

Prescribing Opioid Replacement Therapy in U.S. Correctional Settings

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Opioid addiction is a chronic, relapsing disorder associated with criminality, unemployment, infectious diseases, and legal problems. Such addictions are typically over-represented in correctional populations. Inmates with untreated opioid addiction often relapse shortly after release into the community, thereby increasing the risk of overdose, serious illnesses (HIV, hepatitis C) and psychosocial problems (e.g., crimes, recidivism, and reincarceration). There are three U.S. Food and Drug Administration–approved medications for the treatment of opioid use disorder: methadone, buprenorphine, and naltrexone. Opioid replacement therapies (ORTs) are associated with significant benefits, including reducing the incidences of HIV, criminality, and opioid-related mortality. However, most opioid-dependent Americans who are incarcerated are forced to discontinue ORT upon prison entry. This article offers a rationale for providing ORT to addicted prisoners while incarcerated and providing appointments with outpatient providers for continued treatment.

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Opioid use disorder refers to a pattern of compulsive opioid use despite adverse consequences in various life domains (work, interpersonal, health, and psychological) often accompanied by cravings, tolerance, and withdrawal. Opioid use disorder is over-represented in incarcerated populations worldwide.¹ There is consensus that opioid replacement therapy (i.e., methadone, buprenorphine and naltrexone) is the gold standard for preventing relapse in individuals with opioid use disorder who are residing in the community, as well as prison settings.^{2,3} More specifically, opioid replacement therapy reduces the spread of infectious diseases associated with illegal opioid use, especially HIV and hepatitis C. It has been demonstrated that opioid replacement therapy reduces the deaths and crime associated with illegal opioid use.

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Many international public health committees endorse the view that imprisoned individuals are eligible to receive medical care comparable with those offered to the general population in their country.⁴ Opioid replacement therapies (ORTs) are increasingly being offered in prisons in Europe, Australia, and other countries. The United States, however, lags behind. Except for use in pregnant women, methadone maintenance is typically discontinued during incarceration in U.S. prisons.⁵ Although practice patterns are changing, efforts to encourage prison officials to provide ORT have been slowed by logistical hurdles (e.g., storage and administration of methadone, staff education) and security concerns related to ORT diversion and overdose.⁶ These concerns are supported by cross-national studies that found various risky behaviors in prison settings, such as diversion of ORTs and hoarding medications for purposes of intoxication.^{7–9}

Another obstacle to implementing methadone maintenance treatment in correctional settings may be differing perceptions of what constitutes appropriate care for these inmates. In a recent article, Rich and colleagues¹⁰ reported that opioid addicted persons who are on methadone maintenance in the com-

munity are typically forced to discontinue methadone in U.S. correctional settings, which renders them susceptible to relapse and overdose on release. Justifications for not beginning methadone maintenance in prisons include views by corrections staff that opioid replacement therapy (ORT) replaces one addiction with another, beliefs that it does not reduce criminal behavior, uncertainty about the benefits of ORT on opioid addiction, preferences for using detoxification-only treatment, and views that addiction is a moral failing, not an illness.¹¹ One survey examining attitudes toward methadone use in U.S. prisons found the prevalent belief among corrections staff to be that the best treatment for opioid addiction consists of detoxification plus a drug-free life style.⁶

Unfortunately, available data on the natural history of opioid addiction shows that detoxification alone is marked by relapses and considerable morbidity.¹⁰ Epidemiological studies suggest that 55 percent of inmates with a history of substance use disorder will relapse within one month of release from incarceration.¹² Opioid injecting individuals are at high risk for contracting HIV, hepatitis C, and fatal overdose, particularly after incarceration, during which tolerance for opioids is significantly reduced. Most deaths following release from prison are caused by overdose, particularly within the first few weeks.^{13,14} Considering these risks and the established benefits of methadone maintenance, the Centers for Disease Control (CDC) and the World Health Organization (WHO) have recommended that correctional systems offer strategies to curtail postrelease opioid relapse, such as providing ORT to consenting inmates.¹⁵

Methadone

Methadone is a U.S. Federal Drug Administration (FDA)-approved opiate agonist for the treatment of opioid addiction.¹⁶ The United Nations Recommendations for the Treatment of Prisoners states that prisoners should have access to health services available in the country, regardless of their legal status.¹⁷ Correctional systems in Australia, Canada, and Europe are gradually implementing World Health Organization (WHO) recommendations to institute methadone treatment for inmates.¹⁷⁻²² In England, the adoption of methadone maintenance treatment in correctional settings was fueled by a class action lawsuit brought against the Home Office for neglectful substance abuse treatment in prison.²³ In Spain,

an epidemic of HIV provided the impetus to successfully implement methadone in correctional settings.²⁴ Inmates in the United States who receive methadone in the community, in contrast, are forced to discontinue treatments when incarcerated, which renders them susceptible to relapse and overdose on release.²⁵

Researchers piloting the use of methadone in correctional systems in Rhode Island have found several obstacles to initiating methadone maintenance treatment in the prison setting.²⁶ These included storage and handling of methadone, increased workload for nursing staff, concerns about diversion and overdose, medical liability, and views of addiction as a moral failing. Researchers overcame these challenges by enlisting the support of the prison leadership, engaging and training staff, and increasing security oversight to address concerns about diversion, medical liability, and overdose. Researchers also maintained a consistent presence in the prison and were available for questions by regularly attending scheduled meetings and discharge planning discussions.

Perhaps the most established U.S. correctional methadone maintenance program is found at New York's Rikers Island. Magura and colleagues²⁷ showed that Rikers Island staff facilitated entry of 85 percent of their opioid-addicted inmates into methadone maintenance treatment programs upon release. The Rikers Island program began a community-based endeavor called the Key Extended Entry Program (KEEP). It provides inmates with opioid addiction, who were not in treatment at the time of incarceration, with supports to engage in methadone treatment at release.²⁷ The inmates are stabilized on methadone while incarcerated and continue treatment in a community setting upon release from the correctional system. Retention in methadone treatment in the community at six months was 27 percent for those whose methadone was started in Rikers Island versus 9 percent for inmates provided detoxification alone.²⁸ The modest, though significant, retention rates for those started on methadone during incarceration may be explained by the characteristics of the inmate population at Rikers Island. Eighty percent of the sample injected both opioids and cocaine and committed an average of 117 property crimes and 19 violent crimes. Comorbid substance use, antisocial traits, and low socioeconomic status are poor prognostic indicators.^{29,30} The failure of 73 percent of individuals to continue treatment at six

months also indicates that methadone alone may not provide sufficient structure and contingencies that opioid-addicted individuals need to improve their legal, clinical, and functional outcomes.

Although methadone is partially effective for treating opioid use disorders, more so than detoxification alone, addiction is a multifaceted illness that requires comprehensive treatment. The Drug Abuse Treatment Outcome Study (DATOS), a longitudinal study conducted by the National Institute on Drug Abuse (NIDA), looked at response rates of opioid-addicted individuals in methadone maintenance programs across the country.³¹ The study found that, at five-year follow-up, 51 percent of methadone-treated individuals had sustained abstinence, 19 percent had delayed improvement, 10 percent had replaced opioids with another drug, 8 percent had continued to use opioids, and 12 percent had experienced a delayed relapse. Those who sustained abstinence reported family, motivation, spirituality, and employment as important components in their positive outcomes. DATOS highlights that methadone is not the sole component needed for successful recovery.

In Baltimore, Kinlock and colleagues³² evaluated the impact of prison-initiated methadone maintenance versus other treatment modalities and outcomes at 12 months after release. Males with opioid dependence ($n = 204$) were randomly assigned to counseling in prison, with passive referral to methadone treatment upon release (counseling only); counseling in prison with transfer to methadone maintenance treatment upon release (counseling+transfer); or counseling and methadone maintenance in prison, continued in the community upon release (counseling+methadone). In this study, the counseling+methadone group was significantly less likely than participants in each of the other groups to be opioid or cocaine positive, according to urine drug testing at 12-month follow-up. Another study using the same data set found that inmates who are older and have longer prison sentences may have better outcomes than younger individuals with shorter sentences.³³ Better outcomes were defined as being more likely to enter and complete prison-based treatment. Cross-national efforts to determine predictors of retention in methadone treatment in the community found positive predictors, such as abstinence from cocaine, no legal recidivism, and close ties with family.^{34,35} Overall, more research is needed on the demographic and clinical characteristics of opioid-addicted

inmates who are more likely to respond to methadone, as well as on those who are more likely to divert methadone into the prison black market.

Buprenorphine

Buprenorphine is a partial agonist at the opioid receptor and an FDA-approved ORT. It is often used in combination with naloxone to prevent misuse.³⁶ Vocci and colleagues³⁷ conducted a randomized study of buprenorphine in a U.S. sample ($n = 211$) of prerelease male and female inmates with a history of opioid use disorder who were not opioid tolerant at the time of the study. These participants had three to nine months left in prison and were randomized to a Prison Treatment Condition (received buprenorphine versus counseling only). The buprenorphine group had higher rates of treatment initiation, but completion rates (10 weeks of prison-based treatment) were similar between both groups. Women were more likely to complete treatment in prison than were men. The medication group members were also more likely to enter postrelease community treatment (47.5% versus 33.7%). The retention rates were lower than in other studies, and the authors speculate that this may have been related to acceptability of inmates in Community Health Centers and travel distances. The other striking finding is that the major impediment to completing the inpatient treatment phase was diversion. To reduce diversion, buprenorphine tablets were changed to a sublingual formulation of film strips that dissolve more quickly. The authors noted that diversion decreased once this formulation became available.³⁷

There is a black market for buprenorphine among correctional populations within and outside of prisons. The Maryland Division of Parole and Probation analyzed 1,061 urine toxicology samples.³⁸ They found an increase in the number of buprenorphine urines compared with previous years. Interviews of 15 probationers and parolees in Baltimore suggest widespread availability of buprenorphine, including in prisons.

One study investigated diversion of methadone and buprenorphine in a sample of 12 incarcerated persons.^{39,40} Their behavior of sharing with others in a drug-using community persisted when entering prison. One motive for distribution is personal profit. However, more altruistic reasons may also be at play. The authors noted that inmates voiced that

giving one's prescription opioids to a person experiencing withdrawal was seen as a generous act.

Naltrexone

Naltrexone is the only FDA-approved opioid antagonist for treatment of opioid use disorder. It provides flexible administration, because it comes as both a daily oral medication and an extended-release injectable (XR-NTX). Currently, there are pilot studies looking at the feasibility of providing the long-acting injectable in the prison setting.^{40–42} Lee and colleagues⁴³ conducted an eight-week proof-of-concept study of XR-NTX for prison inmates in New York ($n = 34$) that demonstrated reduced relapse rates at four and eight weeks after injection. They are currently expanding the project to include a larger sample over a longer period of time.⁴⁴ Lee and colleagues⁴⁵ completed a five-site study of 153 inmates assigned to XR-NTX and treatment as usual (counseling and passive referral to a community clinic) over the course of 24 weeks and observed for more than a year at 27, 52, and 78 weeks. Use of XR-NTX was associated with lower rates of relapse, and there were no overdoses. These effects were not maintained in individuals who discontinue the XR-NTX at follow-up times. Although the available studies are promising, large clinical trials looking at XR-NTX in the criminal justice system are still needed.

Discussion

Opioid use disorder has devastating consequences for individuals struggling with addiction, their families, and public health. In this article, we have reviewed the standard of care within the United States (detoxification alone), and its consequences (relapse, reincarceration, increased mortality, and spread of infectious illness, among others). The studies reviewed herein illustrate the effectiveness of ORT when started during incarceration in reducing relapse rates after release. The Legal Action Center, the only nonprofit law and policy organization that functions to reduce discrimination against people with addiction, asserts that withholding ORT from incarcerated individuals with addiction is a legal violation of the Americans with Disabilities Act and the Rehabilitation Act.⁴⁶ They argue that addiction is a disability, and with ORT, many with addictions would be eligible for parole, probation, or alternative

sentencing, as they otherwise do not pose significant risk to public health and safety. They also assert that not providing ORT as a blanket policy is discriminatory because it does not provide the individualized analysis necessary under law for individuals with disability.

According to a study done in 2012 by the Criminal Justice Drug Abuse Treatment Studies (CJDATS), a research program funded by National Institute on Drug Abuse (NIDA), ORTs are provided to 75 percent of pregnant women and 60 percent of individuals experiencing withdrawal in jails and prisons.⁴⁷ This study illustrates that there is infrastructure within many prisons and jails to provide ORT to currently excluded inmates. Twenty of the sites included in the study reported that they had the resources to provide some form of ORT. Concerns limiting the use of ORT included security concerns, treatment philosophy (i.e., drug-free treatment), inadequate information regarding ORT, and the availability of ORT in community treatment programs. These statistics largely highlight that underutilization of ORT is related to misperceptions about the therapy. To address its underutilization in corrections settings, a manual was created through a grant from the Bureau of Justice Assistance (of the U.S. Department of Justice) to provide guidelines for use of ORT in prison settings.⁴⁸

Finally, the National Commission on Correctional Health Care released a position statement in 2016 asserting that addiction, scientifically established as a chronic relapsing disorder, should be treated with effective measures, including pharmacologic and evidence-based behavioral therapies.⁴⁹ They outlined within the paper all three ORTs (methadone, buprenorphine, and naltrexone) as acceptable and effective means of addiction treatment.

Conclusions

ORT is a well-established treatment for opioid addiction in correctional populations and in the community. Evidence supports its use in prison settings. Although there are unique obstacles to ORT in prisons, these challenges can be overcome by expanding the infrastructure already in place when providing ORT to pregnant women and inmates in withdrawal or using techniques from studies that have successfully implemented ORT in corrections environments. The failure to provide ORT places

inmates at risk of relapse, overdose upon release, and drug-related illnesses.

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