

OPIOID DEPENDENCE, ADDICTION AND NALOXONE EDUCATION

Karen Moeller, PharmD, BCPP
Clinical Professor
The University of Kansas, School of Pharmacy



Objectives

- Review national trends of opioid overdose and efforts to reduce opioid overdoses
- Discuss safe prescribing of opioid
- Identify risk factors and recognize signs and symptoms of opioid intoxication and overdose
- Discuss treatment of opioid overdose, the role of naloxone and distinguish between the different dosage formulations of naloxone
- Discuss clinician's role in educating patients about naloxone

The Opioid Epidemic

- From 1999-2010 prescriptions for opioids increased >4 times
- From 2002 – 2015 opioid overdose deaths increased 2.8 times
- Why the increase?
 - ▣ Increase use of opioids to treat chronic noncancer pain
 - ▣ Long term use of opioids resulted in higher average dosages

Types of Narcotics

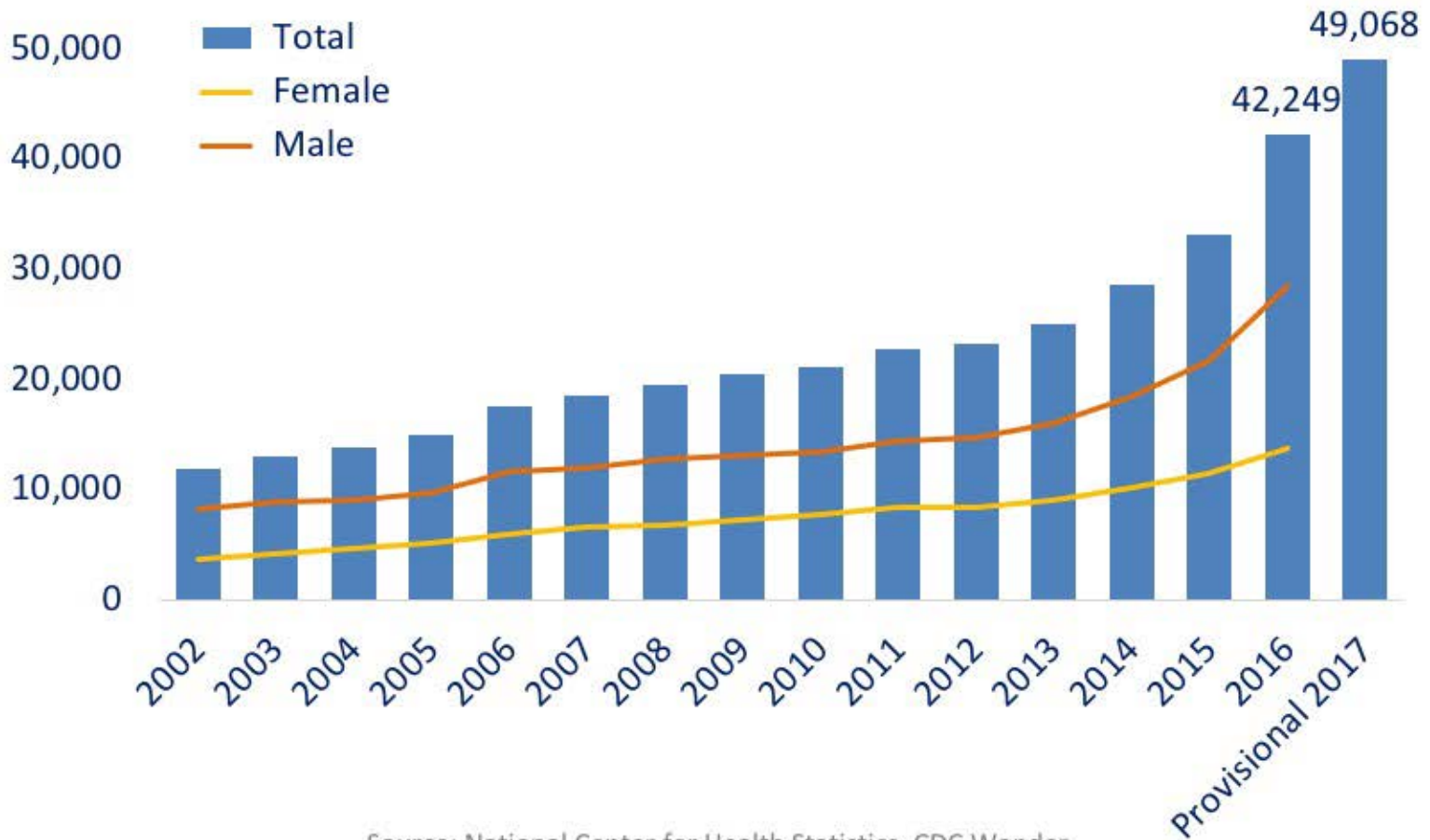
- Opium
- Morphine
- Codeine
- Hydromorphone
- Oxycodone
- Hydrocodone
- Meperidine
- Fentanyl
- Methadone





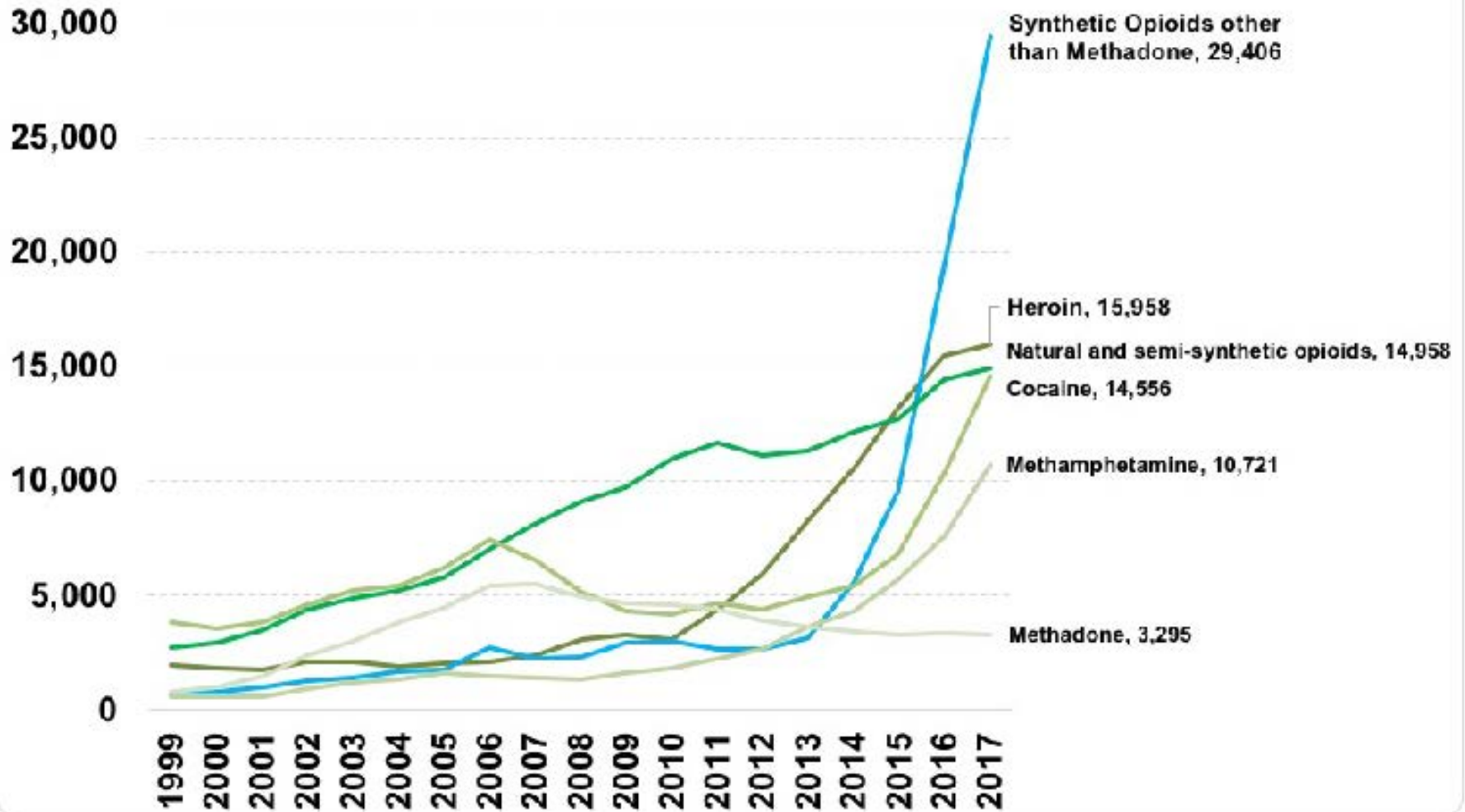
National Overdose Deaths

Number of Deaths Involving Opioids



Source: National Center for Health Statistics, CDC Wonder

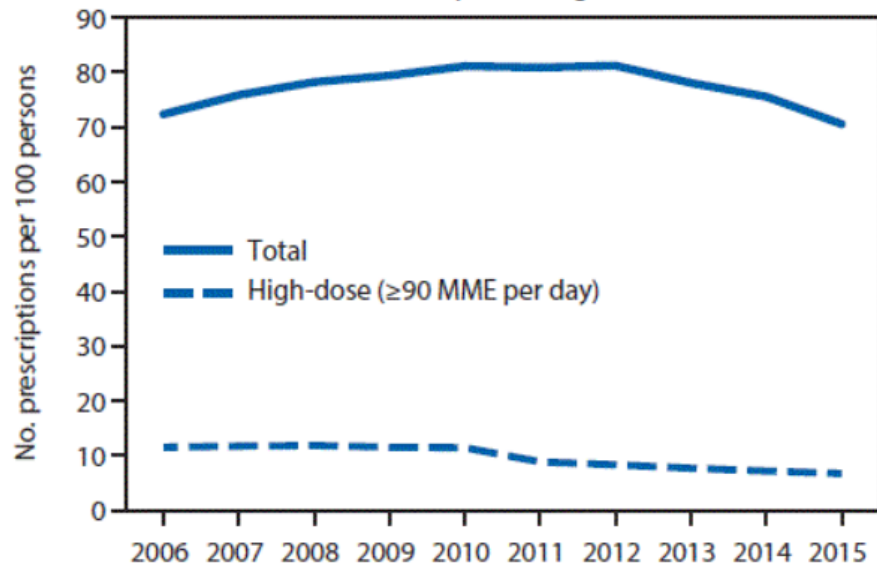
Drugs Involved in U.S. Overdose Deaths, 1999 to 2017



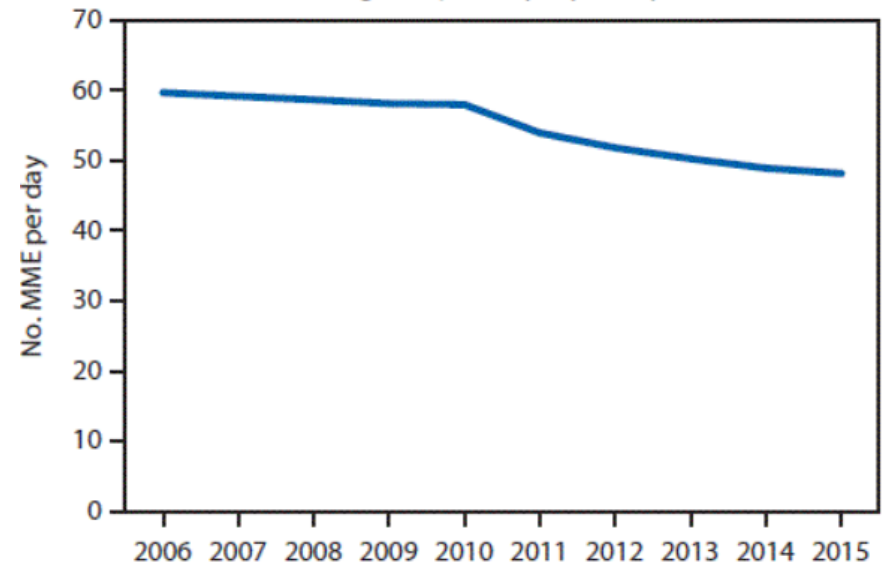
Opioid Prescribing Changes 2010-2015

- Opioid prescribing has decreased yearly from 2010 - 2015

Annual prescribing rate



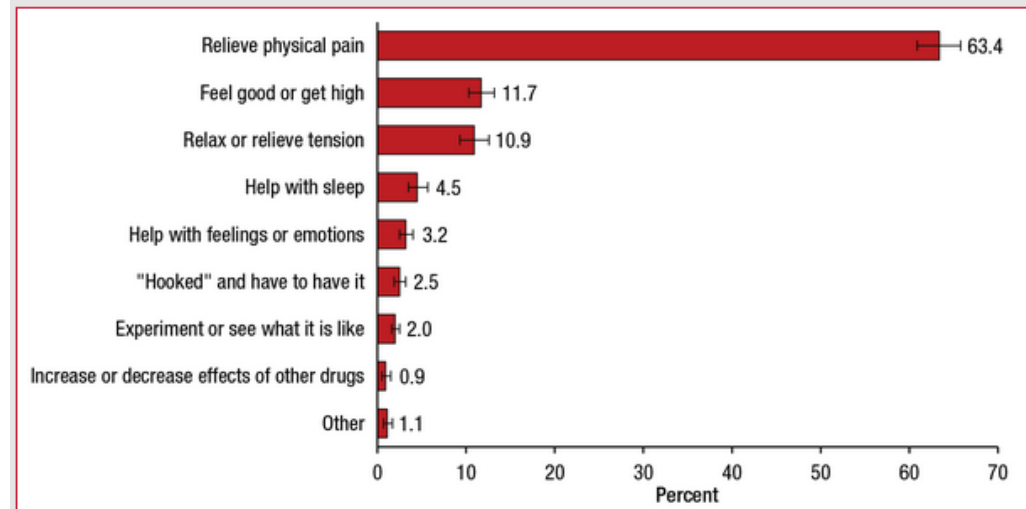
Average daily MME per prescription



Why do People Abuse Opioids?

- Avoid physical pain
- Euphoric effects
- Avoid emotional pain
- Help relax and sleep
- To experiment with drugs
- Suppress withdrawal symptoms

Figure 2. Main reasons for last episode of prescription pain reliever misuse among past year misusers aged 18 or older: 2015



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health (NSDUH), 2015.

Strategies to Address Overdose

- Assess risk through overdose history
- Optimizing medication safety (e.g. limit co-prescribing of sedating medications)
- Prescription monitoring programs
- Prescription disposal education
- Naloxone rescue kits

Naloxone

got naloxone?

“I SAVED MY NEIGHBOR’S LIFE”

“I took a different way home from work one night and found my neighbor on the ground. He was blue and not breathing. I gave him naloxone, which I always carry, and in 2 minutes he was breathing again. As we waited for the ambulance, it hit me that if I hadn’t come home this way, his family would be getting a very different phone call that night.”

~Evelyn, Manhattan

NALOXONE is an emergency medicine that prevents overdose death from prescription painkillers and heroin.

To find out more about naloxone and where to get it, call **311** or visit nyc.gov/health/naloxone.

If you need help or referral to treatment call, **888-NYC-Well**.

Thrive
NYC
Health

NYC
Health

STOP
OVERDOSE

GET A
NALOXONE
PRESCRIPTION HERE

20
DEATHS
IN 2013

61
DEATHS
IN 2015

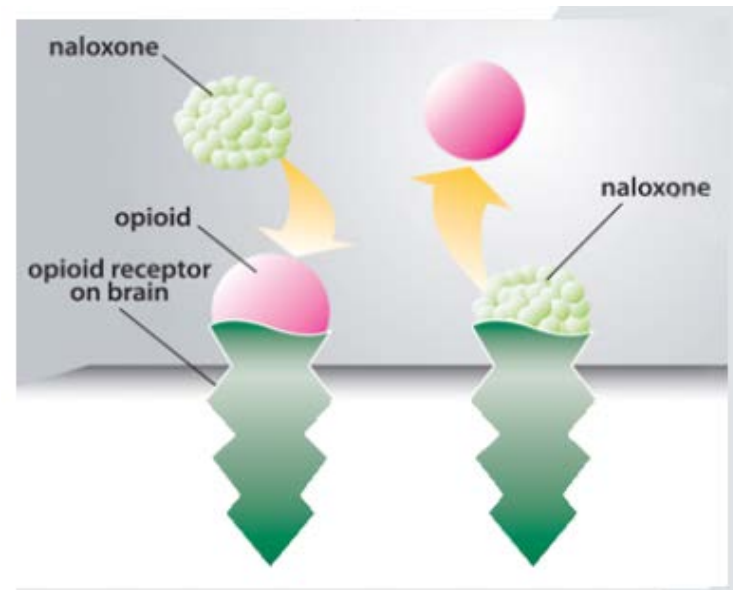
Overdose deaths in North Dakota increased from 20 deaths in 2013 to 61 deaths in 2015.

CDC/NCHS, National Vital Statistics System, Mortality

What is Naloxone?

- Opioid antagonist
 - ▣ Blocks opioid receptors
- Use: opioid overdoses
- Non-scheduled drug, no abuse potential
- No tolerance
- Effects last 30- 90 minutes
 - ▣ Opiates effects typically out last naloxone

Be prepared for relapse



NOT EFFECTIVE FOR NON-OPIOID OVERDOSE

Naloxone Formulations

□ Intranasal



□ Intramuscular



□ Autoinjector



Naloxone Safety

- Serious side effects are rare
- No dosing adjustment in renal or hepatic impairment
- Withdrawal is most common side effect
 - ▣ Sweating, irritability, diarrhea, vomiting
 - ▣ Withdrawal is not life threatening
- Agitation and combativeness can occur
- If given to a patient who has not used an opioid, it will do nothing

Adverse Events IM vs IN (2 mg)

Event	IM (n=89)	IN (n=83)
Agitation/Irritability	7.9%	6.0%
Nausea/Vomiting	7.9%	8.4%
Headaches	3.3%	4.8%
Convulsion	1.1%	0

Kansas State Law

HB 2217 and KAR 68-7-23

As of 7/1/2017

Pharmacists in
KS can dispense
Naloxone under
a Statewide
Protocol

Kansas
Board of Pharmacy

AD ASTRA PER ASPERA

I will consider the welfare of humanity and relief of human suffering my primary concerns.
~ From the Pharmacist Oath

HOME BOARD ACTIVITIES LICENSING & REGISTRATION LEGAL K-TRACS **RESOURCES & CONSUMER INFO**

Home / Resources & Consumer Info / Naloxone

EMERGENCY OPIOID ANTAGONISTS

Effective July 1, 2017 - Naloxone may be dispensed by pharmacists pursuant to the Statewide Protocol.

[NARCAN Step-by-Step Guide](#)

Pharmacist Dispensing pursuant to Statewide Protocol

[Board Notification to Pharmacists](#)

Instructions:

1. Read relevant laws and regulations (HB 2217 and [KAR 68-7-23](#)).
2. Download the official, pre-signed [Statewide Protocol](#).
3. Review and sign the official Statewide Protocol.
4. Send a copy of the last page of the Statewide Protocol to the Board (mail, fax, or [email](#)).
5. Dispense to the patient, bystander, first responder agency, or school nurse.

Alternatively, a pharmacist may use the blank [Statewide Protocol](#) and work with another authorizing physician. Make sure the final page is completely signed by the authorizing physician and pharmacist.

PTCE [Naloxone Pharmacist Resource and Education Center](#)

Legal Resources

Authorizing Legislation:
[HB 2217 - Emergency Opioid Antagonists](#)

Relevant Regulations:
[Approved Permanent KAR 68-7-23](#)

Frequently Asked Questions:
[FAQs - Administration](#)
[FAQs - Dispensing](#)

Additional Resources

[Official Statewide Protocol](#)
[Blank Statewide Protocol](#)

Who is at risk for Opioid Overdose?

Indications for dispensing Naloxone

- Chronic opioid users
- History of overdose or intoxication
- History of or current user of illicit opioid use
- High-dose (> 50 mg morphine equivalent/day)
- Use of long-acting opioid
- Concurrent use of benzodiazepines, alcohol or CNS depressants
- Initiation or cessation of methadone or buprenorphine
- Comorbid diseases (e.g. respiratory, renal, hepatic, cardiac)

When do I use Naloxone?

- Signs and Symptoms of Opioid Overdose
 - ▣ Severe drowsiness
 - Can't be awakened
 - ▣ Respiratory depression
 - shallow breathing
 - ▣ Pinpoint Pupils
 - ▣ Cold clammy skin
 - ▣ Blue/pale lips
 - ▣ Confusion

How to identify an opioid overdose:

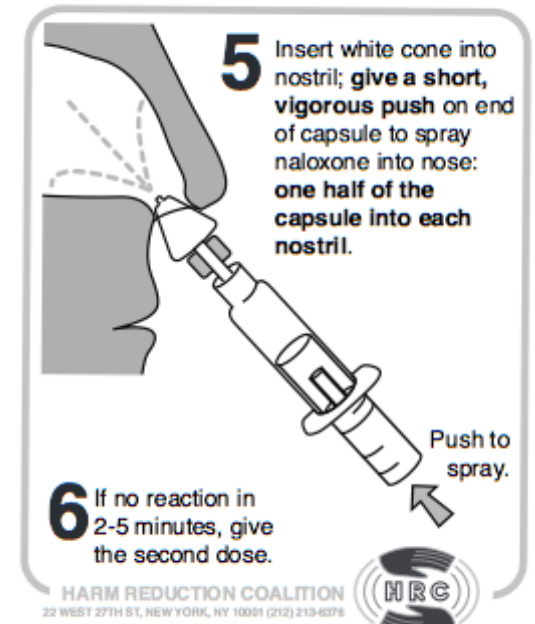
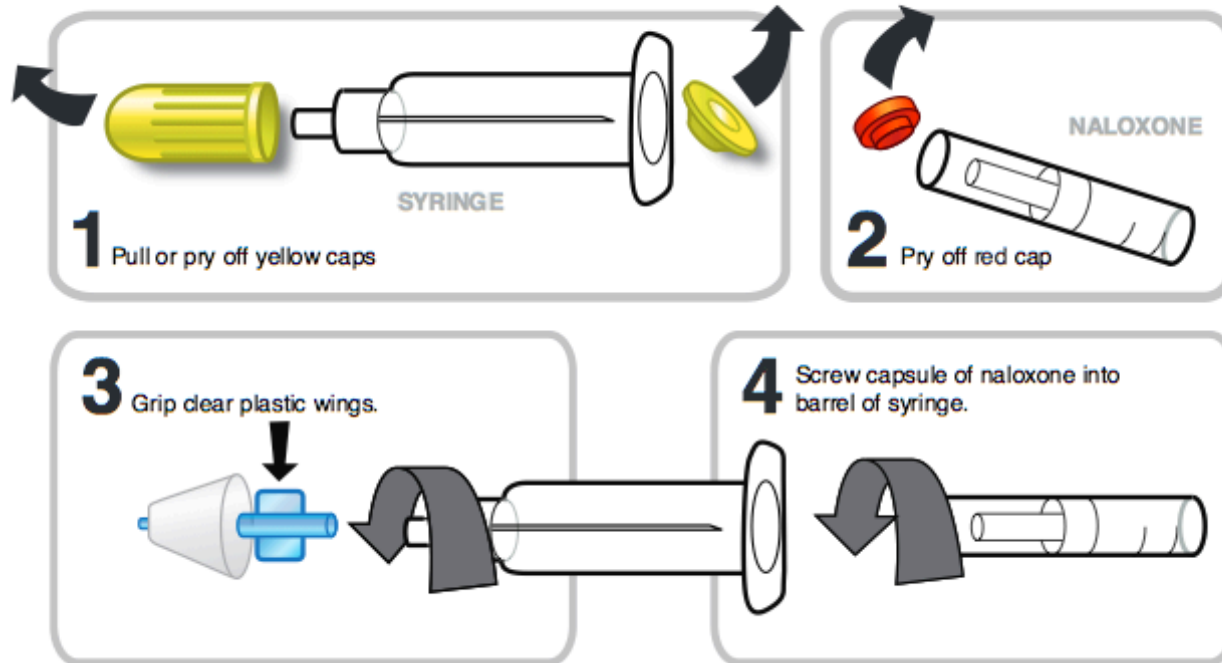
Look for these common signs:

- The person won't wake up even if you shake them or say their name
- Breathing slows or even stops
- Lips and fingernails turn blue or gray
- Skin gets pale, clammy



Administration of Naloxone Injection via Nasal Atomizer (off-label delivery use)

HOW TO GIVE NASAL SPRAY NALOXONE



Administration of Naloxone Intranasal Narcan[®] Nasal Spray (4mg)

- DO NOT PRIME DEVICE
- Use in only 1 nostril
- SIG: Administer a single spray intranasally into one nostril. Call 911. May repeat x1.



KEY STEPS TO ADMINISTERING NARCAN[®] NASAL SPRAY:

PEEL



Peel back the package to remove the device. Hold the device with your thumb on the bottom of the plunger and 2 fingers on the nozzle.

PLACE



Place and hold the tip of the nozzle in either nostril until your fingers touch the bottom of the patient's nose.

PRESS



Press the plunger firmly to release the dose into the patient's nose.

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

Administration of Naloxone Autoinjector Evzio[®] 2mg or 0.4 mg

SIG: Use one auto-injector upon signs of opioid overdose. Call 911. May repeat x1.

Figure A

EVZIO

Outer Case

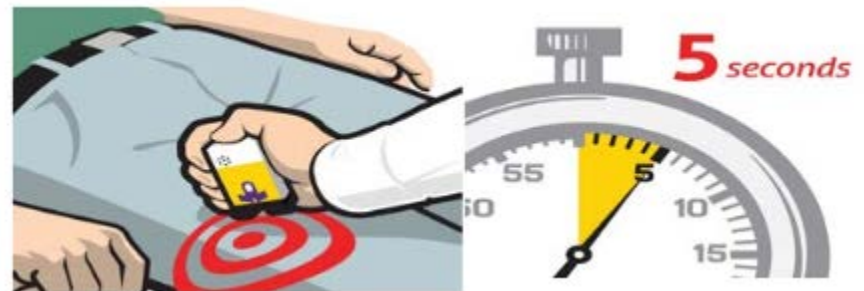
Step 1: Pull Evzio from outer Case



Step 2: Pull off the Red safety guard



Step 3: Place the Black end against the outer thigh, through clothing if needed. Press firmly and hold 5 seconds



Steps in overdose

1

- **Assessment and Stimulation**

- Assess Signs (breathing, responsive)
- Stimulation - try to wake, rub your knuckles on the sternum

2

- **Call 911 –Give naloxone**

- If no reaction in 2 minutes give second dose

3

- **Do rescue breathing or chest compression**

Follow 911 dispatcher instruction

4

- **After naloxone**

Stay with person till help arrives

Emergency Response for Opioid Overdose



nasal naloxone



Try to wake the person up

- Shake them and shout.
- If no response, grind your knuckles into their breast bone for 5 to 10 seconds.



Call 911

If you report an overdose, New York State law protects you and the overdosed person from being charged with drug possession, even if drugs were shared.

Someone has overdosed.

Someone isn't breathing.



Administer nasal naloxone

- Assemble nasal naloxone.
- Spray half up each nostril.
- Repeat after 2 to 5 minutes if still not conscious.



Check for breathing

Give CPR if you have been trained, or do rescue breathing:

- Tilt the head back, open the mouth, and pinch the nose.
- Start with 2 breaths into the mouth. Then 1 breath every 5 seconds.
- Continue until help arrives.



Stay with the person

- Naloxone wears off in 30 to 90 minutes.
- When the person wakes up, explain what happened.
- If you need to leave, turn the person on his or her side to prevent choking.

What NOT to do in Opioid Overdose

- Don't induce vomiting
- Don't put person in ice showers or baths
- Don't try excessive stimulation
- Don't leave alone
- Don't inject in the heart like the movies
- Don't give stimulants to balance out the effects
- Don't inject the nasal naloxone

Consumer Barriers

- Embarrassed
- Future stigma
- Don't know about naloxone
- Red flags will go up for the pharmacist (e.g. patient is abusing their medication)
- Safety of opioids
- Don't want to carry it around
- Lack of availability

Clinician's Barriers

- Overcoming stigma
- Fear it will ruin relationships with patients
- Not getting educated

Final Thoughts

- Naloxone very effective in reversing opioid overdose
- Health care personnel should always be contacted after naloxone administration, even if patient wakes up
- Consider offering it to patients instead of waiting for them to ask
- Inform at risk patients they are at risk of breathing emergencies, saying overdose may not be enough
- Counsel patients on opioid safety and risk reductions

Additional information on Naloxone

- Prescribe to prevent
 - ▣ <http://prescribetoprevent.org/patient-education/videos/>
- CPNP Naloxone Pamphlet
 - ▣ https://cpnp.org/_docs/guideline/naloxone/naloxone-access.pdf
- NIH
 - ▣ <https://www.drugabuse.gov/related-topics/opioid-overdose-reversal-naloxone-narcan-evzio>

Questions

