

NH AIM/ERASE Monthly Webinar
March 9, 2023

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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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

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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.



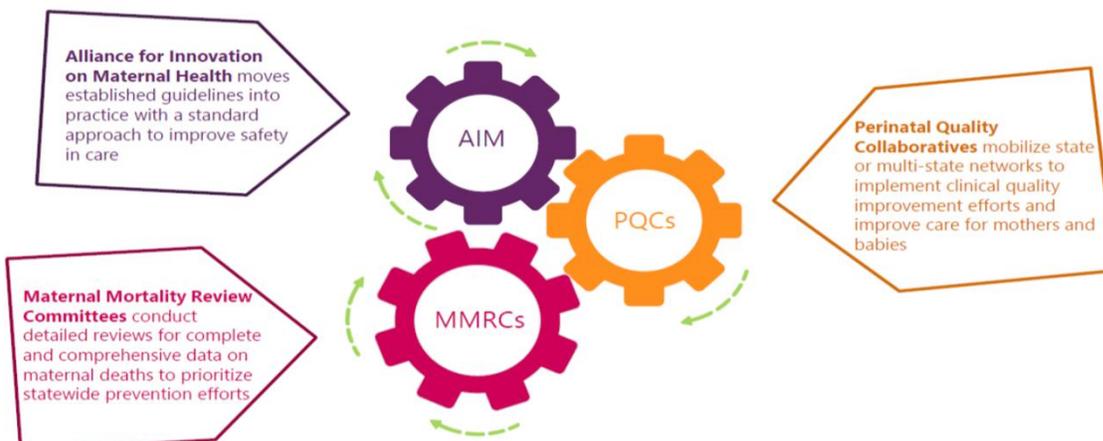
CDC works with MMRCs to improve review processes that inform recommendations for preventing future deaths.



<https://saferbirth.org/>

<https://www.cdc.gov/reproductivehealth/maternal-mortality/erase-mm/index.html>

Critical Collaborations: NNEPQIN, ERASE and AIM



Created from a Centers for Disease Control, Division of Reproductive Health source



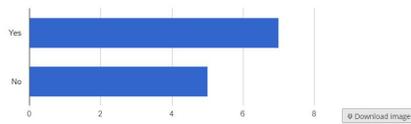
SUD Safety Bundle: Currently...

- 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

P1. Was this pregnant or postpartum patient screened for SUD using a validated verbal screening tool during their birth admission? [\(sud_universal_screening\)](#) [Refresh Plot](#) | [View as Bar Chart](#)

Total Count (N)	Missing*	Unique
12	0 (0.0%)	2

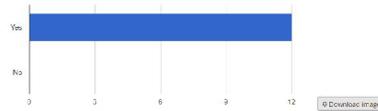
Counts/frequency: Yes (7, 58.3%), No (5, 41.7%)



O3. Did this pregnant or postpartum patient with SUD (including OUD) receive or get referred to recovery treatment services? Recovery treatment services include: Residential treatment or inpatient recovery programs Outpatient treatment: Behavioral health counseling Peer support counseling, such as a 12-step program Methadone treatment program Check "yes" for: Those who received recovery treatment services at any point during their pregnancy, regardless of current utilization Those who did not receive recovery treatment services during pregnancy but were referred to them prior to discharge from birth hospitalization [\(recovery_treatment_services_o3\)](#) [Refresh Plot](#) | [View as Bar Chart](#)

Total Count (N)	Missing*	Unique
12	0 (0.0%)	1

Counts/frequency: Yes (12, 100.0%), No (0, 0.0%)



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

Structure Measures

SUD_S1: Has your department established a standardized process to conduct debriefs with patients after a severe event?

For the Severe Hypertension in Pregnancy, Obstetric Hemorrhage, and Safe Reduction of Primary Cesarean Birth patient safety bundles, this measure was originally titled: Patient, Family & Staff Support. Beginning the reporting period of October 2022, this measure was changed to focus on patient debriefs only in the AIM Data Center.



SUD_S2: Has your hospital created a comprehensive list of community resources, customized to include resources relevant for pregnant and postpartum people, that will be shared with all postpartum inpatient nursing units and outpatient OB sites?



SUD_S3: Has your hospital implemented post-delivery and discharge pain management prescribing guidelines for routine vaginal and cesarean births focused on limiting opioid prescriptions?



NNEPQIN NORTHERN NEW ENGLAND PERINATAL QUALITY IMPROVEMENT NETWORK

HOME EDUCATIONAL OFFERINGS CLINICAL GUIDELINES PROJECTS ABOUT NNEPQIN MEMBERSHIP CONTACT

NH Maternal Mortality Webinars and Resources Click here »

AIM SUD Bundle Click here »

AIM Perinatal Mental Health Bundle Click here »

The Northern New England Perinatal Quality Improvement Network (NNEPQIN) was founded at Dartmouth Hitchcock in collaboration with University of Vermont Medical Center (then FAHC) in 2003. We now have members across all of Northern New England, including Maine Medical Center and most of the birth hospitals in New Hampshire, Vermont, and Maine. Dartmouth Hitchcock is

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XYLAZINE in Upper Valley

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Disclosures: None



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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

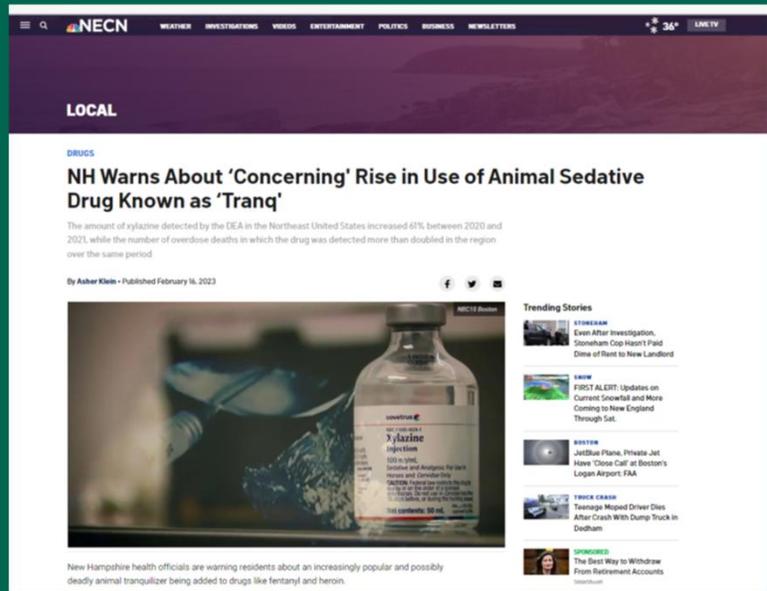
- Tranq, Tranq-Dope
- Sleep-cut
- 550
- Rampage; Black Mask



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%



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DEA Joint Intelligence Report

Laboratory Identification of Xylazine

Number of Xylazine-Positive ODD

Region	2020	2021	Percent Increase		2020	2021	Percent Increase
Northeast	346	556	61%		631	1,281	103%
South	198	580	193%		116	1,1423	1,127%
Midwest	110	118	7%		57	351	516%
West	77	163	112%		4	34	750%

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!

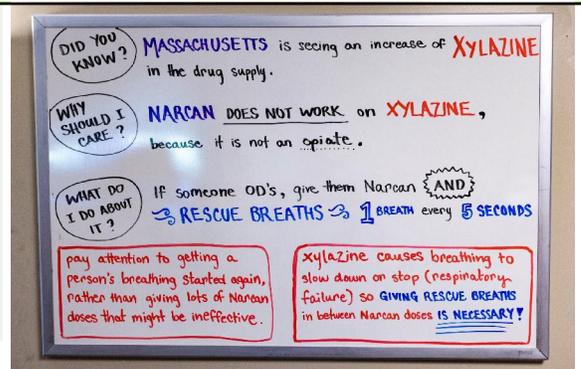
- Blunts response to airway occlusion due to oversedation

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



The Recovery Position

Keep the Airway Clear



Stay with person. If you must leave them alone at any point, or if they are unconscious, put them in this position to keep airway clear and prevent choking.

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

Test Code
4815B/U
Method
LC-MS/MS
Specimen Type:
Blood or urine
Turnaround
Time: 8 days

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

The image shows a screenshot of the COWS (Confusion-Oriented Withdrawal Assessment Scale) form. The form is titled 'COWS' and includes a header with 'CONFUSION-ORIENTED WITHDRAWAL ASSESSMENT SCALE' and 'CONFUSION-ORIENTED WITHDRAWAL ASSESSMENT SCALE'. It contains a table with columns for 'Item', 'Score', and 'Total Score'. The table lists various symptoms and signs of withdrawal, such as 'Disorientation', 'Vital signs', 'Tachycardia', 'Hypertension', 'Sweating', 'Tremor', 'Nausea', 'Vomiting', 'Diarrhea', 'Anxiety', 'Agitation', 'Delirium', 'Seizures', 'Respiratory depression', 'Hypotension', 'Bradycardia', 'Hypothermia', 'Miosis', 'Nystagmus', 'Ataxia', 'Hyperreflexia', 'Clonus', 'Coma', and 'Death'. The form is used to assess the severity of withdrawal symptoms and guide treatment.



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”

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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

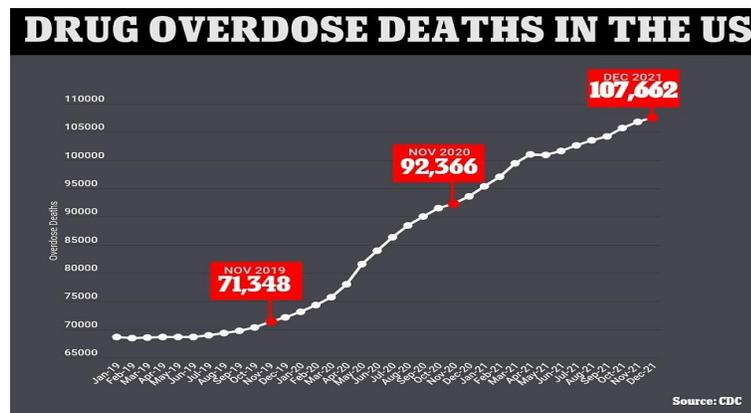
- Long history of skin ulcers associated with injection drug use
Heroin – fentanyl – cocaine – methamphetamine – now Xylazine

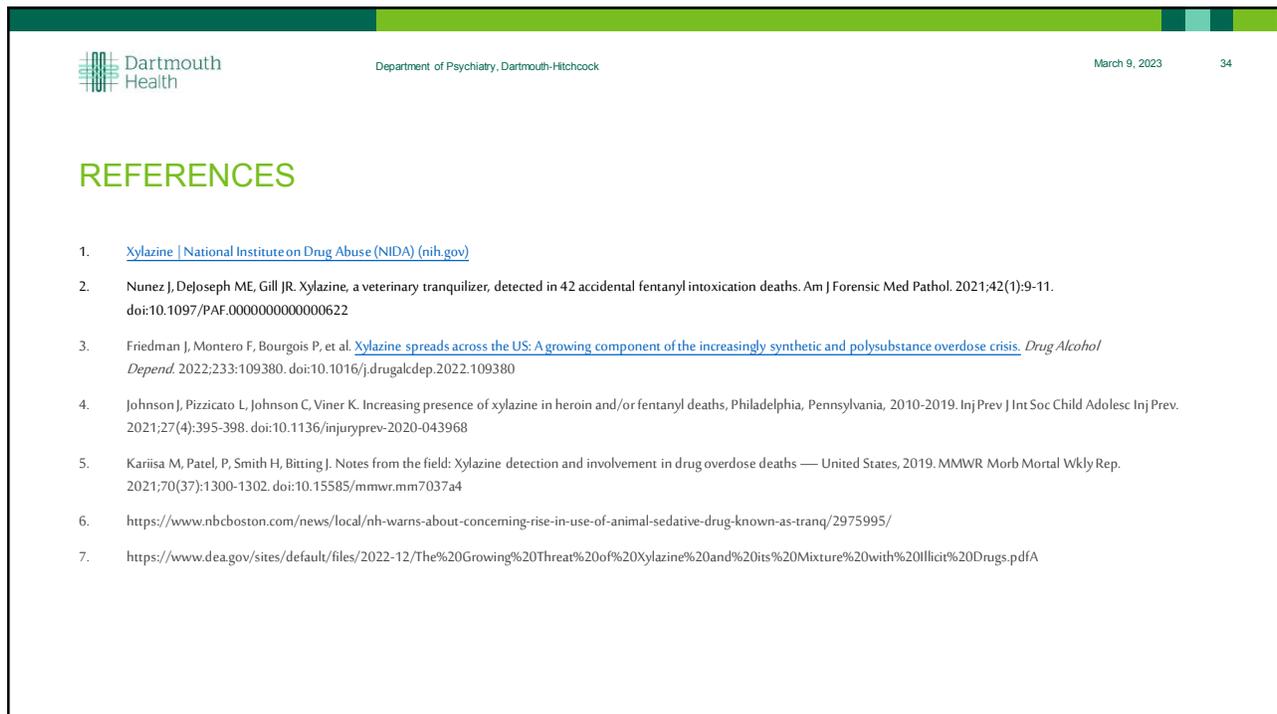
Potential causes of Wounds from IVDU:

- 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





REFERENCES (continued)

8. "Xylazine." Diversion Control Division, Drug Enforcement Administration, February 2021. https://www.deadiversion.usdoj.gov/drug_chem_info/Xylazine.pdf.A
9. <https://www.wbur.org/news/2022/07/15/xylazine-an-animal-tranquilizer-compounds-overdose-crisis>
10. Malayala SV, Papudesi BN, Bobb R, Wimbush A. Xylazine-Induced Skin Ulcers in a Person Who Injects Drugs in Philadelphia, Pennsylvania, USA. *Cureus*. 2022 Aug 19;14(8):e28160. doi: 10.7759/cureus.28160. PMID: 36148197; PMCID: PMC9482722.
11. MORE to be added!

Discussion



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