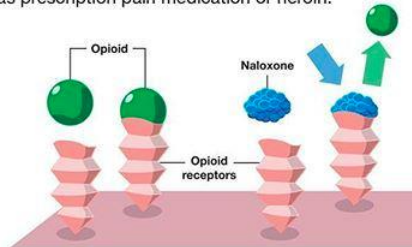
Nasal Passages

Naloxone (Narcan)

What Is It? Naloxone is a medication that can reverse an overdose that is caused by an opioid drug such as prescription pain medication or heroin.

How Does It Work?

When administered during an overdose, naloxone blocks the effects of opioids on the brain and restores breathing within two to eight minutes to prevent death.



Prepackaged Intranasal (IN) Naloxone Administration

- Open package
- Remove foil backing
- Insert in patients nose
- Depress the plunger on the underside



Prepackaged Intranasal (IN) Naloxone Administration



Intranasal dose with Mucosal Atomizer

- Take the cap off the medication
- Remove the 2 caps from each end of the applicator
- Apply the atomizer onto the end of the applicator
- Tightly screw the medication into the applicator
- Insert the atomizer into the nostril
- Push the syringe
- Administer 1 mL into each nostril



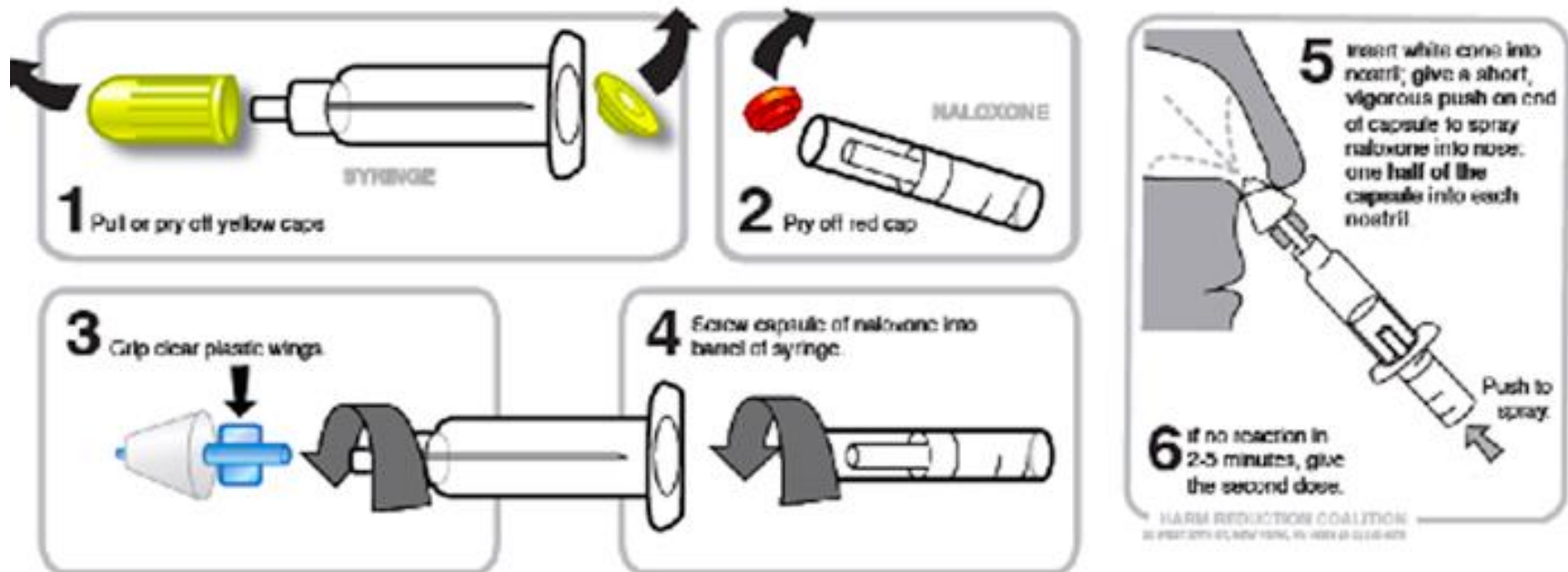
Intranasal dose with Mucosal Atomizer

- The tip of the atomizer 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 bleeding.
 - The use of the atomization device on the tip of the syringe prevents nasal trauma and maximizes the delivery of the medication to the patient.



Intranasal dose with Mucosal Atomizer

HOW TO GIVE NASAL SPRAY NARCAN



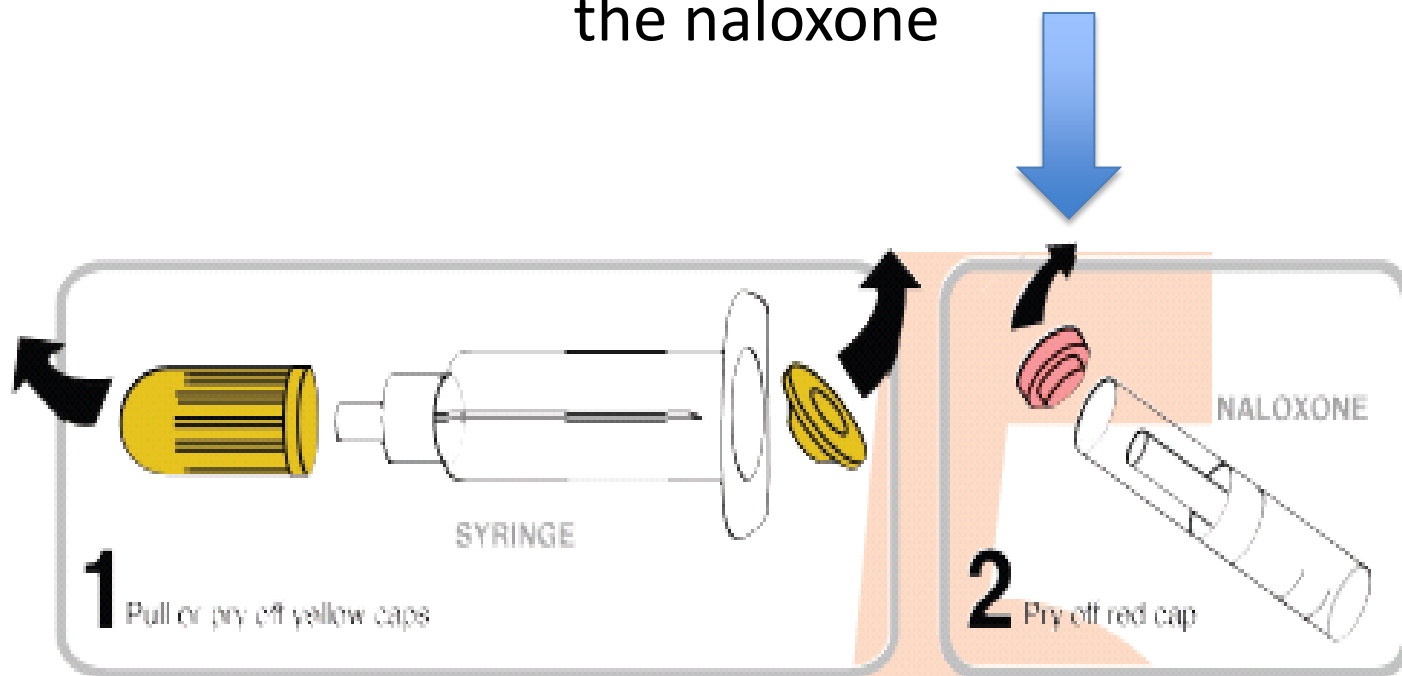
Intranasal dose with Mucosal Atomizer

Remove both yellow caps from syringe

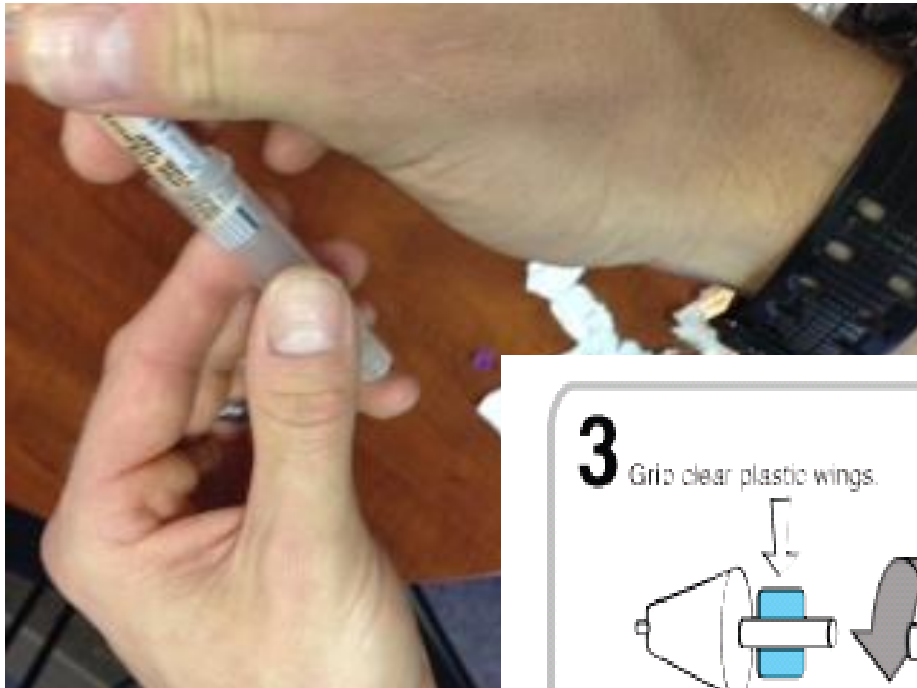


Intranasal dose with Mucosal Atomizer

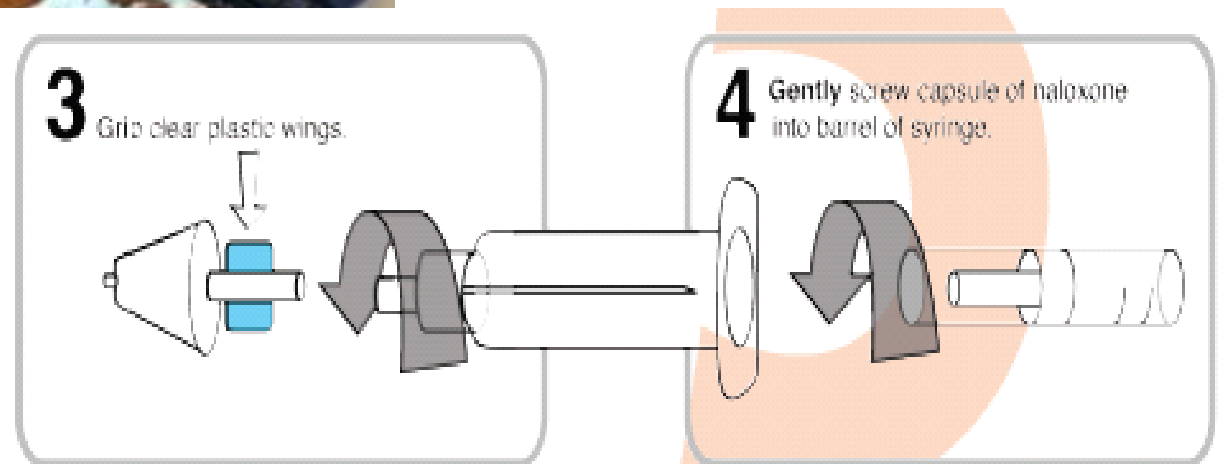
Remove the red cap from the naloxone



Intranasal dose with Mucosal Atomizer



Insert the naloxone into the syringe



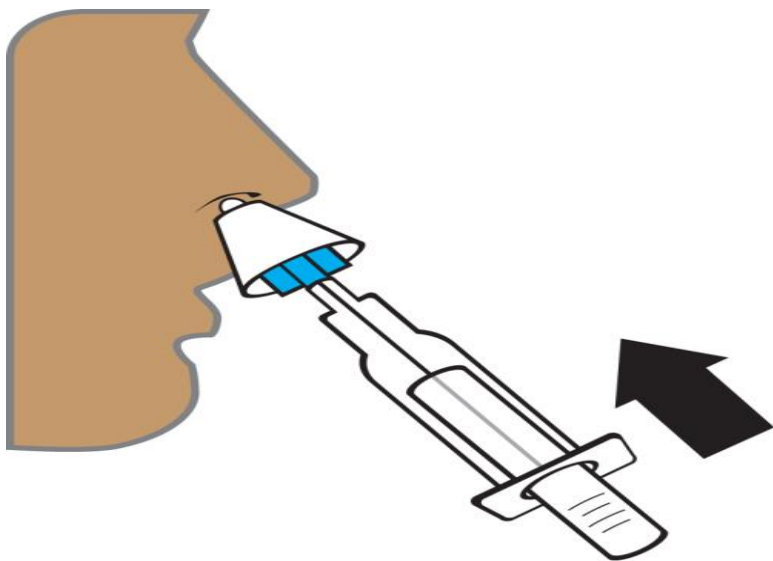
Intranasal dose with Mucosal Atomizer

Attach the mucosal atomizer device to tip of syringe



Intranasal dose with Mucosal Atomizer Device (MAD)

Insert MAD into nostril



Depress syringe & spray 1 ml up each nostril



Naloxone Auto-Injector (IM)



Auto-injector Intramuscular (IM) Administration

- Pull the auto-injector from the outer case.
- Pull off the red safety guard.
- The red safety guard is made to fit tightly, pull firmly to remove
- Do NOT touch the black base of the auto-injector. This is where the comes out
- Do not replace the red safety guard after it is removed.
- Place the black end against the middle part of the patient's outer thigh (this can be given through clothing if necessary)
- Press firmly and hold in place for 5 seconds



Auto-injector Intramuscular (IM) Administration

- The auto-injector makes a click and hiss when it is depressed against the thigh
- This is normal & means the auto-injector is working
- Keep the auto-injector firmly depressed on the thigh for 5 seconds AFTER you hear the click & hiss sound
- The needle will inject and then retract back up into the auto-injector and is not visible after use



Naloxone Auto-injector (IM)

Figure C



Naloxone Auto-injector (IM)

- For an infant less <1 year old:
- Pinch the middle of the outer thigh before administering the auto-injector and continue to pinch while administering medication.



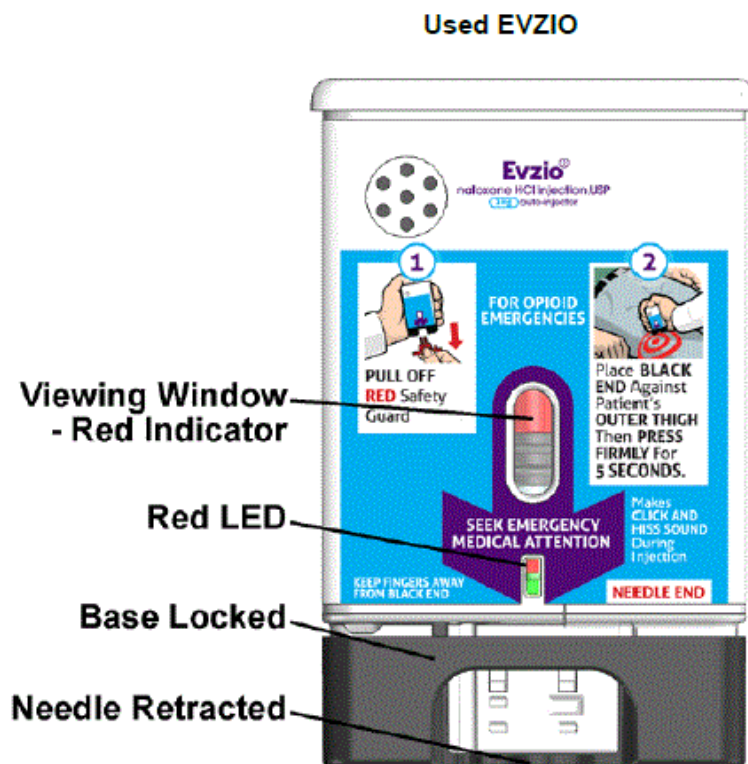
Handling of Auto-injector Post Use

- The auto-injector cannot be reused
- After use, place the auto-injector back in its outer case
- Do not attempt to replace the safety guard
- It should be disposed in a sharps container



How can you tell if the auto-injector was used?

- The black base will lock
- The voice instruction will state it has been used
- The LED will blink red
- The red safety guard cannot be replaced
- The viewing window will no longer be clear, it will have a red indicator



Post Naloxone Administration

- Victim still unconscious?
- Maintain recovery position
- Consider rescue breathing or CPR if trained
 - Rescue breathing if not breathing or less than 10 breaths per minute which equals 1 breath every 6 seconds
 - Use PPE and some kind of barrier device
 - Be alert for vomiting/diarrhea & agitation
- Consider second dose of Narcan if available
- Transport to hospital by EMS



Opioid Overdose Treatment Review

1. Sternal Rub
2. Dispatch EMS
3. CPR – if not breathing or in cardiac arrest
4. Administer naloxone (intranasal or intramuscular)
5. Repeat steps 3 & 4 if necessary
6. Recovery position if breathing



Signs of improvement

- Respiratory
 - Breathing returns
 - Reverts to normal breathing
- Circulation
 - Pulse present and normal
 - Skin tone improving, paleness/bluish tint go away
- Consciousness improves and victim becomes more alert



Documentation

- **EMS** – Documents patient encounter on a prehospital incident history report
- **Law Enforcement – data to collect:**
 - Patient name/DOB, Location
 - Indications for use
 - Dose, route, & time of Naloxone administration
 - Response to administration
 - Patient Disposition (EMS, DOA, Elope, etc.)
 - **Agency written report & Usage Report**
(similar to a use of force report)



ADHS BEMS Data Collection Tool



Prehospital Opioid/Opiate Overdose Reporting Tool



Notice to Reporter: This form is to be used by Emergency Medical Services agencies, Law Enforcement agencies, and Other Health Care Professionals for the reporting of suspected prehospital opioid/opiate overdose and naloxone/Narcan administration. Please note that the preferred method of reporting is via the electronic web-based Arizona Prehospital Information and EMS Registry System (AZ-PIERS); however, this paper version can be used if/when use of the electronic version is not feasible.

Please complete this form in its entirety and submit to the Bureau of EMS and Trauma System (BEMSTS) via either of the methods below.

BEMSTS Fax: 602-364-3568 (please include a privacy cover sheet)

BEMSTS Mail: 150 N. 18th Avenue, Suite 540, Phoenix, AZ 85007-3248

Entity/Reporter Information	Naloxone/Narcan Administration (Prior Aid)
Entity Name: _____ Entity Type: <input type="checkbox"/> Emergency Medical Services <input type="checkbox"/> Law Enforcement <input type="checkbox"/> Other Health Care Professional	1. Was naloxone/Narcan administered prior to you / your entity's arrival? <input type="checkbox"/> Yes (continue to Question 2) <input type="checkbox"/> No (skip to Question 4) 2. For naloxone/Narcan administered prior to you / your entity's arrival, who administered it? <input type="checkbox"/> Emergency Medical Services <input type="checkbox"/> Law Enforcement <input type="checkbox"/> Other Health Care Professional <input type="checkbox"/> Bystander / Layperson 3. How many doses of naloxone/Narcan were administered by the entity identified in Question 2? <input type="checkbox"/> 1 dose <input type="checkbox"/> 2 doses <input type="checkbox"/> 3 doses <input type="checkbox"/> 4 doses <input type="checkbox"/> 5 or more doses
Incident Information	Naloxone/Narcan Administration (Not Prior Aid)
Unit Notified by Dispatch (if applicable): Date: _____ Time: _____ Incident Number (if applicable): _____ Incident Street: _____ Incident City: _____ Incident County: _____ Incident State: _____ Incident Zip Code: _____	4. Was naloxone/Narcan administered by you / your entity? <input type="checkbox"/> Yes (continue to Question 5) <input type="checkbox"/> No (skip to Question 6) 5. How many doses of naloxone/Narcan did you / your entity administer? <input type="checkbox"/> 1 dose <input type="checkbox"/> 2 doses <input type="checkbox"/> 3 doses <input type="checkbox"/> 4 doses <input type="checkbox"/> 5 or more doses
Patient Information	Reason(s) for Suspected Overdose
Patient First Name: _____ Patient Last Name: _____ Patient Date of Birth: ____/____/____ Patient Age: _____ Years Patient Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Unknown/Other	6. Unresponsive to stimuli? <input type="checkbox"/> Yes <input type="checkbox"/> No 7. Pale, clammy skin? <input type="checkbox"/> Yes <input type="checkbox"/> No 8. Blue lips and/or fingertips? <input type="checkbox"/> Yes <input type="checkbox"/> No 9. Deep snoring or gurgling? <input type="checkbox"/> Yes <input type="checkbox"/> No 10. Very infrequent or no breathing? <input type="checkbox"/> Yes <input type="checkbox"/> No 11. Slow heartbeat/pulse? <input type="checkbox"/> Yes <input type="checkbox"/> No 12. Scene/surroundings suggest drug use? <input type="checkbox"/> Yes <input type="checkbox"/> No 13. Notified by bystander of possible drug use? <input type="checkbox"/> Yes <input type="checkbox"/> No
Patient Race/Ethnicity (select all that apply)	Patient Outcome/Disposition
<input type="checkbox"/> American Indian or Alaskan Native <input type="checkbox"/> Asian <input type="checkbox"/> Black or African-American <input type="checkbox"/> Hispanic or Latino <input type="checkbox"/> Native Hawaiian or Other Pacific Islander <input type="checkbox"/> White <input type="checkbox"/> Other	14. What happened to the patient/what was the patient's final disposition? <input type="checkbox"/> Patient transported by EMS to hospital <input type="checkbox"/> Patient transported by law enforcement to hospital <input type="checkbox"/> Patient transported by law enforcement to jail <input type="checkbox"/> Patient refused additional treatment/transport <input type="checkbox"/> Patient fled the scene <input type="checkbox"/> Patient pronounced dead on scene <input type="checkbox"/> Other/Unknown



ARIZONA DEPARTMENT OF HEALTH SERVICES

Special Considerations

- EMS cannot force an OD victim to go to the hospital if they become “alert and oriented” even if Naloxone has been provided by LEO’s or by EMS
- “Alert & oriented” means victim is able to answer questions such as who they are, where they are, situation surrounding incident, time, etc.
- Patients with decision making capacity can refuse further treatment and/or transport to the hospital



Storage and Exchange of Naloxone

- Will be department decision
- AZ EMS recommends “sealed tab system” with a “running log”
- 1:1 ratio (one Naloxone comes in, one Naloxone goes out) used to exchange from a central supply area is recommended but not required (to be determined by individual departments)
- Consider having an officer in charge of distribution/ exchange
- Must be stored in a tamper evident container or system while in the field
- For smaller departments, consider having small storage area with reasonable amount of Narcan kits accessible to officers that need to exchange kits during a shift
- Consider using “per use” reports that maintain accountability
- Accountability questions to be answered
 - Which officer used the drug?
 - When did the officer use the drug?
 - Which tab # was used?



Storage/Exchange (continued)

- Narcan should be kept out of direct light and at room temperature (between 68 and 77 degrees Fahrenheit.)
- Each department buys their own supply of Naloxone.
- Each officer responsible to maintain assigned kit.
- LEOs/LE agencies MAY NOT obtain Naloxone supply from local fire department/EMS.
 - Per ARS 36-2228, LEOs must obtain standing order from Medical Director for purchase.
- Shelf life (how long sealed vials are good to use) of Naloxone is approximately two years.



Summary

- Naloxone is a safe and effective drug in treating opioid overdoses
- May lessen lethality of opioid overdoses by getting Naloxone on scene faster
- #1 priority will always be scene safety and officer safety
- Proper storage, maintenance, and exchange of Naloxone both at a supply station and with the individual officer is very important



Naloxone Request Form

<http://azdhs.gov/documents/prevention/womens-childrens-health/injury-prevention/opioid-prevention/order-naloxone.pdf>


You may submit completed application multiple ways:

Email: azopioids@azdhs.gov

Fax: 602-364-1494 Attn: Naloxone Distribution, Office of Injury Prevention

Mail: ADHS Office of Injury Prevention
Naloxone Distribution Program
150 N. 18th Ave., Suite 320
Phoenix, AZ 85007

Questions? Email azopioids@azdhs.gov or
call Tomi St. Mars, 602-542-7340

NALOXONE REQUEST FORM		
 ARIZONA DEPARTMENT OF HEALTH SERVICES	Law enforcement agencies whose staff have completed opioid overdose recognition and treatment training consistent with ADHS or AZ-POST standards are eligible for free naloxone.	
	Agency Name: <input type="text"/>	
	Agency SHIPPING address: <input type="text"/>	
	Agency Director Name: <input type="text"/>	
AGENCY INFORMATION	Agency Size: <input type="text"/>	
	Training Date(s): <input type="text"/>	
	Trainer Name(s): <input type="text"/>	
TRAINING INFORMATION	Number of staff Trained: <input type="text"/>	
	Description: Narcan Nasal Spray 2/pack	Quantity Requested: <input type="text"/>
NALOXONE REQUESTED	AGENCY DIRECTOR SIGNATURE: <input type="text"/>	DATE: <input type="text"/>

Module Two:

- **Skills Practice and Validation**

