

# Xylazine in the illicit opioid supply

Peter E. Wu MD MSc, Emily Austin MD

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## 1 Xylazine is a veterinary medicine sedative adulterating the illicit opioid supply

Since 2019, it is increasingly identified in illicit drug samples tested across Canada,<sup>1</sup> most commonly co-occurring with fentanyl,<sup>1-3</sup> and patients using illicit opioids may be unaware of its presence. There are reports that it increases euphoria and may prolong the effects of fentanyl.<sup>2,3</sup> Xylazine should be considered when presentations are discordant with what would be expected from opioids only.

## 2 Xylazine is a predominantly centrally acting $\alpha_2$ adrenergic agonist that decreases sympathetic stimulation

Xylazine has no approved human use, and from knowledge derived from case series, it has been variably described to cause sedation, bradycardia, hypotension and even hypertension.<sup>3-5</sup> These features can persist in patients with opioid toxicity after treatment with naloxone.

## 3 Clinical effects from xylazine may vary, and managing opioid toxicity remains the priority

Treating opioid-induced respiratory depression with naloxone and supportive airway measures remains the priority when managing suspected opioid overdoses possibly contaminated with xylazine.<sup>3</sup> Naloxone reverses opioid toxicity but has no effect on the sedating properties of xylazine, which may persist. Xylazine is not part of routine urine drug screens, and there are no approved treatments or reversal agents beyond supportive care.<sup>3</sup>

## 4 Xylazine is associated with severe ulcerative wounds distinct from wounds typically associated with intravenous drug use

Hypothesized mechanisms include direct cytotoxic effects and local vasoconstriction causing hypoperfusion and tissue death.<sup>3,6</sup> Lesions may arise from any route of exposure, and wounds can occur both at or remote from injection sites.<sup>2,3</sup> Treatment involves wound care and antibiotics if there is secondary infection.

## 5 Chronic xylazine use can result in withdrawal symptoms when stopped

Xylazine withdrawal symptoms include discomfort, irritability and autonomic instability.<sup>2,6</sup> Opioid agonist therapy treats only concomitant opioid withdrawal, and other adjunct agents may be required to address symptoms of xylazine withdrawal (e.g., clonidine, benzodiazepines or gabapentin).<sup>3,6</sup> Specialized addictions care remains critical to addressing the underlying substance use disorder.

## References

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**Affiliations:** Department of Medicine (Wu) and Division of Clinical Pharmacology and Toxicology (Wu, Austin), University of Toronto; Ontario Poison Centre (Austin), Hospital for Sick Children, Toronto, Ont.

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**Correspondence to:** Peter Wu, [peter.wu@uhn.ca](mailto:peter.wu@uhn.ca)