Alosa Health

Balanced information for better care

Managing opioid use disorder in primary care

Treating OUD and supporting recovery

Defining opioid use disorder (OUD)

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 lost 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 3 million Americans have opioid use disorder.[2]

Even though medical treatment greatly improves outcomes, only 1 in 10 people with OUD receives treatment.[3]

Medications for OUD are effective

Three medications are FDA-approved to treat OUD.

All three medications reduce the risk of death, improve treatment retention, and decrease opioid misuse. Methadone and buprenorphine are first-line choices for OUD treatment and are more effective at preventing overdose than long-acting naltrexone.[4-9]

TABLE 2. Tailor the choice of agent 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	anyone with a DEA X-waiver**	federally-regulated opioid treatment program	any prescriber
Dosage forms	sublingual film or tablet, buccal film, or long-acting injection	liquid or tablet	long-acting intramuscular injection
Treatment delivery	no daily clinic visits required	requires daily clinic visits for supervised administration	monthly injection
Patient characteristics	**buprenorphine is preferred for most patients**	patients with multiple unsuccessful prior treatment attempts, and/or who need daily structured support	• patients who can be abstinent from opioids for 7-10 days prior to starting • patients who cannot use agonist therapy

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

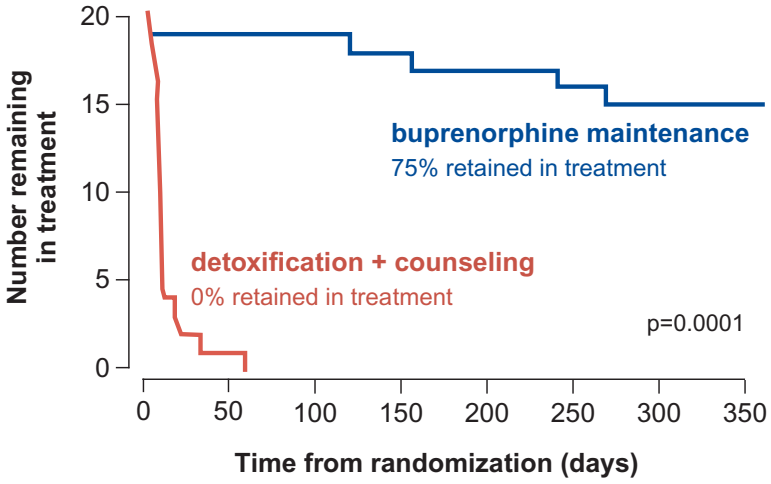
**Since April 2021, an X-waiver can be obtained by filling out a simple form on the SAMHSA website. There is no longer a training requirement if treating fewer than 30 patients.

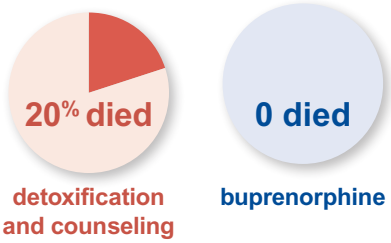
"Detoxification" and abstinence alone are *not* effective. Without medications, patients with OUD are > 2.5 times more likely to die of an overdose.[8]

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.

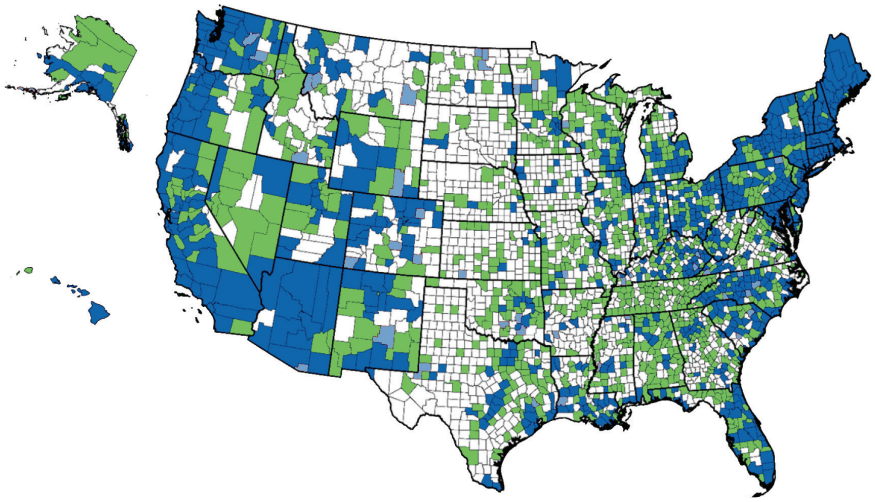
TABLE 3. Fewer patients need to be treated to provide a mortality or morbidity benefit with buprenorphine compared to commonly used cardiovascular medications.[10-13]

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

Many patients lack access to treatment

In 2017, more than 50% of US counties did **not** have a buprenorphine prescriber.

FIGURE 2. Access to buprenorphine varies by where a patient lives.[14]



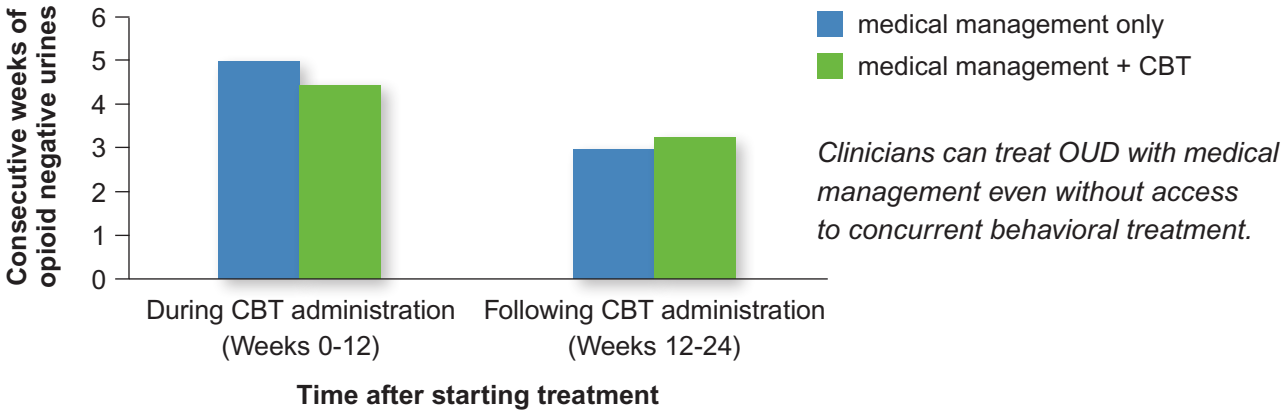
It only takes 5 minutes to obtain an X-waiver and start prescribing buprenorphine for OUD.

Since April 2021, prescribers no longer need to complete required education if prescribing buprenorphine for OUD to fewer than 30 patients concurrently.

SAMSHA X-waiver application

Behavioral treatment is **not** required to manage OUD.

FIGURE 3. Behavioral treatment such as cognitive behavioral therapy (CBT) in addition to medical management does not significantly impact abstinence from opioids.[15]



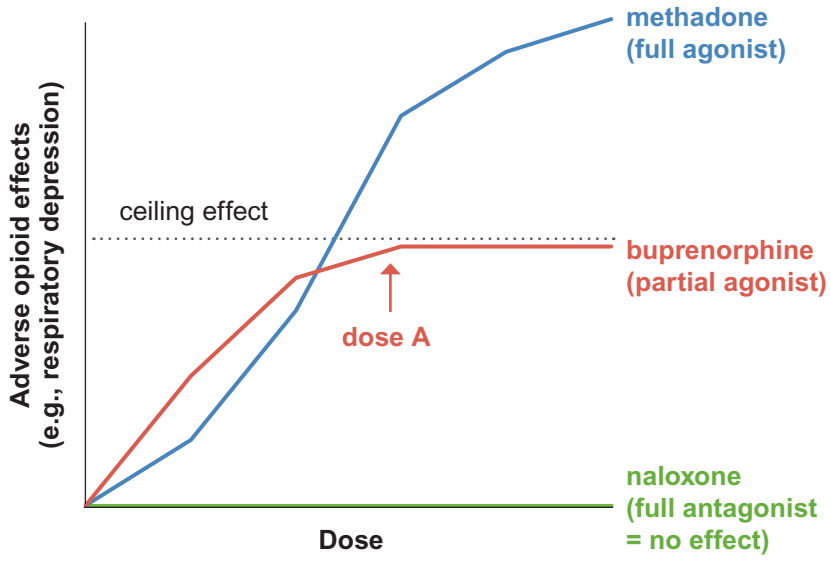
Clinicians can treat OUD with medical management even without access to concurrent behavioral treatment.

Buprenorphine is safer than other opioids

It is unlikely to cause an opioid overdose, even at high doses.

- When used alone, buprenorphine has a **very low risk for respiratory depression or overdose.** In combination with other respiratory suppressants (e.g., benzodiazepines), respiratory depression or overdose are possible.
- Overdose risk and death for patients on medications for OUD is highest after full or partial opioid agonist treatment is stopped.

FIGURE 4. Respiratory depression is less likely with buprenorphine due to its ceiling effect.[16]



The effects of buprenorphine increase until dose A is reached (its ceiling effect). No further effect on respiratory depression is seen with an increase in dose beyond dose A.

Precipitated withdrawal is easily avoidable.

- If a patient starts using buprenorphine while they are still experiencing the effect from other opioids, buprenorphine's high binding affinity for opioid receptors results in **displacement of other opioids** from the opioid receptor.
- This rapid displacement can result in symptoms of opioid withdrawal, known as **precipitated withdrawal,** which is extremely unpleasant for the patient but **not life-threatening.**
- Precipitated withdrawal can usually be avoided by waiting to initiate buprenorphine until the patient is **already in withdrawal from not using opioids.**

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

Buprenorphine can be safely initiated at home

The success of buprenorphine is similar whether it is started in an office setting or at home.[17-19]

Certain patients may still benefit from an office-based induction:[20]

- clinician is unable to follow up with patient via phone (or in-person) after day 1 home induction is complete
- patients with limited self-management skills or low health literacy
- patient with concurrent benzodiazepine use

Avoid precipitated withdrawal by waiting to initiate buprenorphine.

Option 1: Wait for patients to be experiencing at least **moderate symptoms** of opioid withdrawal: Measure withdrawal symptoms using the Clinical Opioid Withdrawal Score (COWS).

COWS: *A score of 13 or more equates to moderate withdrawal.*

Option 2: Wait for a duration of time based on last opioid used.

Category	Examples	Time to wait before initiating buprenorphine
Short half-life	hydromorphone, oxycodone, heroin	12-24 hours
Long half-life	extended-release oxycodone or morphine	36 or more hours
Extremely long half-life*	methadone, fentanyl	48 hours or more

*Highest risk of precipitated withdrawal

Prescribe enough buprenorphine for one week and follow up within 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 needed for some patients.
- **Therefore, a typical 1-week supply is fourteen films of buprenorphine 8 mg/2 mg.**

Steps for initiating buprenorphine at home

FIGURE 5. Start buprenorphine when patient is at least in moderate opioid withdrawal or appropriate duration after opioid use.

Day 1: buprenorphine start

STEP 1

Take 1st dose

4 mg

Wait 1 hour

- Put the strip under your tongue. Do NOT swallow.
- Keep it there until fully dissolved (about 15 min), then wait for 45 minutes.
- Do NOT eat, drink, or talk while strip is dissolving.

STEP 2

Still feel sick?

Take 2nd dose

4 mg

Wait 2 hours

- Most people feel better after two doses or 8 mg.
- If feeling more withdrawal symptoms after the 1st dose, you will likely feel better after the 2nd dose.

STEP 3

Still uncomfortable?

Take 3rd dose

4 mg

Wait 2 hours

- Take the 3rd dose **only if needed.**

STEP 4

Still uncomfortable?

Take 4th dose

4 mg

STOP

- **Stop after this dose.**
- Do NOT exceed 16 mg on Day 1.

Most patients will feel better with 8 or 12 mg of buprenorphine on Day 1, but can take up to 16 mg if needed.

Day 2: continuing buprenorphine

STEP 1

Take total dose from Day 1

4-16 mg

Wait 2 hours

- Put the strip(s) under your tongue. Do NOT swallow.
- Keep it there until fully dissolved (about 15 min), then wait for 2 hours total.
- Do NOT eat, drink, or talk while strip is dissolving.

STEP 2

Still feel sick?

Take 4 mg

4 mg

Wait 2 hours

- If still feeling sick, take another 4 mg and wait 2 hours.

STEP 3

Still uncomfortable?

Take 4 mg

4 mg

STOP

- Take another 4 mg **only if needed.**
- **Stop after this dose.**

Take up to 24 mg on Day 2, if needed.

Day 3+

Continue typical maintenance dose of 16-24 mg

16-24 mg

The Buprenorphine Home Induction phone app can help patients manage buprenorphine initiation at home.

A clinician should be available to address questions regarding the buprenorphine induction.

Sustaining patients on buprenorphine

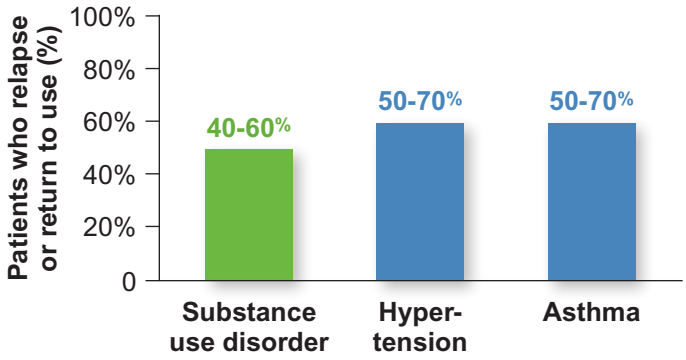
Establish a follow-up plan.

- There is **no strict rule for follow-up intervals.** Ensuring ease of access to this lifesaving medication should be a priority.
- It can be helpful to see patients **weekly until they reach a stable dose.** Once stable, patients can typically follow up monthly or bi-monthly.

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 prevent complications and improve function and well-being.

FIGURE 6. Return to use rates are similar to relapse rates of 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 urine drug screens to assist recovery.

Results from a urine drug screen 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 (i.e., inadequate pain management).

Do not discharge a patient due to unexpected urine drug screen result

Stopping buprenorphine due to an abnormal urine drug screen is akin to stopping a statin for an abnormal LDL or stopping metformin for an abnormal HgbA1c.

Discuss harm reduction strategies with all patients

Like wearing seat belts, applying 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)

Other harm reduction strategies:

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

Use "person-first" language to reduce stigma.

TABLE 4. Language used within the clinic can impact patient perceptions of treatment.

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

Key points

- Although there are effective medications to treat OUD, access to treatment remains limited and **only 1 in 10 patients with OUD is treated.**
- **Buprenorphine can be safely prescribed** within a primary care practice.
- **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 urine drug screen 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.

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)** NIDA. Overview. National Institute on Drug Abuse website. https://nida.nih.gov/publications/research-reports/medications-to-treatopioid-addiction/overview. January 21, 2022. Accessed April 6, 2022. **(3)** Substance Abuse and Mental Health Services Administration. Key substance use and mental health indicators in the United States: Results from the 2020 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. PEP21-07-01-003, NSDUH Series H-56. **(4)** Fudala PJ, Bridge TP, Herbert S, 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, Svanborg KD, Kreek MJ, Heilig M. 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, Nunes EV, Ling W, 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, Barrio G, Bravo MJ, 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, Stitzer ML, Liebson IA, Bigelow GE. 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, Kakkos SK, Bicknell C, et al. Treatment of distal deep vein thrombosis. *Cochrane Database Syst Rev*. 2020;4(4):Cd013422. **(12)** Larochelle MR, Bernson D, Land T, 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, Breen C, Kimber J, Davoli M. Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. *Cochrane Database Syst Rev*. 2014(2):Cd002207. **(14)** Andrilla CHA, Moore TE, Patterson DG, Larson EH. Geographic Distribution of Providers With a DEA Waiver to Prescribe Buprenorphine for the Treatment of Opioid Use Disorder: A 5-Year Update. *J Rural Health*. 2019;35(1):108-112. **(15)** Fiellin DA, Barry DT, Sullivan LE, et al. A randomized trial of cognitive behavioral therapy in primary care-based buprenorphine. *Am J Med*. 2013;126(1):74.e11-77. **(16)** Golembiewski J, Rakic AM. Sublingual buprenorphine. *J Perianesth Nurs*. 2010;25(6):413-415. **(17)** Doolittle B, Becker W. A case series of buprenorphine/naloxone treatment in a primary care practice. *Subst Abus*. 2011;32(4):262-265. **(18)** Lee JD, Grossman E, DiRocco D, Gourevitch MN. Home buprenorphine/naloxone induction in primary care. *J Gen Intern Med*. 2009;24(2):226-232. **(19)** Sohler NL, Li X, Kunins HV, et al. Home- versus office-based buprenorphine inductions for opioid-dependent patients. *J Subst Abuse Treat*. 2010;38(2):153-159. **(20)** Whitley SD, Sohler NL, Kunins HV, et al. Factors associated with complicated buprenorphine inductions. *J Subst Abuse Treat*. 2010;39(1):51-57. **(21)** McLellan AT, Lewis DC, O'Brien CP, Kleber HD. 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
Page 5 (US county map): Reference 14 as listed above.

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 is not affiliated with any pharmaceutical company.

This material was produced by Sunny Kung, M.D. and Clare Landefeld, M.D., Addiction Medicine Fellows; 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 Drs. Kung and Landefeld are at Massachusetts General Hospital. None of the authors accepts any personal compensation from any drug company.

This material was supported by the Pharmaceutical Assistance Contract for the Elderly (PACE) Program of the Pennsylvania Department of Aging, the Office of Drug Surveillance and Misuse Prevention of the Pennsylvania Department of Health, through funding from the Centers for Disease Control and Prevention, and an unrestricted educational grant from Aetna.

Jul 2022