Xylazine: What We Need to Know

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MAINE ACCESS POINTS

Maine Access Points
Anna McConnell, FNP-BC
Maggie Zall, CADC

Learning Objectives

1. Understanding and discussing xylazine and effects/implications of it in the drug supply, as well as the history of xylazine
2. How to respond to overdose in xylazine-affected individuals
3. Understand basic xylazine wound care response, as well as appropriateness to referral for more advance care

Awknowledgements

Entire MAP team and especially Mikki Rice
Office of Behavioral Health
Rachel McFadden, RN
Dr. Nabarun Dasgupta (UNC) -
https://www.streetsafe.supply/
National Harm Reduction Coalition
Next Distro

Today we will cover

- **Introductions:**
  Who we are
- **Harm Reduction:**
  Definition, principles & brief history
- **Xylazine:**
  Introduction to xylazine & why you should you know about it
- **Xylazine Implications:**
  Overdose response
- **Xylazine Implications:**
  Wound care

Intros

- Who we are
- What is Maine Access Points (MAP)
- Scale of 1 - 10 : How comfortable do you feel about talking with patients/clients/participants about using drugs & overdose risk?

Harm Reduction

Definition, Principles & a Brief History

Definition:

hr

Harm reduction is a set of practical strategies & ideas aimed at reducing negative consequences associated with drug use.

HR

Harm Reduction is also a movement for social justice built on a belief in & respect for the rights of people who use drugs.

Principles of Harm Reduction

National Harm Reduction Coalition - Principles of Harm Reduction

- Accepts, for better or worse, that licit & illicit drug use is part of our world & chooses to work to minimize its harmful effects rather than simply ignore or condemn them
- Understands drug use as a complex, multi-faceted phenomenon that encompasses a continuum of behaviors from chaotic use to total abstinence, & acknowledges that some ways of using drugs are clearly safer than others.
- Establishes quality of individual & community life & well-being ~ not necessarily cessation of all drug use ~ as the criteria for sucessful interventions & policies.

Principles of Harm Reduction Continued...

National Harm Reduction Coalition - Principles of Harm Reduction

- Calls for the non-judgemental, non-coercive provision of services & resources for people who use drugs (PWUD) & the communities in which they live in order to assist them in reducing attendant harm.
- Ensures that PWUD and those with a history of drug use routinely have a real voice in the creation of programs & policies designed to serve them.
- Does not attempt to minimize or ignore the real & tragic harm & danger that can be associated with illicit drug use.

Principles of Harm Reduction Continued...

National Harm Reduction Coalition - Principles of Harm Reduction

- Affirms PWUD themselves as the primary agents of reducing the harms of their drug use & seeks to empower PWUD to share information & support each other in strategies which meets their actual conditions of use.

- Recognizes that the realities of poverty, class, racism, social isolation, past trauma, sex-based discrimination & other social inequalities affect both people's vulnerability to & capacity for effectively dealing with drug-related harm.

Brief History of Harm Reduction

- **1987** - AIDS Coalition to Unleash Power (ACT UP)
- **1988** - Dave Purchase & Point Defiance AIDS Project
- **1993** - Harm Reduction Working Group
- **1996** - Dan Bigg & Chicago Recovery Alliance (1st Community naloxone distribution program)

Introduction to
Xylazine

Intro to Xylazine (Aka Tranq)

- Xylazine is an alpha-2-adrenergic agonist and kappa opioid agonist that is commonly used in veterinary medicine as a sedative and anesthetic in animals.
- Xylazine comes in liquid and powder form and can be smoked, snorted/sniffed, swallowed, or injected.
- Xylazine is most commonly found the illicit opioid supply *(heroin, fentanyl, pressies)*
- Xylazine is not FDA approved for human use but, it is increasingly being found in the drug supply in Maine, the rest of New England, and other parts of the U.S.

Xylazine is an agonist at kappa opioid receptors and exhibits sex-specific responses to opioid antagonism

Madigan L. Bedard [a b 1], Xi-Ping Huang [a c 1], Jackson G. Murray [b], Alexandra C. Nowlan [b], Sara Y. Conley [b d], Sarah E. Mott [a b], Samuel J. Loyack [b], Calista A. Cline [b], Caroline G. Clodfelter [b], Nabarun Dasgupta [e], Brian Krumm [a], Bryan L. Roth [a c f], Zoe A. McElligott [a b g]

History & Prevalence of Xylazine

- First FDA approved in 1972 for veterinary use
- Xylazine remains an essential medication *(especially for livestock & other large animals)*
- Xylazine began showing up in the U.S. drug supply in the early 2000's *(1st PR followed by PA)*
- Since then xylazine has been increasingly found across the United States *(the DEA has reported it being found in 48 out of 50 states)*
- In Maine in 2022 11% of overdose deaths due to fentanyl toxicity also included xylazine.

Possible Effects of Xylazine Use

- Xylazine isn’t FDA approved for human use because of possible life-threatening effects to the CNS.*(FDA, 2022)*
- Opioid overdose and xylazine overdose share many of the same symptoms, making it harder to recognize if it is a xylazine overdose or an opioid overdose.
- Xylazine is also known to cause severe dry mouth and sedation within the first couple hrs after use. The only way to know for sure if xylazine is present is for people to test their opiates before using them.

Reported Benefits of Xylazine Use

- Reported increased duration of effect with fentanyl and delays withdrawl symptoms
- Longer duration = decreased frequency of use, less injections per day, decreased infection risk
- **L**ess respiratory depression than fentanyl; possibly less risk for overdose if more xylazine is present in drug supply?

Xylazine Test Strips

You will need

- Xylazine test strips should only be used to test street supply opiates
- You can test pills and powders using xylazine test strips

- 10 mg of substance
- Xylazine test strip
- 10 ml water
- Bottle cap (cooker/tin)
- Microscoop
- Timer

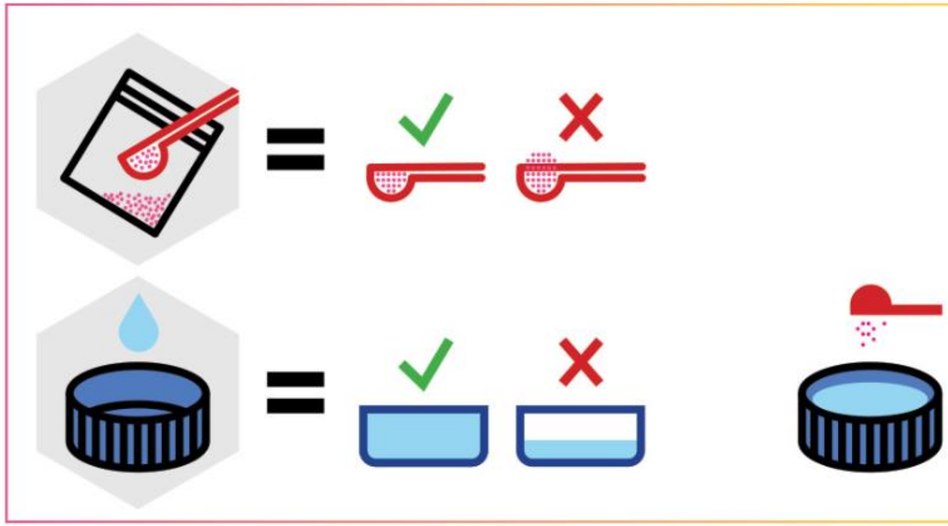
Using Xylazine Test Strips

- If testing powder you must crush and shake substance before testing
- Measure 1 microscoop (10 mg) of the powder you are testing
- Measure 1 microscoop (10 mg) of the powder you are testing and place into the bottle cap/cooker
- Add 1 teaspoon of water and stir
- Place test strip in the water/opiates solution and let sit for 15 seconds
- Remove the test strip from the opiate/water solution and let sit for 3 minutes
- After 3 minutes read results

1 tsp
Water

10 mg
Powder

Use one teaspoon of water for every 10 mg of powder. This is 2 mg/mL.



2 mg/mL is the equivalent of one level micro scoop into one plastic bottle cap of water.

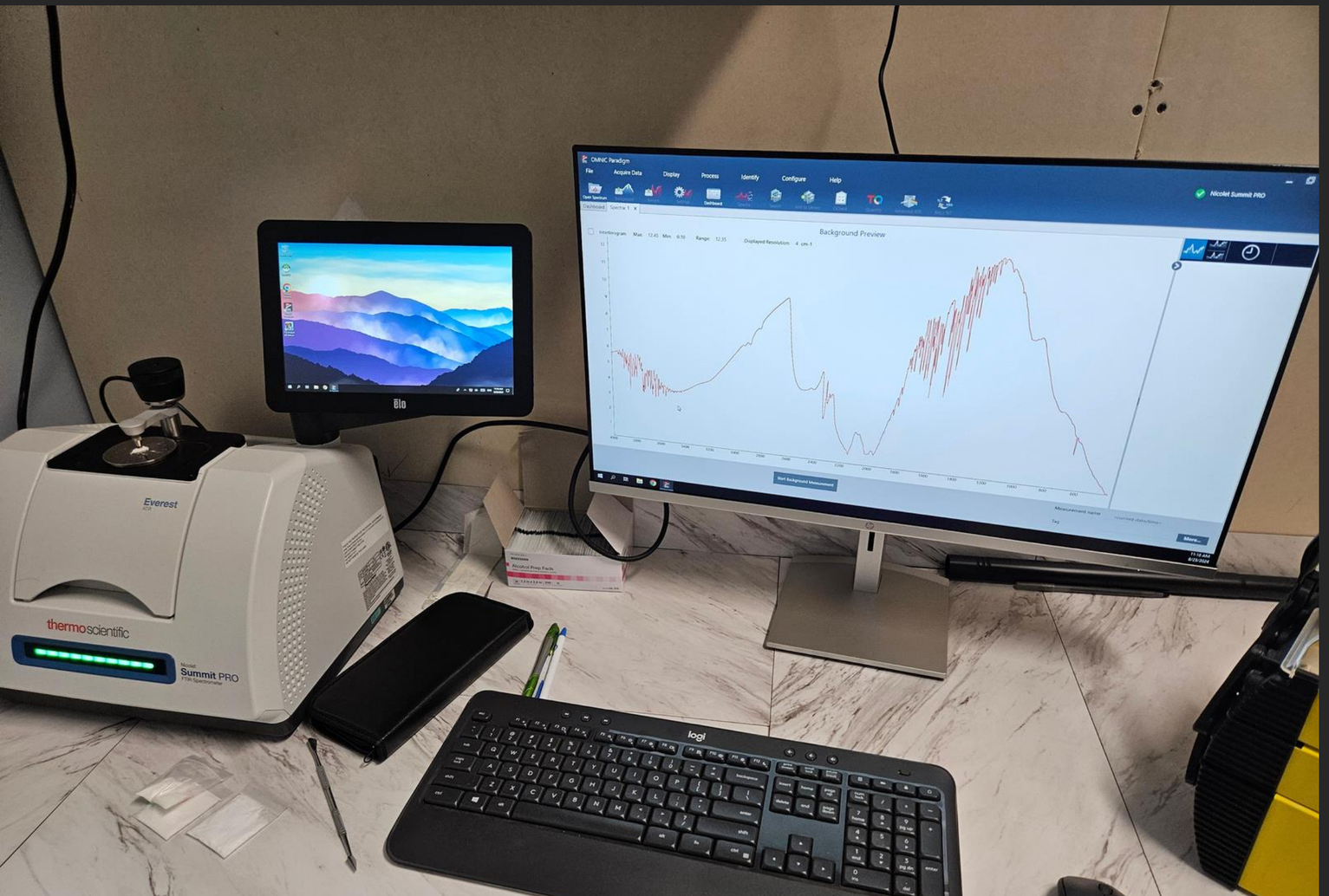
Using Xylazine Test Strips

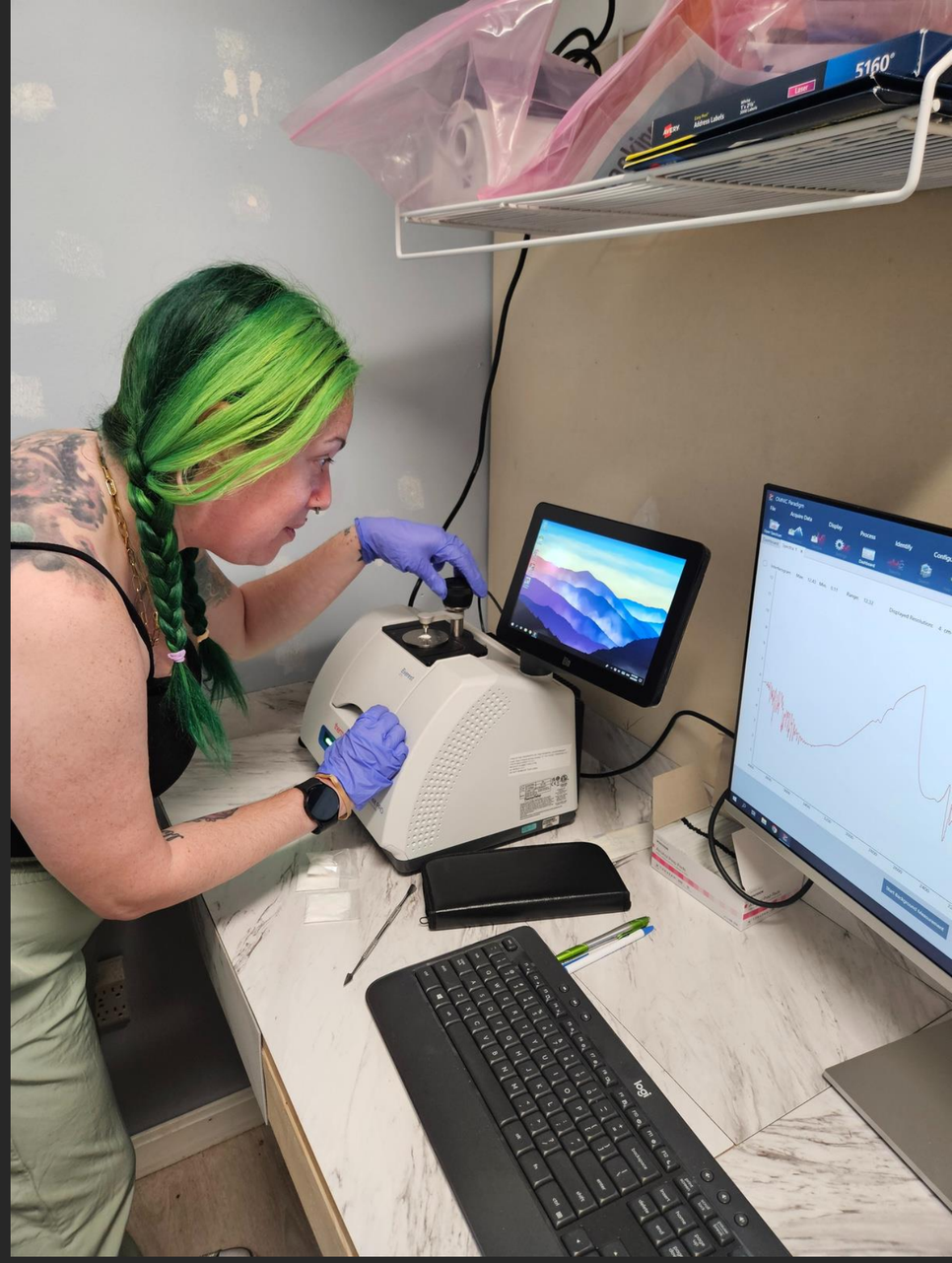
- If you are testing pressed pills you can dilute the entire pill in a 1/4 cup of water
- If you do not want to test the entire thing you can either break in half and dilute with 1/8 of a cup of water or 1/4 of the pill in 1/16 cup of water
- Once pill is disolved stir water
- Dip test strip into water and leave for 15 seconds
- After 15 seconds remove test strip and set to the side for 3 minutes.
- After 3 minutes read results

Getting Your Powder Back

- If you plan to smoke or snort your drugs you can get your powder back by following these steps:
- Pour the water into a flat-bottomed glass or ceramic pan & put the pan in the oven on the lowest setting (no higher that 225 F)
- Keep the oven door cracked & keep a close eye on the pan (*this process could take from minutes to hours depending on how much water you are trying to evaporate)*
- Once the water is evaporated remove pan & let cool
- Use a razor blade or other flat object to scrape up the film that remains on the bottom of the pan

Drug Checking
in Maine





Xylazine Implications

Overdose Response

Opioid Overdose is a Breathing Emergency!!

Opioid overdose is a breathing emergency!

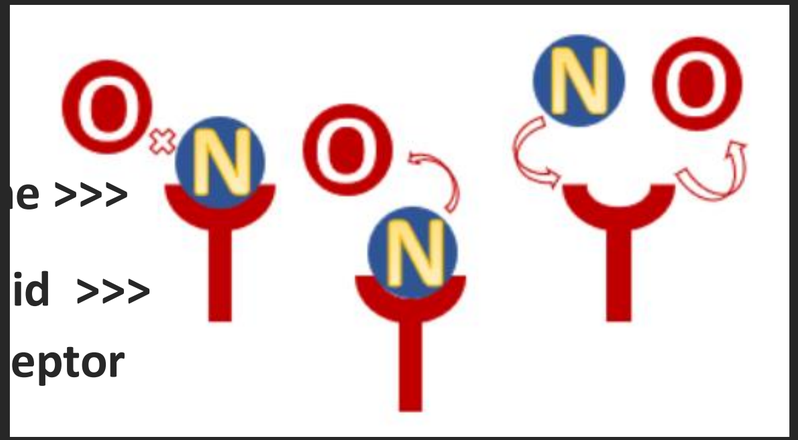
Opioid overdose happens when there are so many opioids or a combination of opioids & other drugs in the body that breathing slows down and can eventually stop.

Why does opioid overdose happen?

This happens because opioids fit into specific receptors that also affect the drive to breathe. As a breathing emergency it is important to focus on restoring breath.

Naloxone

How does it work?



- Naloxone counteracts the life-threatening depression of the central nervous system & respiratory system caused by opiates & allows the person to breathe normally.

- Naloxone has a stronger affinity to the opioid receptors than opioids do, so it knocks the opioids off the receptors for a short time (approx. 40 minutes)

Overdose Prevention

- Talk about the possibility of overdose with friends who use and safety plan *(the Brave App is a good app for safety planning)*
- Counsel people to not use alone if possible *(offer resources such as NUA, Safe-spot, & the Brave App)*
- Be aware that OD risk is highest after a period of abstinence. Use less at these times.
- When mixing substances stagger use & avoid highest risk combinations.
- Test drugs for fentanyl and xylazine using test strips

Carry naloxone, know when to use it, and know how & when to do rescue breathing!!!

Signs of an Overdose

- Unresponsive to outside stimulus
- May be awake but unable to talk
- Slow or shallow breathing or not breathing at all
- Body may be limp or very rigid
- Pulse (heart beat) may be slow, erratic, or not there at all
- Face may be very pale, gray and/or clammy
- Fingernails and/or lips may be blue or purple
- The person may make gurgling or choking sounds

Overdose Response

- Check for responsiveness
- Check for breathing and breathing quality
- Start rescue breathing
- Call 9-1-1 *(put on speaker if necessary)*
- Administer Naloxone
- Continue rescue breathing
- If no response to naloxone after 2-3 minutes give a second dose
- Start rescue breathing again until 2nd dose kicks in or help arrives

Check for Responsiveness & Breathing

- **Check for responsiveness:** Check for responsiveness to noise and/or pain stimuli
- **Check airway:** Lay the person on their back, tilt head back & lift chin. check to see if their airway is clear,
- **Look, listen, & feel for breath**
  Look listen, & feel to see if the chest is rising and falling. is the person taking in 10 breaths per minute or more & what is the quality of those breaths *(Pulse oximeters can be very useful for gauging breathing quality)*

Rescue Breathing

- Rescue breathing is just as important as giving naloxone
- Brain damage/death can occur in as little as 3-5 minutes without oxygen
- It is possible to breathe for someone until they start to breathe on their own
- If alone with the overdosing person, give a couple of rescue breaths and then get the naloxone

Rescue Breathing Continued

- With the person lying on their back, head tilted & chin lifted, cover the person's mouth with yours and plug their nose.
- Give 2 breaths initially (normal sized, not quick, not a hurricane!). Give 1 breath every 5 seconds after that *(count one-one thousand, two-one thousand...)*
- You can continue to do rescue breathing until the person starts to breathe on their own or help arrives.

Xylazine & Naloxone

- Naloxone should be given if overdose is suspected (*whether or not xylazine use is suspected*) because naloxone will have an effect on any opioids on board.

- It is important to encourage people who use street supply opiates to test their drugs for xylazine. Many harm reduction organizations in Maine can provide xylazine test strips free of charge to people who use drugs.

Xylazine & Naloxone

Continued...

- Xylazine is a heavy sedative. It is possible for someone to be unresponsive and unable to wake but not be overdosing. That is why it is also important to focus on breathing.

- Recent research shows that xylazine is a full kappa opioid receptor agonist. Because there is not enough research to say how much of an effect naloxone has on xylazine alone. It is all the more important to also give rescue breaths when responding to an overdose.

****It is important to breathe for a person until they start breathing again on their own.**

Overdose Resources

Never Use Alone **Hotline** - 1(877) 696-1996

SafeSpot **Hotline** - 1(800) 972-0590

NEXT Distro - Opioid Overdose Aftercare

National Harm Reduction Coalition - Xylazine fact sheet

CDC - What you should know about xylazine

Xylazine Implications

Wound Care

Care for xylazine associated wounds typically requires debridement, long-term durable dressings, & an individualized follow-up plan based on access to clean water, housing status, access to medical supplies, comfort with self care, comfort with accessing & ability to access clinical wound care.

Tips to Prevent Xylazine Wounds

- Testing street supply opiates using xylazine test strips
- Rotating injection sites, keeping injection sites clean & avoiding injecting into existing wounds
- When treating xylazine wounds avoid using corrosive solutions *(such as: bleach, hydrogen peroxide, and rubbing alcohol)* to clean the wound as this can limit healing
- It’s important to know that xylazine wounds are not contagious, and with proper wound care can heal over time.

How To Recognize Xylazine Wounds

- The vasoconstricting effect that xylazine has on local blood vessels is believed to be the cause of the wounds that are associated with repeated xylazine use
- Wounds typically appear on limbs
- Xylazine wounds are consistently described as partial to full thickness skin lesions with progressive necrosis of the skin, muscle, tendon or bone
- Xylazine wounds can appear amongst people who use xylazine, irrespective of the route of consumption

How To Recognize Xylazine Wounds Cont...

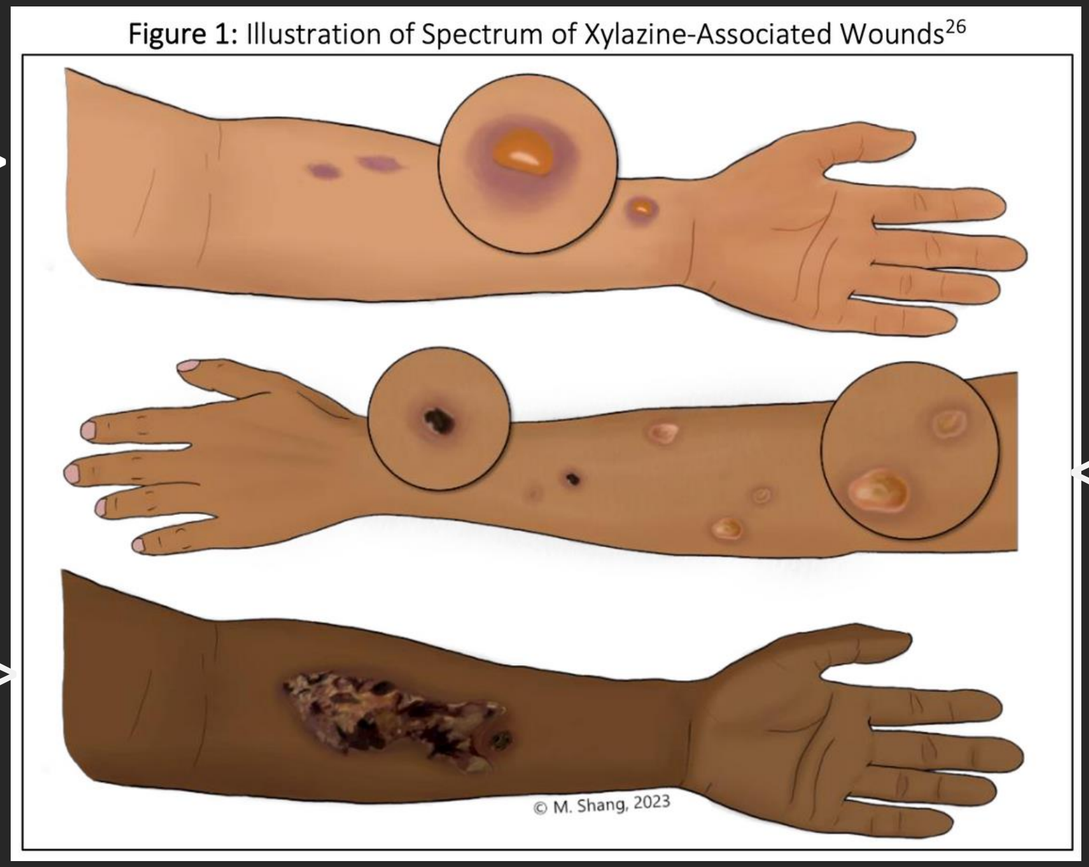
- Although xylazine wounds often develop at sites of injection amongst people who inject drugs, they can appear anywhere on the body
- Xylazine wounds initially may appear as areas of blistered skin, often over reddish-purple discolored tissue
- Wounds often evolve into a thick layer of eschar overlying a partial or full-thickness ulcer, which rapidly progresses & increases in size and depth

Xylazine Wound Woundcare Tips

- Dressings should be changed every day or every other day
- Treat each part of the wound seperately, depending on how it looks & feels
- Pale, dry wounds, or wounds with black (necrosis) will not heal, they need to be debrided
- Healing wounds will look red, beefy, & somewhat moist. This is called “granulation tissue” & is what we want for healing.
- Keep skin areas around wounds as healthy as possible
- Covering wounds helps ensure no outside bacteria get into them and cause infection

Progression of Xylazine Wounds

Early Wounds >>>



<<< Progressing Wounds

Advanced Wounds >>>

Examples of Early Xylazine Wounds

**It is best to treat xylazine wounds early

Example of More Advanced Wounds

Wound Care

Supplies

Woundcare Supplies

Cleaning the wound

- **Woven 4x4 gauze** Woven gauze works better than non-woven gauze to remove eschar and slough.
- **Sterile water or saline, bottled eater or boiled tap water** (If using boiled tap water, boil and then allow to cool to room temp)
- **Non-fragrance antibacterial soap or wound cleanser** examples include: Skintegrity, Vashe Solution, & McKesson wound cleanser

Woundcare Supplies

Inner Dressing

- **Oil Emulsion Dressing -** nonocclusive, nonadherent fabric mesh in oil
- **Nonadherent Gauze** - Nonwoven cotton/polyester w/ non-stick layer
- **Occlusive Petrolatum Dressing** - occlusive, fine-woven fabric in petrolatum and bismuth
- **Alginate Carboxymethylcellulose (CMC) Absorbtive Dressing** - Absorbs heavy drainage, promotes autolytic debridement and has antimicrobial properties if imbued with silver

Woundcare Supplies

Outer Dressing

- **Abd Dressing** - Absorbs moderate to heavy drainage, provides cushioning, inexpensive
- **Foam Dressing** - Absorbs light to heavy drainage, provides cushioning

Basic Woundcare

Step 1. Clean

- **Wash hands with soap & water** - or sanitize hands with hand sanitizer if water is not available and wear gloves if able.
- **Clean wound with** soap & water, wound cleanser or saline
- **With a wet piece of gauze gently debride the wound** - debridement is used to decrease the amount of necrotic tissue in a wound to promote healing and is a cornerstone of caring for people with xylazine-associated wounds

Slough - typically wet, yellow or white, stringy & soft

Unhealthy Tissue - Slough

Healthy Granulation Tissue

Eschar - typically dry, dark, firm & adherent

Unhealthy Tissue - Eschar

Healthy Granulation Tissue

Basic Woundcare

Step 2. Debridement

- Necrotic tissue *(slough and eschar)* in a wound increases bacterial burden & risk of infection, as well as inhibits healing
- Every day *(if possible)* soak 4x4 gauze in Vashe solution or saline, ring out excess liquid, and place on top of the wound
- Leave soaking for 10-15 minutes
- Gently brush/wipe to remove dead tissue as you remove gauze
- Can also use Medihoney for autolytic debridement

Once wounds *(or parts of the wound)* have a red, beefy appearance *(granulation tissue)* stop debriding those parts and move on to the next step

Basic Woundcare

Step 3. Keep Moist

- Spread a barrier ointment such as A&D or Vaseline around the edges of the wound
- Apply A&D ointment or Vaseline to a non-adherent dressing, piece of Xeroform or Adaptic
- Place non-adherent dressing on the wound (*this is called your "inner dressing"*)

Basic Woundcare

Step 4. Cover

- Place an ABD pad, dry gauze, or a clean, dry piece of cloth over the “inner dressing” (*this is you “outer dressing”. The outer dressing helps with drainage*).
- Wrap the wound with gauze wrap, coban, or an ace bandage (*the wrap should be tight enough to keep the dressings in place, but not so tight that it cuts off blood flow*).
- Change the “inner” and “outer” dressings every 1-2 days (*sooner if the dressing(s) become soaked*)

As Wound Starts to Heal

- As the wound starts to look healthier *(red/beefy and without pale, dry areas or areas of black)* & starts to be moister on its own you want to ensure that the wound beds stays moist but that surrounding tissue doesn't get too moist or macerated *(when skin gets soggy, soft & looks white)*. Macerated skin doesn't heal well.

- At this stage you can stop using debridement products & instead, gently rinse wounds with sterile saline when you change dressings

- If wounds are "weepy"/wet consider switching from Xeroform to Calcium alginate dressing. Calcium alginate is better at absorbing wetness *(do not use calcium alginate if wounds are dry)*

When to Seek Clinical Wound Care

- Wound starts to look unusual *(dark, black, red, hot, hard to the touch, thick, smelly, has a yellow/green discharge)*

- If there are signs of infection *(fever, warm, red, painful, or swollen skin near the wound, blood or pus coming from the wound, a foul odor, pain or decreased ability to move the arm or leg, pieces of tissue falling off, exposed bone or tendon, new numbness)*

Wound Care
Resources

Next Distro - Xylazine Wound Care: A Guide

NY State Health Dept. - Xylazine: What Clinicians Need to Know

NASTAD - Wound Care & Medical Triage for PWUD: a Complete Guide

National Harm Reduction Coalition - Xylazine fact sheet

CDC - What you should know about xylazine

Health Harms of Xylazine

Wounds

Prevents people from entering treatment, even when mostly healed.

Can be treated like chemical burns if detected early. But little emphasis on early intervention.

Wound healing takes months, requires regular dressing changes. Medical system not equipped for long-term at-home wound care.

Amputations, some unnecessary.

Withdrawal

Unique xylazine withdrawal syndrome with severe agitation and anxiety. Lasts longer than opioid withdrawal.

Buprenorphine inductions becoming less successful in presence of xylazine. Need to modify medication protocols to address xylazine withdrawal.

Can mask withdrawal from benzodiazepines.

Overdose Response

Naloxone acts on xylazine alone, and reverses fentanyl overdose. While breathing may normalize, patients may not be reanimated, leading to excessive naloxone administration.

Xylazine + fentanyl ODs may be less severe.

Xylazine not causally linked to most OD deaths.

Other Harms

Hypothesis: severe anemia
Hypothesis: hyperglycemia

Language Matters

Communicating Effectively about Drugs & Drug Use

-Government of Canada, 2021

Stigma & Stigmatizing Language

Stigma is a negative association with a circumstance or trait that can result in discrimination against a person for a certain characteristic(s). Stigma can also be described as internal feelings of shame or judgement from others.

Stigmatizing language Whether it is used in a healthcare setting or in the media, negative and stigmatizing language discredits people who use drugs and can result in discrimination. Stigmatization contributes to isolation and means people will be less likely to access services. This has a direct, detrimental impact on the health of people who use drugs.

3 Types of Stigma

Self Stigma - Happens when someone internalizes about PWUD & applies them to themselves

Social Stigma - Negative attitudes or behaviors towards PWUD or towards their friends/family

Structural Stigma - Policies in health & social services that increase stigma & barriers to receiving care

“Stigmatizing people who use drugs happens all too often in medical contexts. Stigma in the healthcare system contributes to poorer quality of care, negative health outcomes & considerable social & health inequities“.

But what does this really mean, in context?

Language has the capacity to be both insidious *and* empowering

- Humanization/dehumanization
- Unnecessary moral injury
- Dismissal of lived expertise
- Inappropriate expressions of frustration
- Clinical judgment

- Be in conversation with your patients.
- Always utilize person first language
- Default to knowledge sharing instead of fear mongering
- Practice humility instead of humiliation
- Common community, not “common sense”

Language shapes our perspectives!

Guiding Principals

Communicating About Drug Use

- Take some time to
  Check yourself
- Recognize PWUD are human beings
  w/ unique & complex identities &
  experiences
- Recognize Substance Use
  & Substance Use Disorder for what it is
- Recognize the resilience,
  expertise, & capacity of PWUD
- Avoid making assumptions about
  an individual's goals related to use or their
  desire or readiness for certain kinds of care
- Communicate Effectively
  Be clear, concise, and compassionate

Stay up to date on xylazine information and implications for overdose or wound care as research & best practice is ever evolving

For Harm Reduction Support, Xylazine Test Strips and/or Naloxone in Maine Visit www.maineaccesspoints.org/contact-us