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Technical Assistance Session Highlights

From Trends to Action: Addressing Xylazine and Medetomidine in the Field

Video Link: From Trends to Action: Addressing Xylazine & Medetomidine in the Field

Key Takeaways

Xylazine and Medetomidine in the Drug Supply

- Xylazine and medetomidine are non-opioid veterinary sedatives and central nervous system depressants not approved for human use. They are often mixed with fentanyl and are especially dangerous when combined with opioids, alcohol, or benzodiazepines.
- Xylazine effects include sedation, slowed breathing, and disorientation. It is strongly associated with severe skin and soft-tissue wounds.
- Medetomidine is up to 200 times more potent than xylazine, with effects lasting 2–3 hours longer. It causes sedation, low blood pressure and heart rate, spikes in blood pressure, and hallucinations.
- Medetomidine withdrawal can be severe, marked by autonomic hyperactivity, nausea, vomiting, and tremors.
- Medetomidine detections increased by 900% between 2023–2024, raising concerns it may be replacing or supplementing xylazine in some areas.
- In Cuyahoga County, OH, xylazine was found in 38.3% of drug-checking samples and medetomidine in 25.1%.

Sedative-Involved Overdose Recognition & Response

- In sedative-involved overdoses, the emergency is not unresponsiveness but lack of breathing. Response should prioritize airway positioning, rescue breathing, and monitoring rather than attempts to “wake” the person.
- Naloxone reverses opioid effects but does not counter sedation from xylazine or medetomidine. People may remain heavily sedated even after naloxone administration.
- The goal is to restore breathing with the lowest effective naloxone dose. Overuse can precipitate withdrawal, which is extremely uncomfortable and may increase the risk of repeat overdose.
- Current opioid overdose response training often overemphasizes responsiveness. Updated guidance should focus on breathing checks, oxygenation, and compassionate monitoring.
- Standard overdose response kits should prioritize breathing support. With additional training and resources, some responders may expand kits to include pulse oximeters, Ambu bags, or supplemental oxygen.

Wound Care

- Xylazine-related wounds are unique and may appear at injection or non-injection sites (arms, legs, torso) after smoking, snorting, or ingesting the drug.

- Wounds often progress rapidly.
- Painful lesions may lead to necrosis of skin, muscle, tendon, and bone, and are slow to heal.
- Wounds are not always linked to injection or injection sites and may form regardless of how the drug is introduced into the body.
- Multiple stages of healing can be present at the same time.
- Wounds increase the risk of bacterial infections (such as endocarditis) and bloodborne viruses (such as HIV).
- Severe tissue damage may require surgical removal or amputation.

Action Steps for Teams and Systems

See slideshow for comprehensive instructions and recommendations for overdose response and wound care.

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