OVERDOSE RESPONSE CENTER

Delaware Partner Information Bulletin

#2025-03

MEDETOMIDINE

Updated

What is Medetomidine?

- Medetomidine is an alpha-2 agonist, belonging to the same category of drugs such as xylazine ("tranq") and clonidine.
- Like xylazine, medetomidine is a veterinary tranquilizer not approved for human use, but is considered to be more potent.
- ORC previously reported the prevalence of xylazine has greatly declined during the past several months. Medetomidine, often combined with fentanyl, is now more common in the illicit drug supply in Delaware and surrounding states.

Risks Associated with Medetomidine

- Common adverse effects are significant sedation, bradycardia (*heart rate under 60 beats/minute*), and hypotension (*blood pressure lower than 90/60 mm Hg*). In extreme cases, Medetomidine can cause central nervous system depression and death.
- Withdrawal can lead to severe hypertension, tachycardia, agitation, and muscle tremors.
- By itself, Medetomidine is not known to cause skin wounds similar to xylazine. However, it can cause peripheral vasoconstriction and injection site reactions which may contribute to skin wounds and delayed wound healing.

Treatment Provider Awareness

- **Naloxone administration is still the first step in responding to a drug overdose.** Repeat naloxone doses may be necessary to treat opioid overdose and restore normal breathing. Sedation, bradycardia, and hypotension may persist after opioid overdose is reversed with naloxone.
- Bradycardia and hypotension associated with medetomidine can be severe and potentially life threatening. Closely monitor breathing, vital signs, and mental status. Some cases may require advanced cardiovascular life support and intensive care in a hospital setting.
- Layer harm reduction strategies with your client/patient to lessen the risk of overdose: Take it slow, use less, carry naloxone, do not use alone, and monitor breathing.
- Consider the following withdrawal management approaches, when possible, currently used regionally:
  - Use the following alpha-2 adrenergic agonists early in the course of medetomidine withdrawal: Clonidine (if able to tolerate oral medications) and the clonidine transdermal patch, which can be used together; Tizanidine for muscle pain/spasm; and Dexmedetomidine (Precedex) infusion for severe medetomidine withdrawal.
  - Treat patient's symptoms using anti-nausea medications such as ondansetron; acute anxiety/agitation medications such as hydroxyzine, low-dose benzodiazepines, or low-dose ketamine. Control pain using acetaminophen, NSAIDs, gabapentin, or potentially short-acting opioids in a hospital/facility setting.
  - Prioritize starting Medications for Opioid Use Disorder (MOUD) including methadone or buprenorphine to address opioid withdrawal, with the goal of maintenance treatment.

*Source documents are available upon request.

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