

# Implementing MAT in Jails—Focus on Naltrexone

Catching Up With COSSAP, June 2021

*This article is the last in a three-part series on medication-assisted treatment for opioid use disorder and considerations for its implementation in jails. The first two articles in this series—on [buprenorphine](#) and [methadone](#)—are available on the [COSSAP Resource Center](#) website.*

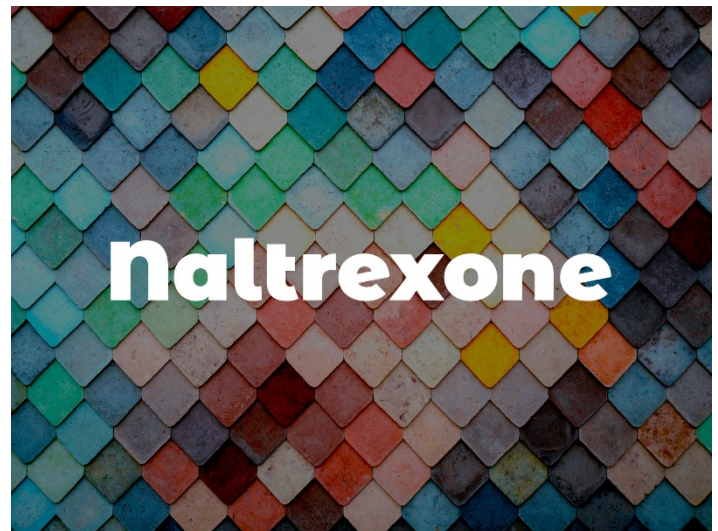
A small but growing percentage of jails in the United States offer medication-assisted treatment (MAT) for opioid use disorder (OUD) to individuals in custody. For many of these jails, the MAT program involves administering extended-release injectable naltrexone prior to inmates' release to the community.<sup>1</sup> A naltrexone program can be a pragmatic starting point for correctional facilities launching MAT services, because it eliminates risk of medication diversion and abuse concerns that are often associated with other [U.S. Food and Drug Administration](#) (FDA)-approved medications for treating OUD.

## What Is Naltrexone?

Naltrexone is an antagonist medication, meaning it blocks the euphoric (reinforcing) and pain-killing effects of opioids.<sup>2</sup> Individuals who no longer feel these effects may be less likely to return to drug use while on naltrexone. A participant in a study of adults with OUD reentering the community from jail described his experience with pre-release long-acting naltrexone injections as follows:

*"... I ain't gonna feel nothin' [from using heroin] cause the doctor even told me you ain't gonna feel nothin' and it's true, I tried it and I didn't, it was true, I ain't feel nothin' it. I said [using heroin] is a waste of time, I ain't wastin' my money on [the heroin]."<sup>3</sup>*

In contrast, methadone and buprenorphine are agonist medications. By activating or partially activating opioid receptors in the brain—rather than blocking them—agonist medications relieve withdrawal symptoms and prevent intense cravings without inducing euphoria, allowing individuals to focus on recovery.



## How Else Does Naltrexone Differ From Other MAT Medications?

- The [U.S. Drug Enforcement Administration](#) classifies methadone and buprenorphine as controlled substances because of their potential to cause physical and psychological dependence. Naltrexone is not addictive, has no abuse potential, and is not a controlled substance.<sup>4</sup>
- Methadone and buprenorphine are both used to treat OUD during pregnancy, but not enough research has been conducted to assume naltrexone is safe during pregnancy.<sup>5</sup>
- Strict protocols dictate how [methadone](#) and [buprenorphine](#) are administered and dispensed to patients with OUD. [Naltrexone](#) can be prescribed by any health care provider who is licensed to prescribe medications.

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## How Is Naltrexone Administered?

In 2010, the FDA approved an extended-release injectable formulation of naltrexone for prevention of relapse among individuals who have detoxified from opioids.<sup>6</sup> Extended-release injectable naltrexone (commonly referred to by the brand name Vivitrol) delivers medication continuously over four weeks. Before receiving naltrexone, individuals must be completely opioid-free for at least 7–10 days.<sup>7</sup> Failure to do so might trigger extremely severe withdrawal symptoms, known as precipitated withdrawal, that may require emergency medical care.

Timing for the administration of naltrexone injections in correctional facilities can range from just before release, as described in the [Rhode Island Department of Corrections Vivitrol Relapse Prevention Program Manual](#), to a few months ahead of release, exemplified by the [Kentucky Department of Corrections Substance Abuse Medication Assisted Treatment \(SAMAT\) program](#).

## What Makes Naltrexone Use Appealing?

### For Jail Administrators

- Security issues associated with providing medications for OUD in jails are often cited as a barrier to their adoption.<sup>8</sup> Naltrexone does not pose a diversion risk when administered as a shot; furthermore, naltrexone is not a controlled substance and has no abuse potential. These factors facilitate buy-in from correctional facility administrators and simplify program design.

### For the Larger Community

- Pilot studies on naltrexone use among probationers and parolees reported several positive outcomes, such as reduced rates of incarceration, greater retention in treatment programs, and significantly fewer opioid-positive urine tests.<sup>9,10</sup>

### For Recipients of the Medication

- Compared with methadone and buprenorphine, naltrexone is much more accessible in the community because it can be administered by any qualified medical professional. Monthly injectable delivery also simplifies patient adherence.<sup>11</sup>

- Naltrexone is also approved for treatment of alcohol use disorder, which frequently co-occurs with OUD and is often a factor in fatal and nonfatal opioid overdoses.<sup>12, 13</sup> Individuals who try to stop using opioids on their own often increase their alcohol consumption, which can contribute to repeated failures to stop opioid use.

## What Else Must Be Considered Before Implementing Naltrexone?

As defined in Title 42 of the [Code of Federal Regulations](#), MAT involves both medication and behavioral health services.<sup>14</sup> To effectively offer MAT to individuals in custody, jail administrators need to plan for both elements.

The risk of drug overdose fatality among individuals reentering the community after custody is extremely high during the first two weeks post-release.<sup>15</sup> As such, it is important for jail administrators to consider the timing of doses prior to release and to ensure a successful transfer to a community provider. Treating OUD with extended-release injectable naltrexone has been associated with an increased risk for overdose deaths when patients use opioids after treatment is discontinued, after a scheduled dose is missed, or at the end of a dosing interval.<sup>16, 17</sup> (Unlike agonist medications for OUD, use of antagonists results in complete loss of opioid tolerance, increasing the risk of opioid overdose fatality in the event of relapse.)

Despite these concerns, more than one research study on pre-release administration of extended-release injectable naltrexone with reentering individuals who have histories of OUD has suggested it can reduce incidence of post-release opioid overdose fatality, at least in the early weeks of reentry. This may be because naltrexone postpones the possibility of post-release opioid use long enough for reentering individuals to connect to continuing care and recovery support during the initial weeks that follow release.<sup>18, 19, 20</sup>

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Another consideration for using naltrexone is its significant cost, which can be 4.5 to 6.5 times more than prisons are paying for buprenorphine.<sup>21</sup> Jurisdictions are overcoming this challenge with innovative approaches. For example, Franklin County, Ohio, arranges for individuals exiting jail to go directly to the courthouse for their first dose of Vivitrol, the cost of which is covered through an individual's Medicaid coverage (if eligible). Early results from the courthouse program indicate that approximately 76 percent of participants are still in contact and working with program staff members.

Policymakers are encouraged to refrain from basing decisions about MAT on cost alone. Research, such as a National Institute of Drug Abuse four-year study on extended-release injectable naltrexone among pre-release prisoners with OUD, is exploring downstream savings generated for state governments from reductions in criminal activity, use of high-cost health care services, and recidivism; benefits for participants and society (such as enhanced quality of life, reduced risk of overdose and overdose death, and improved workplace or school productivity); and program cost-effectiveness from the perspectives of state policymakers and society. In addition, policymakers should consider feasibility and available resources to make fully informed decisions about the best MAT strategy for their jurisdictions.

### For More Information

- If your jail needs assistance with MAT implementation:
  - Contact the Bureau of Justice Assistance's Comprehensive Opioid, Stimulant, and Substance Abuse Program (COSSAP) Resource Center using the "Contact us" form at <https://www.cossapresources.org>.
  - Request training and technical assistance (TTA) from a COSSAP TTA provider at <https://www.cossapresources.org/Program/TTA>.

- *Expanding Access to Medications for Opioid Use Disorder in Corrections and Community Settings*, by the National Governors Association and the American Correctional Association (2021): <https://www.nga.org/center/publications/expanding-access-medications-oud-corrections-community-settings/>
- *TIP 63: Medications for Opioid Use Disorder*, by the Substance Abuse and Mental Health Services Administration (updated 2020): <https://store.samhsa.gov/product/TIP-63-Medications-for-Opioid-Use-Disorder-Full-Document/PEP20-02-01-006>
- *Opioid Use Disorder Treatment in Jails and Prisons*, by The Pew Charitable Trusts (2020): <https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2020/04/opioid-use-disorder-treatment-in-jails-and-prisons>
- *Clinical Use of Extended-Release Injectable Naltrexone in the Treatment of Opioid Use Disorder: A Brief Guide*, by the Substance Abuse and Mental Health Services Administration (2014): <https://store.samhsa.gov/product/Clinical-Use-of-Extended-Release-Injectable-Naltrexone-in-the-Treatment-of-Opioid-Use-Disorder-A-Brief-Guide/SMA14-4892R>

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1. Eric Westervelt, 2019, *County Jails Struggle with a New Role as America's Prime Centers for Opioid Detox*, Criminal Justice Collaborative Special Series, NPR, retrieved April 20, 2021, from <https://www.npr.org/2019/04/24/716398909/county-jails-struggle-with-a-new-role-as-americas-prime-centers-for-opioid-detox>.
2. Naltrexone is also an FDA-approved medication for alcohol use disorder.
3. Velasquez, Melissa, Mara Flannery, Ryan Badolato, Alexandria Vittitow, Ryan McDonald, Babak Tofighi, Ann Garment, Jonathan Giftos, & Joshua Lee, 2019, "Perceptions of Extended-release Naltrexone, Methadone, and Buprenorphine Treatments Following Release from Jail," *Addiction Science & Clinical Practice* 14, retrieved April 20, 2021, from <https://doi.org/10.1186/s13722-019-0166-0>.
4. Substance Abuse and Mental Health Services Administration, 2020, *Naltrexone*, Rockville, MD: Substance Abuse and Mental Health Services Administration, retrieved April 20, 2021, from <https://www.samhsa.gov/medication-assisted-treatment/medications-counseling-related-conditions/naltrexone>.
5. Centers for Disease Control and Prevention, April 2020, *Treatment for Opioid Use Disorder Before, During, and after Pregnancy*, Atlanta, GA: Centers for Disease Control and Prevention, retrieved April 20, 2021, from <https://www.cdc.gov/pregnancy/opioids/treatment.html>.
6. The [American Society of Addiction Medicine](#) and the [Substance Abuse and Mental Health Services Administration](#) do not recommend the original oral formulation of naltrexone for preventing OUD relapse, partly because of poor adherence to its daily dosing regimen.
7. Substance Abuse and Mental Health Services Administration, 2020, *Medications for Opioid Use Disorder: For Healthcare and Addiction Professionals, Policymakers, Patients, and Families*, TIP 63, Rockville, MD: Substance Abuse and Mental Health Services Administration, Publication No. PEP20-02-01-006, retrieved April 20, 2021, from <https://www.ncbi.nlm.nih.gov/books/NBK535266/#:~:text=Oral%20naltrexone%20was%20approved%20by,improve%20adherence%20over%20oral%20medications>.
8. Murphy, Sean, Philip Jeng, Sabrina Poole, Ali Jalali, Frank Vocci, Michael Gordon, George Woody, & Daniel Polsky, 2020, "Health and Economic Outcomes of Treatment with Extended-Release Naltrexone Among Pre-release Prisoners with Opioid Use Disorder (HOPPER): Protocol for an Evaluation of Two Randomized Effectiveness Trials," *Addiction Science & Clinical Practice* 15, retrieved April 20, 2021, from <https://doi.org/10.1186/s13722-020-00188-5>.
9. Crits-Christoph, Paul, Christie Lundy, Mark Stringer, Robert Gallop, & David Gastfriend, 2015, "Extended-Release Naltrexone for Alcohol and Opioid Problems in Missouri Parolees and Probationers," *Journal of Substance Abuse Treatment* 56, 51–60, retrieved April 20, 2021, from <https://doi.org/10.1016/j.jsat.2015.03.003>.
10. Coviello, Donna, James Cornish, Kevin Lynch, Tamara Boney, Cynthia Clark, Joshua Lee, Peter Friedmann, Edward Nunes, Timothy Kinlock, Michael Gordon, Robert Schwartz, Elie Nuwayser, & Charles O'Brien, 2012, "A Multisite Pilot Study of Extended-Release Injectable Naltrexone Treatment for Previously Opioid-Dependent Parolees and Probationers," *Substance Abuse* 33(1): 48–59, retrieved April 20, 2021, from <https://doi.org/10.1080/08897077.2011.609438>.
11. Gordon, Michael, Frank Vocci, Terrence Fitzgerald, Kevin O'Grady, & Charles O'Brien, 2017, "Extended-Release Naltrexone for Pre-release Prisoners: A Randomized Trial of Medical Mobile Treatment," *Contemporary Clinical Trials* 53, 130–136, retrieved April 20, 2021, from

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- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5274608/>.
12. Winstanley, Erin, Amanda Stover, & Judith Feinberg, 2020, "Concurrent Alcohol and Opioid Use Among Harm Reduction Clients," *Addictive Behaviors* 100, retrieved April 20, 2021, from <https://doi.org/10.1016/j.addbeh.2019.06.016>.
  13. Tori, Marco, Marc Larochelle, & Timothy Naimi, 2020, "Alcohol or Benzodiazepine Co-involvement with Opioid Overdose Deaths in the United States, 1999–2017," *JAMA Network Open* 3(4), retrieved April 20, 2021, from <https://doi.org/10.1001/jamanetworkopen.2020.2361>.
  14. Federal Register, 2018, "Title 42, Part 8—Medication Assisted Treatment for Opioid Use Disorders," *Code of Federal Regulations*, retrieved April 20, 2021, from <https://www.govinfo.gov/content/pkg/CFR-2018-title42-vol1/xml/CFR-2018-title42-vol1-part8.xml#seqnum8.2>.
  15. Binswanger, Ingrid, Marc Stern, Richard Deyo, Patrick Heagerty, Allen Cheadle, Joann Elmore, & Thomas Koepsell, 2007, "Release from Prison—A High Risk of Death for Former Inmates," *The New England Journal of Medicine* 356 (2): 157–165, retrieved April 20, 2021, from <https://doi.org/10.1056/nejmsa064115>.
  16. Binswanger, Ingrid, & Jason Glanz, 2018, "Potential Risk Windows for Opioid Overdose Related to Treatment with Extended-Release Injectable Naltrexone," *Drug Safety* 41(10): 979–980, retrieved April 20, 2021, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6366853/>.
  17. Alkermes, Inc., n.d., *Important Safety Information for Vivitrol*, retrieved April 20, 2021, from [https://www.vivitrolhcp.com/what-is-vivitrol?utm\\_medium=cpc&utm\\_source=google%20adwords&utm\\_campaign=hcp%20branded&utm\\_content=brand%20-%20exact&utm\\_term=vivitrol\\_broad&gclid=EAlaQobChMlg86gua-S7wIVzdSzc33WQWLEAAYASAAEglYu\\_D\\_BwE&gclid=aw.ds](https://www.vivitrolhcp.com/what-is-vivitrol?utm_medium=cpc&utm_source=google%20adwords&utm_campaign=hcp%20branded&utm_content=brand%20-%20exact&utm_term=vivitrol_broad&gclid=EAlaQobChMlg86gua-S7wIVzdSzc33WQWLEAAYASAAEglYu_D_BwE&gclid=aw.ds).
  18. Sugarman, Olivia K., Marcus A. Bachhuber, Ashley Wennerstrom, Todd Bruno, & Benjamin F. Springgate, 2020, "Interventions for Incarcerated Adults with Opioid Use Disorder in the United States: A Systematic Review with a Focus on Social Determinants of Health," *Plos One* 15(1), retrieved April 20, 2021, from <https://doi.org/10.1371/journal.pone.0227968>.
  19. Friedmann, Peter D., Donna Wilson, Randall Hoskinson, Jr., Michael Poshkus, & Jennifer G. Clarke, 2018, "Initiation of Extended Release Naltrexone (XR-NTX) for Opioid Use Disorder Prior to Release from Prison," *Journal of Substance Abuse Treatment* 85: 45–48, retrieved April 20, 2021, from <https://doi.org/10.1016/j.jsat.2017.04.010>.
  20. Lee, Joshua, Ryan McDonald, Ellie Grossman, Jennifer McNeely, Eugene Laska, John Rotrosen, & Marc N. Goirevitch, 2015, "Opioid Treatment at Release from Jail Using Extended-Release Naltrexone: A Pilot Proof-of-Concept Randomized Effectiveness Trial," *Addiction* 110(6):1008-14, retrieved April 20, 2021, from doi: 10.1111/add.12894.
  21. See note 7 above, Murphy, et al., "Health and Economic Outcomes of Treatment with Extended-Release Naltrexone Among Pre-release Prisoners with Opioid Use Disorder (HOPPER): Protocol for an Evaluation of Two Randomized Effectiveness Trials."