An Evidence-based Approach to Medication Assisted Treatments for Addiction in the Criminal Justice System

ISSUE BRIEF: BUREAU OF JUSTICE ASSISTANCE TRAINING & TECHNICAL ASSISTANCE PROGRAM FOR STATE ADMINISTERING AGENCIES

The American Society of Addiction Medicine (ASAM) has defined addiction as a primary, chronic brain disease, which affects individuals' motivation, memory, and emotions and results in an inability to consistently abstain from substances. Addiction is a treatable disease; however, without treatment or engagement in recovery activities, addiction is often progressive and can be fatal.[1] Addiction treatment should be multimodal, readily available, and must be individualized; furthermore, evidence shows treatments including both medication and behavioral or psychosocial supports are generally most effective. Food and Drug Administration (FDA) approved medications exist and should be considered as a treatment option for **Opioid Use Disorder**, **Alcohol Use Disorder** and **Tobacco Use Disorder**.

Extensive research has demonstrated that addiction treatment can be effectively delivered within the criminal justice system (CJS), including in jails, prisons, and community correctional settings such as probation, parole, or drug court. Treatment improves clinical outcomes and reduces crime, recidivism, and societal costs.[2] Despite this evidence, treatment within the CJS does not consistently meet community standards of care.

For alcohol, tobacco, and opioid use disorders, medication treatments, known as Medication Assisted Treatment (MAT), are effective components of comprehensive addiction treatment. MAT combines behavioral therapy and medications to treat substance use disorders. However, in the CJS, there is a large gap between those who are eligible for these lifesaving, FDA-approved medication treatments for addiction and those who receive them.

In prisons and jails, almost no individuals receive maintenance treatment with medications for alcohol, tobacco, or opioid use disorders. Drug courts are also a setting where individuals who should be eligible for medication treatments may not receive them due to costs, a lack of local providers who offer MAT, or court policies that do not permit use of MAT.[3]

Medication treatments for opioid use disorder in particular have been recommended for inclusion in drug courts by the National Drug Court Institute. Despite a recent study showing a trend towards greater acceptance of these medication treatments by drug court judges, previous research suggests that a large portion of drug courts still do not utilize MAT.[4567]

Contact with the CJS offers an important opportunity for diagnosis; initiation of treatment, including pharmacotherapy; and linkage to ongoing care in the community. This is particularly crucial prior to release from incarceration since the two weeks following release, death from drug overdose is 129 times increased.[8]

Practice Pointers: Medication Treatments

Addiction experts support the use of FDA-approved medication along with psychosocial treatments as part of treatment for all individuals with opioid, alcohol, and tobacco use disorders. The choice of whether to use medication for these three disorders should be patient-centered. These medications are underutilized in all care settings, but particularly so in correctional settings due to negative views about MAT sometimes held by criminal justice staff and low availability of treatment options for people in the criminal justice system more generally.[910]

Opioid Use Disorder – Medication treatment options are among the most effective treatments for opioid

use disorder. There are three approved medications for the treatment of opioid use disorder in the U.S.: methadone, buprenorphine, and naltrexone. Detoxification strategies used alone result in high rates of relapse. In contrast, adequately dosed medication treatment with buprenorphine or methadone results in treatment retention rates of up to 80%. Of those retained in treatment, only 20% relapse to heroin use within one year.[11]

Methadone and buprenorphine are medications called "agonists," meaning they exert activity at the same receptor that all opioids bind to, called the mu-opioid receptor. When an individual with an opioid use disorder is using opioids, whether heroin or a prescription pain medication, the drug binds to the mu-opioid receptor and stimulates it, which causes analgesia, euphoria, and other effects. The speed and strength with which a substance acts at this receptor in part drives how "addictive" a substance is. Opioids that act quickly and powerfully cause more euphoria and therefore are more addictive. Receptors over time get used to constant stimulation by opioids and someone who is dependent on opioids needs opioids to simply feel normal. When that person stops using opioids they experience withdrawal and craving.

Because agonists exert activity at this same receptor, there is a common misconception that the use of agonist medications substitute one addiction for another. This is not the case; these medications work by preventing individuals from feeling craving or experiencing withdrawal. Once someone achieves a steady dose with agonist medication, they do not require escalating amounts to have an effect. The medications also reverse the negative changes to a person's stress response which can occur with long-term opioid use. In many ways, methadone and buprenorphine are analogous to prescribing insulin for a patient with diabetes, allowing those with opioid use disorder to function normally.

Naltrexone, in contrast to methadone and buprenorphine, acts as a blocker at the mu-opioid receptor and is called an "antagonist." This means that an individual could attempt to use opioids but would not be able to feel euphoria or other effects. Naltrexone also seems to reduce cravings, however to a lesser degree than the opioid agonists. There is no evidence that the daily pill formulation of naltrexone is helpful for opioid use disorder because of poor patient compliance.[12][13] But there is growing research supporting the use of extended release naltrexone given as a once a month injection.

Alcohol Use Disorder – There are three FDA-approved medication treatments for alcohol use disorder: naltrexone, acamprosate, and disulfiram. Although the evidence is not as strong as it is for the treatment of opioid use disorder, these medications do have benefit and are underutilized. Evidence demonstrates that naltrexone, both oral and extended release injection formulations, reduce the risk of relapse to heavy drinking and the frequency of drinking compared with placebo. These are significant benefits even though naltrexone does not significantly improve rates of abstinence. Acamprosate, a pill taken three times daily, reduces drinking frequency and increases the total duration of abstinence.[14] Disulfiram may reduce drinking frequency when dosing is supervised and administered at the recommended maintenance level dose of 250 mg/day,[15] however it has not been shown to be effective when taken unsupervised.[16]

Tobacco Use Disorder – Medication treatments for tobacco use disorder increase the likelihood of successful abstinence. Three FDA-approved medications are varenicline, bupropion, and nicotine replacement therapy (NRT). Varenicline has been shown to be more effective than either NRT or bupropion, which have equal efficacy.[17] Combining different types of NRT (i.e. the patch plus gum) is more effective than any single formulation. Bupropion plus NRT is better than NRT alone.

Case Study: Ohio's Addiction Treatment Program

Like much of the country, the State of Ohio has experienced significant impacts as a result of the opioid epidemic. From 1999 to 2015, the age-adjusted opioid overdose death rate increased from 1.5 per 100,000 to 24.7 per 100,000.[18] This caused a sharp rise in admissions to opioid treatment programs. According to the Substance Abuse and Mental Health Services Administration's (SAMHSA) National Survey of Substance Abuse Treatment Services, the number of clients admitted to treatment for opioid use increased from 5,833 in 2004 to 14,093 in 2014, an increase of 141.6%.[19]

To combat the rise in opioid-abuse use, Ohio launched the Addiction Treatment Program in 2014 which has since received supplemental funding support from the Byrne Justice Assistance Grant (JAG) program.[20] The program is a collaborative effort between Ohio Courts, the Ohio Department of Mental Health and Addiction Services (OhioMHAS), and local Alcohol and Drug Addiction Service Boards that is meant to provide greater access to a continuum of substance use treatment services to justice system involved individuals eligible for diversion into drug treatment courts.[21]

The program was originally piloted in seven counties in Ohio with funding from the state legislature, but the Ohio Office of Criminal Justice Services has since used Byrne JAG funding to expand the program to Clermont County, esablishing a Family Dependency Treatment Court that offers increased access to MAT for program participants.[22] JAG funding is also being used to identify barriers and facilitators of MAT use in halfway houses and community based correctional facilities across the State.[23]

An evaluation of the pilot program suggests that the program is successful: A Case Western Reserve Evaluation of the pilot program found that past-month drug use for participants decreased 69.4% and that crimes committed within the period between intake and the six-month follow-up decreased 86% to 3.7%.[24]

Priority Needs

Substance use disorders are over-represented among populations involved in the criminal justice system. To reduce recidivism and meet medical standards, all individuals in criminal justice settings with opioid, alcohol, or tobacco use disorders should be offered medication treatments as a part of a shared treatment decision making process between clinician and patient. Psychosocial treatments should be offered and made available with pharmacotherapy. Peer support and mutual help, such as Alcoholics Anonymous, Narcotics Anonymous, and SMART Recovery, are important adjuncts.

Within corrections, there is strong evidence supporting treatment with **methadone** or **buprenorphine** for opioid use disorder. Treatment with these agonist medications results in lower rates of heroin use, injection, and syringe-sharing while in a correctional facility and reduces heroin use, mortality, and recidivism following release. Starting these medications pre-release also increases treatment entry and retention in the community.[25]

Extended-release naltrexone has been more recently studied in the post-release period among those on probation, parole, or involved in drug court and has been shown to reduce opioid relapse.[26] There are several different models for how these medications can be utilized within correctional facilities. Examples include the Pennsylvania Department of Corrections, the Massachusetts Department of Corrections, and Montgomery County Corrections. Information on the models used by these jurisdictions can be found here.

Which medication among these three to use in treating opioid use disorders should always be a shared decision between the clinician and patient, which factors in the patient's preferences and *treatment history*.[27]

The ASAM National Practice Guideline for the Use of Medications in the Treatment of Addiction Involving Opioid Use provides guidance and recommendations on the specifics of treatment to people in criminal justice settings and can be accessed here. Continuing buprenorphine and methadone during the entire period of incarceration when treating opioid use disorder improves treatment retention following release compared to those who undergo forced withdrawal.[28] Methadone, buprenorphine and naltrexone can also be successfully started prior to release, and it is recommended that treatment be initiated at least 30 days prior to release.[29]

While all individuals treated with medications should be offered psychosocial treatments as a part of a comprehensive care model, the World Health Organization recommends not denying medication treatment to an individual if he or she does not also want psychosocial therapy.[30]

Funding

Funding sources that can be used to implement best practices regarding MAT include:

- SAMHSA's Substance Abuse Prevention and Treatment Block Grant
- The Center for Substance Abuse Prevention (CASP) Grants to Prevention Prescription

Drug/Opioid Overdose-Related Deaths (PDO)
- Center for Substance Abuse Treatment (CSAT) Targeted Expansion: Medication Assisted Treatment – Prescription Drug and Opioid Addiction (MAT-PDOA)
- BJA's Comprehensive Opioid Abuse Program (COAP)
- DOJ's Drug Court Discretionary Grant Program
- DOJ's Edward Byrne Memorial Justice Assistance Grant (JAG) Program
- DOJ's Residential Substance Abuse Treatment for State Prisoners (RSAT) Program.

For information on these grant programs, as well as others, please visit the SAMHSA website (https://www.samhsa.gov/grants) and the BJA website (https://www.bja.gov/programs.aspx).

Resources and Training

Federal legislation, standards and regulations involving MAT can be found here.

ASAM offers a variety of trainings on MAT, including general overviews of the topic, and the use of MAT for opioid use disorder, alcohol use disorder, and tobacco use disorder, that count as continuing medical education (CME) credits. More information on these trainings can be found here.

SAMHSA also offers trainings and resources on buprenorphine, methadone, naltrexone, and naloxone. Information on these training and resources can be found here.

RECOMMENDATIONS

1. Training on the use and application of ASAM's National Practice Guideline for the Medication for Addiction Involving Opioid Use to people in criminal justice settings and integrating this evidence-based approach into assessment and treatment planning.

2. Ensure treatment within CJS meets the community standards of care set by ASAM and the WHO. In particular, individuals with opioid use disorder should have the opportunity to initiate opioid agonist therapy or antagonist therapy as clinically appropriate, and those already on agonist treatment at the time of detention, incarceration, or participation in drug court should be allowed to continue treatment.

3. Training of health workers working in criminal justice settings to be able to prescribe addiction treatment medications. Training sessions on relevant topics, such as overviews on the use of MAT for various substance use disorders and the proper use of MAT medications, can be found at ASAM's website and SAMHSA's website.

4. Training and technical support on the steps necessary for a correctional facility to be able to deliver opioid agonist therapy. Funding for technical support that expands or enhances access to MAT can be acquired through a variety of grants administered by SAMHSA (https://www.samhsa.gov/grants) and BJA (https://www.bja.gov/programs.aspx).

5. Training on assessment, service planning, placement, continued stay and discharge of people with addiction. The ASAM Criteria - Treatment Criteria for Addictive, Substance-Related, and Co-Occurring Conditions (2013) includes a chapter specifically designed to assist in the application of addiction treatment criteria to people in criminal justice settings.

The American Society of Addiction Medicine *(ASAM), founded in 1954, is a professional society representing more than 3,700 physicians, clinicians and associated professionals in the field of addiction medicine. ASAM is dedicated to increasing access and improving the quality of addiction treatment, educating physicians and the public, supporting research and prevention, and promoting the appropriate role of physicians in the care of patients with addiction. To advance addiction care, ASAM releases policy statements on issues including:*
use of naloxone; measures to counteract prescription drug misuse and diversion; and access to medications to treat opioid addiction. ASAM has also been an ACCME-accredited provider of continuing education since 1977, and is a recognized leader in the planning and presentation of educational events. ASAM's educational programs prepare physicians and clinicians to translate the power of science into high-quality services for patients, their families and communities.
For more information, contact Brendan McEntee, Director, Science and Quality, at:

American Society of Addiction Medicine
4601 N. Park Avenue
Upper Arcade Suite #101
Chevy Chase, MD, 20815

Phone: 301-546-4110
Email: bmcentee@asam.org

[1] American Society of Addiction Medicine. The Definition of Addiction. 2011. www.asam.org/research-treatment/definition-of-addiction

[2] National Institute on Drug Abuse, 2014. Drug Addiction Treatment in the Criminal Justice System. https://www.drugabuse.gov/related-topics/criminal-justice/drug-addiction-treatment-in-criminal-justice-system

[3] Matusow H, Dickman SL, Rich JD, Fong C et al. Medication Assisted Treatment in US Drug Courts: Results from a Nationwide Survey of Availability, Barriers and Attitudes. J Subst Abuse Treat. May 2013; 44(5): 473–480.

[4] National Drug Court Institute. NDCI Drug Court Practitioner Fact Sheets. Alexandria, VA: National Drug Court Institute; 2002. Methadone and other pharmacotherapeutic interventions in the treatment of opioid dependence.

[5] Substance Abuse and Mental Health Administration. Adult Drug Courts and Medication-Assisted Treatment for Opioid Dependence. Summer 2014:8 (1) available online at http://store.samhsa.gov/shin/content//SMA14-4852/SMA14-4852.pdf

[6] Matusow H, Dickman SL, Rich JD, Fong C et al. Medication Assisted Treatment in US Drug Courts: Results from a Nationwide Survey of Availability, Barriers and Attitudes. J Subst Abuse Treat. May 2013; 44(5): 473–480.

[7] BJA Drug Court Technical Assistance Project. American University. FREQUENTLY ASKED QUESTIONS SERIES: Information Inquiry of Drug Courts Using Medication Assisted Treatment (MAT). (March 16, 2015) April 23, 2015 (rev.) Available online at http://jpo.wrlc.org/bitstream/handle/11204/3959/FAQ_Information%20Inquiry%20Regarding%20use%20of%20Medication%20Assisted%20Treatment%20%28MAT%29%20by%20Drug%20Courts.pdf?sequence=3

[8] Binswanger IA, Stern MF, Deyo RA, et al. Release from prison — a high risk of death for former inmates. N Engl J Med 2007;356:157-65.

[9] Belenko, S., & Peugh, J. (2005). Estimating drug treatment needs among state prison inmates. Drug and alcohol dependence, 77(3), 269-281.

[10] Friedmann, P. D., Hoskinson Jr, R., Gordon, M., Schwartz, R., Kinlock, T., Knight, K., ... & O'Connell, D. J. (2012). Medication-assisted treatment in criminal justice agencies affiliated with the criminal justice-drug abuse treatment studies (CJ-DATS): availability, barriers, and intentions. Substance Abuse, 33(1), 9-18.

[11] Wakeman SE, Rich JD. "Pharmacotherapy for Substance Use Disorders within Correctional Facilities." Chapter 46, in Oxford Textbook of Correctional Psychiatry, edited by Trestman, Appelbaum, Metzner. Oxford University Press, 2015.

[12] Bart G. Maintenance Medication for Opiate Addiction: The Foundation of Recovery. J Addict Dis. 2012 Jul; 31(3): 207–225.

[13] Minozzi S, Amato L, Vecchi S, Davoli M, Kirchmayer U, Verster A. Oral naltrexone maintenance treatment for opioid dependence. Cochrane Database of Systematic Reviews 2011, Issue 4. Art. No.: CD001333. DOI: 10.1002/14651858.CD001333.pub4.

[14] Garbutt JC, West SL, Carey TS, Lohr KN, Crews FT. Pharmacological Treatment of Alcohol Dependence: A Review of the Evidence. JAMA. 1999;281(14):1318-1325.

[15] Center for Substance Abuse Treatment. (2009). Incorporating alcohol pharmacotherapies into medical practice.

[16] Garbutt JC, West SL, Carey TS, Lohr KN, Crews FT. Pharmacological Treatment of Alcohol Dependence: A Review of the Evidence. JAMA. 1999;281(14):1318-1325.

[17] Cahill K, Stevens S, Perera R, Lancaster T. Pharmacological interventions for smoking cessation: an overview and network meta-analysis. Cochrane Database Syst Rev. 2013 May 31;5:CD009329. doi: 10.1002/14651858.CD009329.pub2.

[18] Analysis of Centers for Disease Control and Prevention (CDC), National Center for Health Statistics Multiple Cause of Death 1999-2015 on CDC WONDER Online Database, released in 2016.

[19] Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. Treatment Episode Data Set (TEDS): 2004-2014. State Admissions to Substance Abuse Treatment Services. BHSIS Series S-85, HHS Publication No. (SMA) 16-4987. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.

[20] Sladky, Margaret & Singer, Mark. (2015). Ohio MHAS Addiction Treatment Pilot Program: Final Report. Dr. Semi

J. And Ruth W. Begun Center for Violence Prevention, Research and Education at Case Western Reserve University. Available at http://mha.ohio.gov/Portals/0/assets/Initiatives/ATPP/2015-ATP-Begun-Center-Final-Report.pdf. Accessed on April 4, 2017.

[21] *Id.*

[22] OhioMHAS ATP Expansion Memo, Sept. 12, 2016. Available at http://mha.ohio.gov/Portals/0/assets/Initiatives/ATPP/ATP-Expansion-Memo.pdf; and an analysis of Fiscal Year (FY) 2014 Edward Byrne Memorial JAG Program Subawards pulled from USAspending.gov download center. Available at https://www.usaspending.gov/DownloadCenter/Pages/DataDownload.aspx

[23] *Id.*

[24] Sladky, Margaret & Singer, Mark. (2015). Ohio MHAS Addiction Treatment Pilot Program: Final Report. Dr. Semi J. And Ruth W. Begun Center for Violence Prevention, Research and Education at Case Western Reserve University. Available at http://mha.ohio.gov/Portals/0/assets/Initiatives/ATPP/2015-ATP-Begun-Center-Final-Report.pdf. Accessed on April 4, 2017.

[25] Wakeman SE, Rich JD. "Pharmacotherapy for Substance Use Disorders within Correctional Facilities." Chapter 46, in Oxford Textbook of Correctional Psychiatry, edited by Trestman, Appelbaum, Metzner. Oxford University Press, 2015.

[26] Lee J et al. Extended-Release Naltrexone to Prevent Opioid Relapse in Criminal Justice Offenders. N Engl J Med 2016; 374:1232-1242

[27] Kampman K, Jarvis M. American Society of Addiction Medicine (ASAM) National Practice Guideline for the Use of Medications in the Treatment of Addiction Involving Opioid Use. J Addict Med 2015;9: 1–10

[28] Rich JD et al. Methadone continuation versus forced withdrawal on incarceration in a combined US prison and jail: a randomised, open-label trial. Lancet. 2015 Jul 25;386(9991):350-9. doi: 10.1016/S0140-6736(14)62338-2. Epub 2015 May 28.

[29] Magura S, Lee JD, Hershberger J, Joseph H, Marsch L, Shropshire C, Rosenblum A Buprenorphine and methadone maintenance in jail and post-release: a randomized clinical trial. Drug Alcohol Depend. 2009 Jan 1; 99(1-3):222-30

[30] WHO, 2009. http://www.who.int/substance_abuse/publications/opioid_dependence_guidelines.pdf

This project was supported by Grant No. 2014-DP-BX-K003 awarded to American University by the Bureau of Justice Assistance. The Bureau of Justice Assistance is a component of the Office of Justice Programs, which also includes the Bureau of Justice Statistics, the National Institute of Justice, the Office of Juvenile Justice and Delinquency Prevention, the Office for Victims of Crime, and the Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking. Points of view or opinions in this document are those of the authors and do not represent the official position or policies of the U.S. Department of Justice.