Medication Assisted Therapy (MAT) for Substance Use Disorders

Effective Integration of MAT and Psychosocial Treatments

Bob werstlein PhD
Medication Assisted Treatment

• Treatment for opioid addiction that uses medication such as methadone or buprenorphine to treat addiction to short acting opioids such as heroin, morphine and codeine, and synthetic opioids including OxyContin and hydrocodone

• Treatment for alcohol use disorders using disulfiram(Antabuse), acamprosate, and naltrexone
Federal Law Title 42 CFR 8-12

• MAT clients must receive counseling such as behavior therapy, medical, vocational, educational and other assessment and treatment services
Statutes Protecting SUD and MAT Clients

- Americans with Disabilities Act (ADA)
- Rehabilitation Act of 1973
- Fair Housing Act (FHA)
- Workforce Investment Act (WIA)
Discrimination of MAT Clients Due To

- lack of knowledge about MAT’s value, effectiveness and safety
- lack of knowledge about the anti-discrimination laws
- Clients do not have the tools necessary to educate employers, landlords, courts, and others about MAT and relevant legal protections
Client Who is Protected

- Has a *current* “physical or mental impairment” that “substantially limits” one or more of that person’s “major life activities,” such as caring for one’s self, working, etc., or
- Has a *record* of such a substantially limiting impairment, or
- Is *regarded* as having such an impairment
Prevalence

• 2013-1.8 million people had an opioid use disorder related to prescription pain relievers
• 517,000 had an opioid use disorder related to heroin use
• 12% of Medicaid beneficiaries over age 18 had a SUD
• 105 people die daily from a drug overdose
• 6,748 seek treatment in ED’s for drug use/abuse
Prevalence

• 10 percent to 20 percent of patients seen in primary care or hospital settings have a diagnosable alcohol use disorder

• 18.0 million people met the criteria for alcohol dependence or abuse in 2013, only a small subset (1.4 million) received any type of formal treatment
Slow MAT Adoption

- Medications are underused in the treatment of alcohol use disorders
- Resistance to the use of MAT persists
- The proportion of heroin admissions with treatment plans that included receiving medication-assisted opioid therapy fell from 35% in 2002 to 28% in 2010
- Misconceptions about substituting one drug for another
Slow MAT Adoption

• Discrimination against MAT patients is also a factor, despite state and federal laws clearly prohibiting it.

• Other factors include lack of training for physicians and negative opinions toward MAT in communities and among health care professionals.
MAT Cost Savings

- Persons with untreated alcohol use disorders use twice as much health care and cost twice as much as those with treated alcohol use disorders, and medications treating SUDs in pregnant women resulted in significantly shorter hospital stays for SUD treatment than drug-addicted pregnant women not receiving MAT (10.0 days vs. 17.5 days)
MAT Cost Savings

• For individuals with alcohol dependence, MAT was associated with fewer inpatient admissions

• Total healthcare costs were 30% less for individuals receiving MAT than for individuals not receiving MAT
MAT Effectiveness

• Improves patient survival
• Increases retention in treatment
• Decreases illicit opiate use and other criminal activity among people with substance use disorders
• Increases patients’ ability to gain and maintain employment
• Improves birth outcomes among women who have substance use disorders and are pregnant
MAT Effectiveness

- Contributes to lowering a person’s risk of contracting HIV or hepatitis C by reducing the potential for relapse
- MAT has proved to be clinically effective and to significantly reduce the need for inpatient detoxification services
- MAT provides a more comprehensive, individually tailored program of medication and behavioral therapy. MAT also includes support services that address the needs of most patients
- The ultimate goal of MAT is full recovery, including the ability to live a self-directed life
MAT for Opioid Use Disorders

- *Methadone* prevents opioid withdrawal symptoms and reduces craving by activating opioid receptors in the brain.

- It tricks the brain into thinking it’s still getting the abused drug. In fact, the person is not getting high from it and feels normal, so withdrawal doesn’t occur.
Methadone

• It lessens the painful symptoms of opiate withdrawal and blocks the euphoric effects of opiate drugs such as heroin, morphine, and codeine, as well as semi-synthetic opioids like oxycodone and hydrocodone.

• Methadone is offered in pill, liquid, and wafer forms and is taken once a day. Pain relief from a dose of methadone lasts about four to eight hours.
Methadone

• It is effective in higher doses, particularly for heroin users, helping them stay in treatment programs longer

• Patients taking methadone to treat opioid addiction must receive the medication under the supervision of a physician. After a period of stability (based on progress and proven, consistent compliance with the medication dosage), patients may be allowed to take it at home between program visits. By law, methadone can only be dispensed through an opioid treatment program (OTP) certified by SAMHSA
Methadone

• The length of methadone treatment should be a minimum of 12 months. Some patients may require treatment for years. Even if a patient feels that they are ready to stop methadone treatment, it must be stopped gradually to prevent withdrawal.

• Methadone can be addictive, so it must be used exactly as prescribed.
Methadone

• Methadone medication is specifically tailored for the individual patient (as doses are often adjusted and readjusted) and is never to be shared with or given to others.

• Other medications may interact with methadone and cause heart conditions.

• Women who are pregnant or breast feeding can safely take it.
Methadone

• Never use more than the amount prescribed, and always take at the times prescribed. If a dose is missed, or if it feels like it’s not working, do not take an extra dose of methadone.

• Do not consume alcohol while taking methadone.

• Be careful driving or operating machinery on methadone
Methadone

• **Call 911** if too much methadone is taken or if an overdose is suspected
• Take steps to prevent children from accidentally taking methadone
• Store methadone at room temperature and away from light
• Dispose of unused methadone by flushing it down the toilet
Methadone Side Effects

- Experience difficulty or shallow breathing
- Feel lightheaded or faint
- Experience hives or a rash; swelling of the face, lips, tongue, or throat
- Feel chest pain
- Experience a fast or pounding heartbeat
- Experience hallucinations or confusion
MAT for Opioid Use Disorders

- **Buprenorphine** reduces or eliminates opioid withdrawal symptoms, including drug cravings, without producing the euphoria or dangerous side effects of heroin and other opioids. It does this by both activating and blocking opioid receptors in the brain.
Buprenorphine

- It is available for sublingual (under-the-tongue) administration both in a stand-alone formulation and in combination with another agent called naloxone. The naloxone in the combined formulation is included to deter diversion or abuse of the medication by causing a withdrawal reaction if it is intravenously injected by individuals physically dependent on opioids.
Buprenorphine

- Buprenorphine is the first medication to treat opioid dependency that is permitted to be prescribed or dispensed in physician offices, significantly increasing treatment access.
- The FDA has approved the following buprenorphine products:
  - Bunavail (buprenorphine and naloxone) buccal film
  - Suboxone (buprenorphine and naloxone) film
  - Zubslov (buprenorphine and naloxone) sublingual tablets
**Buprenorphine**

- Lowers the potential for misuse
- Diminishes the effects of physical dependency to opioids, such as withdrawal symptoms and cravings
- Increases safety in cases of overdose
- It is an opioid partial agonist so it produces effects such as euphoria or respiratory depression but these effects are weaker than those of full drugs such as heroin and methadone
Buprenorphine

• Buprenorphine’s opioid effects increase with each dose until at moderate doses they level off, even with further dose increases. This “ceiling effect” lowers the risk of misuse, dependency, and side effects. Also, because of buprenorphine’s long-acting agent, many patients may not have to take it every day
Buprenorphine Side Effects

- Nausea, vomiting, and constipation
- Muscle aches and cramps
- Cravings
- Inability to sleep
- Distress and irritability
- Fever
Buprenorphine

- Naloxone is added to buprenorphine to decrease the likelihood of diversion and misuse of the combination drug product. When these products are taken as sublingual tablets, buprenorphine’s opioid effects dominate and naloxone blocks opioid withdrawals.
Buprenorphine Treatment Candidates

• Have been objectively diagnosed with an opioid dependency
• Are willing to follow safety precautions for the treatment
• Have been cleared of any health conflicts with using buprenorphine
• Have reviewed other treatment options before agreeing to buprenorphine treatment
Buprenorphine: 3 Treatment Phases

• The Induction Phase is the medically monitored startup of buprenorphine treatment performed in a qualified physician’s office or certified OTP using approved buprenorphine products. The medication is administered when a person with an opioid dependency has abstained from using opioids for 12 to 24 hours and is in the early stages of opioid withdrawal. It is important to note that buprenorphine can bring on acute withdrawal for patients who are not in the early stages of withdrawal and who have other opioids in their bloodstream.
Buprenorphine: 3 Treatment Phases

• The Stabilization Phase begins after a patient has discontinued or greatly reduced their misuse of the problem drug, no longer has cravings, and experiences few, if any, side effects. The buprenorphine dose may need to be adjusted during this phase. Because of the long-acting agent of buprenorphine, once patients have been stabilized, they can sometimes switch to alternate-day dosing instead of dosing every day.
Buprenorphine: 3 Treatment Phases

• The Maintenance Phase occurs when a patient is doing well on a steady dose of buprenorphine. The length of time of the maintenance phase is tailored to each patient and could be indefinite. Once an individual is stabilized, an alternative approach would be to go into a medically supervised withdrawal, which makes the transition from a physically dependent state smoother. People then can engage in further rehabilitation—with or without MAT—to prevent a possible relapse.
From Methadone to Buprenorphine

• Patients can possibly switch but because the two medications are so different, patients may not always be satisfied with the results. Studies indicate that buprenorphine is equally as effective as moderate doses of methadone. However, because buprenorphine is unlikely to be as effective as more optimal-dose methadone, it may not be the treatment of choice for patients with high levels of physical dependency.
MAT for Opioid Use Disorders

- **Naltrexone** is approved for the prevention of relapse in adults following complete detoxification from opioids. It acts by blocking the brain’s opioid receptors, preventing opioid drugs from acting on them and thus blocking the euphoria the user would normally feel and/or causing withdrawal if recent opioid use has occurred. It can be taken orally in tablets or as a once-monthly injection given in a doctor’s office.
Naltrexone

• It comes in a pill form or as an injectable. The pill form of naltrexone (ReVia, Depade) can be taken at 50 mg once per day. The injectable extended-release form of the drug (Vivitrol) is administered at 380 mg intramuscular once a month.

• Patients are warned to abstain from illegal opioids and opioid medication for a minimum of 7-10 days before starting naltrexone. If switching from methadone to naltrexone, the patient has to be completely withdrawn from the opioids.
Naltrexone

• Naltrexone blocks the euphoric and sedative effects of drugs such as heroin, morphine, and codeine. It works differently in the body than buprenorphine and methadone, which activate opioid receptors in the body that suppress cravings. Naltrexone binds and blocks opioid receptors, and is reported to reduce opioid cravings. There is no abuse and diversion potential with naltrexone.
Naltrexone

• If a person relapses and uses the problem drug, naltrexone prevents the feeling of getting high. People using naltrexone should not use any other opioids or illicit drugs; drink alcohol; or take sedatives, tranquilizers, or other drugs.

• Patients on naltrexone may have reduced tolerance to opioids and may be unaware of their potential sensitivity to the same, or lower, doses of opioids that they used to take.
Naltrexone

• If patients who are treated with naltrexone relapse after a period of abstinence, it is possible that the dosage of opioid that was previously used may have life-threatening consequences, including respiratory arrest and circulatory collapse
MAT for Opioid Use Disorders

• **naloxone** is a medication used to prevent opioid overdose deaths. The medication binds to opioid receptors and can rapidly reverse or block the effects of other opioids. In doing so, naloxone can very quickly restore normal respiration to a person whose breathing has slowed or stopped as a result of heroin use or the misuse of prescription opioids.
• Naloxone is a medication approved by the Food and Drug Administration (FDA) to prevent overdose by opioids such as heroin, morphine, and oxycodone. It blocks opioid receptor sites, reversing the toxic effects of the overdose. Naloxone is administered when a patient is showing signs of opioid overdose.
**naloxone**

- The medication is injected intravenously (into a vein), intramuscularly (into a muscle), or subcutaneously (just under the skin).
- Naloxone is also available as an automatic injection device and as a nasal spray.
- It is also added to buprenorphine to decrease the likelihood of diversion and misuse of the combination drug product.
Naloxone Candidates are Those Who:

- Take high doses of opioids for long-term management of chronic pain
- Receive rotating opioid medication regimens
- Have been discharged from emergency medical care following opioid poisoning or intoxication
- Take certain extended-release or long-acting opioid medications
- Are completing mandatory opioid detoxification or abstinence programs
Naloxone

• Naloxone is effective if opioids are misused in combination with other sedatives or stimulants. It is not effective in treating overdoses of benzodiazepines or stimulant overdoses involving cocaine and amphetamines
**Naloxone Side Effects**

- Feeling nervous, restless, or irritable
- Body aches
- Dizziness or weakness
- Diarrhea, stomach pain, or nausea
- Fever, chills, or goose bumps
- Sneezing or runny nose in the absence of a cold
Opioid Overdose Can Happen:

• When a patient misunderstands the directions for use, accidentally takes an extra dose, or deliberately misuses a prescription opioid or an illicit drug like heroin
• If a person takes opioid medications prescribed for someone else
• If a person mixes opioids with other medications, alcohol, or over-the-counter drugs
Opioid Overdose

• The Opioid Overdose Prevention Toolkit – 2014. The Toolkit equips communities and local governments with material to develop policies and practices to help prevent opioid-related overdoses and deaths. It also serves as a foundation for educating and training
MAT for SUD

- The following steps are recommended for initiating treatment with any of the medications approved for the management of moderate or severe alcohol use disorder or the prevention of relapse to alcohol use:
  - Educate the patient about medication-assisted treatment and the specific medication being recommended.
  - Obtain informed consent for medication-assisted treatment.
MAT for SUD

• Complete a medical, psychiatric, and substance use history, including history of cardiovascular disease, diabetes, thyroid disease, seizure disorder, central nervous system impairment, and kidney or liver disease.

• Determine which prescription and over-the-counter medications the patient is taking, including herbal preparations.
MAT for SUD

• Perform a physical examination, baseline liver and kidney function tests, urine toxicology screen, and (in women) a pregnancy test.

• Assess the patient for allergies to the proposed medication and other medications

• For women, assess reproductive status, including current pregnancy or plans to become pregnant or to breastfeed
MAT for Substance Use Disorders

• **Acamprosate** reduces symptoms of protracted withdrawal (i.e., insomnia, anxiety, restlessness, and dysphoria) by normalizing brain systems disrupted by chronic alcohol consumption in adults. It is thought to be more effective in patients with severe alcohol use disorders.
Acamprosate

- Acamprosate is a delayed-release synthetic compound that is indicated for maintaining abstinence in patients who are alcohol dependent and are abstinent at the time treatment is initiated. The FDA approved the medication for the treatment of alcohol use disorder in 2004.
Acamprosate

- Although the precise mechanisms of action of acamprosate are not yet known, they appear to involve beneficial modulation of the glutamatergic neurotransmitter system (including antagonism of the mGlu5 metabotropic glutamate receptor) to counteract the imbalance between the glutamatergic and GABAergic systems associated with chronic alcohol exposure and alcohol withdrawal.
Acamprosate

- Acamprosate is supplied as enteric-coated 333 mg tablets
- Two 333 mg delayed-release tablets are taken by mouth three times a day, with or without food (a lower dose may be effective with some patients and must be used with those with impaired renal function). Pills must be swallowed whole, not crushed or broken.
Acamprosate

• It has been shown to be an effective treatment for dependence on alcohol, with no abuse potential and no significant interaction with medications commonly used to treat substance use and mental disorders.

• It’s efficacy is primarily due to its ability to reduce the negative symptoms associated with the period immediately following alcohol withdrawal.
Acamprosate

• Acamprosate has a good safety profile: no development of tolerance has been reported, there appears to be no risk of overdose, and there is no clinically significant interaction between acamprosate and other medications.

• The most common side effect is diarrhea, which usually is mild and transient, typically disappearing within the first few weeks of treatment.
Acamprosate is Most Effective For:

• Patients who are abstinent from alcohol at the time treatment is initiated and motivated to maintain abstinence. A study found that these patients had better outcomes than did patients who wanted only to reduce their drinking.

• Patients with hepatic disease or those who are being treated with opioids for pain or addiction. Acamprosate is eliminated renally and does not affect endogenous or exogenous opioids.
**Acamprosate is Most Effective For:**

- Patients who are coping with multiple medical issues and who are taking many other medications. There are no clinically significant drug interactions with acamprosate, so it can be a safe medication for many patients taking other medications.
Initiating Treatment With Acamprosate

• Acamprosate typically is initiated 5 days after the cessation of alcohol use. The drug typically reaches full effectiveness in 5 to 8 days.

• Acamprosate therapy should be continued even if a patient relapses to alcohol use.
• Disulfiram inhibits an enzyme involved in the metabolism of alcohol, causing an unpleasant reaction (i.e., flushing, nausea, and heart palpitations) if alcohol is consumed after taking the medication. Compliance can be a problem, but among motivated patients this can be very effective
Disulfiram

• The disulfiram reaction is caused by a blockade of aldehyde dehydrogenase, which causes an accumulation of acetaldehyde when alcohol is ingested.

• Disulfiram blocks dopamine-beta-hydroxylase in the brain, thereby increasing dopamine levels and reducing noradrenaline levels.
Disulfiram

• Disulfiram is manufactured as a white to off-white odorless and almost tasteless powder. It is supplied in 250 mg and 500 mg tablets for oral administration.

• The disulfiram tablet is taken by mouth once a day; it may be crushed and mixed with water, coffee, tea, milk, soft drink, or fruit juice.

• The effectiveness of disulfiram in the prevention and limitation of relapse to alcohol use is supported by multiple studies.
Disulfiram

• The level and quality of supervision a patient receives while taking disulfiram are believed to be important components of its success.

• Use of incentives, patient contracts, the cooperation of a significant other in fostering adherence, the use of regular reminders to the patient, and patient behavioral counseling and social support may enhance disulfiram efficacy by improving adherence.
Disulfiram

• The severity of a disulfiram–alcohol interaction is proportional to the dose of disulfiram and the amount of alcohol consumed. A reaction lasts 30 to 60 minutes in mild cases. In more severe cases, the reaction can continue for several hours or until the alcohol is metabolized.
**Disulfiram**

- **Drug Interactions** - There is evidence that disulfiram interacts with a number of drugs, including benzodiazepines, isoniazid, rifadin (Rifampin®), metronidazole, oral anticoagulants such as warfarin, oral hypoglycemics, phenytoin, and theophylline. The
Patients who are good candidates for treatment with disulfiram include those who are motivated for treatment and want to achieve abstinence, who are medically appropriate, who can receive supervised dosing, and who understand the consequences of drinking alcohol while taking disulfiram.
Initiating Treatment With Disulfiram

- Wait until the patient has abstained from alcohol for at least 12 hours and/or until the breath or blood alcohol level is zero
- Perform an electrocardiogram if clinically indicated (e.g., in a patient with a history of heart disease)
- Confirm the absence of allergy to disulfiram
Initiating Treatment With Disulfiram

• Perform the following tests to confirm abstinence and determine baselines after stabilization: Breath or blood alcohol tests, if clinically indicated to confirm abstinence, Liver function tests, complete blood count and routine chemistries, if clinically indicated, and Kidney function tests: routine blood urea nitrogen, creatinine
MAT for Substance Use Disorders

- **Naltrexone** blocks receptors involved in the rewarding effects of drinking and in the craving for alcohol similarly to how it blocks the effects of opioids. It reduces relapse of heavy drinking behavior and is highly effective in some but not all patients, where varied outcomes could be due to genetic factors. Naltrexone is available in both oral tablet and long-acting injectable preparations.
MAT for Substance Use Disorders

- Extended-release injectable naltrexone is indicated for the treatment of alcohol dependence in patients who have been able to abstain from alcohol in an outpatient setting.
Naltrexone

Naltrexone hydrochloride is a long-acting opioid antagonist. The FDA approved oral naltrexone for the treatment of alcohol dependence or alcoholism in 1994. The low rate of retention and adherence encountered with oral naltrexone led to the development of the extended-release injectable formulation, which the FDA approved for the treatment of alcohol use disorder in 2006.
Naltrexone

• The actual neurobiological mechanisms by which naltrexone induces the reduction in alcohol consumption observed in alcohol-dependent patients is not entirely understood. Preclinical data suggest the involvement of the endogenous opioid system
Naltrexone

• As an antagonist at the mu receptor, naltrexone may reduce the urge to consume alcohol through two mechanisms: 1) Suppression of alcohol-mediated beta-endorphin stimulation of dopamine neurons in the nucleus accumbens and 2) Reduction of beta-endorphin disinhibition of the tonic inhibition of dopamine cells by gamma-aminobutyric acid neurons in the ventral tegmental area
Naltrexone

- Oral naltrexone is marketed in 50 mg tablets
- Extended-release injectable naltrexone was developed by embedding the drug molecule within microspheres composed of a biodegradable copolymer, resulting in release of the active ingredient over a period of approximately 4 weeks
Naltrexone

• Oral naltrexone has been shown to reduce relapse to heavy drinking, which is defined as three or more drinks per day for women and four or more for men. In a systematic review of 11 double-blind, placebo-controlled trials, researchers found that oral naltrexone, when combined with psychosocial treatments, reduced relapse rates at 3 months in patients with alcohol dependence.
Naltrexone

- Short-term outcomes in favor of naltrexone included fewer patients relapsing to alcohol dependence (38% with naltrexone versus 60% with placebo), fewer patients returning to drinking (61% versus 69%), reduced craving for alcohol, and fewer drinking days. Thus, it is especially useful in patients who have a history of drinking relapses.
Naltrexone

• In a 6-month, randomized, double-blind, placebo-controlled trial involving 624 individuals, patients who received a 380 mg dose of extended-release injectable naltrexone had a 25 percent reduction in heavy drinking days compared with those receiving placebo. The effect was greater in males.
Naltrexone

- Naltrexone generally is well tolerated, although it has the potential to precipitate severe opioid withdrawal in patients who are opioid dependent. Common side effects include nausea, vomiting, headaches, dizziness, fatigue, anxiety, and somnolence, with nausea and vomiting the most frequently reported.
Naltrexone

• Potential drug interactions involve cough and cold preparations, antidiarrheal medications, thioridazine, yohimbine, and nonsteroidal anti-inflammatory drugs (which can elevate liver enzymes)

• Oral naltrexone is most effective when prescribed for patients who are highly motivated and/or supported with observed daily dosing and who are abstinent at the time treatment is initiated
**Naltrexone is Effective For:**

- Patients who have a history of opioid use disorder and who are seeking treatment for an alcohol use disorder. Naltrexone reduces the reinforcing effects of and curbs cravings for both opioids and alcohol.

- Patients with intense craving for alcohol during treatment. These individuals may experience greater medication benefit than patients with low levels of craving for alcohol.
Naltrexone is Effective For:

- Patients who have a family history of alcohol use disorder. Both laboratory studies and clinical trials suggest that patients with a family history of alcohol problems may benefit more from treatment with naltrexone than patients who do not have such a history.
Extended release Injectable Naltrexone is Effective For:

• Patients who are abstinent at initiation of treatment. It has not been shown to be effective in patients who are drinking at the time treatment is initiated

• Patients who are seeking treatment for moderate or severe alcohol use disorder while in recovery from co-occurring opioid use disorder. The FDA approved it in 2010 for the prevention of relapse to opioid dependence, following opioid detoxification
Initiating Treatment With Naltrexone

• Advise all patients being treated for alcohol use disorder that it is imperative to notify health care providers of any recent use of opioids or any history of opioid use disorder before starting extended-release injectable naltrexone, to avoid precipitation of opioid withdrawal. A urine drug screen should be conducted to verify abstinence before beginning induction.
Initiating Treatment With Naltrexone

- If patients are to be treated for both alcohol and opioid substance use disorder, they should be off all opioids, including prescription opioid analgesics, for a minimum of 7 to 10 days before starting naltrexone.

- Patients transitioning from opioid agonist therapy to extended-release injectable naltrexone may be vulnerable to precipitation of withdrawal symptoms for as long as 2 weeks.
Initiating Treatment With Naltrexone

• Withdrawal precipitated by administration of an opioid antagonist is different from the experience of spontaneous withdrawal that occurs with discontinuation of opioids in a dependent individual. Withdrawal precipitated by an opioid antagonist may be severe enough to require hospitalization.
Initiating Treatment With Naltrexone

• When discontinuing naltrexone for patients with a history of co-occurring opioid use disorder, advice on opioid overdose prevention should be provided. After a period of abstinence from opioids, tolerance is greatly reduced. This means a previously tolerated amount of opioid could result in opioid overdose
Initiating Treatment With Naltrexone

• Patients discontinuing opioid antagonist therapy in order to receive pain management with opioid analgesics should also be advised of this risk

• Pretreatment with oral naltrexone is not required before induction onto extended-release injectable naltrexone
Treatment Planning and MAT

• Conditions that warrant complete abstinence—individuals who are or may become pregnant, are taking a medication that may cause a harmful drug interaction, or have a medical or psychiatric disorder that is associated with or exacerbated by alcohol use
Treatment Plan Components

- The medication and other therapies to be employed, with a rationale for their use
- Schedules for follow-up office visits and laboratory testing to monitor the patient’s progress and health status
- Reasons for participation in mutual-help groups
- Involvement of family or significant others
Treatment Plan Components

• A plan for treating co-occurring medical or psychiatric conditions and other substance use disorders, including smoking

• Criteria for discontinuing the use of medication or other therapies and referring the patient for a higher level of care, if indicated
Elements of Effective Psycho-education

• Information about alcohol use disorder as a chronic medical disorder
• A description of what to expect from treatment
• Information about the medication and the reasons it was selected, including a discussion of potential risks and benefits and the time to full effect
• For women of childbearing age, explanation of the importance of using an effective birth control method
Elements of Effective Psycho-education

- Clear information about what to do if the patient resumes alcohol use after a period of abstinence
- The importance of informing all physicians and dentists that the patient is taking a medication for alcohol use disorder, to avoid inadvertent drug interactions, especially when surgery (including dental surgery) is being considered
Elements of Effective Psycho-education

• Symptoms that should be reported to the prescribing physician
• A discussion of the importance of concurrent psychosocial treatment and participation in a mutual-help group
• Plans for follow-up care
Assessing the Need for Medically Managed Detoxification

• Symptoms include restlessness, irritability, anxiety, agitation, anorexia, nausea and vomiting, tremor, elevated heart rate, increased blood pressure, insomnia, intense dreaming, and nightmares, poor concentration and impaired memory and judgment, increased sensitivity to sound, light, and tactile sensations, auditory, visual, or tactile hallucinations, delusions (usually of a paranoid or persecutory nature), grand mal seizures, hyperthermia, delirium with disorientation concerning time, place, person, and situation, and fluctuations in level of consciousness.
Assessing the Need for Medically Managed Detoxification

• The most useful clinical factors are the patient’s previous withdrawal experience and the number of previous withdrawals (treated or untreated), with three or four withdrawal episodes indicating an increased likelihood that severe withdrawal symptoms will occur unless adequate medical care is provided.
Clinical Institute Withdrawal Assessment for Alcohol Scale, Revised

- CIWA-Ar- (https://umem.org/files/uploads/1104212257_CIWA-Ar.pdf) guides the clinician through multiple domains of alcohol withdrawal and allows for semi-quantitative assessment of nausea, tremor, autonomic hyperactivity, anxiety, agitation, perceptual disturbances, headache, and disorientation
Clinical Institute Withdrawal Assessment for Alcohol Scale, Revised

• The CIWA-Ar has been found to have high reliability and validity, and it takes only 2 to 5 minutes to complete.
Integrating Pharmacologic and Nonpharmacologic Therapies

- Some patients may respond to psychosocial interventions and others to medication therapy alone, but most patients benefit from a combination of these approaches. The various approaches—medications for moderate or severe alcohol use disorder, professional counseling, and mutual-help groups—are complementary; they address different aspects of SUD: neurobiological, psychological, and social
Integrating Pharmacologic and Nonpharmacologic Therapies

• Psychosocial treatments can enhance adherence to the treatment plan, including use of prescribed medications, and thus improve treatment outcomes. Conversely, to the extent that they reduce craving and help patients maintain abstinence, medications may help patients be more receptive to psychosocial interventions.
Integrating Pharmacologic and Nonpharmacologic Therapies

- The support of a mutual-help group can be helpful to long-term recovery
- The most effective way to treat co-occurring disorders is through integrated treatment
- Integrated treatment assumes that each disorder is primary and in need of simultaneous care
Co-occurring Disorders Treatment

• Naltrexone and acamprosate may be used in combination with psychiatric medications. There are no known drug interactions between those classes of medication and either drug

• If a patient exhibits chronic psychiatric symptoms (e.g., depression, mood lability, psychosis, anxiety), concurrent pharmacologic treatment of the alcohol use disorder and the psychiatric comorbidity should be considered
Co-occurring Disorders Treatment

• If the patient exhibits symptoms of chronic depression or substance-induced depression that limits recovery potential, antidepressant therapy in the absence of contraindications (e.g., a history of mania or hypomania) should be considered.

• Disulfiram is contraindicated in the presence of psychosis because of the risk that it will exacerbate psychotic symptoms.

• Disulfiram may increase blood levels of tricyclic antidepressants and long-acting hepatically metabolized benzodiazepines, thereby increasing the effects of those medications.
Monitoring Progress

• Monitoring patient progress is an ongoing process, during which the patient is assessed on three dimensions: (1) adherence to the treatment plan; (2) ability to maintain abstinence or reduced drinking, duration of periods of abstinence or reduced drinking, and levels of craving; and (3) overall health status and social functioning
Monitoring Progress

• Patients should be asked about the quantity and frequency of their drinking, especially during stressful periods (e.g., holidays, celebrations, major life changes) and asked about current craving and how they felt over the preceding week (by assigning a rating between 1 and 10, with 1 indicating no craving and 10 the most intense craving the patient has ever experienced)
Monitoring Progress

• Identifying patterns of craving over time helps both the patient and the caregiver understand that the pattern of craving fluctuates throughout the day and even over longer periods, indicating the need to continue, adjust, supplement, or discontinue use of a particular medication.
Other Information to be Monitored

• Instruments such as the eight-question Alcohol Urge Questionnaire ([https://www.phenxtoolkit.org/index.php?page=Link=browse.protocoldetails&id=520301](https://www.phenxtoolkit.org/index.php?page=Link=browse.protocoldetails&id=520301))

• Laboratory tests such as the AST, GGT, CDT, EtG, and urine drug screens

• The patient’s record of keeping (or not keeping) appointments for medication monitoring
Other Information to be Monitored

• The frequency of prescription refills, as monitored through the state PDMP\textsuperscript{90} or direct contact with the dispensing pharmacy
• Periodic reports from family members
• Periodic status reports from specialty substance abuse treatment programs, psychiatric referrals, and other psychosocial therapy or support
• Any information about other drugs being used
Treatment Duration

• Although the optimal duration of treatment is not known, some evidence suggests that treatment should continue for at least 6 months to 1 year

• Because alcohol use disorder is a chronic medical problem, patients may need to use medications for long periods of time or may require multiple episodes of pharmacotherapy
Treatment Duration

• Some patients may benefit from treatment with medication over short periods to help them through particularly stressful situations that may elicit cravings for alcohol (e.g., a patient may ask for disulfiram or naltrexone to use when visiting family members who drink excessively)
Reasons to Discontinue Treatment

• The patient has maintained stable abstinence over a sustained period and reports substantially diminished craving for alcohol
• The patient feels ready to discontinue the medication
• The patient is engaged in ongoing recovery activities involving community supports (e.g., attendance at mutual-help group meetings).
Treatment Discontinuation

• The provider should help the patient withdraw from the medication at an appropriate pace and, as indicated, encourage the patient to continue with psychosocial therapies and participation in mutual-help groups.
Resources

• SAMHSA Health Information Network (SHIN) of the United States Substance Abuse and Mental Health Services Administration (SAMHSA): http://www.samhsa.gov/SHIN

• SAMHSA’s Center for Substance Abuse Treatment (CSAT): http://www.csat.samhsa.gov

• CSAT’s Division of Pharmacologic Therapies (DPT): http://www.dpt.samhsa.gov

• CSAT’s Buprenorphine Information Center: http://www.buprenorphine.samhsa.gov
Resources

• National Alliance of Methadone Advocates (NAMA): http://www.methadone.org

• National Alliance of Advocates for Buprenorphine Treatment (NAABT): http://www.naabt.org

• American Association for the Treatment of Opioid Dependence, Inc. (AATOD): http://www.aatod.org
Resources

• ADA http://www.ada.gov/pubs/ada.htm
• http://www.dpt.samhsa.gov
• http://buprenorphine.samhsa.gov
• American Association for the Treatment of Opioid Dependence (AATOD), http://www.aatod.org
• Legal Action Center, http://www.lac.org
Resources

- National Alliance of Advocates for Buprenorphine Treatment (NAABT), http://www.naabt.org
- National Alliance of Methadone Advocates (NAMA) http://www.methadone.org
- Patient Support & Community Education Project (PSCEP) http://www.methadone.net/patient_support_project.htm
Resources

• Medication-Assisted Treatment For Opioid Addiction in Opioid Treatment Programs Inservice Training
  http://store.samhsa.gov/product/Medication-Assisted-Treatment-for-Opioid-Addiction-in-Opioid-Treatment-Programs/SMA09-4341
Resources

• **TAP 30: Buprenorphine: A Guide for Nurses**

• **TIP 40: Clinical Guidelines for the Use of Buprenorphine in the Treatment of Opioid Addiction**
Resources

• TIP 43: Medication-Assisted Treatment for Opioid Addiction in Opioid Treatment Programs
Resources

• General Principles for the Use of Pharmacological Agents to Treat Individuals with Co-Occurring Mental and Substance Use Disorders