

Naloxone for Opioid Overdose

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Disclosure

- The author of this presentation has nothing to disclose concerning possible financial or personal relationships with commercial entities that may have direct or indirect interest in the subject matter of this presentation.

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Session Objectives:

- Describe the role of naloxone in opioid overdose prevention.
- Identify risk factors for increased risk of death related to opioid overdose.
- Discuss best practices in the treatment of substance abuse disorder.
- Review Texas' Standing Order for Pharmacists
- Discuss strategies to increase disbursement of naloxone

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Naloxone's Role in Preventing Opioid Overdose

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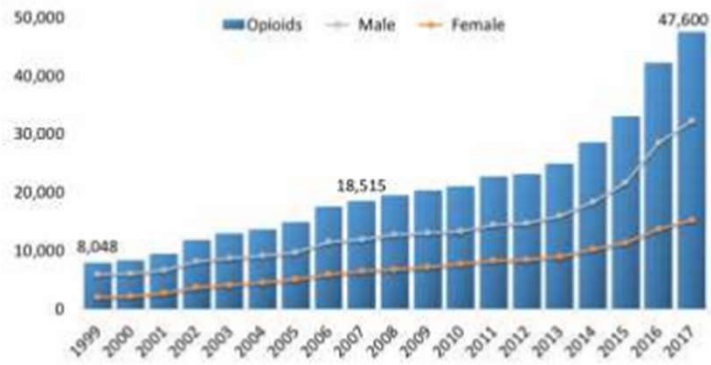
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National Drug Overdose Deaths involving any opioids - 2017

47,600 Opioid Related

70237 All overdose related

Figure 3. National Drug Overdose Deaths Involving Any Opioid, Number Among All Ages, by Gender, 1999-2017



Source: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death, 1999-2017 on CDC WONDER Online Database, released December, 2018

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NIH Data -published Jan. 2019

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Available Formulations



Vial
0.4 mg/mL

Prefilled syringe
2 mg/2 mL with or without needle



Nasal spray (Narcan®)
4 mg/0.1 mL

Autoinjector (Evzio®)
0.4 mg/0.4 mL or 2 mg/0.4 mL



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How to Administer Naloxone

Giving naloxone:

Nasal spray with assembly

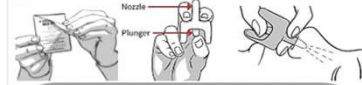
- 1** Take off yellow caps.
- 2** Screw on white cone.
- 3** Take purple cap off capsule of naloxone.
- 4** Gently screw capsule of naloxone into barrel of syringe.
- 5** Insert white cone into nostril; give a short, strong push on end of capsule to spray naloxone into nose: **ONE HALF OF THE CAPSULE INTO EACH NOSTRIL.** Push to spray.
- 6** If no reaction in 3 minutes, give second dose.

Evzio® auto-injector



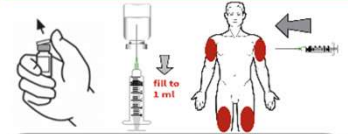
Pull Evzio from outer case to begin hearing the step-by-step injection instructions. It may be injected through clothing, and once injected, should be held in place for 5 seconds.

Narcan® nasal spray



- 1 Peel**
Peel back the package to remove the device. Hold device with thumb on the bottom of the plunger and two fingers on the nozzle.
- 2 Place**
Place and hold the tip of the nozzle in a nostril until fingers are touching the bottom of the person's nose.
- 3 Press**
Press the plunger firmly to release the dose into the person's nose.

Injectable naloxone



- 1** Remove cap from naloxone vial and uncover the needle.
- 2** Insert needle through rubber plug with vial upside down. Pull back on plunger and fill syringe with 1 mL of naloxone.
- 3** Inject 1 mL of naloxone into an upper arm or thigh muscle.

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Financial Resources

Texas Medicaid

- Covers naloxone vial + syringe and Narcan® nasal spray

KALÉO CARES

- Evzio® at **no cost** based on the following requirements:
 - No commercial or gov. insurance (e.g., Medicare, Tricare)
 - Medicaid eligible patients **may** be eligible
 - Annual household income of < \$100,000
 - Physical address cannot be a PO box
- Can only get 3 boxes of 2 devices in lifetime; must fill out a separate form each time even if there are refills on the RX

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Financial Resources

EVZIO 2 YOU

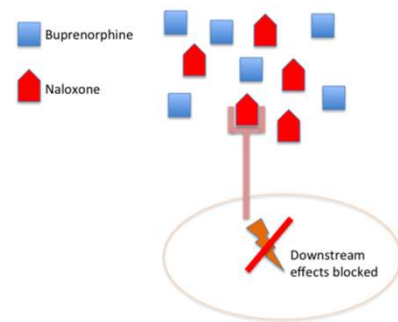
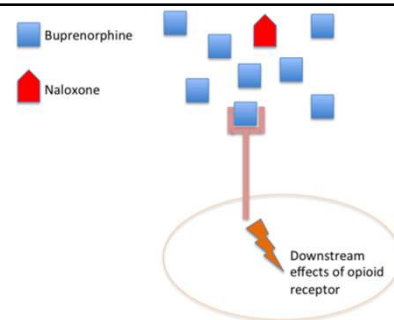
- Evzio® at **no cost** for patients commercially insured
- Specific specialty pharmacies are enrolled in the program and supply naloxone
 - Local options (more listed on website): Stonebriar (Frisco) and PatientRx Solutions (Hurst)
 - Must select a pharmacy from the website to complete the form
- Evzio® delivered to patient's home or healthcare professional's office (free shipping)
- If a PA is required by insurance or the selected pharmacy cannot deliver the medication, the prescription is transferred to Evzio® 2 You patient access facility and they process/deliver it
- No limitation on use of service (e.g., refills, timeframe); patient's insurance must remain active

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Naloxone in Preventing Opioid Overdose

- **Structurally similar to morphine**
 - Has no analgesic properties
- **No abuse potential**
- **Not a controlled substance**
- **MOA: antagonizes the effect of opioids by competing for the same binding sites as opioids**
- **Onset of action varies based on formulation**
 - IV: 2 minutes
 - Nasal: 8-10 minutes
 - IM: 2-5 minutes



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Benefits in Prescribing Naloxone

- Emergency responders easily trained to recognize and reverse opioid overdose
- Quickly reverses respiratory depression due to opioids
- Benign side effect profile
- Low risk, high reward medication
- 83-100% survival rate in the hospital naloxone administration in opioid overdose



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Risk Factors for Opioid-Related Death

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Risk Factors For Opioid-Related Deaths



Opioid Properties and History	Past Medical History	Concomitant Medications
<ul style="list-style-type: none"> • ≥ 50 morphine milligram equivalents (MME) per day • Long-acting opioids • Potential return to high dose opioid use after lost tolerance • History of opioid overdose 	<ul style="list-style-type: none"> • COPD • Asthma • Sleep apnea • Liver disease • Renal impairment • History of substance abuse disorder 	<ul style="list-style-type: none"> • Benzodiazepines • Hypnotics • Clonidine • Promethazine • GABA analogs • Barbiturates • Muscle relaxants

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Converting Between Opioids to Calculate MMEs

Multiply daily dose by MME Conversion

Morphine Mg Equivalents

Calculating Morphine Milligram Equivalents (MME)*			
Opioid	Conversion Factor (convert to MMEs)	Duration (hours)	Dose Equivalent Morphine Sulfate (30mg)
Codeine	0.15	4-6	200 mg
Fentanyl (MCG/hr)	2.4		12.5 mcg/hr**
Hydrocodone	1	3-6	30 mg
Hydromorphone	4	4-5	7.5 mg
Morphine	1	3-6	30 mg
Oxycodone	1.5	4-6	20 mg
Oxymorphone	3	3-6	10 mg
Methadone†			
1-20 mg/d	4		7.5 mg
21-40 mg/d	8		3.75 mg
41-60 mg/d	10		3 mg
≥ 61 mg/d	12		2.5 mg

*The dose conversions listed above are an estimate and cannot account for an individual patient's genetics and pharmacokinetics.

**Fentanyl is dosed in mcg/hr instead of mg/day, and absorption is affected by heat and other factors.

†Methadone conversion factors increase with increasing dose.

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Think - Pair - Share Learning Event

Active

What is the most common dose and regimen for Oxycodone? IR or ER? ___mg?

The MME Conversion is 1.5 for oxycodone.

To calculate MME

Daily Dose X 1.5 = _____MME

If MME ≥ 50 Send Co-Prescription for Naloxone



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50 MME/day:

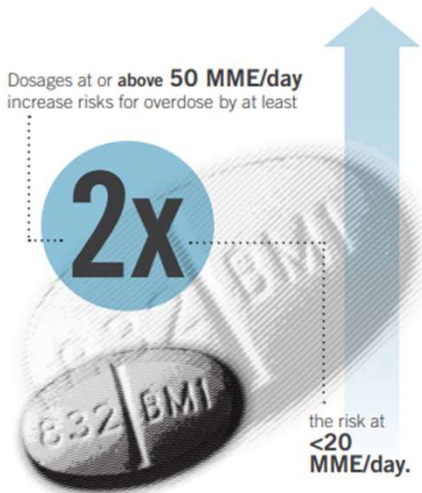
- 50 mg of hydrocodone (10 tablets of hydrocodone/acetaminophen 5/300)
- 33 mg of oxycodone (~2 tablets of oxycodone sustained-release 15 mg)
- 12 mg of methadone (<3 tablets of methadone 5 mg)



Dosages at or above 50 MME/day increase risks for overdose by at least

2x

the risk at <20 MME/day.



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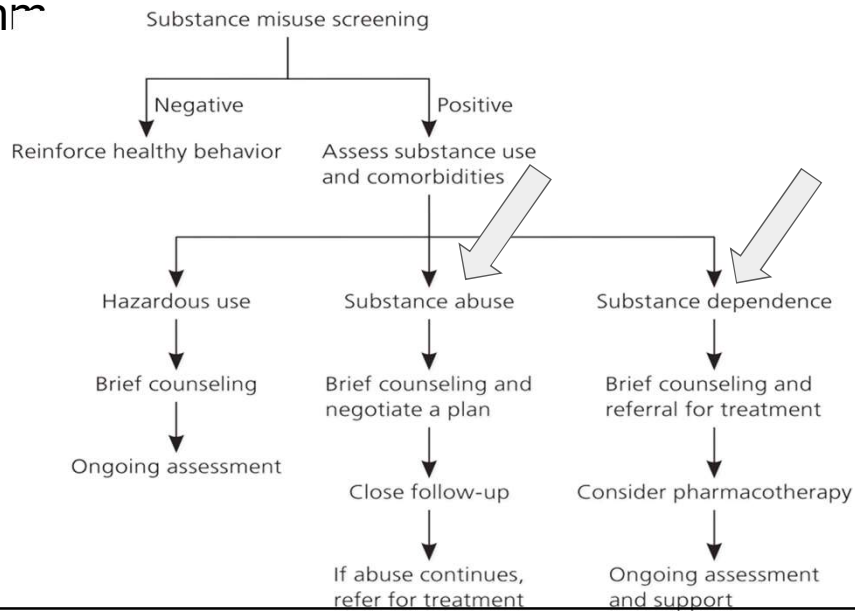
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Substance Abuse Treatment

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American Association of Family Physician Suggested Algorithm



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Utilizing SBIRT (Recommended by SAMHSA)

- Stands for screening, brief intervention, and referral to treatment
- Goal of SBIRT: improve community health by reducing prevalence of adverse consequences of substance misuse, which can include substance use disorders (SUDs) through early intervention and referral when needed
 - **Screening**: quickly assess use and severity of alcohol, illicit drugs, and prescription drug abuse
 - **Brief intervention**: a 3-5 minute motivational interview and awareness-raising intervention given to risk or problematic substance users
 - **Referral to treatment**: referrals to specialty care for patients with substance use disorders

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Texas Senate Bill 1462

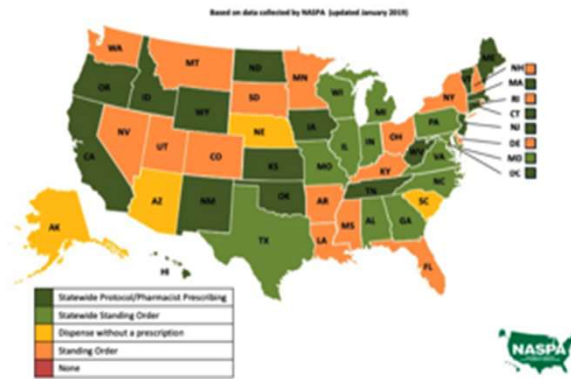
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Texas Senate Bill 1462

- Comprised of 3 major components
 - Standing Order for pharmacists
 - Third Party Prescribing
 - Prescriber can issue a Rx to a friend or family member of the at risk patient
 - Good Samaritan Clause

Naloxone Access in Community Pharmacies



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Texas' Standing Order for Pharmacists

- Developed and implemented by the Texas Pharmacy Association in 2016
- Authorizes a pharmacist that is active and in good standing to dispense an opioid antagonist to a patient, family member, or caregiver with a medical need
 - Intramuscular naloxone (Evzio)
 - Intranasal naloxone (for administration by mucosal atomization device)
 - Naloxone nasal spray (Narcan)
- Pharmacist must complete a one-hour, Texas-accredited course to establish standard of care



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Generating Naloxone Disbursement

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Consider Co-Prescribing

- HHS recommends clinicians prescribe or co-prescribe naloxone to individuals at risk for opioid overdose. Individuals at risk include the following:
 - Relatively high doses of opioids
 - Other medications that enhance opioid complications
 - Underlying health conditions

- Build an order set
 - When **≥ 50 MME** is ordered, a prescription for Naloxone would automatically accompany the initial prescription



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Active Learning

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Think - Pair - Share Learning Event

How would you respond to a pharmacist who called your office to co-prescribe Naloxone for a patient?

Active



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**Think - Pair - Share
Learning Event**

Active

How would you respond to a patient who contacted your office to understand why a pharmacist recommended they get Naloxone to have on hand?



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**Think - Pair - Share
Learning Event**

Active

How would you coach/convince a patient while in the office who has preconceived misconceptions about the use/need for Naloxone, but you believe would benefit from having Naloxone on hand?



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What strategies would you recommend to increase the deployment of naloxone?

Where to?

How do we get it there?

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References

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