



XYLAZINE AWARENESS FOR FIRST RESPONDERS



WHAT IS XYLAZINE?

Xylazine or “tranq” is a strong sedative used in veterinary medicine. More specifically, xylazine is an Alpha-2 adrenergic agonist similar to clonidine, which is only approved for veterinary use in the United States. The drug is not approved for human use yet is increasingly being mixed with controlled substances (e.g., fentanyl) to extend the effects of opioids in recreational drug use. Xylazine is not a controlled substance in the United States and merely requires a veterinarian’s prescription to obtain.

Xylazine use causes rapid decrease in the release of norepinephrine and dopamine, resulting in central nervous system depression that can cause drowsiness and amnesia. It lowers a person’s breathing, heart rate, and blood pressure to dangerously low levels. In addition to such sedative effects, when injected, xylazine can cause complex, painful, serious skin infections (e.g., ulcers, abscesses, and necrosis) that may require amputations.

HOW SIGNIFICANT ARE XYLAZINE RISKS?

The White House’s Office of National Drug Control Policy has declared xylazine as an “emerging threat to the United States” due to the higher risk of fatal drug poisoning. Xylazine has been described as making the deadliest drug threat to our country (fentanyl) even more deadly, according to U.S. Drug Enforcement Administration (DEA) Administrator Anne Milgram. The mixture of xylazine with cocaine, opioids, or a combination of these may prolong the effects of these drugs and increase the risk of fatality.

HOW DOES XYLAZINE AFFECT FIRST RESPONDER TREATMENT OF OVERDOSES?

Naloxone is an opioid blocker and will not counteract xylazine. Experts still recommend using naloxone on all suspected overdoses, as xylazine is often mixed with fentanyl or other opioids. Providers should remain within the guidelines of local medical protocols.

Xylazine Prevalence

- Xylazine was involved in less than 1% of drug overdose deaths in 2015 and in nearly 7% in 2020.
- Samples from eight syringe service programs in Maryland tested between 2021 and 2022, xylazine was found in almost 80% of drug samples that contained opioids.
- In Pennsylvania, xylazine was found in 31% of heroin and/or fentanyl overdose deaths in 2019.
- The monthly percentage of deaths involving illegally made fentanyl (IMF) with xylazine detected increased from 3% in January 2019 to 11% in June 2022 in 20 states and Washington D.C.
- During January 2021–June 2022 in 31 states and Washington D.C., xylazine was detected in a higher percentage of IMF-involved deaths in the Northeastern U.S.

GENERAL GUIDELINES FOR ADDRESSING POTENTIAL XYLAZINE OVERDOSE

In the event of a potential xylazine overdose, emergency responders are encouraged to prioritize their safety and the comprehensive care of the patient. Initial steps involve the appropriate use of personal protective equipment (PPE), such as masks and gloves, to safeguard against potential exposure to xylazine. Xylazine can be introduced into the body through various means including ingestion, inhalation, smoking, snorting, or injection. While the emergency response does not necessitate special or additional PPE beyond the standards as dictated by local authority protocols, a cautious approach to responder safety is advisable to prevent any substance from becoming airborne and ensuring the safe disposal of any encountered needles.

The administration of naloxone may be considered in conjunction with local treatment protocols, acknowledging that its effectiveness can vary and should be supplemented with specific care for symptoms such as bradycardia and hypotension. Treatment options may include the use of fluids, vasopressors, and pacing, given the absence of a specific antidote or intervention for xylazine overdose and its non-responsiveness to hemodialysis.

In situations where contamination occurs, responders should adhere to established local or departmental guidelines tailored to the nature and extent of the exposure. It is important to distinguish between mere exposure to a substance and actual contamination, with protocols in place to address both scenarios effectively.

ENHANCING COMMUNITY SAFETY THROUGH HARM REDUCTION INITIATIVES

Harm reduction and drug prevention programs can be instrumental in reducing the impact of xylazine and other substance abuse, with evidence suggesting a decrease in their prevalence. Naloxone Leave Behind programs have notably reduced fatalities linked to overdoses, highlighting the importance for areas experiencing a rise in drug use to consider such initiatives. A variety of governmental levels—including state, local, tribal, territorial, and federal—are increasingly keeping naloxone accessible in public and private facilities, enhancing emergency responsiveness.

Furthermore, the adoption of Good Samaritan Laws by many jurisdictions supports community safety by encouraging witnesses of overdoses to call emergency services without fear of legal repercussions. These laws play a crucial role in fostering a safer environment for addressing drug-related emergencies. For comprehensive support and guidance on harm reduction or addiction services, consulting with local health authorities is recommended, ensuring that those at risk receive appropriate and timely assistance.

For more information, visit [CISA | Emergency Services Sector](#) or email the Emergency Services Sector Management Team at EmergencyServicesSector@cisa.dhs.gov.

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