WELCOME!

- We will begin shortly
- **Please type your name and email into the chat box for attendance**
- Reminder, we will be recording this session
- Please mute your line upon entering and chat in your comments or questions
- Vicki Flanagan will monitor the chat box and call on you to unmute yourself
- If you have trouble connecting, please email Victoria.A.Flanagan@Hitchcock.org

Please Note: New CME/CNE Process!

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Need help? **clpd.support@hitchcock.org**
The impact of Xylazine in our communities and updates on drug toxicity and prevalence in our region.

NH AIM/ERASE Monthly Webinar
March 9, 2023

Faiz M. Hasan, MD
Cheri Bryer, Recovery Coach

Disclosures

Today's speakers have no financial disclosures
Session Objectives

• Describe current data on prevalence of Xylazine in regional drug supply
• Explain the pharmacology and toxicity of Xylazine in humans
• Discuss the impact of Xylazine on treatment engagement and possible harm reduction strategies

Agenda

• Data update: impact of perinatal SUD in NH
• Role of context in implementation work
• Impact of Xylazine
A quality improvement initiative to support best practices that make birth safer, improve maternal health outcomes and save lives.

CDC works with MMRCs to improve review processes that inform recommendations for preventing future deaths.

https://saferbirth.org/  
https://www.cdc.gov/reproductivehealth/maternal-mortality/erase-mm/index.html

Critical Collaborations: NNEPQIN, ERASE and AIM
SUD Safety Bundle: Currently...

- Patient-level REDCap project is up and running for most facilities
  - Support available for onboarding, data entry questions, surveillance reports
  - Challenges: process design, bandwidth, identifying eligible patients

Source: all de-identified eligible patients from 01/01/23 – 02/28/23

SUD Safety Bundle: What’s next?

- Scheduling quarterly check-ins
  - 30 min call, aiming for end of April/early May
- Facility-level structure measures
- Uploading to AIM portal
  - comparison across all (blinded) hospital reports
Objectives

• Prevalence of Xylazine (XYLZ) in regional supply
• Pharmacology and effects in humans
• Treatment engagement & modalities
• Potential harm reduction strategies
History

- Developed by Bayer Company in 1962 for use of veterinary medicine
- FDA approved its use as a sedative, analgesic, and muscle relaxant in dogs, cats, horses, elk, deer
- First reported misuse in Puerto Rico in the 2000s
  - “anestesia de caballo”
  - Found in Philadelphia ~ 2006

What is Xylazine?

- Non-opioid veterinary tranquilizer
- Not approved for human use
- Not a controlled substance
What is Xylazine? (continued)

- Linked to increasing number of fatal overdoses nationwide
- Often used in combination with illicit substances, mainly opioids
- Liquid -> “salted” Solid -> Mixed

Street Names

- Tranq, Tranq-Dope
- Sleep-cut
- 550
- Rampage; Black Mask
According to NIDA:

XYLZ-linked overdose deaths (ODD) spread across the U.S., with largest impact in the Northeast.

- In PA, ODD rose from 2% to 26% during 2015 – 2020
- In MD, ODD was 19%
- In CT, ODD was 10%

### DEA Joint Intelligence Report

#### Laboratory Identification of Xylazine

<table>
<thead>
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<th>Region</th>
<th>2020</th>
<th>2021</th>
<th>Percent Increase</th>
<th>2020</th>
<th>2021</th>
<th>Percent Increase</th>
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<td>346</td>
<td>556</td>
<td>61%</td>
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<td>South</td>
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<td>580</td>
<td>193%</td>
<td>116</td>
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<tr>
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<td>118</td>
<td>7%</td>
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<td>351</td>
<td>516%</td>
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<tr>
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<td>163</td>
<td>112%</td>
<td>4</td>
<td>34</td>
<td>750%</td>
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</tbody>
</table>
Mechanisms

Alpha-2 adrenergic agonist that activate central alpha-2 receptors

- Leads to decrease in release of norepinephrine and dopamine
- Results in sedation, muscle relaxation, and decreased pain perception
  - Parenteral onset: within 30 minutes
  - Duration: 4 – 72 hours
  - Effects: drowsiness, hypotension, bradycardia

**KEYNOTE:** CNS depression has NO EFFECT on respiratory rate!

- Blunts response to airway occlusion due to oversedation

Managing XYLZ Overdose

- Blunted response due to sedation leading to hypoxia
- Airway protection is key!
- Field management: airway maneuvers, recovery position*
- ER management: continuous pulse oximetry, airway control/monitoring

- There are no antidotal medication available or recommended (for humans)
  - Atipamezole (veterinary medicine)
  - Yohimbine (alpha-2 antagonist) not recommended
  - Naloxone?
Naloxone (continued)

- “Narcan resistant overdose” – unlikely to have significant clinical effect directly on XYLZ OD
- XYLZ & fentanyl are a combination product
- Indication:
  - Decreased mental status is suspected in opioid OD
  - Apnea/cyanosis
  - 2nd dose after 2-3 minutes if no improvement in breathing
  - RISK: beware of overshoot and precipitating opioid withdrawal in patients with significant opioid dependence

Diagnostic Testing

- Not readily available for point-of-care
- Detection of XYLZ requires specialty lab testing
  - Thin layer chromatography
  - Gas chromatography mass spectrometry
  - Liquid chromatography mass spectrometry

Xylazine is rapidly eliminated from the blood
- 70% excreted in the urine as major metabolite 2, 6 xylidine
Xylazine Withdrawal

- Not well studied or defined-syndrome
  - Primary symptom: anxiety
  - No significant VS abnormality
  - No associated withdrawal seizures
- No evidenced-based recommendations or data available for treatment
- Treatment like sedative-hypnotic withdrawal (alcohol/benzo)
  - Benzodiazepines are first-line agent
  - Typically lasts few days to a week
- Overlaps with opioid withdrawal syndrome
  - Monitor COWS; treat opioid withdrawal
  - Implications for Buprenorphine induction to treat underlying opioid use disorder

Wounds Associated with Xylazine

- Number of hospitalizations for skin and soft tissue infections associated with drug use in Philadelphia increased from approximately 800 in 2010 to 1800 in 2019
- Many substance users are losing their fingers and toes after shooting "tranq dope"
- "It’s eating away at my skin"
Treatment

BASICS!
- Soap and water is key!
- No alcohol wipes
- No hydrogen peroxide
- Nonadherent bandages
- If dry: needs moisture
- If wet: needs to dry out
- Clean environment
- Daily changes

WARNING: GRAPHIC IMAGINE NEXT SLIDE
• Cleanse: dermal wound cleanser, saline
• Enzymatic debridement
• Medicate: Mupirocin on Xeroform
• Dress: Roll gauze, Coflex
• Wrap if preferred

Wounds continued

• Long history of skin ulcers associated with injection drug use
  Heroin – fentanyl – cocaine – methamphetamine – now Xylazine

Potential causes of Wounds from IVDU:
• Infectious
• Formication (“skin picking”)
• Poor wound healing
• Vasculitis from repetitive injection (“shooter’s patch”)
• Localized effect from caustic extravasation
• Excoriations and ulcers of various causes
WHAT CAN WE DO?

- Treat the underlying cause: ongoing battle with Opioid addiction
- Psycho-education to patients/family members
- Community Education & awareness
- Early access to medical care and treatment
- Increase Syringe Access
- Increase funding for wound clinics & Doorways

**DRUG OVERDOSE DEATHS IN THE US**

![Graph showing increasing drug overdose deaths](image)
Thank you.

REFERENCES

1. Xylazine | National Institute on Drug Abuse (NIDA) (nih.gov)
REFERENCES (continued)


11. MORE to be added!
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