

Health Advisory

Xylazine, an Adulterant for Illicit Opioids, Has Been Detected in Three Decedents Who Died from a Drug Overdose

Local Health Departments Should Work with EMS and Coroners to Monitor the Presence of This Non-Opioid in Their Local Drug Supply

Xylazine, a non-opioid alpha-2 adrenergic agonist, is legally administered to animals by veterinarians as a sedative and analgesic. Xylazine has not been approved by the Food and Drug Administration (FDA) for use in humans. Unlike morphine, fentanyl, or carfentanil, xylazine is not a scheduled medication. Therefore, a Drug Enforcement Administration (DEA) number is not required to obtain xylazine which may make it more accessible.

In Ohio, preliminary analysis of death certificate data has identified three 2019 overdose deaths involving both fentanyl and xylazine. However, many coroners may not include xylazine in their routine toxicology testing which would leave it largely undetected in this data.

When used in combination with an opioid (e.g., heroin or fentanyl), xylazine may worsen respiratory depression in the event of a drug overdose. Xylazine is not an opioid and does not respond to naloxone. There is no antidote or reversal agent for xylazine.

Clinical Information about Xylazine

Human exposure through ingestion, inhalation or injection has been associated with drowsiness to coma, decreased sensitivity to pain, respiratory depression, bradycardia (low heart rate), hypotension (low blood pressure) and potentially hypothermia. Duration in humans is variable but may last 8 to 72 hours.

There is limited research on the effects of xylazine in humans, particularly when combined with opioids. After taking xylazine with an opioid, a person may experience bradycardia and hypotension not explained by heroin or fentanyl alone. Additionally, xylazine's duration of effect is longer than fentanyl or heroin, so repeated administration may allow xylazine levels to accumulate.

Overview of Patient Care for Overdoses Involving Xylazine

No reversal agent for xylazine is currently available. The treatment for overdoses involving xylazine is supportive. Supportive care primarily involves maintenance of airway, breathing, and circulation and administration of IV fluids or atropine. The early administration of atropine may mitigate the onset or severity of bradycardia. If the patient does not have a pulse, cardiopulmonary resuscitation should be initiated without delay.

Contact the poison control center (1-800-222-1222) for questions on diagnostic testing and management of these patients.

Administer Naloxone in Suspected Drug Overdoses

Even though naloxone is *not* effective in treating drug overdoses caused solely by non-opioids, such as xylazine, the administration of naloxone may be helpful in drug overdoses caused by a combination of xylazine and opioids like fentanyl and its analogues.

Recommendations

- If an increase in xylazine cases are suspected, contact state and local partners to activate an appropriate community response.
- Raise awareness among people who use drugs of the possible presence of xylazine in drug mixtures and the importance of calling 911 immediately even when naloxone is administered.
- Please share any pertinent information with the Ohio Department of Health.
- For questions on management of these patients, contact the poison control center (1-800-222-1222).