Opioid Use Disorder
Diagnosis + Treatment

The medical profession now recognizes that OUD is a chronic, relapsing medical illness. Like patients with other chronic illnesses, patients diagnosed with OUD need evidence-based, ongoing care. The gold standard for treatment of OUD employs one of three FDA-approved medications: methadone, buprenorphine or naltrexone. Overwhelming evidence shows that patients receiving MAT have higher treatment retention rates, lower rates of both opioid-related and non opioid-related hospital admissions, and lower morbidity and mortality.[1] While a patient receiving MAT with methadone or buprenorphine will be physiologically dependent, it is important to recognize that opioid *dependence* and opioid *addiction* are different entities; patients may be physically dependent on methadone or buprenorphine, but when maintained on these medications the behaviors and risks seen in addiction are avoided. Patients receiving MAT can lead productive, fulfilling lives while maintained on treatment. In stark contrast, abstinence-oriented treatments have relapse rates of greater than 80% and are ineffective for the treatment of OUD.[2] It is crucial that clinicians refer their patients with OUD to evidence-based care that is effective and safe.

Compass Opioid Stewardship Program Recommends the Following to Clinicians

Screen All Patients for Substance Use Disorders

- An empathic, non-stigmatizing, medically accurate approach to the patient interview is most effective in eliciting an accurate substance use history. The stigma surrounding OUD and other SUDs prevents many patients from providing a full history.
    - While some patients present with a clear diagnosis of OUD, many patients with OUD will conceal their disease. Between 8% and 29% of hospitalized patients are estimated to have a non-alcohol SUD, but only 64% of these patients are identified as having SUD by their hospital treatment teams.[3]
    - The principles and techniques of motivational interviewing can be powerful tools when engaging with patients with SUD. More information about motivational interviewing can be accessed at https://www.integration.samhsa.gov/clinical-practice/motivational-interviewing.
- Providers should consider using the Screening, Brief Intervention, and Referral to Treatment (SBIRT) protocol to identify and address risk for substance misuse and SUD in all patients when prescribing opioids.

- The screening component of an SBIRT protocol can be any validated screening instrument.
- When OUD is suspected, use of an opioid-specific screening tool like the Rapid Opioid Dependence Screen (RODS) should be considered to further evaluate patients for OUD. The RODS can be administered and scored in two to three minutes.
- Clinicians should document the results of a validated SUD screening instrument before prescribing any scheduled substance.

- Laboratory data, medical records and the PDMP are not reliable screening instruments for OUD.
  - Some opioids will not be detected on routine urine toxicology. Urine screening can detect metabolites of morphine and heroin within three days of last use and sometimes longer in chronic users. Not all opioids are detected on routine urine screening with immunoassays. Use of synthetic opioids (oxycodone, hydrocodone, hydromorphone, fentanyl, tramadol) may result in a false negative result; these substances require specific screening. False positive tests can be seen in patients ingesting poppy seeds or taking medications such as quinolones and rifampin.
  - PDMP monitoring should be routinely performed, although many patients with OUD will not be flagged by the PDMP. Among non-medical users of opioids, over 70% acquire opioids from friends or family or illicit purchase.[4]

Clinicians Should Be Well Versed in Recognizing and Diagnosing OUD.

- OUD and SUD more generally are poorly understood by many medical professionals. The gap in knowledge begins in medical school, where SUD is insufficiently addressed. Despite the fact that overdose is the leading cause of death in Americans under the age of 50, as of 2018 fewer than 10% of medical schools had a formal addiction curriculum.[5]
- OUD as defined by the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5), replaces "opioid addiction" and "opioid dependence" as a diagnostic entity. The DSM-5 defines OUD using 11 criteria; in order to be diagnosed with OUD, a patient must meet two of the 11 criteria within a 12-month period.
  - Two to three criteria indicates mild OUD, 4-5 criteria indicates moderate OUD and 6-7 indicates severe OUD.
  - Of note, physiologic dependence represents only two of the 11 criteria used to diagnose OUD. Patients receiving COT for chronic pain often exhibit pharmacological dependence but would not necessarily be considered to have OUD.
- Many medical professionals fail to recognize the distinction between dependence and addiction. Addiction includes both physiologic dependence on a substance and the behaviors that surround the use of that substance. These behaviors include the 4 C's of addiction: loss of **C**ontrol, use despite negative **C**onsequences, **C**ompulsive use and **C**ravings.

MAT with Buprenorphine, Methadone or Naltrexone Is the Evidence-Based Treatment for OUD. Clinicians Should Be Familiar with the Basic Principles of Addiction Treatment with Those Medications.

- Most patients with OUD are not adequately treated. Estimates from 2019 data show less than 35% of all Americans living with OUD underwent treatment in the past year.[6] Additionally, there is no existing data on how many of those individuals are receiving one of the three FDA approved drugs for OUD.[7]
- Like many medical conditions, OUD is a chronic, relapsing disease. Clinicians should provide patient education about OUD and its treatment in an accurate and compassionate manner.
    - Patients with OUD benefit from learning that OUD is a chronic disease in which the brain is changed.
    - Analogies with other chronic diseases like diabetes may help providers communicate the idea that OUD is a chronic disease in which biochemical derangements, behavior and medications contribute to disease management and recovery.
    - Patients and clinicians alike should be educated that relapse in patients with OUD receiving MAT is common, manageable and not a contraindication to future trials of treatment.
- MAT using buprenorphine, methadone or naltrexone is the cornerstone of the treatment of OUD. A Cochrane review found the addition of counseling to medication conferred no added benefit; MAT plays a central, not adjunctive, role in the treatment of OUD.[8]
- Clinicians should be familiar with the three medications approved by the FDA for the treatment of OUD (Table 6). Methadone is a full opioid agonist and buprenorphine is a partial agonist. Naltrexone, in contrast, is a full opioid antagonist.

Table 1 | Characteristics of Medication for Addiction Treatment (MAT)

Characteristics of Medication for Opioid – Addiction Treatment			
Characteristic	**Methadone**	**Buprenorphine**	**Naltrexone**
Brand Names	Dolophine, Methadose	Subutex, Suboxone, Zubsolv	Depade, ReVita, Vivitorl
Class	Agonist (fully activates opioid receptors)	Partial agonist (activates opioid receptors but produces a diminished response even with full occupancy)	Antagonist (blocks the opioid receptors and interferes with the rewarding and analgesic effects of opioids)
Use and Effects	Taken once per day orally to reduce opioid cravings and withdrawal symptoms	Taken orally or sublingually (usually once a day) to relieve opioid cravings and withdrawal symptoms	Taken orally or by injection to diminish the reinforcing effects of opioids (potentially extinguishing the association between the conditioned stimuli and opioid use)
Advantages	High strength and efficacy as long as oral dosing (which sloes brain uptake and reduces euphoria) is adhered to; excellent option for patients who have no response to other medications	Eligible to be prescribed by certified physicians, which eliminates the need to visit specialized treatment clinics and thus widens availability	Not addictive or sedating and does not result in physical dependance; a recently approved depot injection formulation, Vivitrol, eliminates need for daily dosing
Disadvantages	Mostly available through approved outpatient treatment programs, which patients must visit daily	Subutex has measurable abuse liability; Suboxone diminishes this risk by including naloxone, an antagonist that induces withdrawal if the drug is injected	Poor patient compliance (but Vivitrol should improve compliance); initiation requires attaining prolonged (e.g., 7 day) abstinence, during which withdrawal, relapse and early dropout may occur

Source: NEJM, [9]

- MAT for OUD can be maintained for years or be a lifelong drug, and buprenorphine or methadone for addiction treatment should not be prematurely tapered.
    - Patients on appropriate therapeutic doses of methadone or buprenorphine are cognitively normal and function normally in society.
    - MAT is not "substituting one addiction for another." While patients may continue to have a physiologic dependence on buprenorphine or methadone, they do not exhibit the behavioral hallmarks of addiction. MAT substitutes dependence for addiction and in so doing decreases morbidity and mortality while improving quality of life.

"Detox" and Other Abstinence-Oriented Therapies Have Shown to Be Ineffective for the Treatment Of OUD, and Clinicians Are Discouraged from Endorsing These Treatments for OUD.

- "Detox" and abstinence-based therapies for the treatment of OUD have unacceptably high failure rates, with markedly elevated risks of relapse and overdose death.[10]
    - The neurophysiology of opioid dependence is such that willpower is rarely sufficient to tolerate opioid withdrawal or override craving for opioids.
    - Abstinence-oriented treatments have been shown to be not only ineffective for the treatment of OUD but also dangerous, as they increase the risk of overdose when patients relapse. Relapse rates are greater than 80% where treatment is abstinence based.[11,12]
    - A study of IV opioid users comparing detoxification versus buprenorphine treatment highlights the potential harms of abstinence and detoxification care versus MAT. In this cohort, 0% of patients who underwent abstinence-based therapy remained in treatment for over 90 days, and 20% died. In contrast, in the group of patients receiving buprenorphine, 75% remained in treatment at one year, and no patient died.[12]
- Clinicians should educate patients, families and caregivers on the high failure rates of "detox" and abstinence-oriented therapies and address any misconceptions and stigma surrounding MAT.
- If abstinence is desired by the patient, it is best to achieve this over the course of months or years and through a slow, cautious tapering process.
    - It is still unknown if discontinuation is a safe, appropriate goal as several studies show relapse rates consistently surpassing 50% at one month after discontinuation of buprenorphine maintenance therapy.[13–15]
    - The choice to taper and/or discontinue MAT should be a shared decision between the patient and an addiction medicine specialist.

Patients Who Are Receiving Methadone or Buprenorphine While Being Treated for Acute Pain or an Injury Should Be Maintained on Their MAT Regimens.

- All patients receiving methadone or buprenorphine should be continued on their medication even in the setting of acute pain, chronic pain or planned surgical intervention.
    - Continuing these medications improves pain control, reduces the use of additional opioid analgesia[16] and reduces the risk of relapse.[17]
    - Discontinuation of MAT in these settings is strongly discouraged, as it may complicate clinical assessment, increase risk of relapse and increase discomfort during reinduction.[14,17]
- Clinicians should verify a patient's methadone or buprenorphine dose and ensure that the patient continues addiction treatment while receiving care for acute pain or an injury.
- Providers should ensure that the MAT provider is aware of the injury and the treatment plan so that continuity of care is maintained.
- All patients should be counseled that treatment may not alleviate all pain and that manageable pain can be a useful guide to assessment and recovery.

Patients receiving MAT that are injured or experiencing acute pain should be provided adequate analgesia with nonopioid medications and treatments and, if required, opioid agonists.

- Multimodal nonopioid analgesia should be the first line of treatment for all patients, including those on MAT.
- The use of MAT will often alter the management of pain. Patients should be counseled that treatment may not eliminate all pain and that manageable pain can be a useful guide to assessment and recovery.
- Daily dosing of buprenorphine or methadone is generally inadequate for analgesia.
    - The analgesic effects of both buprenorphine and methadone occur early in dosing and then wear off, so splitting doses provides superior analgesia.[18,19] Splitting dosing of buprenorphine or methadone to three times a day can leverage the short-lived analgesia that follows dosing, though this change will only provide modestly improved analgesia.
    - Though buprenorphine is a partial agonist, it does not block the analgesic effects of opioids[13,20] (The naloxone present in combination products [e.g., Suboxone] is added as a deterrent to IV use; it is not bioavailable with sublingual use.)
- Psychosocial support can be offered to any patient with OUD, particularly those in pain.
    - Pain is a biopsychosocial phenomenon, and the importance of addressing the cognitive and affective components of pain cannot be understated. Consultation with a

behavioral health clinician may help patients better manage pain, depression, and anxiety.

- Opioid analgesics may be considered for patients on MAT when nonopioids fail to control pain. Consultation with an addiction medicine and/or pain medicine specialist is recommended.
    - Patients on MAT may have greater sensitivity to pain and will have higher tolerance to opioids; they often require greater-than-typical doses of opioids to manage pain[21]
    - The prevalence of opioid-induced hyperalgesia (OIH) is unknown but likely complicates pain management for some opioid-dependent patients.

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