Alosa Health

Balanced information for better care

Managing opioid use disorder across the care continuum

Treating OUD and supporting recovery

Diagnosing opioid use disorder (OUD)

According to the DSM-5, OUD is problematic opioid use that leads to significant impairment or distress.

TABLE 1. OUD is marked by at least two of the following over the past 12 months:[1]

❑	using opioids at higher doses or longer than intended
❑	unsuccessful attempts to control or reduce use
❑	significant time spent obtaining, consuming, or recovering from opioids
❑	cravings for opioids
❑	failure to fulfill obligations because of opioid use
❑	persistent social or interpersonal problems caused by opioids
❑	opioid use displaces social, work, or recreational activities
❑	using opioids in hazardous situations (e.g., while driving)
❑	use continues despite physical or psychological problems caused or worsened by opioids
❑	tolerance: a reduced effect of the drug despite increasing dosages (in patients taking opioids other than as prescribed)
❑	withdrawal (in patients taking opioids other than as prescribed)

Mild: 2-3 criteria; Moderate: 4-5 criteria; Severe: 6 or more criteria

Nearly 6 million Americans have opioid use disorder.[2]

Even though medical treatment greatly improves outcomes, only 1 in 5 people with OUD receives such treatment.[3]

DSM: *Diagnostic and Statistical Manual of Mental Disorders*

Medications for OUD are effective

Three medications are FDA-approved to treat OUD.

Each one reduces the risk of death, improves treatment retention, and decreases opioid misuse. For many patients, methadone and buprenorphine may be preferred.[4-9]

TABLE 2. Tailor the choice of medication for OUD (MOUD) to the patient.

	Buprenorphine*	Methadone	Naltrexone injection
Mechanism of action	 **Partial agonist:** partially activates opioid receptor	 **Full agonist:** activates opioid receptor	 **Antagonist:** blocks opioid receptor
Who can provide treatment	any prescriber with a DEA license**	federally-regulated opioid treatment program or inpatient/emergency department	any prescriber
Dosage forms	sublingual film or tablet, buccal film, or long-acting injection	liquid or tablet	long-acting intramuscular injection
Treatment delivery	office visit frequency based on patient need	supervised daily administration with regulated take-home treatment	monthly injection
Patient characteristics	patients who prefer an opioid agonist without frequent clinic visits	patients with multiple unsuccessful prior treatment attempts, and/or who need daily structured support	• patients who can be abstinent from opioids for more than 7 days prior to starting • patients who cannot use agonist therapy

*Buprenorphine is often combined with naloxone in a sublingual formulation (e.g., Suboxone) to prevent misuse if injected; naloxone in sublingual formulations has little or no effect if taken as prescribed.

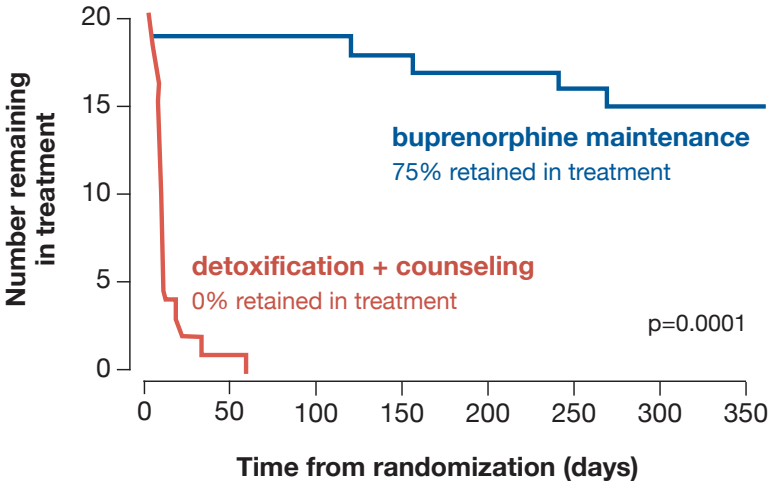
**The DEA license needs to have Schedule III authority.

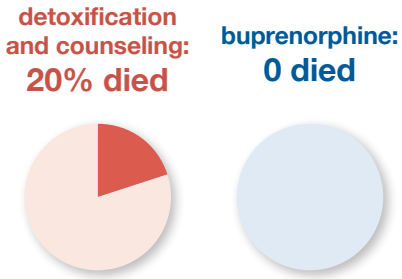
Detoxification alone is *not* effective. Without medications, patients with OUD are > 2.5 times more likely to die of an overdose.[8]

Detoxification: observed opioid withdrawal with medical management of symptoms

Buprenorphine saves lives

FIGURE 1. In a randomized trial, buprenorphine kept more patients alive and engaged in treatment compared to detoxification and counseling.[6]





No patients treated with buprenorphine died within one year, *compared with 20% of those receiving detoxification and counseling.*

Buprenorphine is more effective than many other interventions prescribed in primary care.

TABLE 3. Fewer patients need to be treated to provide a mortality or morbidity benefit with buprenorphine compared to commonly used cardiovascular medications.[10-13]

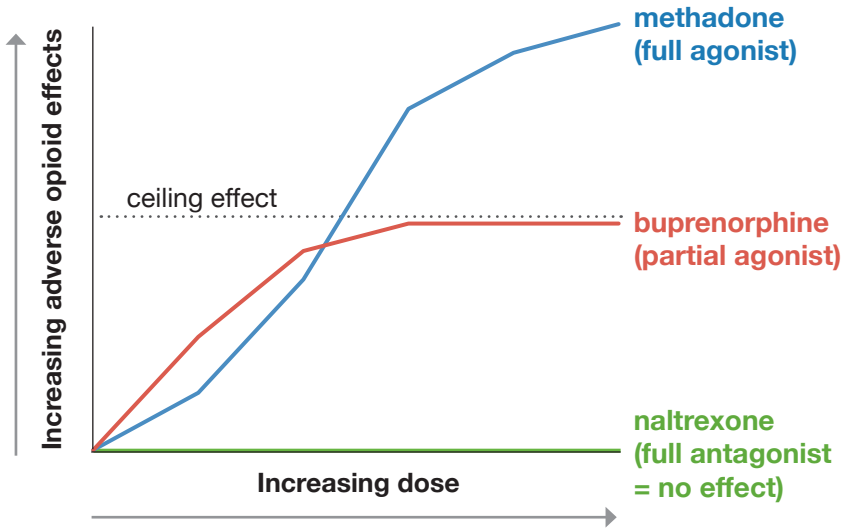
INTERVENTION	Outcome	Number needed to treat (NNT) to prevent one outcome	Timeframe
Buprenorphine for OUD	death	5	1 year
Anticoagulation for lower extremity deep vein thrombosis	recurrent venous thrombosis	17	3 months
Aspirin for secondary prevention (i.e., prior myocardial infarction [MI] or stroke)	subsequent MI subsequent stroke death	77 200 333	2 years

Understanding buprenorphine's features

Buprenorphine is safer than other opioids.

- Buprenorphine alone has a **very low risk for respiratory depression or overdose.** In combination with non-opioid respiratory depressants (e.g., benzodiazepines), respiratory depression or overdose are possible, but the risk is lower than for full-agonist opioids.
- Risk of overdose and death for patients taking medications for OUD is highest immediately after these medications are stopped.

FIGURE 2. Respiratory depression is less likely with buprenorphine than other opioids because its risk for respiratory depression has a ceiling.[14]



Use caution when starting buprenorphine in patients using opioids.

- If a patient starts using buprenorphine while they are still experiencing the effect of another opioid, buprenorphine's high binding affinity for opioid receptors will displace the other opioid from the opioid receptor.
- This rapid displacement can precipitate opioid withdrawal, which can be unpleasant for the patient but is not life-threatening.

Other side effects of buprenorphine are similar to those of other opioids, including headache, abdominal discomfort, nausea, flushing, constipation, and insomnia.

Dosing options for starting buprenorphine

Help patients pick the strategy that works best for them.

TABLE 4. Dosing strategies for starting buprenorphine[15]

	Low dose "microdose"	Low dose "classic dose"	High dose "macrodose"
Duration of initiation period	Days to weeks	1 day	2-3 hours
Withdrawal severity to start	None	Mild-moderate	
Initial dose of buprenorphine	< 1 mg	4 mg	16 mg
Usual maintenance dose	16-24 mg		
Benefits	• Patients with chronic pain do not need to stop opioid medications during initiation	• Dosing strategy with most experience	• Can be initiated in many settings (e.g., ED, primary care) • Simple steps to start • Short time to achieving maintenance dose
Challenges	• Complex dosing schedule • Requires cutting films	• Some withdrawal symptoms prior to initiation and possibly ongoing	• Some withdrawal symptoms prior to initiation
Resources	Bridge to treatment **qrco.de/lowdose**	BMC Grayken quick start **qrco.de/classicstart**	Bridge to treatment **qrco.de/highdose**

Starting buprenorphine

The medication's **success is similar** whether it is started in the emergency department (ED) or at home.[16-18]

Educate patients about expectations.

Talk to patients about how to start their preferred protocol.
For protocols requiring opioid withdrawal symptoms to start, have patients wait as long as possible before starting.

Plan for communication if questions arise.

- Provide patients with a way to contact the clinic.
- Ensure the clinic is able to contact the patient.

Provide linkage to local supports, such as support groups or resources around health-related social needs.

Offer comfort medications, just in case.

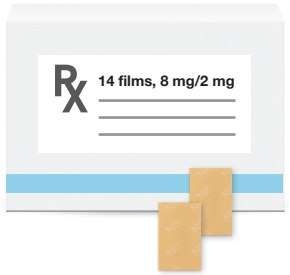
Additional medications can help address withdrawal symptoms:

- **anxiety/restlessness:** clonidine 0.1 mg 3 times daily PRN
- **insomnia/anxiety:** hydroxyzine 25-50 mg 4 times daily PRN
- **nausea:** ondansetron 4-8 mg by mouth 3 times daily PRN
- **abdominal cramping:** dicyclomine 10-20 mg by mouth every 6 hours PRN
- **muscle aches:** ibuprofen 400-800 mg by mouth every 6 hours PRN

Prescribe enough buprenorphine for one week.

Typically, buprenorphine is supplied as **buprenorphine/naloxone** 8 mg/2 mg films. The average patient will take 2 films (16 mg buprenorphine) per day. Doses up to 3 films (24 mg buprenorphine) are safe and may be needed for some patients.

Therefore, a typical initial 1-week supply is 14 films of buprenorphine 8 mg/2 mg.



Expanding access to treatment

Behavioral treatment not required

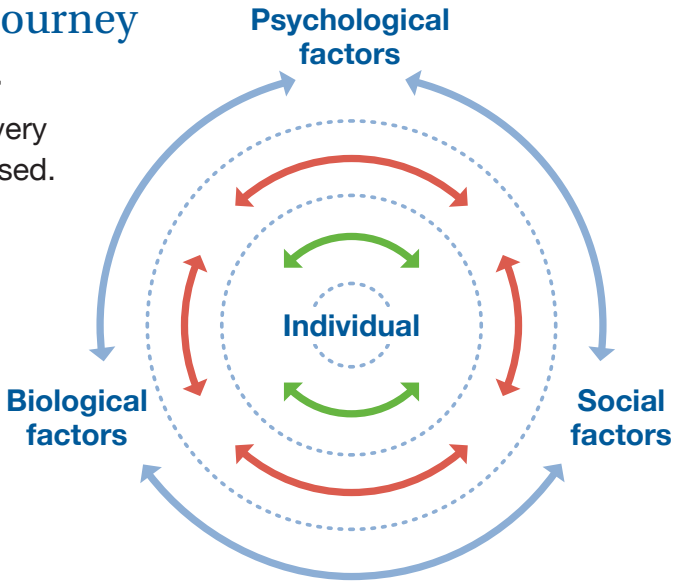
Treatment such as cognitive behavioral therapy (CBT) in addition to medical management does not significantly impact abstinence from opioids.[19]

Clinicians can prescribe MOUD even without access to concurrent behavioral treatment.

Engagement at any step in the journey

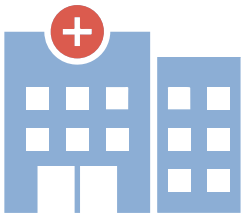
Care of patients with OUD is not linear or one size fits all. Options to engage in recovery services should be flexible and patient-focused.

- Focus on **treatment successes** rather than problems.[20]
- Help patients build **positive connections** with events that do not center around opioid/substance use.
- **Peer support specialists** have lived experience to help meet patients where they are, find resources, and support patients on the path toward recovery.



Emergency department and urgent care—a critical link

- Patients who present with opioid-related adverse events present an opportunity to offer OUD treatment.



Sustaining patients on buprenorphine

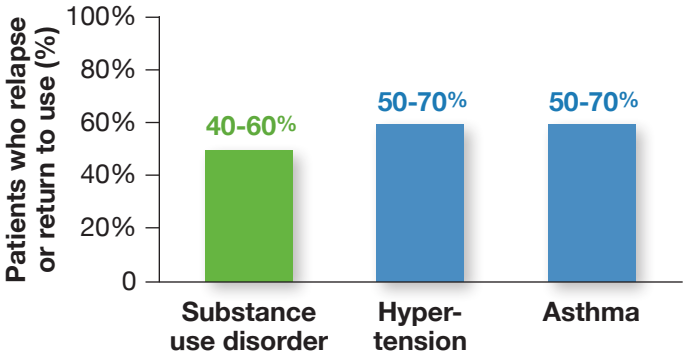
Establish a follow-up plan.

- There is no strict rule for follow-up intervals. Ensuring ease of access to this lifesaving medication should be a priority.
- Utilize other members of the healthcare team to ensure access to follow-up care.

Support patients even if they return to using opioids.

As with any chronic disease, the goal of OUD treatment is not to cure, but to reduce harm, prevent complications, and improve function and well-being.

FIGURE 3. Return to use rates are similar to relapse rates in other chronic conditions.[21]

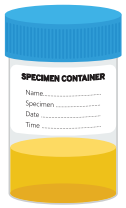


Return to use is *not* a sign of treatment failure. Instead:

- Resume treatment.
- Re-evaluate supports offered.
- Modify medication dose or frequency.

Use toxicology testing to assist recovery.

Involve patients in discussions about toxicology test results.



Results can:

- Help make therapeutic decisions about treatment.
  - Determine whether buprenorphine is being taken.
  - Identify whether other opioids are present.
- Explore factors contributing to a return to opioid use (e.g., inadequate pain management).

Don't discharge a patient due to an unexpected toxicology result.

Stopping buprenorphine because of an abnormal toxicology test is akin to stopping a statin for an abnormal LDL or withholding metformin for an abnormal HgbA1c.

Discuss harm reduction strategies with all patients

Like seat belts, sunscreen, or safer sex practices, simple steps can help all patients with OUD reduce risks to their health.

Prescribe intranasal naloxone (e.g., Narcan) to prevent overdose

Recommend or provide immunizations
(hepatitis, pneumococcus, tetanus)

Screen for infections
(especially HIV, hepatitis C and B, and STIs like syphilis)

Other harm reduction strategies:

- For patients who use opioids alone, recommend **www.neverusealone.com** or the 1-800-484-3731 hotline to prevent unintentional overdose.
- For those who inject, **discuss sterile injection practices** to reduce the transmission of bloodborne pathogens like HIV, hepatitis C, and hepatitis B; link with a syringe exchange program or prescribe insulin needles.
- **Recommend fentanyl test strips,** if available.
- Evaluate whether **pre-exposure prophylaxis (PrEP) is indicated** for HIV prevention.
- Ask patients about **pregnancy plans** to support their goals.

Use "person-first" language to reduce stigma.

TABLE 5. Words can impact a patient's perceptions of their treatment:

Language to avoid	Recommended language
addict, abuser, user, junkie	a person with OUD
clean/dirty urine	urine positive/negative for opioids or other substances
treatment failure	return to use, recurrence

STI: sexually transmitted infection

Key points

- Although there are effective medications to treat OUD, access to treatment remains limited and **only 1 in 5 patients with OUD is treated.**
- **Buprenorphine can be safely prescribed** within a primary care practice and in emergency room settings.
- **Home buprenorphine induction is safe** and can be accomplished by providing patients with tools, information, and support.
- **Support patients if they return to drug use while on treatment.** An unexpected toxicology result is not a reason for discharging a patient from treatment. Rather, it is an opportunity to discuss and change the treatment plan if necessary.
- **Discuss and encourage harm reduction strategies with all patients** regardless of their current level of engagement in treatment or interest in changing drug use behaviors.

Visit AlosaHealth.org/OUD
for links to a comprehensive evidence document and other resources.

References:

(1) American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders, 5th Ed.,Text Revision.* Arlington, VA: American Psychiatric Publishing; 2022. **(2)** Substance Abuse and Mental Health Services Administration. *Key substance use and mental health indicators in the United States: Results from the 2023 National Survey on Drug Use and Health*. Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration;2021. HHS Publication No. PEP24-07-021, NSDUH Series H-59). **(3)** Substance Abuse and Mental Health Services Administration. 2023 NSDUH Detailed Tables. https://www.samhsa.gov/data/report/2023-nsduh-detailed-tables. July 30, 2024. Accessed Oct 2, 2024. **(4)** Fudala PJ, et al. Office-based treatment of opiate addiction with a sublingual-tablet formulation of buprenorphine and naloxone. *N Engl J Med.* 2003;349(10):949-958. **(5)** Gunne LM, Gronbladh L. The Swedish methadone maintenance program: a controlled study. *Drug Alcohol Depend.* 1981;7(3):249-256. **(6)** Kakko J, et al. 1-year retention and social function after buprenorphine-assisted relapse prevention treatment for heroin dependence in Sweden: a randomised, placebo-controlled trial. *Lancet.* 2003;361(9358):662-668. **(7)** Krupitsky E, et al. Injectable extended-release naltrexone for opioid dependence: a double-blind, placebo-controlled, multicentre randomised trial. *Lancet.* 2011;377(9776):1506-1513. **(8)** Sordo L, et al. Mortality risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies. *Bmj.* 2017;357:j1550. **(9)** Strain EC, et al. Dose-response effects of methadone in the treatment of opioid dependence. *Ann Intern Med.* 1993;119(1):23-27. **(10)** Antithrombotic Trialists' Collaboration. Collaborative meta-analysis of randomized trials of antiplatelet therapy for prevention of death, myocardial infarction, and stroke in high risk patients. *Bmj.* 2002;324(7329):71-86. **(11)** Kirkilesis G, et al. Treatment of distal deep vein thrombosis. *Cochrane Database Syst Rev.* 2020;4(4):Cd013422. **(12)** Larochelle MR, et al. Medication for Opioid Use Disorder After Nonfatal Opioid Overdose and Association With Mortality: A Cohort Study. *Ann Intern Med.* 2018;169(3):137-145. **(13)** Mattick RP, et al. Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. *Cochrane Database Syst Rev.* 2014(2):Cd002207. **(14)** Golembiewski J, Rakic AM. Sublingual buprenorphine. *J Perianesth Nurs.* 2010;25(6):413-415. **(15)** Randall A, et al. Enhancing Patient Choice: Using Self-administered Intranasal Naloxone for Novel Rapid Buprenorphine Initiation. *J Addict Med.* 2023 Mar-Apr 01;17(2):237-240. **(16)** Doolittle B, Becker W. A case series of buprenorphine/naloxone treatment in a primary care practice. *Subst Abus.* 2011;32(4):262-265. **(17)** Lee JD, et al. Home buprenorphine/naloxone induction in primary care. *J Gen Intern Med.* 2009;24(2):226-232. **(18)** Sohler NL, et al. Home- versus office-based buprenorphine inductions for opioid-dependent patients. *J Subst Abuse Treat.* 2010;38(2):153-159. **(19)** Fiellin DA, et al. A randomized trial of cognitive behavioral therapy in primary care-based buprenorphine. *Am J Med.* 2013;126(1):74.e11-77. **(20)** Johnson F Jr, et al. Community member perspectives on adapting the cascade of care for opioid use disorder for a tribal nation in the United States. *Addiction.* 2023 Aug;118(8):1540-1548. **(21)** McLellan AT, et al. Drug dependence, a chronic medical illness: implications for treatment, insurance, and outcomes evaluation. *JAMA.* 2000;284(13):1689-1695.

Image credits:
Page 3 (medication classes): © 2016 The Pew Charitable Trusts. pewtrusts.org/-/media/assets/2016/11/medicationassistedtreatment_v3.pdf

About this publication

These are general recommendations only; specific clinical decisions should be made by the treating clinician based on an individual patient's clinical condition. More detailed information on this topic is provided in a longer evidence document at AlosaHealth.org.

This material is provided by **Alosa Health**, a nonprofit organization which accepts no funding from any pharmaceutical company.

This material was produced by Ellie Grossman, M.D., M.P.H., Instructor in Medicine; Benjamin N. Rome, M.D., M.P.H., Instructor in Medicine (principal editor); Jerry Avorn, M.D., Professor of Medicine; all at Harvard Medical School; and Ellen Dancel, Pharm.D., M.P.H., Director of Clinical Materials Development at Alosa Health. Drs. Avorn and Rome are physicians at the Brigham and Women's Hospital, and Dr. Grossman practices at the Cambridge Health Alliance. None of the authors accepts any personal compensation from any drug company.

This material was supported by the New Hampshire Department of Public Health. A prior version was supported by the Pharmaceutical Assistance Contract for the Elderly (PACE) Program of the Pennsylvania Department of Aging and the Office of Drug Surveillance and Misuse Prevention of the Pennsylvania Department of Health, through funding from the Centers for Disease Control and Prevention.

AH-003-0004 Rev 1 Jan 2025