

Xylazine Wounds And People Who Inject Drugs

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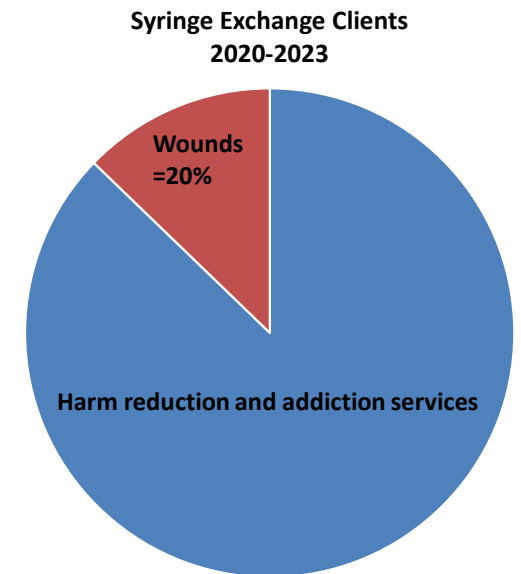
Content Development

- Training developed in partnership with the Community Outreach Intervention Projects (COIP)
- Providing healthcare, rehabilitative, and harm reduction services for people who use drugs (PWUD)



Intro

- PWID are at increased risk for skin and soft tissue infections (SSTI's) as well as acute and chronic wounds
- Prevalence of chronic wounds in PWID can be as high as 20%
- Wounds are not SSTI's and do not benefit from treatment with systemic or topical antibiotics unless an infection is present
- Most wounds are chronically colonized with bacteria and benefit from debridement, careful dressing selection, and mitigation of causative factors



Substances Used for Injection

- Heroin
- Pharmaceuticals: Oxycodone, hydrocodone, hydromorphone, dextroamphetamine, xylazine, fentanyl
- Cocaine: Base (powder) and Hydrochloride salt (rock)
- Methamphetamine
- Combinations of opiates and stimulants (speedball/snowball)

Where People Inject

Anywhere there is venous access:

Upper/ lower extremities

Hands, feet, digits

Neck/ external jugular

Groin/ femoral vein



Image courtesy of CATIE.CA harm reduction education service

Intro to Injection Related Wounds

“ It cooked up different. Usually, it is pale yellow but this time it looked like Coca-Cola. It felt like shooting battery acid. The next day all the skin started dying off.” – Wound Client

Etiology of Injection Related SSTI

- Introduction of infectious agents subcutaneously and intravenously
- Poor hygiene practices leading to inoculation with skin flora
- Contaminants within illicit substance
- Cytotoxic effects of substance injected (Xylazine)
- Sharing of injection equipment/reusing paraphernalia ²



Etiology of Injection Related Wounds

- An abscess which was self treated and drained gives rise to a chronic wound
- Missed injection of heroin/fentanyl is extravasated into the subcutaneous tissues
- Acidic/cytotoxic substances destroy surrounding tissues when not diluted through intravenous injection
- Vasoconstrictive substances such as cocaine and methamphetamine are extravasated and cause local tissue hypoxia
- Many wounds have mixed etiology



Goldberg, 2023

Risk Factors

- Whether injection site was cleaned prior to use
- As the number of daily injections increases so does the incidence of SSTI and wounds
- Using multiple sites for injection
- Lower extremity injection associated with greater risk of SSTI/wounds ⁹
- Injecting into wound



Wound Injection Ulceration

- When venous access becomes too difficult to obtain, PWID may resort to subcutaneous and intramuscular injecting
- PWID may also use a chronic wound for injection/drug delivery
- Healing wound beds have a robust blood supply=quick drug absorption
- Important to assess as wound injection can be a risk factor in up to half of PWID with chronic wounds



Houck & Ganti, 2019

Injection Related Ulcer: Xylazine

- Xylazine (Tranq) is a central α_2 -adrenergic agonist
- Reduces release of norepinephrine and dopamine in the central nervous system
- Results in sedation, muscle relaxation, respiratory depression, hypotension
- First reported used as an adulterant in heroin supply within Puerto Rico early 2000's¹⁷



“anestesia de caballo”

Injection Related Ulcer: Xylazine

“ I have the most meticulous injection technique you have ever seen. I always have clean rigs, and never share or reuse.

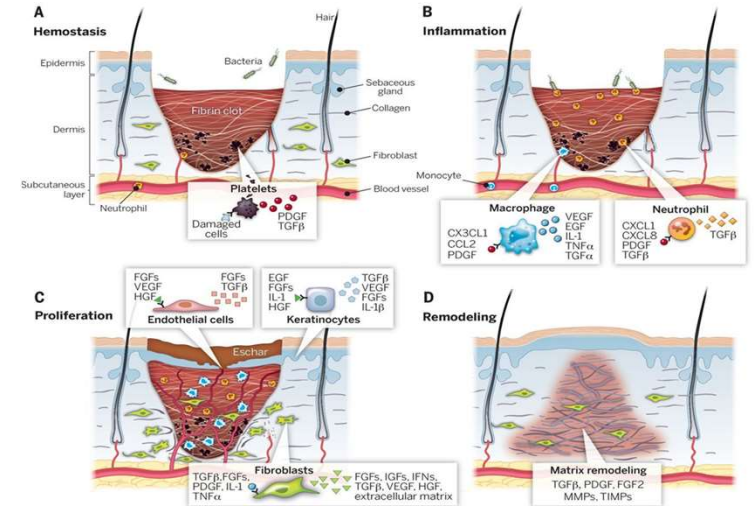
I find a vein, get a register, draw back fresh blood, and make sure the whole hit goes into the vein.

But when I remove the needle, even that little bit of residue left is enough to form a small ulcer and that’s why I have all these wounds. “

- Wound Client

Injection Related Ulcer: Xylazine

- α_2 -adrenergic receptors also found in peripheral tissues but α_1 are more prevalent
- α_1 agonism results in vasoconstriction
- Postulated that xylazine causes injection site tissue hypoxia and skin necrosis through local α_1 agonism
- Wounds can occur independent of injection site and have been reported in those insufflating heroin



Reproduced from: Sun BK, Siprashvili Z, Khavari PA. Advances in skin grafting and treatment of cutaneous wounds. Science 2014; 346:941.



Injection Related Ulcer: Xylazine

What Can be done?

- Clean injection supplies/syringes
- Decrease practice of injection (Insufflation, smoking, rectal administration of opioids)
- Xylazine test strips
- Keep a small formulary of wound care supplies (gauze, vaseline, absorptive dressings)

Get People into treatment

MOUD- Buprenorphine/Methadone!

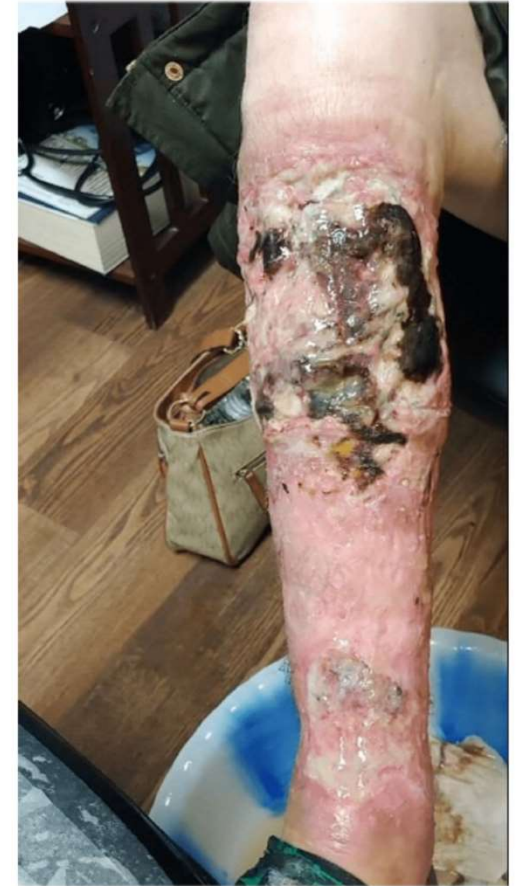


Photo from 2022 Malayala et al.

Have a Wound?

Mile Square Health Center

1220 S Wood Chicago, Illinois 60608

Substance Use Disorder Integrative Care Clinic

Access Line 312.355.5771

Buprenorphine (Suboxone)

Methadone (Family Guidance)

Alcohol Use Disorder Treatment



Thank You!



Go forth and heal those wounds!



References

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