

The Case for Medication for Opioid Use Disorder during Incarceration as Standard of Care

Anthony Tamburello, MD

J Am Acad Psychiatry Law 50:502–08, 2022. DOI:10.29158/JAAPL.220080-22

Key words: medication for opioid use disorder; prison; jail; standard of care; best practice

Opioid use disorder (OUD) continues to be a pressing concern of wide importance, with each mainstream and professional news story about the problem including the latest record death toll from opioid overdoses (most recently, over 77,000 deaths in 2021).¹ Beyond mortality, OUD is accompanied by numerous other forms of suffering, including legal entanglements, declining health, occupational problems, and relationship losses.²

Effective evidence-based medications for OUD (MOUD) are a critical weapon in this struggle. Sadly, only a small minority of patients in the community who may benefit from MOUD are presently doing so. According to the 2020 National Survey on Drug Use and Health, only 11.2 percent of those with an OUD received MOUD in the past year.³ The severity of OUD correlates with criminal justice involvement.⁴ Unsurprisingly then, there is a concentration of people with OUD in jails and prisons, with 15 percent of incarcerated persons estimated to be affected.^{5,6}

With a captive audience, incarceration is an opportunity to engage people with OUD in treatment, but this does not seem to be happening everywhere that it could be. Scott *et al.*⁷ surveyed prisons in the United States, targeting states with more OUD-related deaths. They found that although most of the

21 systems interviewed offered some form of MOUD, access was usually limited to a subset of facilities, and only seven percent of facilities offered all three of the available U.S. Food and Drug Administration (FDA)-approved forms of MOUD: naltrexone, buprenorphine, and methadone.⁷ If this is the access that incarcerated persons have in the areas of the United States best attuned to the problem, that is a problem indeed. Most of these individuals return to the community, where relapse is common, with exceptionally high risk for relapse in the period soon after release, often ending in death or recidivism.^{8–12}

The reluctance of facilities to use MOUD is related to several factors, including cost, regulatory requirements, the need for operational accommodations, and challenges related to connecting to aftercare.¹³ More difficult to address is a culture in corrections that perceives controlled substances, even if prescribed for a medical purpose, as a danger to safety and security.¹³ Administration and custody staff understand that substance use disorders are common in the persons entrusted to their care and are perhaps more sensitive to complications related to diversion, including promoting the underground economy, increasing the activities of security threat groups (i.e., gangs), and the custodial management of health-related emergencies.¹⁴ Other barriers include training and regulatory mandates (e.g., prescriber DATA-2000 waivers for buprenorphine and federal and state oversight for methadone) and operational concerns (e.g., treatment space, staffing, and secure storage of controlled medications).²

Others have made strong calls for expanding access to MOUD in jails and prisons.^{2,15} The American

Dr. Tamburello is Clinical Associate Professor in University Correctional Health Care, Rutgers University-Robert Wood Johnson Medical School, Department of Psychiatry, Piscataway, NJ. Address correspondence to: Anthony Tamburello, MD. E-mail: anthony.tamburello@rutgers.edu.

Disclaimer: The opinions expressed in this editorial are the author's and are not necessarily those of his employer or agencies with which the employer contracts.

Disclosures of financial or other potential conflicts of interest: None.

Society of Addiction Medicine's 2020 position statement goes the furthest in explicitly stating that all FDA-approved MOUD are the standard of care in correctional settings.¹⁶ I agree with this position, although I wish to elaborate upon it, and in part qualify it.

The intent of this article is to make a case that access to thoughtfully prescribed MOUD, even for clinically appropriate persons with OUD previously naïve to treatment, should be the standard of care in jails and prisons. The legal standard of care is the province of fact finders, although these determinations may be influenced by many of the arguments I present here.¹⁷ As a physician, I am providing opinions on the clinical standard of care, also described in the literature as best practice.¹⁸ I began prescribing MOUD in a prison system in 2017. I have participated in related administrative oversight, staff training, and an American Academy of Psychiatry and the Law course inclusive of this subject.¹⁹ In 2022, coauthors and I published an article in *The Journal* on a prison system's experience in prescribing buprenorphine.²⁰

First, these medications work for patients. Agonist-based treatments like methadone and buprenorphine, and antagonist treatments containing naltrexone are clinically effective, although they are not equivalent or interchangeable. Each has been shown to reduce the use of opioids^{21–23} and at least buprenorphine and methadone have been shown to reduce opioid-related mortality.^{24–26} Watts and colleague's recent review of U.S. Department of Veterans Affairs patients showed that buprenorphine reduced the risk of suicide mortality by 65 percent, a benefit that was less clearly shown for methadone after controlling for confounders, and not seen for naltrexone.²⁶ Specifically relevant for justice settings, extended-release naltrexone (XR-NTX) was shown to reduce opioid use in persons released from jail.²⁷ Methadone maintenance reduced use of heroin and needle sharing after release from prison.^{28,29} Large, systematic studies on agonist MOUD provided to persons during incarceration support a reduced risk of illicit opioid use and death, both during and after incarceration.^{30,31}

MOUD during incarceration works to improve conditions in correctional facilities. Scott *et al.*⁷ surveyed incarcerated persons in Rhode Island's comprehensive MOUD program noted a better overall environment and less access to illicit substances in the facility.³² A custody staff member in a Chicago jail observed a reduction in fighting and assaults since initiation of an MOUD program.³³

MOUD during incarceration also works to promote successful transition to the community. The period immediately following incarceration is perilous, with replicated evidence suggesting an increased risk of death, especially from overdoses, in the early weeks after release.^{34–36} Beyond the benefits to individuals, there is an important public health argument here, as improving utilization of OUD treatment reduces behaviors at high risk for health consequences like needle sharing.³⁷

Although MOUD may be costly, especially when the individual cost is multiplied by a large number, so is incarceration. In 2017, the average annual cost to incarcerate someone in the United States was \$36,443.^{38,39} In contrast, the per-patient estimated annual costs for MOUD, psychosocial treatments, and other related expenses range from \$5,980 for stable buprenorphine patients to \$14,112 (for XR-NTX).⁴⁰ A 2021 model-based cost analysis showed that treatments including MOUD reduced both health- and criminal justice-related costs.⁴¹ Offering effective treatment to individuals with OUD is thus an investment with substantial returns for our communities.

Various professional organizations have supported the use of MOUD during incarceration. In 2021, the National Commission on Correctional Health Care issued various recommendations, including a position statement supporting screening for OUD by jails and prisons, offering treatments including MOUD during incarceration, and making connections in the community for aftercare.⁴² The American Psychiatric Association has long supported treatment for incarcerated persons with OUD and affirmed this in a 2020 position statement addressing the influence of pharmaceutical companies favoring nonagonist over agonist forms of MOUD.⁴³ Other organizations, including the American Academy of Addiction Psychiatry, American Correctional Association, and (as mentioned before) American Society of Addiction Medicine, have also published position statements supporting the use of MOUD during incarceration.²

The ethics case for access to MOUD during incarceration is strong.⁴⁴ Besides the reduction in morbidity and mortality described previously, in terms of beneficence, effective treatment for OUD reduces subjective cravings.⁴⁵ In terms of nonmaleficence, persons with OUD incarcerated directly from the community may be subject to forced withdrawal. Although opioid withdrawal is not generally considered life threatening,

cases of death (including from suicide) among incarcerated persons are reported in the literature.^{46,47} Although medically supervised withdrawal with α_2 -agonists is an evidence-based alternative, agonist-based MOUD are superior to clonidine, which may inadequately address anxiety, restlessness, insomnia, myalgia, and cravings.^{48,49} In terms of justice and respect for persons, Black, Indigenous, and people of color with OUD are less likely to be engaged in treatment than White people related to a range of factors including culture, implicit bias of health care providers, and differences in access to care.^{50,51} This is despite the rising rate of overdose death observed in African-American people.⁵² Black and Latinx people are overrepresented in jails and prisons, and linkage to MOUD and related supports would be expected to narrow these discrepancies.

Outcomes from recent §1983 suits suggest that OUD is increasingly recognized by courts as a serious medical need, whether under the Americans with Disabilities Act or the Eighth Amendment, and plaintiff's attorneys are making their own case for MOUD during incarceration as the legal standard of care.^{2,53} Given that it rose to the level of a federal appellate court, *Smith v. Aroostook County*⁵⁴ (2019) is of great interest. In this case, a county jail was ordered to continue buprenorphine for the plaintiff, Brenda Smith, who had been prescribed it in the community before her arrest and was facing forced withdrawal.⁵⁴

Although I am persuaded that it should be accessible during incarceration, I do not recommend that MOUD be prescribed on demand without adequate consideration of the risks, both to the individual and to others. Some authors have taken the position that concerns about diversion should have no bearing on the prescription of MOUD in jails and prisons, and that a simplified harm-reduction approach should be taken.⁵⁵ I believe that this would be counterproductive.

Polysubstance use disorder is particularly common in incarcerated persons with OUD. In the New Jersey Department of Corrections in 2019, 49.4 percent of patients on buprenorphine had use disorders for three or more substances, compared with 6.5 percent for those without an OUD.²⁰ In my experience, some patients with OUD seek MOUD despite being in a precontemplative stage of recovery, for various and individualized reasons. Although buprenorphine is rarely anyone's drug of choice,^{56,57} prescribed MOUD may be considered better than nothing when

access to illicit substances is limited.⁵⁸ In these situations, relative preservation of the desired effects from buprenorphine may be facilitated by intermittent overt (e.g., by inconsistent attendance at pill call) or covert (e.g., by swallowing a sublingual preparation) nonadherence.

Sometimes patients ask for MOUD for cravings for substances other than opioids, including substances commonly available in incarcerated settings like synthetic cannabinoids.⁵⁹ Besides naltrexone products for alcohol use disorder, no MOUD is FDA approved for nonopioid substances. In these cases, psychoeducation, and discussion of relevant evidence-based treatment (however limited) for the problem substance is an appropriate course of action. Patients without a substance use disorder may seek MOUD as a means of alleviating the boredom and discomforts associated with incarceration. If using agonist MOUD illicitly, whether in the context of an OUD or not, patients may ask for MOUD to be prescribed to provide cover for institutional monitoring of illicit drug use. Any of these scenarios are particularly concerning for the creation of iatrogenic OUD.

Diversion is a more-than-hypothetical risk: a quarter of incarcerated patients with MOUD in Australian prisons admitted to at least partial diversion of the medicine on at least one occasion, either as a source of income or because of coercion by peers.⁶⁰ In another survey of incarcerated persons in both jail and prison settings, 81 percent reported that nonprescribed buprenorphine is at least "somewhat" easy to obtain.⁶¹ A diversion activity may support, rather than refute, a diagnosis of OUD for a given individual. Such behavior may have an end goal of obtaining a more difficult to acquire and more costly preferred substance, which may be a higher-risk opioid. Nevertheless, it is extraordinarily difficult to justify the unaltered prescription of a medication that could be harmful to others, knowing that the patient is not receiving a medical benefit from it. Failure to acknowledge and expeditiously address misuse of controlled medications may be a source of liability.⁶² Our primary responsibility is to the patient, not the institution,⁶³ but this does not abrogate our responsibility to others when we know that medication is not being taken as prescribed. As observed by others too, patients acquiring an OUD from illicit use of MOUD is also more than hypothetical.⁶⁴

Based on the data presented here, I suggest a thoughtful, research-informed, and patient-oriented

approach to OUD in jails and prisons, although with responsible and responsive situational awareness. Justice-involved persons new to a facility should be screened for OUD. If prescribed MOUD currently or recently, this should be confirmed with a pharmacy, Opioid Treatment Program (OTP) if prescribed methadone, or the state's prescription monitoring program, if available. Interruptions in MOUD reduce the chances of later engagement in these services,⁶⁵ so those confirmed to be prescribed MOUD in the community should continue this treatment if clinically appropriate, and if not, offered medically supervised withdrawal with adequate monitoring.

Some patients with moderate-to-severe OUD may benefit from voluntary long-term maintenance MOUD during incarceration. Obtaining and reviewing relevant medical, pharmacy, psychiatric, and substance use disorder treatment records is useful to confirm the diagnosis and severity thereof. If the prescriber becomes credibly aware of current access to high-risk substances in the facility (e.g., via drug testing results), this may call for proactive discussions with at-risk patients. A history of adverse health events related to opioid use in the community or during incarceration, or repeated disciplinary infractions related to opioid use in the facility, may make a compelling argument for long-term maintenance treatment, even for patients presently naïve to MOUD. For incarcerated patients with OUD anticipating release to the community, a low-threshold model (which Jakubowski and Fox distinguish from a "no-threshold" model) that removes barriers to access, is appropriate.⁶⁶ When ordered prerelease, MOUD should be started with adequate time for follow up by the initiating prescriber to verify effectiveness and tolerability.

As MOUD becomes more available during incarceration, health care staff will see a demand for it. To accommodate this, criminal justice facilities and systems may need to make operational changes, including policy development, staffing, budgeting, procurement, training (including DATA-2000 waivers for buprenorphine prescribers), identification of adequate treatment space, and procedures for administration to optimize safety and confidentiality.

Although MOUD programs are generally deemed comprehensive only if they offer all three FDA-approved forms of MOUD, this may be impractical and burdensome for some systems given the federal and state regulatory requirements for OTPs. On the

other hand, methadone has advantages in these systems in terms of a lower risk for diversion.⁶⁷ Although naltrexone may be preferred by correctional officials as it has no risk for misuse or diversion, many patients do not want it, and opportunities for engagement will be lost if this is the only option.⁶⁸ Although all three FDA-approved MOUD have been shown to reduce cravings for opioids, to my knowledge, there are no comparative studies on this point, and more research has called into question treatment retention for XR-NTX.⁴⁵ I suggest that, at a minimum, jails and prisons should offer at least one form of agonist and one form of antagonist MOUD, although a comprehensive MOUD program is a worthy aspiration. Regulatory concerns may be managed by contracting with an OTP in the community that is able to maintain the standards necessary for compliance.

Routine monitoring for diversion via confidential clinical laboratory monitoring (i.e., urine drug screens) is necessary, although a negative test consistent with complete (rather than partial) nonadherence is unusual.⁶⁹ Some diversion may be prevented by proactive education on the expectations and procedures used by the health care staff in administering MOUD. If diversion occurs, it should be addressed on an individualized basis. I am skeptical that psychoeducation, paternalistic warnings, or soliciting promises are sufficient or even appropriate, although a discussion with the patient about the reasons for the diversion can be helpful in devising a modified treatment plan. An important next step is verification of an appropriate indication for the medicine. If the responsible prescriber is unfamiliar with the history leading to the decision to prescribe MOUD (e.g., in the context of an interfacility transfer), it is appropriate to revisit and confirm the diagnosis of OUD.

When MOUD is indicated despite a risk for continued diversion, discontinuation should be considered an option of last resort. Sometimes a change in dose will address the problem. A higher dose may better address cravings and discourage the patient from seeking other means of satisfaction.^{70,71} In cases of partial adherence, it may make sense to reduce the dose to reflect the actual amount being taken. Prescribing doses requiring multiple strips has been associated with diversion,^{20,71} but risk may be mitigated by changing the dose (up or down if clinically appropriate) to allow administration in a single strip. Other options include switching to forms at lower risk for diversion, like methadone,⁶⁷ buprenorphine-

naloxone strips (compared with buprenorphine tabs),⁷² crushed buprenorphine tabs,⁷³ long-acting injectable forms of buprenorphine, or naltrexone. Discontinuation of MOUD because of misuse of other substances (especially substances other than opioids) makes little sense and is better addressed by reassessing the patient's clinical needs.

The importance of linkage to aftercare services for incarcerated persons cannot be overstated. Agonist MOUD is associated with better treatment retention after release.^{30,31} Evidence does support starting XR-NTX prior to release to promote transition to the community, although the benefits for reducing opioid use dissipate after XR-NTX is stopped.^{27,74} This highlights the obvious point that the benefits of MOUD cannot be realized unless the patient has somewhere to get it. In fact, there are ethics concerns about knowingly discharging a patient on MOUD who has no means of continuing it. Every state Medicaid program funds at least one form of MOUD (most often buprenorphine).⁶ Although many community OTPs are at or near capacity,⁶ office-based buprenorphine and XR-NTX may be more accessible for some. Online resources such as the Substance Abuse and Mental Health Services Administration's OTP and buprenorphine practice locators may be useful.^{75,76}

Hamilton and colleagues⁷⁷ call for peer support specialists to facilitate wraparound services in the community, citing studies supporting this model for OUD patients from community settings. An example of this is the Rutgers Intensive Treatment Recovery Supports program, which provides in-reach services using peer navigators for patients with substance use disorders in the New Jersey Department of Corrections.⁷⁸ Outcomes research on these approaches for incarcerated persons with OUD is welcome. Regardless of the facility's approach to MOUD, supplying take-home naloxone upon release from jail or prison should not be controversial: it is low cost and reduces overdose deaths.^{79,80}

In summary, a confluence of clinical, public health, ethics, professional, and medicolegal considerations supports access to MOUD for incarcerated persons, even during incarceration. The facilities and systems that have not yet developed the policies and infrastructure required to address OUD need to make progress toward this end. On the other hand, prescribers must guard against pressure to offer these treatments without an appropriate indication or when the risks exceed the benefits. Both research and

clinical experience suggest that offering safe and effective treatment may sometimes require practicing differently in jails and prisons than in other settings.⁵⁹ Indiscriminate prescribing will not escape the attention of custody and administrative staff who are responsible for managing consequent institutional problems and may threaten the culture change needed to improve access to MOUD. I expect that a thoughtful, well-informed, and responsive approach to OUD will bring the attitudinal changes needed for the long-term success of institutionally administered MOUD. This will save and dramatically improve the lives of many people with OUD, and these benefits will ripple out to their families and to our communities.

References

- Centers for Disease Control and Prevention. Provisional drug overdose death counts [Internet]; 2022. Available from: <https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm>. Accessed May 12, 2022
- Toyoshima T, McNeil DE, Schonfeld A, Binder R. The evolving medicolegal precedent for medications for opioid use disorder in U.S. jails and prisons. *J Am Acad Psychiatry Law*. 2021 Dec; 49(4):545–52
- Substance Abuse and Mental Health Services Administration. Key substance use and mental health indicators in the United States: Results from the 2020 National Survey on Drug Use and Health [Internet]; 2021. Available from: <https://www.samhsa.gov/data/sites/default/files/reports/rpt35325/NSDUHFFR1PDFWHTMLFiles2020/2020NSDUHFFR1PDFW102121.pdf>. Accessed May 4, 2022
- Winkelman TNA, Chang VW, Binswanger IA. Health, polysubstance use, and criminal justice involvement among adults with varying levels of opioid use. *JAMA Netw Open*. 2018; 1(3):e180558
- Thakrar AP, Alexander GC, Saloner B. Trends in buprenorphine use in US jails and prisons from 2016 to 2021. *JAMA Netw Open*. 2021; 4(12):e2138807
- Substance Abuse and Mental Health Services Administration. Use of medication-assisted treatment for opioid use disorder in criminal justice settings [Internet]; 2019. Available from: <https://store.samhsa.gov/product/Use-of-Medication-Assisted-Treatment-for-Opioid-Use-Disorder-in-Criminal-Justice-Settings/PEP19-MATUSECJS>. Accessed May 11, 2022
- Scott CK, Dennis ML, Grella CE, *et al*. The impact of the opioid crisis on U.S. state prison systems. *Health & Just*. 2021; 9(1):17
- Kinlock TW, Gordon MS, Schwartz RP, O'Grady KE. A study of methadone maintenance for male prisoners: 3-month postrelease outcomes. *Crim Just & Behav*. 2008; 35(1):34–47
- Keen C, Young JT, Borschmann R, Kinner SA. Non-fatal drug overdose after release from prison: A prospective data linkage study. *Drug Alcohol Depend*. 2020; 206:107707
- Binswanger IA, Nowels C, Corsi KF, *et al*. Return to drug use and overdose after release from prison: A qualitative study of risk and protective factors. *Addict Sci Clin Pract*. 2012; 7(1):3
- Zgoba KM, Reeves R, Tamburello A, DeBilio L. Criminal recidivism in inmates with mental illness and substance use disorders. *J Am Acad Psychiatry Law*. 2020 Jun; 48(2):209–15
- Ranapurwala SI, Figgatt MC, Remch M, *et al*. Opioid overdose deaths among formerly incarcerated persons and the general population: North Carolina. *Am J Public Health*. 2022; 112(2):300–3

13. Grella CE, Ostile E, Scott CK, *et al.* A scoping review of barriers and facilitators to implementation of medications for treatment of opioid use disorder within the criminal justice system. *Int J Drug Policy.* 2020; 81:102768
14. Bott Q. Contraband highs: Suboxone strips introduce challenges for corrections. *Corrections Today.* 2016; November/December: 16–8
15. Binswanger IA. Opioid use disorder and incarceration—Hope for ensuring the continuity of treatment. *N Engl J Med.* 2019; 380(13):1193–5
16. American Society of Addiction Medicine. Treatment of opioid use disorder in correctional settings [Internet]; 2020. Available from: <https://www.asam.org/advocacy/public-policy-statements/details/public-policy-statements/2021/08/09/asam-public-policy-statement-on-treatment-of-opioid-use-disorder-in-correctional-settings>. Accessed May 8, 2022
17. Cooke BK, Worsham E, Reisfield GM. The elusive standard of care. *J Am Acad Psychiatry Law.* 2017 Sep; 45(3):358–64
18. Rogers JE, Neumann CL, Myers WC. Commentary: Bringing order to chaos—How psychiatrists know the standard of care. *J Am Acad Psychiatry Law.* 2015 Dec; 43(4):451–5
19. Tamburello A. Effective policy and practice for medications for opioid use disorder in corrections. Presented at: American Academy of Psychiatry and the Law course: Developments in correctional psychiatry; 2021 December 11; online
20. Tamburello A, Masumova F, Edelman K. Practice patterns in prescribing buprenorphine in the New Jersey Department of Corrections. *J Am Acad Psychiatry Law.* 2022 Jun; 50(2):252–62
21. Johnson RE, Chutuape MA, Strain EC, *et al.* A comparison of levomethadyl acetate, buprenorphine, and methadone for opioid dependence. *N Engl J Med.* 2000; 343(18):1290–7
22. Mattick RP, Breen C, Kimber J, Davoli M. Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. *Cochrane Database Syst Rev.* 2014;(2):CD002207
23. Krupitsky E, Nunes EV, Ling W, *et al.* Injectable extended-release naltrexone for opioid dependence: A double-blind, placebo-controlled, multicentre randomised trial. *Lancet.* 2011; 377(9776):1506–13
24. Gibson A, Degenhardt L, Mattick RP, *et al.* Exposure to opioid maintenance treatment reduces long-term mortality. *Addiction.* 2008; 103(3):462–8
25. Ma J, Bao YP, Wang RJ, *et al.* Effects of medication-assisted treatment on mortality among opioids users: A systematic review and meta-analysis. *Mol Psychiatry.* 2019; 24(12):1868–83
26. Watts BV, Gottlieb DJ, Riblet NB, *et al.* Association of medication treatment for opioid use disorder with suicide mortality. *Am J Psychiatry.* 2022; 179(4):298–304
27. Lee JD, Friedmann PD, Kinlock TW, *et al.* Extended-release naltrexone to prevent opioid relapse in criminal justice offenders. *N Engl J Med.* 2016; 374(13):1232–42
28. Gordon MS, Kinlock TW, Schwartz RP, O’Grady KE. A randomized clinical trial of methadone maintenance for prisoners: Findings at 6 months post-release. *Addiction.* 2008; 103(8): 1333–42
29. Dolan KA, Shearer J, MacDonald M, *et al.* A randomised controlled trial of methadone maintenance treatment versus wait list control in an Australian prison system. *Drug Alcohol Depend.* 2003; 72(1): 59–65
30. Malta M, Varatharajan T, Russell C, *et al.* Opioid-related treatment, interventions, and outcomes among incarcerated persons: A systematic review. *PLoS Med.* 2019; 16(12):e1003002
31. Moore KE, Roberts W, Reid HH, *et al.* Effectiveness of medication assisted treatment for opioid use in prison and jail settings: A meta-analysis and systematic review. *J Subst Abuse Treat.* 2019; 99:32–43
32. Brinkley-Rubinstein L, Peterson M, Clarke J, *et al.* The benefits and implementation challenges of the first state-wide comprehensive medication for addictions program in a unified jail and prison setting. *Drug Alcohol Depend.* 2019; 205:107514
33. The Editorial Board. Helping jail inmates kick an addiction helps us all. *The Chicago Tribune* [Internet]; 2021 Apr 26. Available from: <https://www.chicagotribune.com/opinion/editorials/ct-editorial-cook-kane-jail-drug-treatment-20210426-w3kibe4rpzewrlkcmctigitpndu-story.html>. Accessed May 16, 2022
34. Binswanger IA, Blatchford PJ, Mueller SR, Stern MF. Mortality after prison release: Opioid overdose and other causes of death, risk factors, and time trends from 1999 to 2009. *Ann Intern Med.* 2013; 159(9):592–600
35. Binswanger IA, Stern MF, Yamashita TE, *et al.* Clinical risk factors for death after release from prison in Washington State: A nested case-control study. *Addiction.* 2016; 111(3):499–510
36. Bukten A, Stavseth MR, Skurtveit S, *et al.* High risk of overdose death following release from prison: Variations in mortality during a 15-year observation period. *Addiction.* 2017; 112(8):1432–9
37. Larney S. Does opioid substitution treatment in prisons reduce injecting-related HIV risk behaviours? A systematic review. *Addiction.* 2010; 105(2):216–23
38. Bueler ED. Justice expenditures and employment in the United States, 2017 [Internet]; 2021 Jul. Available from: <https://bjs.ojp.gov/sites/g/files/xyckuh236/files/media/document/jeeus17.pdf>. Accessed May 3, 2022
39. Bronson J, Carson EA. Prisoners in 2017 [Internet]; 2019 Apr. Available from: <https://bjs.ojp.gov/library/publications/prisoners-2017>. Accessed May 3, 2022
40. National Institute of Health. How much does opioid treatment cost? [Internet]; 2021 Dec. Available from: <https://nida.nih.gov/publications/research-reports/medications-to-treat-opioid-addiction/how-much-does-opioid-treatment-cost>. Accessed May 3, 2022
41. Fairley M, Humphreys K, Joyce VR, *et al.* Cost-effectiveness of treatments for opioid use disorder. *JAMA Psychiatry.* 2021; 78(7): 767–77
42. National Commission on Correctional Health Care. Position statement: Opioid use disorder in correctional settings [Internet]; 2021. Available from: <https://www.ncchc.org/opioid-use-disorder-treatment-in-correctional-settings>. Accessed May 3, 2022
43. American Psychiatric Association. Position statement on pharmaceutical marketing to justice entities regarding medication treatment for substance use disorders [Internet]; 2020. Available from: <https://psychiatry.org/getattachment/93e24bc4-ea89-4f29-aacf-71e093c88b6b/Position-Pharmaceutical-Marketing-Justice-Entities.pdf>. Accessed May 3, 2022
44. Brezel ER, Powell T, Fox AD. An ethical analysis of medication treatment for opioid use disorder (MOUD) for persons who are incarcerated. *Subst Abus.* 2020; 41(2):150–4
45. Leshner AI, Akil H, Barry C, *et al.* (Committee on Medication-Assisted Treatment for Opioid Use Disorder). The effectiveness of medication-based treatment for opioid-use disorder. In Mancher M, Leshner AI, editors. *National Academies of Sciences Engineering and Medicine (U.S.). Medications for Opioid Use Disorder Save Lives.* Washington, DC: The National Academies Press; 2019. p. 33–62
46. Pierce JI. Suicide and mortality amongst heroin addicts in Britain. *Br J Addict Alcohol Other Drugs.* 1967; 62(3):391–8
47. Fiscella K, Noonan M, Leonard SH, *et al.* Drug- and alcohol-associated deaths in U.S. jails. *J Correct Health Care.* 2020; 26(2):183–93
48. Fishbain DA. Opioid tapering/detoxification protocols, a compendium: Narrative review. *Pain Med.* 2021; 22(7):1676–97

Medication for Opioid Use Disorder during Incarceration

49. Gowing L, Ali R, White JM, Mbewe D. Buprenorphine for managing opioid withdrawal. *Cochrane Database Syst Rev*. 2017 Feb; 2:CD002025
50. Substance Abuse and Mental Health Services Administration. The opioid crisis and the Black/African-American population: An urgent issue [Internet]; 2020. Available from: https://store.samhsa.gov/sites/default/files/SAMHSA_Digital_Download/PEP20-05-02-001_508%20Final.pdf. Accessed Mar 12, 2022
51. Finlay AK, Harris AHS, Timko C, *et al*. Disparities in access to medications for opioid use disorder in the Veterans Health Administration. *J Addict Med*. 2021; 15(2):143–9
52. Friedman JR, Hansen H. Evaluation of increases in drug overdose mortality rates in the US by race and ethnicity before and during the COVID-19 pandemic. *JAMA Psychiatry*. 2022; 79(4): 379–81
53. Americans with Disabilities Act of 1990, Pub. L. No. 101-336 (1990)
54. *Smith v. Aroostook Cnty.*, 922 F.3d 41 (1st Cir. 2019)
55. Sinkman DH, Dorchak G. Using the Americans with Disabilities Act to reduce overdose deaths. *Dep't Just J Fed L & Prac*. 2022 Jan; 70(1):113–28
56. Cicero TJ, Ellis MS, Chilcoat HD. Understanding the use of diverted buprenorphine. *Drug Alcohol Depend*. 2018 Dec; 193:117–123
57. Allen B, Harocopos A. Non-prescribed buprenorphine in New York City: Motivations for use, practices of diversion, and experiences of stigma. *J Subst Abuse Treat*. 2016 Nov; 70:81–6
58. Ourada JD, Appelbaum KL. Intoxication and drugs in facilities. In Trestman RL, Appelbaum KL, Metzner JL, editors. *Oxford Textbook of Correctional Psychiatry*, First edition. New York: Oxford University Press; 2015. p. 123–7
59. Tamburello A, Penn J, Ford E, *et al*. The American Academy of Psychiatry and the Law practice resource for prescribing in corrections. *J Am Acad Psychiatry Law*. 2022 Dec; 50(4, Suppl): S1–S62
60. White N, Ali R, Larance B, *et al*. The extramedical use and diversion of opioid substitution medications and other medications in prison settings in Australia following the introduction of buprenorphine-naloxone film. *Drug Alcohol Rev*. 2016; 35(1): 76–82
61. Gryczynski J, Lee JD, Dusek K, *et al*. Use of non-prescribed buprenorphine in the criminal justice system: Perspectives of individuals recently released from incarceration. *J Subst Abuse Treat*. 2021 Aug; 127:108349
62. Wagoner RC. Addiction psychiatry. In Frierson RL, Ash P, Friedman SH, editors. *Malpractice and Liability in Psychiatry*. Cham, Switzerland: Springer; 2022. p. 201–6
63. American Psychiatric Association. Position statement on the primacy of the treating psychiatrist's responsibility to the patient [Internet]; 2021 Apr. Available from: <https://psychiatry.org/about-apa/policy-finder/position-statement-on-the-primacy-of-the-treating>. Accessed May 10, 2022
64. Sherrick R. Diversion of buprenorphine in low-threshold treatment. *J Addict Med*. 2021; 15(1):88
65. Mitchell SG, Kelly SM, Brown BS, *et al*. Incarceration and opioid withdrawal: The experiences of methadone patients and out-of-treatment heroin users. *J Psychoactive Drugs*. 2009; 41(2):145–52
66. Jakubowski A, Fox A. Defining low-threshold buprenorphine treatment. *J Addict Med*. 2020; 14(2):95–8
67. Johnson B, Richert T. Diversion of methadone and buprenorphine by patients in opioid substitution treatment in Sweden: Prevalence estimates and risk factors. *Int J Drug Policy*. 2015; 26(2):183–90
68. Kaplowitz E, Truong AQ, Berk J, *et al*. Treatment preference for opioid use disorder among people who are incarcerated. *J Subst Abuse Treat*. 2022; 137:108690
69. Sobel HG, Warrington JS, Francis-Fath S, *et al*. A descriptive analysis of urine drug screen results in patients with opioid use disorder managed in a primary care setting. *Addict Sci Clin Pract*. 2021; 16(1):59
70. Roux P, Villes V, Bry D, *et al*. Buprenorphine sniffing as a response to inadequate care in substituted patients: Results from the Subazur survey in south-eastern France. *Addict Behav*. 2008; 33(12):1625–9
71. Lofwall MR, Walsh SL. A review of buprenorphine diversion and misuse: The current evidence base and experiences from around the world. *J Addict Med*. 2014; 8(5):315–26
72. Gordon MS, Kinlock TW, Schwartz RP, *et al*. A randomized controlled trial of prison-initiated buprenorphine: Prison outcomes and community treatment entry. *Drug Alcohol Depend*. 2014; 142:33–40
73. Simojoki K, Lillsunde P, Lintzeris N, Alho H. Bioavailability of buprenorphine from crushed and whole buprenorphine (subutex) tablets. *Eur Addict Res*. 2010; 16(2):85–90
74. Friedmann PD, Wilson D, Hoskinson R, *et al*. Initiation of extended release naltrexone (XR-NTX) for opioid use disorder prior to release from prison. *J Subst Abuse Treat*. 2018; 85:45–8
75. Substance Abuse and Mental Health Services Administration. Opioid treatment program directory [Internet]. Available from: <https://dpt2.samhsa.gov/treatment/directory.aspx>. Accessed May 11, 2022
76. Substance Abuse and Mental Health Services Administration. Buprenorphine practice locator [Internet]. Available from: <https://www.samhsa.gov/medication-assisted-treatment/find-treatment/treatment-practitioner-locator>. Accessed May 11, 2022
77. Hamilton J, Ti L, Korchinski M, Nolan S. Peer support specialists: An underutilized resource in the criminal justice system for opioid use disorder management? *J Addict Med*. 2022; 16(2): 132–4
78. Verbanas P. Rutgers provides hope for ex-offenders navigating recovery and a life beyond bars [Internet]; 2019. Available from: <https://impact.rutgers.edu/irts/>. Accessed May 11, 2022
79. Bird SM, McAuley A, Perry S, Hunter C. Effectiveness of Scotland's National Naloxone Programme for reducing opioid-related deaths: A before (2006–10) versus after (2011–13) comparison. *Addiction*. 2016; 111(5):883–91
80. Leung TC, Colyer S, Zehireva S. An outcome study on the naloxone education/dispensing program for departure patients at Cermak Health Services of Cook County. *J Correct Health Care*. 2021; 27(1):11–13