From: Ron Kirschner, MD, Medical Director

To: ALL HEALTH CARE PROFESSIONALS

Subject: Xylazine contamination of the illicit drug supply

Date: 4/24/23

* Xylazine is an alpha-2 agonist veterinary anesthetic agent that is structurally similar to clonidine.
* It has been used for procedural sedation in horses and other large animals for decades but is not approved for use in humans and is not regulated by the Controlled Substances Act.
* The most common clinical effects associated with single substance xylazine intoxication are CNS depression, bradycardia, hypotension, and hypertension.
* Response to naloxone in single substance xylazine intoxication is not well documented, but naloxone is recommended if opioid cointoxication is possible.
* In recent years, a mixture known as “tranq dope” containing fentanyl or analogs and xylazine has been sold as heroin in parts of U.S., largely in northeastern states such as NJ and PA.
* A recent multicenter study of opioid overdose patients treated at U.S. EDs found that patients without detectable xylazine were more likely to have cardiac arrest. The authors hypothesized that those who were positive for xylazine may have received less fentanyl.
* It has been suggested that “tranq dope” seems to be associated with an increased incidence of wound infection, but this could easily be due to injection without clean/sterile technique. Animals given xylazine during veterinary care do not have an increased incidence of infection.
* As with other illicit substances, xylazine adulteration appears to be spreading beyond specific U.S. regions.
* We recommend treatment of cointoxicants (mainly opioids) and supportive care.

References

Ball NS. Xylazine poisoning: a systemic review. *Clin Toxicol* 2022; 60:892-901.

Hoffman J. The fight over a drug that is great for horses but horrific for humans. *NY Times* 4/20/23

Love JS. Opioid overdoses involving xylazine in emergency ED patients: a multicenter study. *Clin Toxicol*

 2023; 61:173-180

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