

# *Relapse Prevention & Management*

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# Intro



# Learning Objectives:

- ◆ Participants will learn about relapse prevention and maintenance during recovery.
- ◆ Participants will learn about incorporating ASAM dimensions when assessing level of care.
- ◆ Participants will learn about maintenance within the stages of change model.
- ◆ Participants will learn the basic mechanisms of action of anti-cravings medications.
- ◆ Participants will learn the benefits of MAT in relapse prevention.
- ◆ Participants will acquire information on where to find additional information on evidence-based treatment.

# Substance Use Disorder Facts

- ◆ According to the National Survey on Drug Use and Health (NSDUH), 19.7 million American adults (aged 12 and older) battled a substance use disorder in 2017.
- ◆ Almost 74% of adults suffering from a substance use disorder in 2017 struggled with an alcohol use disorder.
- ◆ About 38% of adults in 2017 battled an illicit drug use disorder.
- ◆ That same year, 1 out of every 8 adults struggled with both alcohol and drug use disorders simultaneously.

# Substance Use Disorder Facts

- ◆ In 2017, 8.5 million American adults suffered from both a mental health disorder and a substance use disorder, or co-occurring disorders.
- ◆ Drug abuse and addiction cost American society more than [\\$740 billion](#) annually in lost workplace productivity, healthcare expenses, and crime-related costs.

# Lapse

- ◆ However, it is not as straightforward as it appears. Relapse denotes meaning that goes beyond the dichotomous outcome.
- ◆ Marlatt has identified a lapse as the initial episode of use of a substance after a period of abstinence.

[Douaihy, A., MD, Daley, D. C., PhD, Marlatt, A., PhD, & Donovan, D. M., PhD. \(2014\). Relapse Prevention: Clinical Models and Intervention Strategies. In \*The ASAM principles of addiction medicine\* \(5th ed.\). Philadelphia: Wolters Kluwer Health.](#)

# Relapse

💧 A relapse as a continued use after the initial slip, “a breakdown or setback in the person’s attempt to change or modify any target behavior”.

[Douaihy, A., MD, Daley, D. C., PhD, Marlatt, A., PhD, & Donovan, D. M., PhD. \(2014\). Relapse Prevention: Clinical Models and Intervention Strategies. In \*The ASAM principles of addiction medicine\* \(5th ed.\). Philadelphia: Wolters Kluwer Health.](#)

# Prolapse

- ◆ A prolapse as a behavior that is consistent with getting back on track in the direction of positive behavior change (10,15,16).

[Douaihy, A., MD, Daley, D. C., PhD, Marlatt, A., PhD, & Donovan, D. M., PhD. \(2014\). Relapse Prevention: Clinical Models and Intervention Strategies. In \*The ASAM principles of addiction medicine\* \(5th ed.\). Philadelphia: Wolters Kluwer Health.](#)

# Recovery Capital

- ◆ The study set out to address 3 research questions. The first two questions concerned whether recovery capital prospectively predicts sustained recovery, quality of life satisfaction and stress levels one year later. The main hypothesis that greater levels of baseline recovery capital prospectively predicts better outcomes was generally supported: for the full sample, recovery capital added a significant percentage of explained variance in all three outcome domains after controlling for baseline level of the domains under study, and the full model reached statistical significance for each of the outcomes.

[Laudet, A. B., & White, W. L. \(2008\). Recovery capital as prospective predictor of sustained recovery, life satisfaction, and stress among former poly-substance users. \*Substance use & misuse\*, 43\(1\), 27–54. doi:10.1080/10826080701681473](https://doi.org/10.1080/10826080701681473)

# Recovery Capital

- ◆ The third research question - whether recovery capital differentially predicts F1 outcomes depending on participants' baseline recovery stage? – had not been investigated previously. Findings suggest that the predictive power of recovery capital as defined here does differ across recovery stages and that different domains assume greater or lesser salience as recovery progresses

[Laudet, A. B., & White, W. L. \(2008\). Recovery capital as prospective predictor of sustained recovery, life satisfaction, and stress among former poly-substance users. \*Substance use & misuse\*, 43\(1\), 27–54. doi:10.1080/10826080701681473](#)

# ASAM Dimensions

## AT A GLANCE: THE SIX DIMENSIONS OF MULTIDIMENSIONAL ASSESSMENT

ASAM's criteria uses six dimensions to create a holistic, biopsychosocial assessment of an individual to be used for service planning and treatment across all services and levels of care. The six dimensions are:

1	<b>DIMENSION 1</b>	<b>Acute Intoxication and/or Withdrawal Potential</b> Exploring an individual's past and current experiences of substance use and withdrawal
2	<b>DIMENSION 2</b>	<b>Biomedical Conditions and Complications</b> Exploring an individual's health history and current physical condition
3	<b>DIMENSION 3</b>	<b>Emotional, Behavioral, or Cognitive Conditions and Complications</b> Exploring an individual's thoughts, emotions, and mental health issues
4	<b>DIMENSION 4</b>	<b>Readiness to Change</b> Exploring an individual's readiness and interest in changing
5	<b>DIMENSION 5</b>	<b>Relapse, Continued Use, or Continued Problem Potential</b> Exploring an individual's unique relationship with relapse or continued use or problems
6	<b>DIMENSION 6</b>	<b>Recovery/Living Environment</b> Exploring an individual's recovery or living situation, and the surrounding people, places, and things

[What are the six dimensions of The ASAM Criteria? \(2019, March 15\). Retrieved from https://www.asamcontinuum.org/knowledgebase/what-are-the-six-dimensions-of-the-asam-criteria/](https://www.asamcontinuum.org/knowledgebase/what-are-the-six-dimensions-of-the-asam-criteria/)

# Dimension 1

## Acute Intoxication and Withdrawal

- What risk is associated with the patient's current level of acute intoxication?
- Is there significant risk of severe withdrawal symptoms or seizures, based on the patient's previous withdrawal history, amount, frequency, chronicity and recent discontinuation or significant reduction of alcohol or other drug use.
- Are there current signs of withdrawal?
- Does the patient have supports to assist in ambulatory detoxification, if medically safe?

# Dimension 2

## Bio-Medical Conditions and Complications

- ◆ Are there current physical illnesses, other than withdrawal, that need to be addressed or that may complicate treatment?
- ◆ Are there chronic conditions that affect treatment?

# Dimension 3

## Cognitive, Behavioral, and Emotional Conditions

- ◆ Are there current psychiatric illnesses or psychological, behavioral, emotional or cognitive problems that need to be addressed because they create risk or complicate treatment?
- ◆ Are there chronic conditions that affect treatment?
- ◆ Do any emotional, behavioral or cognitive problems appear to be an expected part of addictive disorder or do they appear to be autonomous?

# Dimension 3 continued

- ◆ Even if connected to the addiction, are they severe enough to warrant specific mental health treatment?
- ◆ Is the patient able to manage the activities of daily living?
- ◆ Can he or she cope with any emotional, behavioral or cognitive problems?

# Dimension 4

## Readiness / Motivation

- ◆ What is the individual's emotional and cognitive awareness of the need to change?
- ◆ What is his or her level of commitment to and readiness for change?
- ◆ What is or has been his or her degree of cooperation with treatment?
- ◆ What is his or her awareness of the relationship of alcohol or other drug use to negative consequences?

# Dimension 5

## Relapse, Continued Use, or Continued Problem

- ◆ Is the patient in immediate danger of continued severe mental health distress and or alcohol or drug use?
- ◆ Does the patient have any recognition of, understanding of, or skills with which to cope with his or her addictive or mental disorder in order to prevent relapse, continued use or continued problems such as suicidal behavior?

# Dimension 5 continued

- ◆ How severe are the problems and further distress that may continue or reappear if the patient is not successfully engaged in treatment at this time?
- ◆ How aware is the patient of relapse triggers, ways to cope with cravings to use, and skills to control impulses to use or impulses to harm self or others?

# Dimension 6

## Recovery Environment

- ◆ Do any family members, significant others, living situations or school or work situations pose a threat to the patient's safety or engagement in treatment?
- ◆ Does the patient have supportive friendships, financial resources, or educational/ vocational resources that can increase the likelihood of successful treatment?

# Dimension 6 continued

- ◆ Are there legal, vocational, social service agency or criminal justice mandates that may enhance the patient's motivation for engagement in treatment?
- ◆ Are there transportation, childcare, housing or employment issues that need to be clarified and addressed?

# Interactions across Dimensions in Assessing for Level of Care

- ◆ The ASAM Criteria function best when individuals are assessed in each dimension independently and also in terms of the interaction across dimensions. For example, when assessing an individual for severity, a history of moderate or severe withdrawal without any current intoxication or withdrawal or current intoxication without a history of significant withdrawal problems should generate a lesser level of concern than a combination of a history of moderate or severe withdrawal with current symptoms of intoxication or withdrawal.

# Interactions across Dimensions in Assessing for Level of Care

- ◆ In reality, there is considerable interaction across dimensions. For example, significant problems with readiness to change (Dimension 4), coupled with a poor recovery environment (Dimension 6) or moderate problems with relapse or continued use (Dimension 5), may increase the risk of relapse. Another commonly seen combination involves problems in Dimension 2 (such as chronic pain that distracts the patient from the recovery process) coupled with problems in Dimensions 4, 5, or 6.

# Interactions across Dimensions in Assessing for Level of Care

- ◆ The converse also is true. For example, problems with relapse potential (Dimension 5) may be offset by a high degree of readiness to change (Dimension 4) or a very supportive recovery environment (Dimension 6). The interaction of these factors may result in a lower level of severity than is seen in any dimension alone.
- ◆ The lesson here is that assessments are most accurate when they take into account all of the factors (dimensions) that affect each individual's receptivity and ability to engage in treatment at a particular point in time.

# Stages of Change

Change is a process that unfolds over time through a series of stages:

- ◆ precontemplation,
- ◆ contemplation,
- ◆ preparation,
- ◆ **action,**
- ◆ **maintenance, and**
- ◆ termination.

# Action

- ◆ A stage in which the individual has made specific, overt modifications in his or her lifestyle within the preceding 6 months. Because action is observable, behavior change often has been equated with action. But in the Transtheoretical Model (TTM), action is only one of six stages (3). In this model, not all modifications of behavior count as action. An individual must attain a criterion that scientists and professionals agree is sufficient to reduce the risk of disease. In smoking, for example, only total abstinence counts. With alcoholism and alcohol abuse, many believe that only total abstinence can be effective, whereas others accept controlled drinking as an effective action.

# Maintenance

- ◆ A stage in which the individual is working to prevent relapse but does not need to apply change processes as frequently as one would in the action stage. Person is less tempted to relapse and is increasingly confident that he or she can sustain the changes made. Temptation and self-efficacy data suggest that maintenance lasts from 6 months to about 5 years.

# Maintenance

- ◆ One of the common reasons for early relapse is that the individual is not well prepared for the prolonged effort needed to progress to maintenance. Many persons think the worst will be over in a few weeks or a few months. If, as a result, they ease up on their efforts too early, they are at great risk of relapse.

# Maintenance Management

- ◆ To prepare such individuals for what is to come, they should be encouraged to think of overcoming an addiction as running a marathon rather than a sprint. They may have wanted to enter the the Boston Marathon, but they know they would not succeed without preparation and so would not enter the race. With some preparation, they might compete for several miles but still would fail to finish the race. Only those who are well prepared could maintain their efforts. Using the Boston Marathon metaphor, people know they have to be well prepared if they are to survive.

# Maintenance Management

- ◆ The best evidence available suggests that most relapses occur at times of emotional distress. It is in the presence of depression, anxiety, anger, boredom, loneliness, stress, and distress that humans are at their emotional and psychological weak point.

# Maintenance Strategies

- 💧 Talking with others about one's distress is a means of seeking support that can help prevent relapse.
- 💧 Exercise. Physical activity helps manage moods, stress, and distress. Also, 60 minutes per week of exercise can provide a recovering person with more than 50 health and mental health benefits. Exercise thus should be prescribed to all sedentary patients with addictions.

# Maintenance Strategies

- ◆ Another healthy alternative is some form of deep relaxation, such as meditation, yoga, prayer, massage, or deep muscle relaxation.
- ◆ Letting the stress and distress drift away from one's muscles and one's mind helps the patient move forward at the most tempting of times.

# Medication-Assisted Treatment

- ◆ The Food and Drug Administration (FDA) has approved medications for treating alcohol use and opioid use disorders.
- ◆ Primary function of medications are either 1) to reduce cravings/urge to use alcohol or opioids, or 2) to block the effects of substances at receptors in the brain.
- ◆ Medications are an effective adjunct to psychosocial treatment but may be used well into recovery to prevent relapse.

TABLE 1: Medications Approved for Use in the Treatment of Alcohol Use Disorder<sup>†</sup>

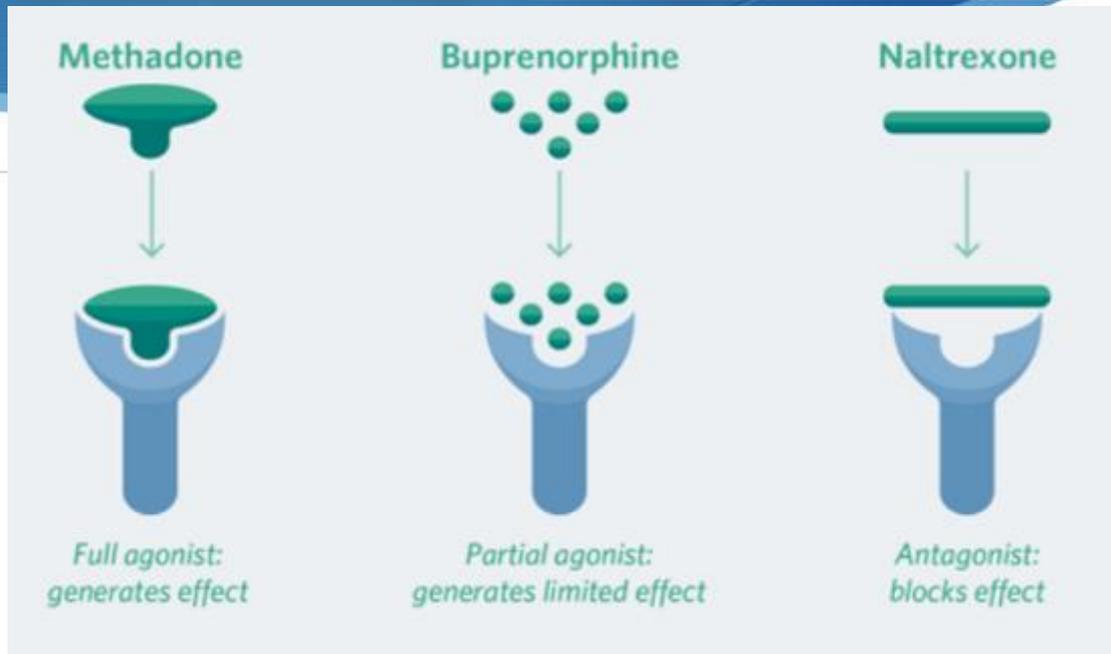
	Disulfiram	Naltrexone oral and extended release injectable formulations	Acamprosate delayed-release tablets
<b>Frequency of Administration</b>	Daily	Daily (oral) or monthly (extended-release injectable)	Three times per day
<b>Principal Action</b>	<p><b>When</b> taken in combination with alcohol, causes a significant physical reaction, involving nausea/vomiting, flushing, and heart palpitations. The knowledge that such reactions are likely if alcohol is consumed acts as a deterrent to drinking.</p> <p><b>Given</b> sufficient amounts of alcohol in the patient's system, more severe reactions may occur, such as respiratory depression, cardiovascular collapse, arrhythmias, myocardial infarction, acute congestive heart failure, unconsciousness, convulsions, and death.</p>	<p><b>Blocks</b> opiate receptors that are involved in the rewarding effects of drinking and craving for alcohol.</p> <p><b>Extended-release</b> injectable naltrexone is administered every 4 weeks, thereby minimizing opportunities for nonadherence, as compared with daily oral ingestion. The monthly injection also produces a more consistent and predictable blood level of the drug, because the depot injection bypasses first-pass metabolism.</p>	<p><b>Is</b> thought to reduce symptoms of protracted abstinence by counteracting the imbalance between the glutamatergic and GABAergic systems associated with chronic alcohol exposure and alcohol withdrawal.</p>
<b>Clinical Uses/Ideal Candidates</b>	<p><b>Candidates</b> include patients dependent on alcohol who have completed alcohol withdrawal. Ideally, candidates are committed to abstinence and willing to take disulfiram under the supervision of a family member or treatment program.</p>	<p><b>Oral</b> naltrexone and extended-release injectable naltrexone are indicated for the treatment of alcohol dependence in patients who can abstain from alcohol in an outpatient setting before the initiation of treatment. Naltrexone has not been shown to be effective in patients who are drinking at treatment initiation.</p> <p><b>Both</b> formulations may have the greatest benefit in patients who can discontinue drinking on their own for several days before treatment initiation.</p> <p><b>Extended-release</b> injectable naltrexone is also indicated for the prevention of relapse to opioid dependence following detoxification.</p>	<p><b>Acamprosate</b> is indicated for the maintenance of abstinence in patients who are dependent on alcohol and are abstinent at treatment initiation.</p> <p><b>The</b> efficacy of acamprosate in promoting abstinence has not been demonstrated in subjects who have not completed detoxification or who have not achieved alcohol abstinence before beginning treatment.</p>

# Anti-craving Medications

- ◆ Patients with a strong connection to Alcoholics Anonymous may not be motivated to take such medications because they believe that medications are not appropriate for sobriety; however, Alcoholics Anonymous produces a pamphlet that is quite supportive of both psychiatric care and the use of psychiatric medications.

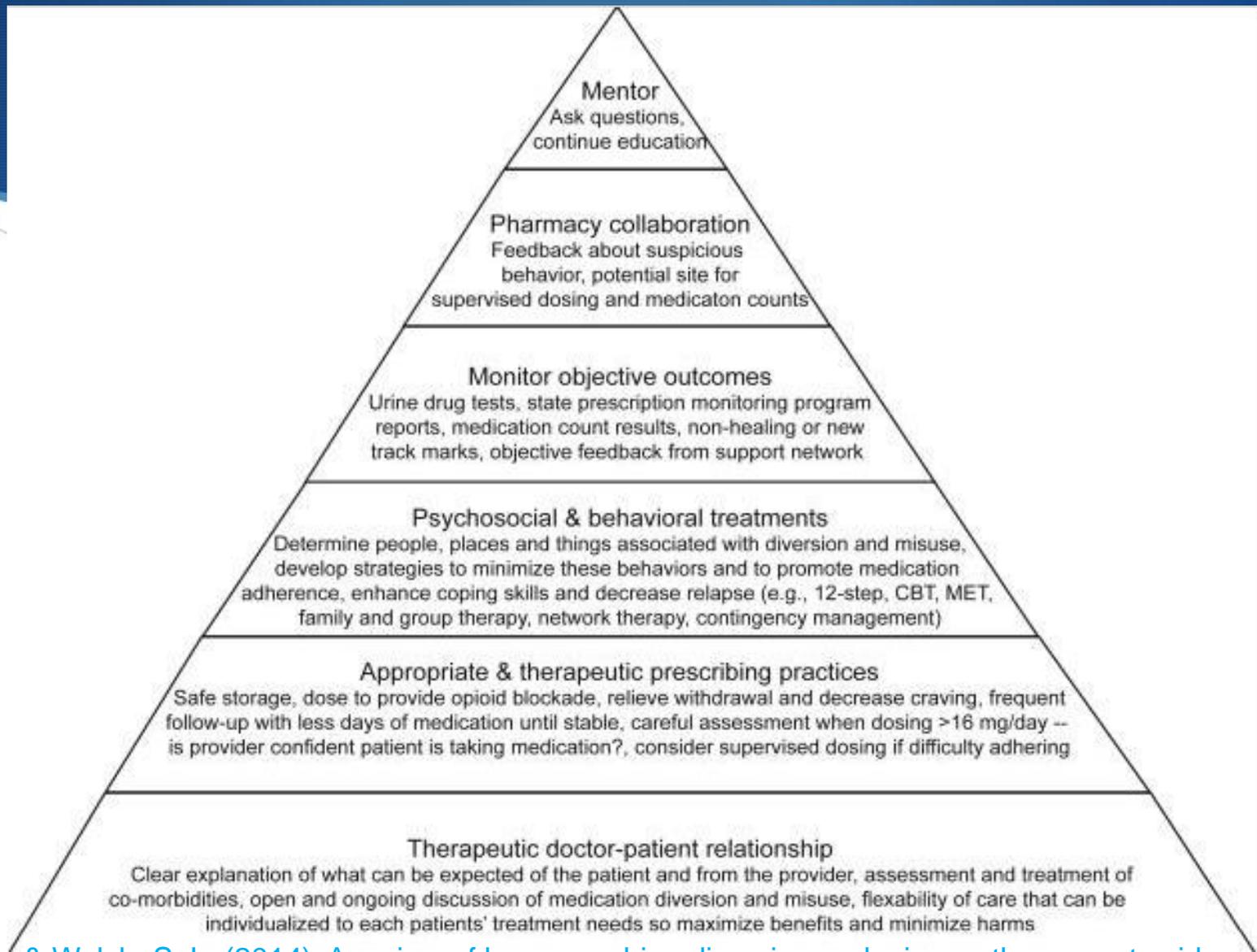
# Medication Assisted Treatment (MAT) for Opiate Use Disorder (OUD)

- 💧 Methadone
- 💧 Buprenorphine
- 💧 Naltrexone



- 💧 An effective treatment for opioid use disorder includes MAT which combines behavioral therapy and medications to treat the whole client.

# Components of Outpatient OUD Treatment



[Lofwall, M. R., & Walsh, S. L. \(2014\). A review of buprenorphine diversion and misuse: the current evidence base and experiences from around the world. \*Journal of addiction medicine\*, 8\(5\), 315–326.](#)

[doi:10.1097/ADM.0000000000000045](https://doi.org/10.1097/ADM.0000000000000045)

# Opioid Use Disorder and Medication-Assisted Treatment (MAT)

## Which Medication is Right?

### Medications Approved in the Treatment of Opioid Use Disorder\*

#### ► Frequency of Administration

Extended Release Injectable Naltrexone	Methadone	Buprenorphine
Monthly <sup>†</sup>	Daily	Daily (also alternative dosing regimens)

#### ► Route of Administration

Extended Release Injectable Naltrexone	Methadone	Buprenorphine
Intramuscular (IM) injection into the gluteal muscle by a physician or other health care professional. <sup>†</sup>	Orally as liquid concentrate, tablet or oral solution of diskette or powder.	Oral tablet or film is dissolved under the tongue.

Adapted from *Clinical Use of Extended-Release Injectable Naltrexone in the Treatment of Opioid Use Disorder: A Brief Guide* (SMA14-4892R) <https://store.samhsa.gov/system/files/sma14-4892r.pdf>

# Opioid Use Disorder and Medication-Assisted Treatment (MAT)

## Which Medication is Right?

### ► Clinical Uses/Ideal Candidates

Extended Release Injectable Naltrexone	Methadone	Buprenorphine
<p>Prevention of relapse to opioid use disorder following opioid detoxification; studies suggest benefits for patients who are experiencing increased stress or other relapse risks (e.g., visiting places of previous drug use, loss of spouse, loss of job).</p> <p>Appropriate for patients who have been detoxified from opioids and who are being treated for a co-occurring alcohol use disorder.</p> <p>Extended-release naltrexone should be part of a comprehensive management program that includes psychosocial support.</p> <p>Other good candidates include persons with a short or less severe addiction history or who must demonstrate to professional licensing boards or criminal justice officials that their risk of opioid use is low.</p>	<p>Detoxification and maintenance treatment of opioid addiction.</p> <p>Patients who are motivated to adhere to the treatment plan and who have no contraindications to methadone therapy.</p> <p>Methadone should be part of a comprehensive management program that includes psychosocial support.</p>	<p>Treatment of opioid dependence.</p> <p>Patients who are motivated to adhere to the treatment plan and who have no contraindications to buprenorphine therapy.</p> <p>Buprenorphine should be part of a comprehensive management program that includes psychosocial support.</p>

# Methadone

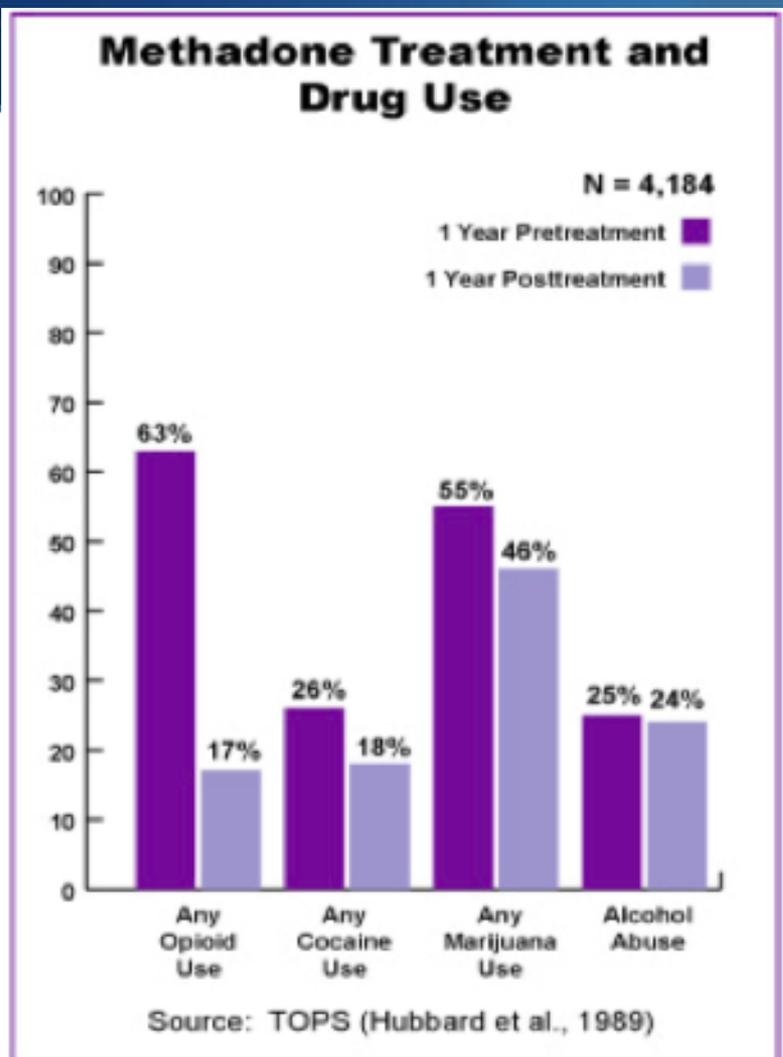
- ◆ a synthetic *opioid agonist* analgesic drug that is similar to morphine in its effects but longer acting, used as a substitute drug in the treatment of morphine and heroin addiction.
- ◆ Patients' illicit opioid use declines, often dramatically, during methadone maintenance treatment. However, adequate methadone dosage and basic psychosocial services are essential for treatment effectiveness.

# Methadone

Research has demonstrated that methadone maintenance treatment is an effective treatment for heroin and prescription narcotic addiction when measured by:

- ◆ Reduction in the use of illicit drugs
- ◆ Reduction in criminal activity
- ◆ Reduction in needle sharing
- ◆ Reduction in HIV infection rates and transmission
- ◆ Cost-effectiveness
- ◆ Reduction in commercial sex work
- ◆ Reduction in the number of reports of multiple sex partners
- ◆ Improvements in social health and productivity
- ◆ Improvements in health conditions
- ◆ Retention in addiction treatment
- ◆ Reduction in suicide
- ◆ Reduction in lethal overdose

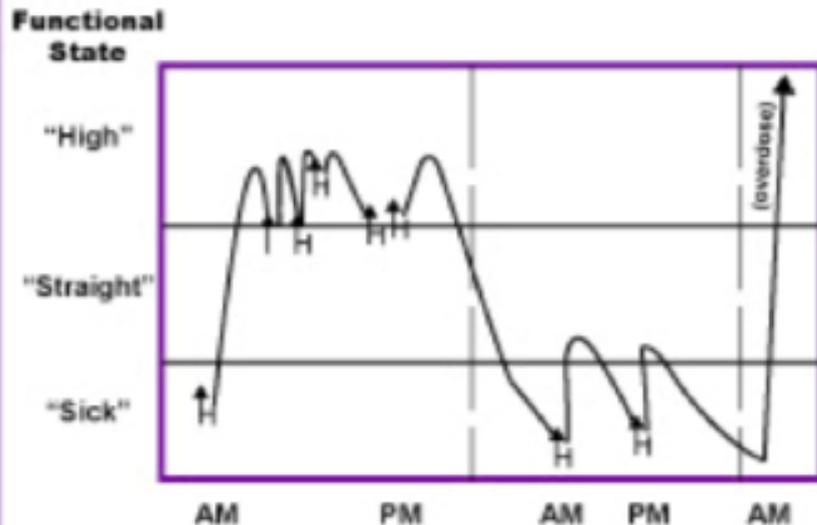
# Methadone



- “Any opioid use” declined from 63% pretreatment to 17% 1-year post treatment. This was the most dramatic decline. “Any cocaine use” declined from 26% to 18%. “Any marijuana use” declined from 55% pretreatment to 46%, 1-year post treatment. Alcohol abuse remained almost steady, declining slightly from 25% to 24% .

# The Effects of Opioids (Heroin or Prescription Narcotics) and Methadone on Functional State

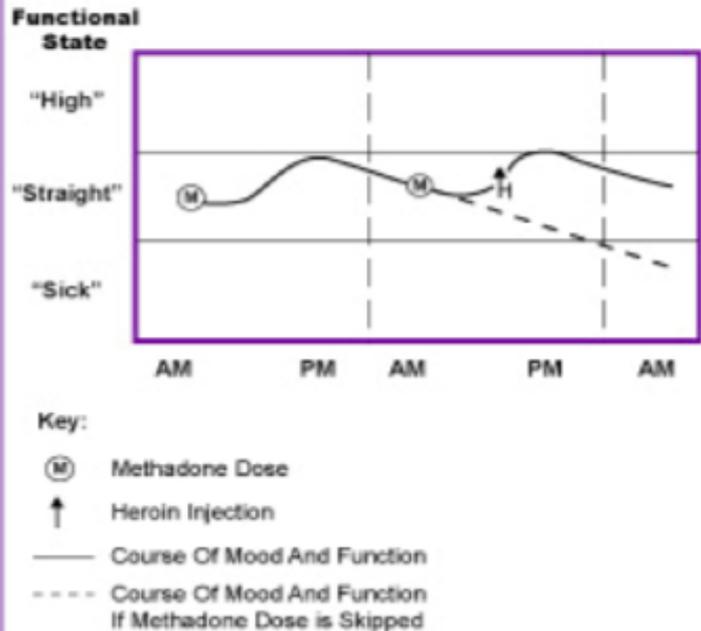
## Heroin Addiction: A Typical Addict



Illustrates a typical day for a person who is opioid dependent. Note that the opioid-dependent person generally uses opioids several times each day. Each use causes an elevation in mood: the user feels “high.” This high is followed by a rapid decline in mood and functional state.

# The Effects of Opioids (Heroin or Prescription Narcotics) and Methadone on Functional State

## Former Addict Treated With Methadone Maintenance



A single oral dose of methadone in the morning promotes a relatively steady state of mood and function. This graph also demonstrates that use of an opioid (injection of heroin) during methadone treatment has a less intense effect on mood and function than an injection of heroin in active users who are not in methadone treatment. The dotted line predicts the course of a patient's mood and function if a dose of methadone is omitted. Dole, Nyswander, and Kreek (1966) found that the decline in mood and function is gradual, not steep.

# Buprenorphine

💧 Subutex (buprenorphine)



💧 Suboxone (buprenorphine-naloxone)



# Buprenorphine and Methadone comparison

- ◆ Buprenorphine is a partial agonist at the opioid receptor vs. a full agonist such as methadone or heroin.
- ◆ This means that buprenorphine has a unique pharmacologic profile leading to a lower likelihood of overdose or respiratory depression. Like methadone, buprenorphine has the ability to suppress opioid craving and withdrawal, block the effects of self-administered opioids, retain patients in treatment, and decrease illicit opioid use.
- ◆ Because it is a partial agonist, buprenorphine maintains patients in a milder degree of physical dependence and is associated with milder withdrawal syndrome following cessation.

# Buprenorphine and Methadone comparison

- ◆ Methadone and buprenorphine are medications that permit individuals with addiction to function normally within their families, jobs, and communities. While treatment with methadone is more established, it requires daily visits to an Opioid Treatment Programs (OTP). Not all individuals who could benefit from methadone treatment live within easy travelling distance of an OTP. Furthermore, the requirement for daily visits can interfere with jobs and other important activities.

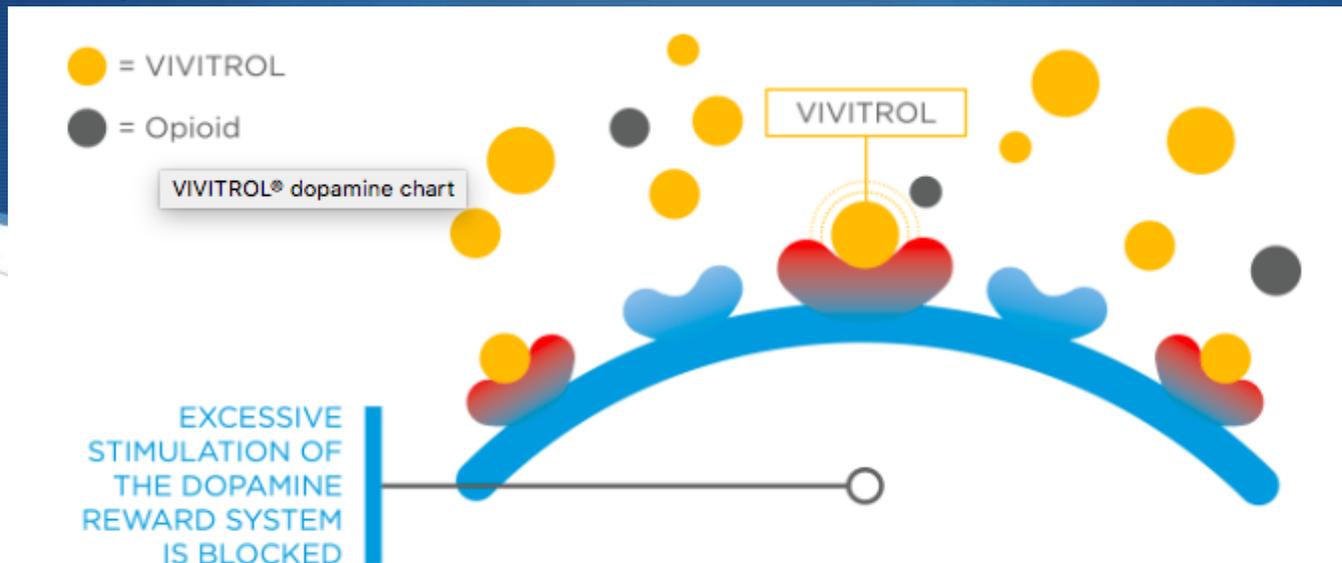
# Reasons for diversion while in Outpatient opioid addiction treatment with sublingual buprenorphine pharmacotherapy (OBOT)

**TABLE 1**

Patient reasons for medication diversion and misuse while in OBOT

<b>Reasons for diversion</b>	<b>Reasons for misuse</b>
Peer pressure (e.g., expectation that medication is shared, may be facilitated by excessively high daily doses and large supplies)	Habit (e.g., history of IV or intranasal drug use increases risk of injecting or snorting medication, respectively)
Help addicted friend or family member	Perceived under-dosing
Make money (e.g., pay off bad debt, pay for living expenses/medical fees, to buy preferred opioid for misuse)	Relieve opioid withdrawal, craving and/or treat addiction
	Achieve positive effects (e.g., get high, increased energy)
	Relieve negative states (e.g., pain, anxiety, depression)

# Injectable Naltrexone (Vivitrol)



**VIVITROL is an antagonist that blocks opioid molecules from attaching to opioid receptors.**

Antagonists attach to opioid receptors, but do not cause the release of dopamine. They are non-addictive and do not lead to physical dependence. VIVITROL blocks opioid receptors in the brain for one month at a time, helping patients to prevent relapse to opioid dependence, following opioid detox, while they focus on counseling. Patients must be opioid-free before starting VIVITROL.

# Injectable Naltrexone Progression

- There is no set number of injections that lead to success:
  - Physicians/medical staff determine the length of MAT and how many injections are necessary for harm reduction and recovery
    - May extend beyond participation in psychosocial treatment programs to help stabilize recovery.

# Injectable Naltrexone Progression

Data thus far shows that “positive habituation” of taking medication and receiving treatment/support services for at least 4 to 6 months leads to better outcomes:

- Become more employment-ready or employable with longer lengths of stability
- Significant reduction or elimination of cravings/urge to use – one of the biggest determinants of relapse
- Improve retention and follow-through in residential and outpatient treatment/support

Recent JAMA study showed comparable results from using injectable naltrexone versus buprenorphine/naloxone.

# Relapse rates compared to other disease processes

Early studies and reviews of the outcome literature reported rates of relapse of more than 70% among alcohol- and drug-abusing patients participating in treatment. Miller and Hester reviewed more than 500 alcoholism outcome studies and reported that three-fourths of subject's relapse within 1 year. More recently, McLellan et al. reviewed more than a hundred clinical trials of drug addiction treatments and reported that most studies showed significant reductions in substance use, improved personal health, and reduced social pathology.

# Relapse rates compared to other disease processes

In addition, they noted that in 1-year post discharge follow-up studies, 40% to 60% of individuals discharged from treatment were continuously abstinent, and 15% to 30% had not used substances addictively. Those positive outcomes are similar to those seen with other chronic medical illnesses such as diabetes type 2, hypertension, and asthma. Also as with other chronic disorders, persons with SUDs have difficulty adhering to treatment, sometimes drop out early, and may relapse on substance use.

# Relapse rates compared to other disease processes

Numerous publications by the National Institute on Drug Abuse and the Center for Substance Abuse Treatment and the 2000 report to Congress by the National Institute on Alcohol Abuse and Alcoholism describe positive outcomes for substance abusers who have received treatment, including reduced rates of substance use, reduced medical costs, reduced rates of criminal behaviors, improved psychological functioning, improved employment rates, improved family productivity, and reduced suicidal thoughts and behaviors (32,54,55,56,57). Patients who remain in treatment the longest generally have the best outcomes (58,59).

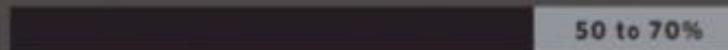
## Comparison of Relapse Rates Between Substance Use Disorders and Other Chronic Illnesses

Percentage of Patients Who Relapse

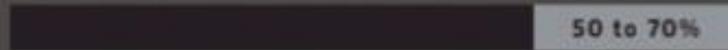
### SUBSTANCE USE DISORDERS



### HYPERTENSION



### ASTHMA



Relapse rates for patients with substance use disorders are compared with those suffering from hypertension and asthma. Relapse is common and similar across these illnesses (as is adherence to medication). Thus, drug addiction should be treated like any other chronic illness, with relapse serving as a trigger for renewed intervention.

*Source: McLellan et al., JAMA, 284:1689–1695, 2000.*

# *An 8 Year Perspective on the Relationship Between the Duration of Abstinence and Other Aspects of Recovery*

- ◆ A cohort of 1,326 adults, with an 85% participation rate, were recruited between 1996 and 1998 from sequential admissions to a network of 22 substance abuse treatment programs (10 outpatient drug-free programs, 5 IOP programs, 3 methadone maintenance program, 2 short-term inpatient programs, 1 long-term inpatient program and one halfway house).
- ◆ Follow up interviews were completed with 94% to 97% of the living participants at six months and 2, 3, 4, 5, 6, 7, and 8 years post-study enrollment (99% have one or more interviews, 80% have all eight follow-up interviews).

# *An 8 Year Perspective on the Relationship Between the Duration of Abstinence and Other Aspects of Recovery*

- ◆ Of the 1,162 participants (96% of those living from the original sample) who completed their eight-year review 661 (57%) were dropped because they were currently using based on self-reported use in the past month or a positive urine test.
- ◆ The analysis here focus on the remaining 501 (43%) who were abstinent at least a month.
- ◆ *232 (46% of 501) with 1-12 months of abstinence, 127 (25%) with one year to three years of abstinence, 65 (13%) with three years to five years, and 77 (15%) with five or more years of abstinence.*

[Dennis, M.L., Foss, M.A., and Scott, C.K. \(2007\). An eight-year perspective on the relationship between the duration of abstinence and other aspects of recovery. \*Evaluation Review\*, 31\(6\), 585-612.](#)

# Teach-back Study

- Teach-back method is very popular methods clinicians utilize in an attempt to reinforce education to patients. In a recent systematic review in 2016 revealed improved outcomes in disease-specific knowledge, adherence, self-efficacy and the inhaler technique. There was a positive but inconsistent trend also seen in improved self-care and reduction of hospital readmission rates.

[Dinh, H. T., Bonner, A., Clark, R., Ramsbotham, J., & Hines, S. \(2016\). The effectiveness of the teach-back method on adherence and self-management in health education for people with chronic disease: A systematic review. The JBI Database of Systematic Reviews and Implementation Reports, 14\(1\), 210. doi:10.11124/jbisrir-2016-2296](#)

# Physician Health Programs and Addiction among Physicians

- The available research about addiction among physicians and physician health programs (PHPs) is extensive and has been well documented. Physicians are a convenient population to study due to accessibility before and after treatment and can articulate about their disease. Research on physician addiction reveals the natural course of addiction in a highly regulated and monitored population.

[Earley, P. H., MD, FASAM. \(2015\). Physician Health Programs and Addiction among Physicians. In \*The ASAM principles of addiction medicine\*. Philadelphia: Wolters Kluwer Health.](#)

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- Although physicians differ from the general population in terms of education, income, and regulatory oversight the highly structured and consistent treatment model developed for the care of this population does provide clues for treatment improvement. DuPont et al. have suggested that a model that utilizes the PHP experience should be an integral part of the **gold** standard for effective treatment.

# References

Alderks, C. E. (2017). Trends in the Use of Methadone, Buprenorphine, and Extended-Release Naltrexone at Substance Abuse Treatment Facilities: 2003-2015 (Update). Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/29200242>

Dennis, M.L., Foss, M.A., and Scott, C.K. (2007). An eight-year perspective on the relationship between the duration of abstinence and other aspects of recovery. *Evaluation Review*, 31(6), 585-612.

Dinh, H. T., Bonner, A., Clark, R., Ramsbotham, J., & Hines, S. (2016). The effectiveness of the teach-back method on adherence and self-management in health education for people with chronic disease: A systematic review. *The JBI Database of Systematic Reviews and Implementation Reports*, 14(1), 210. doi:10.11124/jbisrir-2016-2296

Douaihy, A., MD, Daley, D. C., PhD, Marlatt, A., PhD, & Donovan, D. M., PhD. (2014). Relapse Prevention: Clinical Models and Intervention Strategies. In *The ASAM principles of addiction medicine* (5th ed.). Philadelphia: Wolters Kluwer Health.

# References continued

[Laudet, A. B., & White, W. L. \(2008\). Recovery capital as prospective predictor of sustained recovery, life satisfaction, and stress among former poly-substance users. \*Substance use & misuse\*, 43\(1\), 27–54. doi:10.1080/10826080701681473](#)

[Lofwall, M. R., Martin, J., Tierney, M., Fatséas, M., Auriacombe, M., & Lintzeris, N. \(2014\). Buprenorphine diversion and misuse in outpatient practice. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/25221985>](#)

[Lofwall, M. R., & Walsh, S. L. \(2014\). A review of buprenorphine diversion and misuse: the current evidence base and experiences from around the world. \*Journal of addiction medicine\*, 8\(5\), 315–326. doi:10.1097/ADM.0000000000000045](#)

[Mee-Lee, D., MD, & Shulman, G. D., MA, MAC, FACATA. \(2015\). The ASAM Criteria and Matching Patients to Treatment. \*In The ASAM principles of addiction medicine\*. Philadelphia: Wolters Kluwer Health.](#)

[Mee-Lee, D. \(2013\). The ASAM criteria: Treatment criteria for addictive, substance-related, and co-occurring conditions. Carson City, NV: The Change Companies.](#)

# References continued

National Institute on Drug Abuse. (2017). Trends & Statistics. Retrieved from <https://www.drugabuse.gov/related-topics/trends-statistics>

National Institute on Drug Abuse. (2018). Treatment and Recovery. Retrieved from <https://www.drugabuse.gov/publications/drugs-brains-behavior-science-addiction/treatment-recovery>

Part B: 20 Questions and Answers Regarding Methadone Maintenance Treatment Research. (n.d.) Retrieved from <https://www.drugabuse.gov/sites/default/files/pdf/partb.pdf>

Prochaska, J. O., PhD. (2014). Enhancing Motivation to Change. In *The ASAM principles of addiction medicine* (5th ed.). Philadelphia: Wolters Kluwer Health.

Ries, R. K., Fiellin, D. A., & Miller, S. C. (2015). *The ASAM Principles of Addiction Medicine*. Philadelphia: Wolters Kluwer Health.

# References continued

[Skipper, G. E., MD, & Dupont, R. L., MD. \(2015\). The advantages of long-term monitoring. Retrieved from https://www.addictionpro.com/article/advantages-long-term-monitoring](https://www.addictionpro.com/article/advantages-long-term-monitoring)

Substance Abuse and Mental Health Services Administration. *Clinical Use of Extended-Release Injectable Naltrexone in the Treatment of Opioid Use Disorder: A Brief Guide*. HHS Publication No. (SMA) 14-4892R. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015. <https://store.samhsa.gov/system/files/sma14-4892r.pdf>

[Substance Abuse and Mental Health Services Administration. \(2018\). Key substance use and mental health indicators in the United States: Results from the 2017 National Survey on Drug Use and Health \(HHS Publication No. SMA 18-5068, NSDUH Series H-53\). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/](https://www.samhsa.gov/data/)

# References continued

Tanum, L., Klemmetsby, S., Latif, Z., Benth, J., Opheim, A., Sharma-Haase, K., Kracji, P., & Kunoe, N. (2017). Effectiveness of Injectable Extended-Release Naltrexone vs Daily Buprenorphine-Naloxone for Opioid Dependence – A Randomized Clinical Inferiority Trial, *JAMA Psychiatry*, E1-E9.

Velander J. R. (2018). Suboxone: Rationale, Science, Misconceptions. *The Ochsner journal*, 18(1), 23–29.

What are the six dimensions of The ASAM Criteria? (2019, March 15). Retrieved from <https://www.asamcontinuum.org/knowledgebase/what-are-the-six-dimensions-of-the-asam-criteria/>