

Be Ready to Manage Medetomidine Overdoses and Withdrawal

Top Takeaways

- Medetomidine is an adulterant increasingly found in illicit opioids, which is contributing to overdoses.
- Suspect medetomidine might be involved if a patient is still sedated with bradycardia and hypotension despite getting adequate reversal agents (naloxone, etc) after an opioid overdose.
- Treat medetomidine withdrawal using antiemetics along with alpha2 and imidazoline agonists (clonidine, guanfacine, etc).

CDC is warning clinicians to **look out for overdoses and withdrawal from medetomidine**...an adulterant increasingly found in illicit opioids.

Medetomidine is the racemic mixture of levo- and dexmedetomidine...the same alpha-2 agonist sedative we commonly use in the ICU, OR, etc.

You may also hear medetomidine called "rhino tranq," "dex," or "mede." Most cases have been reported in the Northeast US...but lab tests show medetomidine is getting into more street opioids across the country.

Know what to expect with overdoses from opioids laced with medetomidine...and how to manage medetomidine withdrawal afterward.

Acute management should include consulting toxicology or calling your regional Poison Center (800-222-1222) ASAP for guidance.

It's tricky to tease out opioid versus medetomidine overdose, since they can have similar symptoms (bradycardia, hypotension, sedation, etc). Plus medetomidine won't show up on standard urine tox screens.

Suspect medetomidine might be involved if a patient is still sedated with bradycardia and hypotension despite getting adequate reversal agents (naloxone, etc) after an opioid overdose.

Still recommend opioid reversal meds even if you think medetomidine is involved. They won't reverse medetomidine...but they'll still treat deadly respiratory depression from opioids.

Expect patients to still be sedated after initial treatment. They'll need rest, fluids, etc, until symptoms subside...typically over a few hours. Pressors and mechanical ventilation aren't needed in most cases.

Withdrawal risk can increase after brief periods of medetomidine use...and symptoms usually start BEFORE seeing opioid withdrawal.

Look for medetomidine withdrawal symptoms such as tachycardia, severe hypertension, nausea/vomiting, fluctuating alertness, tremors, etc. These can start 4-6 hr postexposure...and peak after 12-36 hr.

Consult your addiction medicine team for treatment options.

For example, suggest IV antiemetics (prochlorperazine, droperidol, olanzapine, etc) for nausea/vomiting...and monitor for QT prolongation. But lean away from ondansetron...experts feel it's ineffective in most cases.

Consider alpha-2 and imidazoline agonists (clonidine, guanfacine, etc) to manage symptoms using our stepwise algorithm.

Clarify that current guidance is based on limited data and expert advice. Closely monitor and tailor meds based on therapy side effects (bradycardia, sedation, etc) and patient response.

Cite this document as follows: Article, Be Ready to Manage Medetomidine Overdoses and Withdrawal<br class="t-last-br" />, Hospital Pharmacist's Letter, June 2026

The content of this article is provided for educational and informational purposes only, and is not a substitute for the advice, opinion or diagnosis of a trained medical professional. If your organization is interested in an enterprise subscription, email sales@trchealthcare.com.

© 2026 Therapeutic Research Center (TRC). TRC and Hospital Pharmacist's Letter and the associated logo(s) are trademarks of Therapeutic Research Center. All Rights Reserved.

For example, some experts titrate doses based on systolic BP or Clinical Opiate Withdrawal Scale (COWS) scores. Be aware, COWS isn't validated for medetomidine cases...but many clinicians have comfort and experience using it.

For co-occurring opioid withdrawal, use our *Treatment of Opioid Withdrawal* chart to guide med choices (buprenorphine, etc), dosing, etc.

Key References:

- CDC. Medetomidine in the U.S. Illegal Fentanyl Supply Increasing Risk for Overdose and Severe Withdrawal Syndrome. April 2, 2026. <https://www.cdc.gov/han/php/notices/han00527.html> (Accessed April 27, 2026).
 - Lynch MJ, Pizon AF, Yealy DM. Emergence of Medetomidine in the Illicit Drug Supply: Implications for Emergency Care and Withdrawal Management. *Ann Emerg Med*. 2026 Jun;87(6):709-716.
 - Philadelphia Department of Public Health. Health Update: Responding to overdose and withdrawal involving medetomidine. June 10, 2025. <https://hip.phila.gov/document/4874/PDPH-HAN-00444A-12-10-2024.pdf/> (Accessed April 27, 2026).
 - American Society of Addiction Medicine. Medetomidine: Rising Adulterant in the Illicit Drug Supply. February 5, 2026. <https://elearning.asam.org/files/a11c9cf5-6e4a-45de-85cf-d189d289505f> (Accessed April 27, 2026).
 - University of Pennsylvania Health System. UPHS ICU Management: Opioid With Suspected Adulterant Withdrawal. June 2025. https://penncamp.org/wp-content/uploads/2025/09/Opioid-with-Suspected-Adulterant-Withdrawal-ICU-Protocol_REVISION_7.2025.docx (Accessed April 27, 2026).
- Hospital Pharmacist's Letter. June 2026, No. 420633

Cite this document as follows: Article, Be Ready to Manage Medetomidine Overdoses and Withdrawal<br class="t-last-br" />, Hospital Pharmacist's Letter, June 2026

The content of this article is provided for educational and informational purposes only, and is not a substitute for the advice, opinion or diagnosis of a trained medical professional. If your organization is interested in an enterprise subscription, email sales@trchealthcare.com.

© 2026 Therapeutic Research Center (TRC). TRC and Hospital Pharmacist's Letter and the associated logo(s) are trademarks of Therapeutic Research Center. All Rights Reserved.