BUPRENORPHINE
FDA approved for Opioid Use Disorder treatment in an office-based setting.
For those with tolerance to opioids as a result of OUD, buprenorphine is often a safe choice.
Buprenorphine acts as a partial mixed opioid agonist at the μ-receptor and as an antagonist at the κ-receptor. It has a higher affinity for the μ-receptor than other opioids, and it can precipitate withdrawal symptoms in those actively using other opioids.
It is dosed daily, has a long half-life, and prevents withdrawal in opioid dependent patients.
Can be in tablet, sublingual film, or injectable formulations.
Many formulations contain naloxone to prevent injection diversion. This formulation is the preferred treatment medication. The buprenorphine only version is often used with pregnant women to decrease potential fetal exposure to naloxone.
There is a “ceiling effect” in which further increases above 24mg in dosage does not increase the effects on respiratory or cardiovascular function.
Buprenorphine should be part of a comprehensive management program that includes psychosocial support. Treatment should not be withheld in the absence of psychosocial support.
Overdose with buprenorphine in adults is less common, and most likely occurs in individuals without tolerance, or who are using co-occurring substances like alcohol or benzodiazepines.

Important Points to Review With the Patient
Specifically discuss safety concerns:
- Understand that discontinuing buprenorphine increases risk of overdose death upon return to illicit opioid use.
- Know that use of alcohol or benzodiazepines with buprenorphine increases the risk of overdose and death.
- Understand the importance of informing providers if they become pregnant.
- Tell providers if they are having a procedure that may require pain medication.

Facts About Buprenorphine
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Checklist for Prescribing Medication for the Treatment of Opioid Use Disorder

1. Assess the need for treatment
   For persons diagnosed with an opioid use disorder,* first determine the severity of patient’s substance use disorder. Then identify any underlying or co-occurring diseases or conditions, the effect of opioid use on the patient’s physical and psychological functioning, and the outcomes of past treatment episodes.

Your assessment should include:
- A patient history
- Ensure that the assessment includes a medical and psychiatric history, a substance use history, and an evaluation of family and psychosocial supports.
- Access the patient’s prescription drug use history through the state’s Prescription Drug Monitoring Program (PDMP), where available,
to detect unreported use of other medications, such as sedative-hypnotics or alcohol, that may interact adversely with the treatment medications.

- A physical examination that focuses on physical findings related to addiction and its complications.
- Laboratory testing to assess recent opioid use and to screen for use of other drugs. Useful tests include a urine drug screen or other toxicology screen, urine test for alcohol (ethyl glucuronide), liver enzymes, serum bilirubin, serum creatinine, as well as tests for hepatitis B and C and HIV. Providers should not delay treatment initiation while awaiting lab results.

2 Educate the patient about how the medication works and the associated risks and benefits; obtain informed consent; and educate on overdose prevention.

There is potential for relapse & overdose on discontinuation of the medication. Patients should be educated about the effects of using opioids and other drugs while taking the prescribed medication and the potential for overdose if opioid use is resumed after tolerance is lost.

3 Evaluate the need for medically managed withdrawal from opioids

Those starting buprenorphine must be in a state of withdrawal.

4 Address co-occurring disorders

Have an integrated treatment approach to meet the substance use, medical and mental health, and social needs of a patient.

5 Integrate pharmacologic and nonpharmacologic therapies

All medications for the treatment of the opioid use disorder may be prescribed as part of a comprehensive individualized treatment plan that includes counseling and other psychosocial therapies, as well as social support through participation in mutual-help programs.

6 Refer patients for higher levels of care, if necessary

Refer the patient for more intensive or specialized services if office-based treatment with buprenorphine or naltrexone is not effective, or the clinician does not have the resources to meet a particular patient’s needs. Providers can find programs in their areas or throughout the United States by using SAMHSA’s Behavioral Health Treatment Services Locator at www.findtreatment.samhsa.gov.


**Induction Considerations**

The **dose of buprenorphine** depends on the severity of withdrawal symptoms, and the history of last opioid use (see flowchart in appendix for dosing advice).

- Long acting opioids, such as methadone, require at least 48-72 hours since last use before initiating buprenorphine.
- Short acting opioids (for example, heroin) require approximately 12 hours since last use for sufficient withdrawal to occur in order to safely initiate treatment. Some opioid such as fentanyl may require greater than 12 hours.
- Clinical presentation should guide this decision as individual presentations will vary.
Determine Withdrawal

Objective withdrawal signs help establish physical dependence

The risk with initiating buprenorphine too soon is that buprenorphine has a very high affinity for the mu receptor and will displace any other opioid on the receptor, thereby causing precipitated opioid withdrawal.

Information on Precipitated Withdrawal

- Precipitated withdrawal can occur due to replacement of full opioid receptor agonist (heroin, fentanyl, or morphine) with a partial agonist that binds with a higher affinity (Buprenorphine).
- Symptoms are similar to opiate withdrawal.
- Avoid by ensuring adequate withdrawal before induction (COWS > 12; Fentanyl may require higher COWS score and lower initial dosing), starting Buprenorphine at a lower dose (2.0mg/0.5 mg), and reassessing more frequently.
- Should precipitated withdrawal occur, treatment includes:
  - Providing support and information to the patient
  - Management of acute symptoms
  - Avoid the use of benzodiazepines
  - Encourage the patient to try induction again soon

Buprenorphine Side Effects

- Buprenorphine’s side effects may be less intense than those of full agonists. Otherwise, they resemble those of other mu-agonists.
- Possible side effects include: Oral numbness, constipation, tongue pain, oral mucosal erythema, vomiting, intoxication, disturbance in attention, palpitations, insomnia, opioid withdrawal syndrome, sweating, and blurred vision
- Buprenorphine FDA labels list all potential side effects

Co-prescribing of overdose reversal agents such as Naloxone is also recommended
**Maintenance Therapy**

Goal = once-daily dosing, no withdrawal between doses. Ideally, average dosing does not exceed 16 mg/4 mg (See flowchart in appendix)

- Check PDMP regularly to ensure prescriptions are filled, and to check other prescriptions.
- Order urine drug testing (UDT) and consider confirmatory testing for unexpected results. UDT can facilitate open communication to change behavior.
- Assess for readiness for extended take-home dosing

**Psychosocial Therapies**

- Although people often focus on the role of medications in MAT, counseling and behavioral therapies that address psychological and social needs may also be included in treatment. To find treatment, please consult www.findtreatment.gov.

**Diversion**

Diversion is defined as the unauthorized rerouting or misappropriation of prescription medication to someone other than for whom it was intended (including sharing or selling a prescribed medication); misuse includes taking medication in a manner, by route or by dose, other than prescribed.

**How can providers minimize diversion risk?**

1. Early in treatment patients should be seen often, and less frequently only when the provider determines they are doing well.
2. Providers should inquire about safe and locked storage of medications to avoid theft or inadvertent use, especially by children. Patients must agree to safe storage of their medication. Counsel patients about acquiring locked devices and avoiding storage in parts of the home frequented by visitors.
3. Limit medication supply. Prescribe an appropriate amount of medications until the next visit. Do not routinely provide an additional supply “just in case.”
4. Use buprenorphine/naloxone combination products when medically indicated. Reserve daily buprenorphine monoproduts for pregnant patients and/or patients who could not afford treatment if the combination product were required.
5. Counsel patients on taking their medication as instructed and not sharing medication.
6. Ensure that the patient understands the practice's treatment agreement and prescription policies. Providers can utilize the sample treatment agreement in SAMHSA's TIP 63, Page 3-78. A treatment agreement and other documentation are clear about policies regarding number of doses in each prescription, refills, and rules on “lost” prescriptions.
7. Directly observe ingestion randomly when diversion is suspected.
8. Providers should order random urine drug testing to check for other drugs and for metabolites of buprenorphine. Providers should also consider periodic point of care testing.
9. Doctors should schedule unannounced pill/film counts. Periodically ask patients to bring in their medication containers for a pill/film count.
10. Providers should make inquiries with the Prescription Drug Monitoring program in their state to ensure that prescriptions are filled appropriately and to detect prescriptions from other providers.
11. Early in treatment, providers can ask the patient to sign a release of information for a trusted community support individual, such as a family member or spouse, for the purpose of communicating treatment concerns including diversion.
What should I do if a patient diverts or misuses the medication?

- Misuse or diversion doesn't mean automatic discharge from the practice.
- Document and describe the misuse and diversion incident. Also document the clinical thinking that supports the clinical response, which should be aimed at minimizing future risk of diversion while still supporting the use of MAT.
- Strongly consider smaller supplies of medication and supervised dosing.
- Treatment structure may need to be altered, including more frequent appointments, supervised administration, and increased psychosocial support.
- When directly observed doses in the office are not practical, short prescription time spans can be considered.
- In situations where diversion is detected, open communication with the patient is critical. Providers may consider injectable and implantable buprenorphine to reduce diversion, once verified.

### DSM-5 Criteria for Diagnosis of Opioid Use Disorder

*Diagnostic Criteria*

These criteria are intended to be used for those individuals taking opioids safely under appropriate medical supervision.

<table>
<thead>
<tr>
<th>Check all that apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opioids are often taken in larger amounts or over a longer period of time than intended.</td>
</tr>
<tr>
<td>There is a persistent desire or unsuccessful efforts to cut down or control opioid use.</td>
</tr>
<tr>
<td>A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects.</td>
</tr>
<tr>
<td>Craving, or a strong desire to use opioids.</td>
</tr>
<tr>
<td>Recurrent opioid use resulting in failure to fulfill major role obligations at work, school or home.</td>
</tr>
<tr>
<td>Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids.</td>
</tr>
<tr>
<td>Important social, occupational or recreational activities are given up or reduced because of opioid use.</td>
</tr>
<tr>
<td>Recurrent opioid use in situations in which it is physically hazardous</td>
</tr>
<tr>
<td>Continued use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by opioids.</td>
</tr>
</tbody>
</table>

*Tolerance, as defined by either of the following:
(a) a need for markedly increased amounts of opioids to achieve intoxication or desired effect
(b) markedly diminished effect with continued use of the same amount of an opioid

*Withdrawal, as manifested by either of the following:
(a) the characteristic opioid withdrawal syndrome
(b) the same (or a closely related) substance are taken to relieve or avoid withdrawal symptoms

**Total Number Boxes Checked: _______________

**Severity:** Mild: 2-3 symptoms. Moderate: 4-5 symptoms. Severe: 6 or more symptoms

*Criteria from American Psychiatric Association (2013). Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition. Washington, DC. American Psychiatric Association page 541. For use outside of the state of Colorado, please contact DMATTCOLORADO@yadavene.com

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Important Considerations: Buprenorphine/Naloxone Dosing

- Tablets/film may be split if necessary
- May take up to 10 min to dissolve completely (no talking, smoking, or swallowing at this time)
- Absorption better with moistened mouth

<table>
<thead>
<tr>
<th>SUBOXONE sublingual tablets, including generic equivalents</th>
<th>Corresponding dosage strength of ZUBSOLV sublingual tablets</th>
</tr>
</thead>
<tbody>
<tr>
<td>One 2 mg/0.5 mg buprenorphine/naloxone sublingual tablet</td>
<td>One 1.4 mg/0.36 mg ZUBSOLV sublingual tablet</td>
</tr>
<tr>
<td>One 8 mg/2 mg buprenorphine/naloxone sublingual tablet</td>
<td>One 5.7 mg/1.4 mg ZUBSOLV sublingual tablet</td>
</tr>
<tr>
<td>12 mg/5 mg buprenorphine/naloxone taken as:</td>
<td></td>
</tr>
<tr>
<td>• One 8 mg/2 mg sublingual buprenorphine/naloxone tablet</td>
<td>One 6.6 mg/2.1 mg ZUBSOLV sublingual tablet</td>
</tr>
<tr>
<td>• Two 2 mg/0.5 mg sublingual buprenorphine/naloxone</td>
<td></td>
</tr>
<tr>
<td>tablets</td>
<td></td>
</tr>
<tr>
<td>16 mg/4 mg buprenorphine/naloxone taken as:</td>
<td></td>
</tr>
<tr>
<td>• Two 8 mg/2 mg sublingual buprenorphine/naloxone tablets</td>
<td>One 11.4 mg/2.9 mg ZUBSOLV sublingual tablet</td>
</tr>
</tbody>
</table>

Algorithm for In-Office Induction (for home induction prescriptions may be given)

**INITIAL ASSESSMENT**
- History and Physical
- Concurrent medical issues and substance use
- Medication history (with review of the PDMP)
- Allergies
- Mental health status and social history
- Social history

**Lab Workup**
- CBC, CMP, HIV, hepatitis A, B & C
- Urine drug testing, and consider pregnancy & STD screen

**Referal**
- Refer to specialists as indicated
- Refer to counselling
- Refer to case management

**Provide Patient Education**
- Treatment goals and medication education side effects
- How to store medication at home
- Patient should update provider with new medications or other changes
- Establish open communication

**Day One (Induction)**

- Last opioid use
  - >12 hours ago
  - Moderate Withdrawal (COWS ≤ 12)
  - Give First Dose of Buprenorphine/Naloxone (2 – 4mg)

- 2 – 4 Hours Later
  - Withdrawal Symptoms Relieved?
    - Yes
      - Prescribe one dose
      - Return to clinic on day two for observation and review
    - No
      - Give further 2 – 4mg dose, up to 8mg total

- After 1 Hour
  - Monitor for precipitated withdrawal
  - If present, treat symptoms
  - Attempt induction 24 hours later

**Day Two**

- Give day 1 dose and additional 2 – 4mg up to 16mg total

- Adequate symptom relief achieved after induction?
  - Yes
    - Induction Complete - Give induction dose as ongoing dose, and review in 1 day
  - No
    - Give further 2 – 4mg dose, up to 16mg

- 2 – 4 Hours Later
  - Withdrawal Symptoms Relieved?
    - Yes
      - Induction Complete - Give induction dose as ongoing dose, and review in 1 day
    - No
      - Patient Stable on Current Dose?
        - Yes
          - Continue once daily dosing with regular review
        - No
          - Consider further 2 – 4mg dose, up to 16mg

**Maintenance**
- Perform monthly urinary drug screens, and check PDMP regularly. Ensure ongoing attendance at counseling and support groups. When patient stable on medication, assess readiness for take-home dosing