OVERDOSE RESPONSE CENTER

Delaware Partner Information Bulletin

#2024-03

MEDETOMIDINE

What is Medetomidine?

- Medetomidine is an alpha-2 agonist, belonging to the same category of drugs such as xylazine and clonidine.
- Like xylazine, medetomidine is a veterinary tranquilizer not approved for human use.
- While similar, medetomidine is considered to be more potent than xylazine.
- Medetomidine is being increasingly seen in the illicit drug supply in Delaware and its surrounding states.

Risks Associated with Medetomidine

- Common adverse effects from medetomidine are significant sedation, bradycardia, and hypotension. It can also cause muscle twitching, and gastrointestinal effects, like vomiting.
- In extreme cases, medetomidine can cause central nervous system depression and death.
- It is unclear if medetomidine causes the same skin wounds similar to those associated with xylazine use. However, some literature suggests peripheral vasoconstriction as a possible side effect of medetomidine use.

Treatment Provider Awareness

- **Naloxone administration is still the first step in responding to a drug overdose.** As with xylazine, medetomidine may cause prolonged sedation, which emphasizes the role of administering rescue breaths, placing an individual in the rescue position, and continued monitoring. Repeat naloxone doses may be necessary to restore normal breathing.
- 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, monitor breathing, etc.
- Unlike xylazine, testing strips are not yet available to detect this particular drug.
- Most samples that tested positive for medetomidine also contained fentanyl, thus highlighting the importance of administering naloxone promptly in drug overdose situations as noted above.
- Bradycardia (*slow heart rate, under 60 beats/minute*) and hypotension (*blood pressure lower than 90/60 mm Hg*) that is typically associated with medetomidine can be life threatening and may require advanced cardiovascular life support and intensive care in a hospital setting.
- For withdrawal management, consider the following approaches currently used in other jurisdictions:
  - Prioritize treatment of opioid withdrawal with methadone or buprenorphine with the goal of maintenance treatment.
  - Use alpha-2 adrenergic agonists such as clonidine or dexmedetomidine (Precedex).
  - Medications for anxiety/agitation (such as hydroxyzine, low-dose benzodiazepines, or low-dose ketamine).
  - Symptom management for pain (short acting opioids, gabapentin, acetaminophen, NSAIDs).
  - Treat opioid use disorder. If on opioid agonist therapy, split dosing can improve analgesic effect and pain control. If undergoing induction, low dose induction (microdosing) of buprenorphine allows for concurrent use of short acting opioids that can improve pain control.

**Source documents are available upon request*

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