An Overview of Medication-Assisted Treatment for the Treatment of Opioid Dependence

According to the Substance Abuse and Mental Health Services Administration (SAMHSA), medication-assisted treatment (MAT) “combines behavioral therapy and medications to treat substance use disorders.”¹ For the treatment of opioid dependence, there are three types of Food and Drug Administration (FDA)-approved medications: naltrexone, buprenorphine, and methadone. All medications should be part of a comprehensive treatment plan that includes counseling and other appropriate support services. Each type of medication is distinguished by characteristics which must be taken into consideration when a physician and patient decide to pursue a MAT course of treatment and are seeking the best option for the individual patient.

Naltrexone:
- Non-narcotic and not a scheduled controlled substance.
- Naltrexone blocks the opioid receptors in the brain, thereby preventing the patient from feeling the euphoric effects of opioids (e.g., heroin).
- Oral and extended-release injectable formulations exist.
- Extended-release naltrexone is a long-acting injectable antagonist medication that can be prescribed by any healthcare provider with prescribing privileges. It is administered to the patient by a healthcare professional once every month (approximately every 4 weeks).
- To avoid precipitating immediate withdrawal, a patient dependent on opioids must first go through opioid detoxification and is recommended to be opioid-free for a minimum of 7-10 days before starting use of naltrexone.

Buprenorphine:
- A Schedule III controlled substance.
- Buprenorphine is a partial agonist with a ceiling effect on opioid activity. Buprenorphine binds to opioid receptors in the brain thereby preventing more potent opioids (e.g., heroin) from binding. This reduces opioid withdrawal symptoms and blunts the effects of illicit opioids.
- Buprenorphine comes in multiple dosage forms, including a daily film or tablet taken by mouth, an implant under the skin, and, more recently, a long-acting injectable.
- Buprenorphine can be prescribed by certified providers in office-based opioid treatment (OBOT) settings. Certification is conducted by SAMHSA, and federal laws and regulations limit the number of patients, at any given time, for whom a provider can prescribe buprenorphine to treat opioid use disorder in OBOTs. This ranges from 30 to 275 patients. Buprenorphine can also be prescribed in Federally-licensed Opioid Treatment Programs (OTPs), in which settings certification and patient limits are not imposed as in OBOTs.
- Patients begin buprenorphine when they are exhibiting clear signs of opioid withdrawal. A full detoxification is not required prior to initiating treatment, but patients will experience withdrawal if they discontinue treatment.

Methadone:
- A Schedule II controlled substance.
- Methadone is a long-acting opioid agonist with no ceiling effect. Methadone reduces opioid withdrawal and blunts the effects of illicit opioids.
- Methadone comes in multiple dosage forms, including liquid, tablets and dispersible tablets. Detoxification is not required prior to initiating treatment, but patients will experience withdrawal if they discontinue treatment.
- When prescribed to treat opioid use disorder, methadone must be dispensed through an OTP. Buprenorphine and naltrexone can also be prescribed in OTPs. Opioid-dependent patients treated with methadone must visit an OTP every day to get their daily dose (unless the patient has been granted the privilege to have take-home doses, such as on weekends).