

Intranasal (IN) Drug Administration of Narcan



Preface

- All ECA services, wishing to carry IN Narcan, must complete training and maintain appropriate documentation.
- This presentation meets the training requirement
- Following this presentation, you will be directed to a website to take an exam and print your certificate. For the exam, the minimum passing grade is 80%

Introduction

- Intranasal drug administration is a process where a liquid drug is converted to a fine mist (droplets) through a Mucosal Atomize Device (MAD), and injected through the nostrils for absorption through the nasal mucosa
- Speed is almost as fast as IV

Mucosal Atomization Device (MAD)



Indications

- SPEMS Protocols allows for ECAs to administer intranasal (IN) Narcan to patients that present with an altered LOC secondary to a known or suspected opiate overdose in which the patient is unable to control their own airway

Before any Drug Administration:

- Select appropriate drug
- Know indications and contraindications
- Know appropriate dosage
- Obtain appropriate history on patient, including medication history and allergies; if possible
- Assure proper BSI and sharps disposal equipment

Naloxone (Narcan) (1 of 2)

- Narcan is a Narcotic Antagonist and reverses the effects of narcotic (opioid) overdoses by binding with opiate receptors
- Common S/S of opiate OD:
 - Coma
 - Respiratory depression
 - Seizures
 - Hypotension

Naloxone (Narcan) (2 of 2)

- When administered properly, Narcan works very quickly and is very effective
- Narcan will not work on any non-opiate drugs or alcohol
- Be prepared for violence. Restraining and protecting the patient and crew may be necessary
- Narcan has no ill effects if not an overdose

Popular Opiates

- Codeine
- Darvon (Propoxyphene)
- Demerol (Meperidine)
- Dilaudid (Hydromorphone)
- Dolophine (Methadone)
- Fentanyl (Duragesic)
- Heroin
- Lortab (Hydrocodone)
- Morphine (MS Contin)
- Nubain (Nalbuphine)
- Oxycodone (Percocet)
- Paragoric (Anhydrous Morphine)
- Percodan (ASA/Oxycodone)
- Stadol (Butorphanol)
- Talwin (Pentazocine)

Naloxone (Narcan) Containers

- Narcan is supplied in one of 3 ways, each with it's own method of preparation
- Narcan will generally come in a 2mg in 2mL concentration in one of the following packages:
 - Prefilled syringe (Pre-loaded syringe)
 - Ampule
 - Vial



Vial



Pre-Filled Syringe



Ampule

Inspection of Medications (1 of 2)

- Prior to withdrawing or administering ANY medication, the medication should be checked for:
 - Appropriate drug
 - Clarity
 - Expiration
 - Safety caps
 - Any evidence of tampering

Inspection of Medications (2 of 2)

Discard and do not use any medication that is:

- Expired
- Has visible contaminants/debris
- Missing appropriate safety caps
- Discolored
- Suspected of being tampered with or previously opened

Obtaining Medication from a Glass Ampule

Confirm medication checking
for name, concentration,
clarity, and expiration date



Hold the ampule upright and tap its top to dislodge any trapped solution.



Special Note on Ampules

- The neck on a glass ampule must be broken to access the drug. This broken glass can result in sharp edges. Use of gauze is required to protect fingers from lacerations!

Place gauze around the thin neck...



...and snap it off with your thumb.



With a 1 to 1½" needle attached to a 1 or 3cc syringe, draw up the medication.



Remove the needle and attach the MAD device. Place needle in appropriate sharps container



Obtaining Medication From a Vial

Confirm medication checking
for name, concentration,
clarity, and expiration date



Prepare the syringe and hypodermic needle.



Remove outer safety cap, and
Cleanse the vial's rubber top.



Special Note on Vials

- In order to draw medication from a sealed vial, you **MUST** inject the amount of air into the vial in which you wish to withdraw medication.
- Example: you wish to withdraw 2cc of Narcan from a vial. You must first inject 2cc of air into the vial, then withdraw 2cc of the liquid medication

Insert the hypodermic needle into the rubber top and inject 2cc of air from the syringe into the vial.



Withdraw the appropriate volume (2cc) of medication.



Remove the needle and attach the MAD device. Place needle in appropriate sharps container



Obtaining Medication from a Pre-Filled Syringe

Confirm medication checking
for name, concentration,
clarity, and expiration date



Assemble the prefilled syringe.
Remove the pop-off caps and screw
together as indicated. Install the MAD
device



Relative Contraindications of IN Administration (1 of 2)

Use caution with these “relative” contraindications

- Epistaxis
- Facial trauma
- Nasal congestion, discharge, or any recognizable nasal abnormality
- Destruction of the mucosa from past surgeries or cocaine abuse

Relative Contraindications of IN Administration (1 of 2)

- If any of these are present, care must be exercised.
- If nose bleed or excess secretions, suction may be indicated prior to administration
- If in doubt, contact medical control

IN Procedure (1 of 2)

- Prepare equipment
 - MAD, 1cc or 3cc syringe, medication, etc.
- Draw medication allowing for syringe dead space
- Attach MAD device to syringe
- Place patient in supine or recumbent position (if possible)

Procedure (2 of 2)

- Stabilize head if needed
- Press the atomizer against the nostril
- Briskly depress the plunger administering $\frac{1}{2}$ of the dose in each nostril
- Administer no more than 1cc per nostril

Key Points (1 of 2)

- Check nostrils
 - Suction as needed
- Use $\frac{1}{2}$ dose in each nostril.
 - This doubles the available mucosal surface for absorption
- Use most concentrated form of the drug (do not dilute)

Key Points (2 of 2)

- No more than 1 cc per nostril
 - If more is needed, use separate doses with a few minutes between
- Consider “dead space” in syringe
 - The minute amount left in a syringe
 - Consider the addition of 0.1 cc for the “dead space” if possible

Naloxone (Narcan) IN Dosages

Adult IN Dosage:

- 2mg IN
- Repeated once if needed in 5 minutes if no increase in respiratory rate or LOC

● Pediatric IN Dosage:

- 0.1mg/kg to a max of 2mg
- Repeated once if needed in 5 minutes if no increase in respiratory rate or LOC
- USE THE SUPPLEMENT

- Further IN doses must be authorized by medical control (ALS should be available)

Naloxone (Narcan) Key Points

(1 of 2)

- Narcan has very short half-life. Be prepared to repeat once
- Request ALS backup
- Do not dilute
- Do not worry about florid withdrawals when given IN
- ECAs and EMT-Basics must have reason to suspect narcotic OD (pupils, history, scene, etc.)

Naloxone (Narcan) Key Points

(2 of 2)

- Most “failures” of IN Narcan are due to being in a hurry to see the patient wake up. IN Narcan can take up to 3 to 5 minutes to work
- The goal is for the patient to be able to control his own airway and breathing
- Narcan will NOT work on drugs other than opioids
- All ECA uses of IN Narcan must be reviewed by a SPEMS peer reviewer

Exam

- To take the exam and print your certificate, go to:

<https://www.classmarker.com/online-test/start/?quiz=7bv5e4eefacc2c58>

- You MUST make at least an 80% on the exam to receive a certificate!
- Once completed, you must submit a copy of your certificate to your EMS service and is subject to audit as described in the SPEMS Protocols