# MAT (Medication Assisted Treatment) for OUD (Opioid Use Disorder): in DPC

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# Learning Objectives

1. Compare buprenorphine, methadone, and naltrexone with respect to their mechanisms of action, indications, and clinical roles in the treatment of opioid use disorder.
2. Identify patient and clinical factors that inform selection of buprenorphine versus methadone, including treatment setting considerations and occupational implications.
3. Determine when naltrexone may be an appropriate treatment option for patients with opioid use disorder, including those with polysubstance use.

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# Is Addiction a Chronic Disease?

- **Treatment with methadone or buprenorphine following a non-fatal opioid overdose reduced subsequent opioid overdose deaths by 59%.**
- Studies show that medications for OUD reduce drug use, disease rates, and overdose events and increases retention in treatment programs while promoting recovery among individuals with OUD, according to studies.
- Benefits of treatment include:
  - Reduced risk of overdose-related deaths
  - Reduced risk of HIV and viral hepatitis infections in injection drug users
  - Lower rates of cellulitis for injection drug users
  - **Reduced criminal behavior in the community**
  - Reduced rates of psychiatric complications in the community

"There are only two industries that call their customers 'users': illegal drugs and software."
The Social Dilemma, 2020

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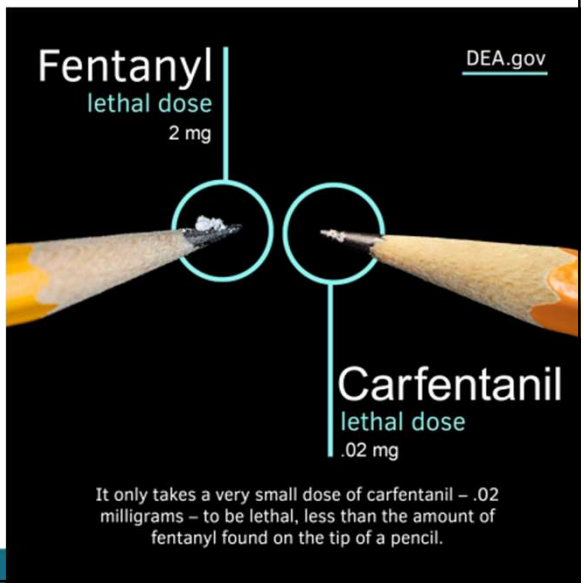
# Substance Use Disorder Rates

- 8.5% Community vs 68% Incarcerated
- The prevalence of substance use disorders is notably more disparate, with estimates of 8.5 percent in the general public (aged 18 or older) but 53 percent in state prisons **and 68 percent in jails** (Substance Abuse and Mental Health Services Administration [SAMHSA], 2014; Mumola & Karberg, 2004; Karberg & James, 2005).
- 70% of 2023 overdose deaths involved synthetic opioids (mostly fentanyl).
- Carfentanil = 100 x more potent than fentanyl




https://store.samhsa.gov/sites/default/files/d7/priv/sma16-4998.pdf

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# Buprenorphine vs Methadone

- Buprenorphine (Typically as Suboxone = Buprenorphine/Naloxone)
  - "Ceiling Effect" in which further increases above 24mg in dosage does not increase the effects on respiratory or cardiovascular function
  - MAT programs most commonly dose patients at 16mg once daily
  - Buprenorphine 40% sublingual bioavailability. Naloxone 10% SL bioavailable
  - If injected – opioid experience delayed by 20-40 mins and less euphoric due to competition between drugs for the mu receptor.
  - Acidic pH 3.4 (brush teeth after use?) + inhibit acetylcholine release ↓ saliva
- Methadone
  - Unopposed agonist. Will suppress respiratory function.
  - Starting dose often 20-30mg/day, usual maintenance 80-120mg/day
  - In an opioid naïve patient the lethal dose of methadone is 50mg.
  - If it is diverted it can be fatal.

https://www.samhsa.gov/sites/default/files/quick-start-guide.pdf
https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/022410s042lbl.pdf

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# Evidence of Buprenorphine **SAFETY**

- "Buprenorphine is a derivative of thebaine, an extract of opium. The drug is an opioid (synthetic opiate) **partial agonist** and thus can produce the euphoria, analgesia, and sedation associated with opiates; however, while it stimulates the same brain receptors as full opiate agonists such as heroin and morphine, buprenorphine **produces a lesser degree of sedation and respiratory depression than those drugs and causes no significant impairment of cognitive or motor skills**. Like methadone, buprenorphine reduces cravings for heroin and other opiates and reduces withdrawal symptoms, thus helping addicted individuals to stop abusing opiates. Also like methadone, buprenorphine blocks the effects of heroin by binding to the same opiate receptors as heroin; consequently, opiate addicts who use buprenorphine are not able to get a high from heroin."
- The FMCSA allows long haul truck drivers to take Suboxone (Buprenorphine/Naloxone) and continue to operate 18-wheelers. This is NOT the case with methadone, which the FMCSA argues causes too much sedation.

US DOJ Intelligence Bulletin Buprenorphine: Potential for Abuse Sept 2004
https://www.justice.gov/archive/ndic/pubs10/10123/10123p.pdf

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# What is the Buprenorphine "Ceiling Effect?"

- "Buprenorphine also has a "ceiling effect" whereby **increased doses of the drug do not produce increased effects after a certain point**, or ceiling. In fact, high doses of the drug **can actually precipitate withdrawal symptoms in opiate addicted individuals**. Because of this ceiling effect, buprenorphine is less susceptible to abuse than other opiates; however, because high doses of the drug can cause withdrawal symptoms, buprenorphine is not as effective as methadone in treating severely opiate-addicted individuals who require larger doses of opiates in order to maintain treatment therapy. SAMHSA advises that the best candidates for buprenorphine therapy are those patients receiving 30 milligrams or less of methadone. Buprenorphine is estimated to be effective for approximately one-half to two-thirds of the opiate abuser population."

US DOJ Intelligence Bulletin Buprenorphine: Potential for Abuse Sept **2004**
https://www.justice.gov/archive/ndic/pubs10/10123/10123p.pdf

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## Myth = Buprenorphine is misused frequently so prescribers should strictly control access.

- Fact = Buprenorphine is not a preferred substance to get high for those with opioid use disorder due to its partial opioid activator effects which limit euphoria and reward. Buprenorphine misuse is clearly associated with self-treatment of opioid withdrawal and of lack of access to treatment with medication for opioid use disorder.

https://hsc.unm.edu/medicine/research/swctn/_pdfs/bupe-fact-sheet.pdf

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## Myth =Patients can get “high” on Suboxone

- Fact = Suboxone does not cause intoxication in those persons who are opioid-dependent, given its partial opioid agonist effects of partial, not full, activation of the brain’s opioid receptors.

https://hsc.unm.edu/medicine/research/swctn/_pdfs/bupe-fact-sheet.pdf

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## Myth =Patients will just sell Suboxone

- Fact = Diversion and misuse of medications exists across the spectrum of medications. One study found similar rates of diversion between buprenorphine and antibiotics, both at approximately 20%.
- As mentioned previously, much buprenorphine misuse is clearly associated with self-treatment of opioid withdrawal symptoms and opioid cravings associated with lack of MOUD access or inability to afford prescribed medication.

https://hsc.unm.edu/medicine/research/swctn/_pdfs/bupe-fact-sheet.pdf

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## Myth = One must be fully abstinent and have a negative drug screen to start buprenorphine

- Fact = People with opioid use disorder frequently use multiple drugs in an effort to self-medicate, including efforts to reduce opioid withdrawal and cravings. Buprenorphine has a stabilizing effect which can reduce a patient's need for additional substances. Buprenorphine treatment benefits the patient even if the patient is still using other substances.

https://hsc.unm.edu/medicine/research/swctn/_pdfs/bupe-fact-sheet.pdf

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# Why is Suboxone Preferred Over Subutex?

- "Suboxone also can be diverted and abused; however, it is more likely to be abused by individuals who are addicted to low doses of opiates since it can precipitate withdrawal symptoms in high doses. The naloxone in Suboxone guards against abuse by causing withdrawal symptoms in abusers who crush and either inject or snort the drug; however, law enforcement and pharmacist reporting indicates that Suboxone is being abused successfully when snorted."
- Fentanyl + Oral Suboxone = Partial precipitated withdrawal
- Fentanyl + Injected Suboxone = Complete precipitated withdrawal

US DOJ Intelligence Bulletin Buprenorphine: Potential for Abuse Sept 2004
https://www.justice.gov/archive/ndic/pubs10/10123/10123p.pdf

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# What happens if you take too much?

- Acetaminophen – Liver failure, death
- Alcohol – Liver failure, death
- Benadryl – Anticholinergic activity, EKG changes, death
- Caffeine – EKG changes, death
- Cocaine – EKG changes, death
- Ibuprofen – Renal failure, death
- Methamphetamine – EKG changes, death
- Xanax – Respiratory suppression, death

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## What happens if you take too much?

- Buprenorphine – Mild respiratory suppression, hit ceiling, not fatal
  - Usual dose = 16mg per day - still **not** fatal even at 160mg!
- Codeine – Respiratory suppression, no ceiling, death
- Fentanyl – Respiratory suppression, no ceiling, death
- Heroin – Respiratory suppression, no ceiling, death
- Hydrocodone – Respiratory suppression, no ceiling, death
- Hydromorphone – Respiratory suppression, no ceiling, death
- Oxycodone – Respiratory suppression, no ceiling, death
- Methadone – Respiratory suppression, no ceiling, death
  - Usual dose = 80 -120mg per day. **FATAL in naïve patient starting at 50mg!**

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## Opioid Classifications

- Agonists = Bind strongly to receptor, max response
- Partial Agonists = Higher binding affinity, ceiling effect
- Antagonists = Bind firmly to receptor but do not activate it
- Buprenorphine =
  - A partial agonist with high-affinity at the mu opioid receptor
  - An antagonist at the kappa opioid receptor
  - A weak antagonist/agonist at the delta opioid receptor
  - An agonist at the nociception opioid peptide receptor (attenuates respiratory suppression)

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# What happens the patient takes Fentanyl + …

- Diazepam – Additional respiratory suppression, ↑ **risk of death**
- Buprenorphine – Partial precipitated withdrawal
- Methadone - Additional respiratory suppression, ↑ **risk of death**
- Naloxone – Complete precipitated withdrawal, ↑ **risk of seizures**
  - Vending machines in some jails
  - Some inmates allowed to administer to other inmates

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# Can We Attribute **Any** Overdoses to Buprenorphine?

- "Researchers found that buprenorphine was involved in a very small proportion of drug overdose deaths between July 2019 and June 2021. During this study period, there were 1,955 buprenorphine-involved overdose deaths, which represented 2.2% of the 89,111 total overdose deaths and 2.6% of the 74,474 opioid-involved overdose deaths recorded in the SUDORS dataset. Between April 2020 and June 2021, when buprenorphine prescribing regulations were relaxed in response to the COVID-19 pandemic, the researchers found that while monthly opioid-involved overdose deaths increased overall, the proportion of those deaths involving buprenorphine did not increase."
- "Additionally, the study found that 92.7% of buprenorphine-involved overdose deaths also involved at least one other drug, compared to 67.2% of deaths involving an opioid other than buprenorphine. Specifically, compared with other opioid-involved overdose deaths, buprenorphine-involved overdose deaths were more likely to also involve prescription medications such as benzodiazepines (36.9% vs. 14.5%), antidepressants (13.9% vs. 5.0%), and anticonvulsants (18.6% vs. 5.4%)."
- Quick Math – potential for 141/74,474 opioid deaths being attribute to buprenorphine
  - This attribution is NOT specific to the deterrent formulation of Suboxone (which includes naloxone)

NIH News Release: Overdose deaths involving buprenorphine did not proportionally increase with new flexibilities in prescribing https://www.nih.gov/news-events/news-releases/overdose-deaths-involving-buprenorphine-did-not-proportionally-increase-new-flexibilities-prescribing

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## What would happen if a patient **high** on **fentanyl** took the following:

- Oral naloxone?
- Oral naltrexone?
- Intramuscular naloxone (Narcan)?
- Suboxone (Buprenorphine/naloxone) films or tablets?
- Methadone?

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## What would happen if a patient **high** on **fentanyl** took the following:

- Oral naloxone? – Nothing, it is not orally absorbed
  - It is only a part of a suboxone film as an abuse deterrent to injecting it
- Oral naltrexone?
  - Precipitated withdrawal
- Intramuscular naloxone (Narcan)?
  - Precipitated withdrawal (potentially with seizures and other complications)
- Suboxone (Buprenorphine/naloxone) films or tablets?
  - Partial precipitated withdrawal (not as severe as Narcan)
- Methadone?
  - Additional respiratory suppression and increased risk of death

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## What happens if a patient takes **suboxone** and then **adds** the following:

- Oral naloxone?
- Oral naltrexone?
- Intramuscular naloxone (Narcan)?
- Suboxone (Buprenorphine/naloxone) films or tablets?
- Methadone?
- Fentanyl?

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## What happens if a patient takes **suboxone** and then **adds** the following:

- Oral naloxone? Nothing it is not orally absorbed
  - It is only a part of a suboxone film as an abuse deterrent
- Oral naltrexone?
  - Precipitated withdrawal
- Intramuscular naloxone (Narcan)?
  - Precipitated withdrawal
- Suboxone (Buprenorphine/naloxone) films or tablets?
  - Nothing. There is a ceiling effect. No euphoria or respiratory suppression.
- Methadone?
  - Blunted effect due to the Suboxone that the patient has already taken
- Fentanyl?
  - Blunted effect due to the Suboxone that the patient has already taken

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## Do the following increase or decrease the risk of seizures?

- Acute alcohol intoxication
- Acute methamphetamine intoxication
- Acute cocaine intoxication
- Fentanyl withdrawal
- Naloxone administration

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## Do the following increase or decrease the risk of seizures?

- Acute alcohol intoxication – decreases seizure risk
- Acute methamphetamine intoxication – increases seizure risk
- Acute cocaine intoxication – increases seizure risk
- Fentanyl withdrawal – increases seizure risk
- Naloxone administration – increases seizure risk

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# Boston Addiction Specialist Argues that Buprenorphine Should Be W/O an Rx

- "Boston University addiction experts Payel Roy and Michael Stein argue in a new editorial published in JAMA that lives could be saved by making one of these three medications, buprenorphine, more accessible to patients as a behind-the-counter drug monitored and administered by pharmacists."
- Harvard "5 myths about using Suboxone to treat opioid addiction"
  - You aren't really in recovery if you're on Suboxone
  - People frequently misuse Suboxone
  - It's as easy to overdose on Suboxone as it is to overdose with other opioids.
  - Suboxone isn't treatment for addiction if you aren't getting therapy along with it.
  - Suboxone should only be taken for a short period of time.

https://www.bu.edu/articles/2019/buprenorphine-without-prescription/

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# Why Switch to Long-Acting Injectable Buprenorphine?

- Sublocade
  - One-month 100 or 300 mg doses depot buprenorphine product
  - Dissolved in a biocompatible solvent
  - Liquid polymer system solidifies upon contact with bodily fluids to form solid
  - Buprenorphine is slowly released as the polymer biodegrades
  - Stored at 35.6-46.4 F, can be room temp for 12 weeks prior to use
  - 19-gauge 5/8-inch needle with an abdominal injection volume 0.5-1.5m:
- Brixadi
  - Weekly doses at 8, 16, 24 and 32 mg formulations
  - Monthly doses at 64, 96, and 128mg formulations
  - Fluid solution transforms into a nanostructured liquid-crystalline gel
  - Stored at room temperature
  - 23-gauge 1/2-inch needle with a buttock/thigh/abd/arm injection volume of 0.16-0.64mL
- Effective suppression of opioid dependence occurs when 70% of mu opioid receptors are occupied, or at plasma concentrations down to > 2 ng/ml
- Injectable efficacy in the 70% range compared to 50% in SL range

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# Why Switch To From Buprenorphine to Methadone?

- Some patients have continued cravings for opioids on buprenorphine
- Ceiling effect means higher doses do not have more effect
- Methadone has no ceiling effect

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# Not Licensed to prescribe Methadone? The OTP rule was updated in 2024

- Expanding the Definition of Long-Term Care Facilities
- There is widespread support among commenters for the addition of jails and prisons under the definition of long-term care facilities at 8.11(h)(3), thus expanding the waiver of OTP certification to better allow for equitable access to treatment and reduce the potential for civil rights violations. Group homes and withdrawal management programs are also mentioned by some commenters in this context, as well as any licensed non-hospital residential treatment programs with medical staffing, a DEA registration and the ability to administer/store/dispense prescription medications. Several commenters also requested the removal of waiver language that specifies the OUD diagnosis be secondary to another condition.
- Response: Language has been added to the final rule, at Section 8.11(h)(3), to highlight that these flexibilities may apply to a correctional facility that has registered with the DEA as a hospital/clinic. If a correctional facility has registered as a hospital/clinic, a physician or authorized staff **may administer or dispense narcotic drugs to maintain or manage withdrawal for an inmate as an incidental adjunct to medical or surgical treatment of conditions other than addiction**. Rules regarding controlled substance dispensing that is outside the context of OTPs, such as waiver language that specifies the OUD diagnosis be secondary to another condition, is beyond the scope of this rulemaking. SAMHSA notes that the Centers for Medicare & Medicaid Services released new guidance encouraging States to apply for a new Medicaid re-entry Section 1115 waiver demonstration project for those persons leaving jails and prisons that this final rule may help facilitate.

https://www.federalregister.gov/documents/2024/02/02/2024-01693/medications-for-the-treatment-of-opioid-use-disorder

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# Title 42, Chapter I, Subchapter A, Part 8, Subpart C Section 8.11(h)(3)

- Certification as an OTP under this part is not required for the initiation or continuity of medication treatment or withdrawal management of a patient who is admitted to a hospital, long-term care facility, or correctional facility, that is **registered with the Drug Enforcement Administration as a hospital/clinic**, for the treatment of medical conditions other than OUD, and who requires treatment of OUD with methadone during their stay, when such treatment is permitted under applicable Federal law.
- (i) The term "long-term care facility" is defined in § 8.2. Nothing in this section is intended to relieve hospitals, or long-term care facilities and correctional facilities that are registered with the Drug Enforcement Administration as a hospital/clinic, from their obligations to obtain appropriate registration from the Attorney General, under section 303(g) of the Controlled Substances Act. Treatment provided under this section should always comply with applicable Federal laws.

https://www.ecfr.gov/current/title-42/chapter-I/subchapter-A/part-8/subpart-C/section-8.11#p-8.11(h)

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# Johns Hopkins Methadone Final Rule Interpretation

- "The revised rules clearly and unequivocally state that a carceral setting may register as a hospital/clinic and use methadone under the exemption available to hospitals/clinics. Under this exemption, the clinic can dispense methadone for opioid withdrawal syndrome and/or treatment of opioid use disorder to patients, provided that they have **an additional diagnosis** besides opioid withdrawal syndrome and/or opioid use disorder. The guidance does not list or otherwise specify the additional diagnoses that are required to use this option, which gives some leeway to the clinician. There should be clear documentation in the medical record identifying what additional diagnoses the patient has."

https://opioidprinciples.jhsph.edu/expanding-access-to-methadone-treatment-for-opioid-use-disorder-in-carceral-setting/

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## Is **NOT** treating addiction an ADA Violation?

- **Yes – Often this is the case**
- A plaintiff must demonstrate that they are:
- 1) "A qualified individual with a **disability**," that was
- 2) "**either excluded** from participation in or **denied** the benefits of **some pubic entity's** services, programs, or activities or was otherwise discriminated against," and that
- 3) "such exclusion, denial of benefits, or discrimination was by reason of the plaintiff's disability."

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## Does a patient with opioid use disorder have a disability under the ADA?

- **Yes**
- Drug addiction is considered a mental or physical impairment
- Individuals in recovery are also protected by the ADA (since they would be limited in a major life activity in the absence of treatment)
- See 42 U.S.C. § 12102; 28 C.F.R. § 35.108(b)(2)
- The ADA covers people on MOUD **except those** that are "**currently** using illegal drugs." For the most part that means **two weeks of use**, but this is **outside the jail/prison setting**. A **jail/prison setting is considered a health care setting**, so **even if you have an inmate that uses illegal drugs in prison there is a strong legal argument that they are still entitled to MOUD**.

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# DOJ Mandating a Change to Outdated Blanket Policies

- In many states skilled nursing facilities have historically not admitted patients on current MOUD. This blanket policy was problematic.
- The DOJ is VERY CLEAR that if a facility does not allow incoming inmates to continue taking MOUD prescribed before their detention. The facility's blanket policy prohibiting the use of MOUD will lead to litigation.
  - ADA Litigation
  - Civil Rights Deliberate Indifference Cases Under the 8th or 14th Amendments
  - Medical Malpractice (this is not the standard of care in the community)
- Arguing that you provide only naltrexone and not buprenorphine will NOT be a defense.
- All facilities must find a way to offer ALL THREE forms of MOUD treatment
- Treating with buprenorphine now ↓ litigation risk
- Litigation via the ADA could lead to more methadone txt mandates.

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# Salt Lake City Jail Example

- They have had 1,012 patients in the program.
- 374 on methadone, 430 on suboxone, and 208 on vivitrol.
- 138 suboxone patients were released from jail and 59% of them followed up in the community.
- Total patients that returned to jail in the regular program is 74%, but those in MAT had a recidivism rate at 11.5%.
- Since starting MAT their admin seg unit population has fallen and there are fewer behavioral issues. Security staff has fewer behavior issues.

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# Colorado Department of Corrections 2023 Data

- 15,698 inmates
- 804 patients on MAT treatment (small subset of estimated OUD total)
- Methadone: 33 patients (became an opioid txt program (OTP) on 06/26/23)
- Buprenorphine: 673 patients: 672 on Suboxone/Subutex, 1 on Sublocade
- Naltrexone: 98 patients
- Approximately 2% of patients with OUD overdose/die within one month of parole. 90% of those that died were discharged from prison without an MAT Rx.

https://leg.colorado.gov/sites/default/files/images/committees/opioid_sud_interim_committee_moud_in_the_cdoc_2023.pdf

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# Goals of the Suboxone Program

- Zero ER runs for overdoses of fentanyl
- Zero Hepatitis C reinfections
- Fewer ER runs for inmate assaults
- Less manipulation / drug seeking within the facility
  - Dissipate the demand for diversion of ALL opioids including fentanyl
- Fewer suicide attempts
  - Per NCCHC buprenorphine prescribing reduces suicidality
- More participation in jail/prison programming efforts
- Favor Suboxone over methadone – act now or litigate & lose later…
  - Treating OUD patients with suboxone decreases the chance the facility loses a lawsuit that would force wider methadone prescribing.
- Stability on discharge
  - Less recidivism (↓ by 32% in two rural Massachusetts jails)
  - Fewer overdoses shortly after discharge

https://www.nih.gov/news-events/news-releases/offering-buprenorphine-medication-people-opioid-use-disorder-jail-may-reduce-rearrest-reconviction

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# How do we **stop** diversion?

- Kill the underground diversion market by treating all who qualify!
  - Those trying to store Suboxone will have no one wanting to buy it
  - Drug dogs could still be used to detect and get rid of inmate stores
- Closer 1:1 observation with either liquid or crushed Suboxone?
  - **Attempted = Too time-consuming** to watch each patient for ten minutes…
  - We never allowed the patient to handle the medication (place it in the mouth)
  - Video administration with artificial intelligence, not there yet…
  - No talking, chew and swallow cracker with water, and…. still diverted!
  - Fake absorbent tooth, sponge under the tongue
- Stopping the med once diversion is observed?
  - Outdated clinical practice, **not an evidenced based** way to treat addiction
  - This approach will lead to litigation, staff burnout, grievances, overdoses, etc
- Repeated drug screens & drug levels
  - Useful at times; polysubstance abuse is **not a reason to stop treatment**
- Pricing comparisons of different buprenorphine formulations
  - Brixadi (long-acting injectable buprenorphine) = $1,726 per patient per month
  - Sublocade (long-acting injectable buprenorphine) = $2,078 per patient per month
  - Suboxone tabs 16/4mg per day dosage = $54.84 per patient per month
  - Suboxone films 16/4mg per day dosage = $131.96 per patient per month
  - Suboxone Suspension 16/4mg per day = $302.42 per patient per month

FOR ILLUSTRATION PURPOSE ONLY. ACTUAL PRODUCT MAY VARY.

https://www.cfspharmacy.pharmacy/buprenorphine-suspension-compounded

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# Suboxone Review

- Can opioid use disorder patients get high on Suboxone? NO
  - So why do some patients divert it? For others to avoid withdrawal.
- Can patients overdose on Suboxone? NO
  - One month's worth of saved doses taken = no deaths even if one person took it all
  - The ceiling effect prevents overdoses of OTHER opioids (fentanyl) as well!
  - Compare to methadone = one month of saved doses could kill 30 people!
- Do all patients with OUD have a federal ADA right to treatment? YES
  - This is safer than methadone and more effective than naltrexone
- Is there any state or federal law mandating observed therapy? NO
  - If it were KOPed (not recommended) then 8+ urine drugs screens annually
- Should the budget be a basis for limiting Suboxone Prescriptions? NO

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# Low Budget Suboxone Logistics

- Obtain Suboxone 8/2 Tablets for around $50 per patient per month
  - Injectables cost around $2,000 per month (only way to totally stop diversion)
- Treat most patients with 16mg once daily
  - Rarely 24mg dosed as 8mg TID, NEVER above 32mg daily
- Administer Suboxone at one regular pill pass per day
  - Vermont DOC moved Suboxone to regular pill pass in Feb 2025
  - No need to waste time monitoring for diversion
  - No extra nursing or custody staff needed
  - Use a drug dog to sweep for any stores periodically
- Remember that **when** suboxone is diverted in your facility:
  - No one "got high" – merely avoided withdrawal (coffee & ibuprofen analogy)
  - Fewer people overdosed on fentanyl and other opioids as a consequence
  - Stopping a diverted Suboxone Rx is NOT evidence-based care (lose if litigated)
  - Diversion rates will fall as the program is expanded to all OUD patients

Methadone is far more dangerous and **should remain on a monitored dedicated medication pass**.

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# Leaving Custody While Continuing Suboxone

- Any community prescriber with a DEA license can prescribe it
  - Methadone programs and access are very limited
- It can be prescribed monthly upon discharge
  - Methadone programs typically start with daily administrations
  - Pill lines can take up hours of time every day
- Patients can continue to work while on Suboxone
  - They can still be FMCSA certified truck drivers
  - Methadone (per FMCSA regs) disqualifies one from being a truck driver
  - Monthly supplies of medication make holding a job easier than a daily pill line

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# Suboxone Microdosing Induction – 1 Week

| Day | Dosing | Fraction of Bup/Nal | Opioid |
|---|---|---|---|
| Day 1 | 0.5 mg Daily | ¼ film (2/0.5mg) daily | Continue Current Dose |
| Day 2 | 0.5mg BID | ¼ film (2/0.5mg) BID | Continue Current Dose |
| Day 3 | 1mg BID | ½ film (2/0.5mg) BID | Continue Current Dose |
| Day 4 | 2mg BID | 1 film (2/0.5mg) BID | Continue Current Dose |
| Day 5 | 2mg TID | 1 film (2/0.5mg) TID | Continue Current Dose |
| Day 6 | 4mg BID | 2 films (2/0.5mg) BID | Continue Current Dose |
| Day 7 | 4mg TID | 2 films (2/0.5mg) TID | Continue Current Dose |

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# Methadone – Package Insert Black Box Warnings

- "Methadone products, when used for the treatment of opioid **addiction** in detoxification or maintenance programs, shall be **dispensed only by certified opioid treatment programs as stipulated in 42 CFR 8.12**."
- "**QT interval prolongation** and serious arrhythmia (torsades de pointes) have occurred during treatment with methadone. Closely monitor patients with risk factors for development of prolonged QT interval, a history of cardiac conduction abnormalities, and those taking medications affecting cardiac conduction."
  - Usually only a risk at higher doses such as 200mg daily or more
  - Most methadone clinics do not bother with a screening EKG at initiation
  - Most obtain an EKG at a dose of 150mg or more per day

Methadone FDA Package Insert

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# Methadone – Package Insert Black Box Warnings

- "Concomitant use with CYP3A4, 2B6, 2C19, 2C9 or 2D6 inhibitors or discontinuation of concomitantly used CYP3A4, 2B6, 2C19, or 2C9 inducers can result in a fatal overdose of methadone."
- "Concomitant use of opioids with benzodiazepines or other central nervous system (CNS) depressants, including alcohol, may result in profound sedation, respiratory depression, coma, and death."
- "Serious, life-threatening, or fatal respiratory depression may occur. The **peak respiratory depressant effect of methadone occurs later, and persists longer than the peak analgesic effect**. Monitor closely, especially upon initiation or following a dose increase."

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# Methadone – PAIN - Indications

- Can be prescribed OUTSIDE of a certified opioid treatment program – for pain
- For opioid naïve patients, initiate methadone tablet treatment with 2.5mg every 8 to 12 hours. When taken for pain purposes it is usually dosed every 8 hours. For OUD it is dosed once per day.
- Titrate slowly with dose increases no more frequent than every 3 to 5 days.
- A single dose of 20 to 30 mg may be sufficient to suppress withdrawal syndrome
- Methadone Bioavailability = 85%
  - vs 26% for morphine vs ≈30% for buprenorphine (person-to-person variability)
- Methadone is hepatically metabolized and unlike morphine no renal adjustments are needed

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## Methadone Contraindications / Concerns

- Respiratory Depression (if severe) including severe asthma
- Gastrointestinal Obstruction (known or suspected paralytic ileus)
- Serotonin Syndrome
- Adrenal Insufficiency
- Severe Hypotension
- Worsened Sedation in those with:
  - Increased intracranial pressure
  - Brain tumors
  - Head Injuries

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## Methadone Most Common Side Effects

- Lightheadedness
- Dizziness
- Sedation
- Nausea
- Vomiting
- Sweating

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## Methadone Pharmacokinetics

- With repeated dosing, methadone is retained in the liver and then slowly released, prolonging the duration of potential toxicity
- Discontinue all other around-the-clock opioid drugs when methadone therapy is initiated. Deaths have occurred in opioid-tolerant patients during conversion to methadone.
- Terminal half life can vary from 8-59 hours
  - Usually assumed to be 22 hours in “average person”
  - Lipophilic – drug accumulation occurs with repeat dosing
  - Methadone reabsorption from the tissues may continue for weeks after stopping (this lets it *act* like a longer acting opioid)
- Titrate up slowly over 3-12 days between dosage increases
- Taper by 15-50% every two to four days if stopping

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## Converting TO Methadone

| Total Daily Oral Morphine Equivalent | Est Daily oral Methadone |
|---|---|
| <100mg | 20-30% |
| 100-300mg | 10-30% |
| 300-600mg | 8-12% |
| 600 – 1,000mg | 5-10% |
| >1,000mg | < 5% |

- Calculate the daily dose of methadone, start BID

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# Methadone Initiation

- Patient should have withdrawal symptoms but no sedation or intoxication.
- The initial dose should not exceed 30mg… changing to 40mg?
- Wait 2-4 hours then order another 5-10mg if withdrawal not suppressed.
- Do NOT determine initial doses based on previous treatment episodes or dollars spent per day on illicit drug use.

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# Methadone Formulations

- Tablets in 5mg or 10mg dosages, most patients are dosed in liquid form
  - A one-week supply of tablets would often be 70-140 tabs
- A "normal" dose of methadone is between 80-120mg per day. It is not uncommon for some patients to go up to 220mg per day.
  - It is mostly taken once per day, but some patients do better BID
  - OTPs have to apply to the federal (and often state government) to get approval for a "split dose" regimen so that the patient can take it BID
  - Split dosing is more common in pregnancy starting at the second trimester
  - Split dosing is also more common in patients with pain at night
- Starting dose per 50+ year old federal law = 30mg (changing to 40mg?)
  - Old protocol is to increase by 5mg every 3-5 days
- In the fentanyl era we need to be faster and more aggressive (mg every 3-5 days)
  - Most go from 30 to 60mg and then slow the taper to slower increases every three days
  - Above 75-80mg the dose can be increased by 10mg every 5-7 days
  - Many do not stop using fentanyl until they reach 120mg per day of methadone
- See Canadian Document "How to Dose Methadone in the Fentanyl Era" 10-15 every 2-3 days to get patients stable quickly

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# Do not drive until you are at your baseline

- Document the patient's baseline normal drug level
- This can be important in the event of a subsequent investigation
  - Employer inquiries after work accidents
  - Criminal inquiries after motor vehicle accident
  - Methadone = Fail DOT physical (Automatic) but not buprenorphine
  - Life insurance (combatting drug overdose as a cause of death)
- Watch for level changes with subsequent drug interactions
- What if the patient misses 1-4 days of methadone?
  - Do not change the dose yet
- What if the patient has missed more than 5 days of methadone?
  - The average clinic will reduce the dose by 20%

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# Missed Dose Protocol

| Days Missed | Dose Change |
|---|---|
| Three days | No adjustment – continue at baseline dose |
| Four days | The higher of 50% of previous dose or 30mg |
| Five days | Restart at 30mg |

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## Do the "Eye's Have it"?

- Not necessarily
- Methadone causes miosis, even in total darkness.
- Pinpoint pupils are a sign of opioid overdose but are not pathognomonic (e.g., pontine lesions of hemorrhagic or ischemic origins may produce similar findings).
- Marked mydriasis rather than miosis may be seen due to hypoxia in overdose situations.

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## Why Do We Expect Constipation?

- "Methadone causes a reduction in motility associated with an increase in smooth muscle tone in the antrum of the stomach and duodenum. Digestion of food in the small intestine is delayed and propulsive contractions are decreased. Propulsive peristaltic waves in the colon are decreased, while tone is increased to the point of spasm, resulting in constipation. Other opioid-induced effects may include a reduction in biliary and pancreatic secretions, spasm of sphincter of Oddi, and transient elevations in serum amylase."

Methadone FDA Package Insert

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# Methadone Clinics

- 60% are private and for profit with shareholders
- Most are open from around 5:30 AM to Noon
  - One 24-hour clinic exists in Phoenix
- Most clinics use liquid methadone rather than pills
- Dosing may take minutes, but patient may stand in line for 2 hours
- To qualify patients must have had OUD for more than a year
  - Also check proximity to the clinic, govt ID, over age 18, transportation
- Office staff should have a "methadone checklist"
- Methadone is generally not in the PDMP (call the methadone clinic)

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# Methadone Regulations

- Federal rules require daily visits for the first thirty days
- Initial intake and paperwork takes 1-4 hours
  - Initial screening exam
  - Full physical exam
  - Drug screens at least eight times per year
  - Counseling available, but no longer required (cannot be sole basis for declining to prescribe methadone)
  - Labs should be drawn – may be refused and refusal cannot be the sole basis for declining to prescribe methadone
- Consider your geography https://dpt2.samhsa.gov/treatment/
- 80% of US counties do not have any methadone OTPs
- There are none in the state of Wyoming

Methadone FDA Package Insert

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## New Federal Regulations for Opioid Treatment Programs

### Key Components of the Final Rule

- Substantive, procedural, and linguistic changes to adopt a more patient-centered approach to treatment in OTPs.
- Permanent authorization for expanded take-home methadone, including up to a 7-day take-home supply during the first 14 days of treatment.[5]
- Permanent authorization for OTPs to conduct patient screenings and full examinations via telehealth, including for patients being evaluated for treatment with methadone.
- Authorization for non-OTP practitioners to conduct initial screenings and examinations outside of an OTP.
- Prohibiting the denial of MOUD based on a patient's refusal of counseling services.
- Elimination of non-evidence-based admissions criteria (e.g., the requirement that a patient must have a 1-year history of OUD, with limited exceptions).
- Improvements to interim treatment, including access to take-home doses.
- Elimination of outdated regulatory provisions related to the X-waiver.

**The Final Rule does not affect the applicability of state laws, including state laws that are more restrictive than federal law.**[6] Many states regulate certain aspects of methadone treatment more strictly than the Final Rule (e.g., admission requirements, methadone take-homes, and drug testing frequency). Information on state laws regulating methadone treatment in OTPs is available from The Pew Charitable Trusts and PDAPS.org. **OTPs also frequently implement stricter policies and practices than required by state and federal law,** which can limit patient access to flexibilities such as increased methadone take-home supplies.



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| | Final Rule | Old Rule |
|---|---|---|
| **Initial Dosages** | + Requires OTPs to consider "the type(s) of opioid(s) involved in the patient's opioid use disorder, other medications or substances being taken, medical history, and severity of opioid withdrawal."[67]<br>+ Specifies that the total dose for the first day should not exceed 50mg unless the OTP practitioner finds and documents sufficient medical rationale for a higher dose.[68] | + Initial dose limited to 30mg.<br>+ Total dose for the first day limited to 40mg unless the program physician documented that 40mg "did not suppress opioid abstinence symptoms." |
| **Split Dosing**[69] | + Authorizes OTPs to provide split doses of MOUD, including methadone, "where such dosing regimens are indicated."[70]<br>+ Includes split doses for take-home doses of methadone.[71] | + Not addressed. |
| **Guest Dosing** | + Patient may obtain treatment at another OTP "in circumstances involving an inability to access care at the patient's OTP of record," as determined by the medical director or program practitioner of the patient's OTP.[72]<br>+ Circumstances include, but are not limited to, "travel for work or family events, temporary relocation, or an OTP's temporary closure."[73] | + Prohibited patient from obtaining "treatment in any other OTP except in exceptional circumstances." |

| | Final Rule | Old Rule |
|---|---|---|
| **Stability Criteria for Methadone Take-Homes**[57] | + Absence of active substance use disorders, other physical or behavioral health conditions that increase the risk of patient harm as it relates to the potential for overdose, or the ability to function safely.<br>+ Regularity of attendance for supervised medication administration.<br>+ Absence of serious behavioral problems that endanger the patient, the public or others.<br>+ Absence of known recent diversion activity.<br>+ Whether take-home medication can be safely transported and stored.<br>+ Any other criteria that the medical director or medical practitioner considers relevant to the patient's safety and the public's health.<br>+ Other pertinent factors that indicate the therapeutic benefits of unsupervised doses outweigh the risks.[58] | + Absence of recent abuse of drugs (opioid or nonnarcotic), including alcohol.<br>+ Regularity of clinic attendance.<br>+ Absence of serious behavioral problems at the clinic.<br>+ Absence of known recent criminal activity, e.g., drug dealing.<br>+ Stability of the patient's home environment and social relationships.<br>+ Length of time in comprehensive maintenance treatment.<br>+ Assurance that take-home medication can be safely stored within the patient's home.<br>+ Whether the rehabilitative benefit the patient derived from decreasing the frequency of clinic attendance outweighs the potential risks of diversion. |



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| Time-in-Treatment for Methadone Take-Homes[59] | Final Rule | Old Rule |
|---|---|---|
| 1-14 Days | Up to 7-day supply | 1 dose/week |
| 15-30 Days | Up to 14-day supply | 1 dose/week |
| 31-90 Days | Up to 28-day supply | 1 dose/week |
| 91-180 Days | Up to 28-day supply | 2 doses/week |
| 181-270 Days | Up to 28-day supply | 3 doses/week |
| 271 Days to 1 Year | Up to 28-day supply | Up to a 6-day supply |
| 1 Year to 2 Years | Up to 28-day supply | Up to a 2-week supply |
| 2+ Years | Up to 28-day supply | Up to a 1-month supply |



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# Adding Buprenorphine to Methadone = Withdrawal

- "Avoid the use of mixed agonist/antagonist (i.e., pentazocine, nalbuphine, and butorphanol) or partial agonist (e.g., buprenorphine) analgesics in patients who are receiving a full opioid agonist, including DOLOPHINE Tablets. In these patients, mixed agonists/antagonist and partial agonist analgesics may reduce the analgesic effect and/or may precipitate withdrawal symptoms."
- Switching from methadone to buprenorphine the old way is challenging – must reduce methadone gradually back to 30mg daily for a week, then stop the medication for around 2-3 days and then once 3 days into withdrawal usually ok to start buprenorphine.
- If attempting a microdosing (new) transition most try to reduce methadone dose to 80mg first.



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# Recommended Resources

- Substance Abuse and Mental Health Services Administration. Guidelines for Successful Transition of People with Mental or Substance Use Disorders from Jail and Prison: Implementation Guide. (SMA)-16-4998. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2017.
  - https://store.samhsa.gov/sites/default/files/d7/priv/sma16-4998.pdf
- Opioid Use Disorder: Diagnosis, Evaluation, and Treatment. Federal Bureau of Prisons Clinical Guidance, August 2021.
  - https://www.bop.gov/resources/pdfs/opioid_use_disorder_cg.pdf
- Clinical Use of Extended-Release Injectable Naltrexone in the Treatment of Opioid Use Disorder: A Brief Guide 2015.02.02
  - https://store.samhsa.gov/sites/default/files/d7/priv/sma14-4892r.pdf
- Using the Americans with Disabilities Act to Reduce Overdose Deaths David Howard Sinkman Assistant U.S. Attorney Eastern District of Louisiana Gregory Dorchak Assistant U.S. Attorney District of Massachusetts
  - https://www.justice.gov/file/1467861/download (pages 117-132)

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# Additional Recommended Reading

- Wakeman SE, Barnett ML. Primary Care and the Opioid-Overdose Crisis - Buprenorphine Myths and Realities. N Engl J Med. 2018 Jul 5;379(1):1-4. doi: 10.1056/NEJMp1802741. PMID: 29972748.
  - https://www.nejm.org/doi/full/10.1056/NEJMp1802741
- Top Ten Buprenorphine Myths and Misconceptions
  - https://hsc.unm.edu/medicine/research/swctn/_pdfs/bupe-fact-sheet.pdf
- Tanz LJ, Jones CM, Davis NL, Compton WM, Baldwin GT, Han B, Volkow ND. Trends and Characteristics of Buprenorphine-Involved Overdose Deaths Prior to and During the COVID-19 Pandemic. JAMA Netw Open. 2023 Jan 3;6(1):e2251856. doi: 10.1001/jamanetworkopen.2022.51856. PMID: 36662523; PMCID: PMC9860517.
  - https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2800689

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*Live Content Slide*

*When playing as a slideshow, this slide will display live content*

# Social Q&A for MAT (Medication Assisted Treatment) for OUD (Opioid Use Disorder) in DPC (Direct Primary Care)

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DPC Frontier, LLC
DPC Summit July 2026

| | **Buprenorphine** | **Methadone** |
|---|---|---|
| Cravings Reduced | Yes, hopefully before ceiling | Yes, and there is no ceiling |
| Can pt still abuse opioids | No | Yes |
| Overdose (Resp Supp) Risk | No | Yes |
| Misuse Risk (Diversion) | Low | High |
| Hyperalgesia Risk | No | Yes – often need to increase dose |
| Testosterone Suppression | Minimal | Substantial |
| | | |
| Safety Sensitive Jobs | Permitted | Prohibited |
| Subject to ADA protections | Yes | Yes |
| Daily Pill Line | No, monthly Rx | Yes, get in line |
| Rural Availability | Yes, most PCP offices | No, OTPs urban only |
| Monthly Injectable Option | Yes | No |
| Must do urine drug screens | Yes | Yes |
| | | |
| Fatigue | No | Yes |
| Weight Gain | No | Yes |
| Constipation | Yes (less) | Yes (more) |
| Reduce Salivary Production | Yes (less) | Yes (more) |
| Lower Extremity Swelling | Yes (less) | Yes (more) |
| Urinary Retention | Yes (less) | Yes (more) |
| | | |
| Induction must be painful | No (not with microdosing!) | No |
| Cost of the Medication | 8/2mg tabs (2) daily $53.16 | 30 to 120mg daily $9.29 |
| Cost of the prescriber visit | Included in primary care | Dedicated OTP clinic spot |
| Take w/naltrexone for AUD | No | No |
| Inappropriate use can = | Partial Precip Withdrawal | Overdose and death |
| | | |
| Less Likely to go to jail | Yes | Yes |
| Less likely to get Hep C | Yes | Yes |

**Opioid Use Disorder**
**<u>Initial</u> History**

Do you have issues with:
Controlling your opioid use Yes
Compulsion to use opioids Yes
Cravings to use opioids Yes
Continued opioid use despite the negative consequences Yes

What was your drug of choice (last use, frequency, amount, route of administration)?
Do you use kratom or any kratom extracts or 7-OH (7-hydroxymitragynine) tablets?
Have you previously signed a controlled substance agreement?
Have you undergone behavioral therapy?
Have you had inpatient treatment?
Have you ever overdosed?
When did you start using?

Have you taken buprenorphine/naloxone (suboxone), methadone and/or naltrexone?
If yes, what was your dose? How did you get it? Were you stable? Did you divert it? Did you plan to take it for life or did you try tapering off of it?

Have your friends or family complained about your substance use? Yes
Have you ever wanted to reduce your opioid use? Yes
Have you been diagnosed with PTSD, depression, anxiety, personality, psychotic or bipolar disorders?
Do you suffer from chronic pain as well as opioid use disorder?
What is your educational and work history?

Do you have side effects to report?
Constipation?
Esophageal Spasms?
New dental caries?
Lower extremity swelling?
Urinary hesitancy?

**<u>Once Undergoing MAT Treatment / Follow Up Visit History</u>**:
Is your current dosage suppressing opioid cravings?

Do you have any opioid withdrawal symptoms now?
- Restlessness, irritability, anxiety
- Insomnia
- Muscle aches and muscle twitching
- Yawning
- Abdominal cramps, nausea, diarrhea, vomiting

Do you have any medication side effects to report?
Constipation?
Esophageal Spasms?

Lower Extremity Swelling?
Gynecomastia?

**Physical Exam (default normal observations)**

Gen: NAD, not in active withdrawal
Neck: no JVD
Eyes: pupils are not dilated, no increased tearing
Nares: without rhinorrhea
Skin: without diaphoresis, no piloerection
Abd: without obvious distension or ascites
Lungs: no coughing, speaking in full sentences
Neuro: no tremor, normal gait, stable mentation, responds appropriately to questions

**Baseline Labs/Testing**
Urine Drug Screening & Urinalysis 003038 ($2.25)
TSH 004259 ($3.95) (often underactive if history of heavy and recent stimulant use)
CMP 322000 ($2.91) & CBC 005009 ($2.39)
Hepatitis Panel 322744 ($21.70) HIV screening 083935 ($7.00)
EKG is optional unless methadone dose at 150mg per day or higher

**Follow Up Labs/Testing**
Urine Drug Screening (Often $20 or more at least 9 times per year)
CMP quarterly if naltrexone to monitor LFTs, otherwise not needed

**Medications**

Buprenorphine 8mg tabs $54.84
Buprenorphine/Naloxone (Suboxone / Zubsolv) tabs 8/2mg BID $53.16
Buprenorphine/Naloxone (Suboxone / Suboxone) films 8/2mg BID $131.96
Buprenorphine compound suspension $302.42
Sublocade (buprenorphine) ER inj (monthly 19 5/8 gauge needle, keep in fridge) $2,078
Brixadi (buprenorphine) ER inj (23 ½ gauge needle, no fridge, weekly or monthly) $1,726
- Day 0 = 4mg Buprenorphine sublingual
- Day 1 = 16mg injection in the right thigh
- Day 3 = 8mg injection in the left thigh
- Day 8 = 24mg injection in the abdomen
- Day 28 = 96mg injection in the buttocks and then monthly

Methadone 30 to 120mg daily $9.29
Naltrexone 50mg daily $24.09 (opioid and alcohol use disorder indications)
Naltrexone (Vivitrol) 380mg IM monthly $1,495.91
Clonidine 0.1mg PO Q 6 hours prn ($2.46)
Dicyclomine 10-20mg PO Q6 hours prn ($8.65)
Loperamide 2mg PO Q 6 hours prn ($13.38)
Ondansetron 4mg PO Q 6 hours ($19.19)

**Assessment =** F11.10 Opioid abuse, uncomplicated

**Orders** = Monthly follow up visits with routine urine drug screens (8 or more per year)

**Education & FAQs**: Also consult the FBOP guide for opioid use disorder

CDC attempted to reduce rates of addiction by noticing that around 80% of opioid prescriptions related to procedural pain went unused because patients generally stopped the medications around day three.

Simple dependence vs complex dependence (addiction). Addiction is a continuum of disorders. Only severe substance use disorder is addiction. Simple dependence involves stopping an opioid, having a few days of withdrawal symptoms and then feeling well. In complex dependence you also have some withdrawal for a few days, but rather than going back to normal you might have hyperalgesia, dysphoria, sleep disturbances that persist for weeks to months.

Studies show that up to 65% of incarcerated individuals meet the criteria for a substance use disorder and up to one-quarter of these inmates have OUD. Also, studies have found that individuals with OUD have a much higher risk of death from drug overdose in the first 2 weeks after release from prison compared to the general population.

When do opioid withdrawal symptoms usually start?

Short-acting opioids – as early as 8 hours up to 10 days
Long-acting opioids – as early as 36 hours up to 14 days

The American Society of Addiction Medicine (ASAM) recommends using a COWS score or ≥ 11 as an appropriate level of withdrawal for starting buprenorphine in patients who are current opioid users. Patients are likely to achieve this level of withdrawal after a period of time has elapsed from the last opioid dose, depending on the duration of action of the opioid, as follows:
• 6-12 hours for short-acting opioids (immediate-release morphine, heroin)
• 24 hours for sustained-release opioid medications
• 24-72 hours for methadone (For methadone doses ≥ 30mg, more time may be required before buprenorphine can be initiated.)

What happens if addiction is not viewed as a chronic disease?

Treatment with methadone or buprenorphine following a non-fatal opioid overdose reduced subsequent opioid overdose deaths by 59%. Studies show that medications for OUD reduce drug use, disease rates, and overdose events and increases retention in treatment programs while promoting recovery among individuals with OUD, according to studies. Benefits of treatment include:
• Reduced risk of overdose-related deaths
• Reduced risk of HIV and viral hepatitis infections in injection drug users
• Lower rates of cellulitis for injection drug users
• Reduced criminal behavior in the community
• Reduced rates of psychiatric complications in the community

Behavioral therapy includes motivational interviewing, cognitive behavioral therapy, family therapy, 12-step programs, addiction counseling, and group therapy

The DSM-5 criteria for opioid use disorder are based on identifying at least two out of 11 manifestations of "clinically significant impairment or distress" resulting from opioid use. The criteria
also address severity of the condition (mild, moderate, or severe) and status of treatment (early remission, sustained remission, and/or the use of maintenance therapy).

Are there false positives on a Urine Drug Screen?

Yes. Amphetamines are commonly positive due to Adderall. Others might include bupropion, metformin, Sudafed, labetalol can all lead to a positive amphetamine UDS screening. Diazepam is long acting and can be detected for 30 days. Morning specimens are more likely to have a higher concentration of drug metabolites. Late day testing is more prone to a false negative result. Rarely fluoroquinolones can cause false positives. Heroine, codeine and hydromorphone, but oxycodone and methadone are more likely to be missed on a urine immunoassay. Sertraline can cause a false positive on a benzo. When testing for buprenorphine, a positive test should reflect BOTH buprenorphine and the
metabolite norbuprenorphine. If buprenorphine alone is in the sample, this would indicate that the sample is most likely adulterated. Absence of a prescribed medication in a UDT suggests non-adherence to the treatment regimen and possible diversion.

"For institutions operating as an OTP: the Code of Federal Regulations requires eight urine drug tests
per year for patients on maintenance treatment with methadone or buprenorphine. The eight required
urine drug tests for an OTP can be presumptive and/or definitive. Although eight UDTs are required per
year for patients in an OTP, additional testing can be done on a case-by-case basis. For OBOT settings: Patients being treated with buprenorphine as prescribed under an individual provider's DATA 2000 waiver in an OBOT setting do not have a mandatory UDT requirement. Ongoing clinical monitoring that includes urine drug testing is part of a good practice in order to acquire objective evidence of any ongoing illicit substance use and confirm buprenorphine adherence. Frequency of UDT should be clinically determined but should occur not less than at the time of initial evaluation and regularly during initiation of treatment with buprenorphine. For patients prescribed ongoing maintenance treatment with buprenorphine in an OBOT setting, the BOP suggests at least quarterly UDTs with more frequent testing as clinically indicated."

What about methadone?

In the US, methadone for OUD can only be initiated by an OTP, hospital, or correctional facility. Start at 30mg per day and increased by as much as 10mg per day depending upon patient side effects and tolerance. The risk of torsades de pointes is small. Most OTPs do not require a baseline EKG.

What about buprenorphine dosing?

Start it at the right time – typically 12 hours if using short acting opioids (heroin and oxycodone) and typically closer to 24-48 hours if using long-acting opioids. See this curbsiders podcast for details. Begin with 4-8 mg of buprenorphine, then repeat this dose every 1-2 hours until symptoms resolve (a usual daily dose is 16-24mg). Some medications can be used to make the patient more comfortable during the withdrawal period before a patient can start buprenorphine. These medications may include ondansetron for nausea, loperamide for diarrhea, acetaminophen or NSAIDs for muscle or joint pain, or clonidine or hydroxyzine for anxiety. Drink a lot of Gatorade! Stay ahead of likely dehydration (especially if low body weight!).

What about Brixadi (injectable buprenorphine)?

Day 0 = 4mg of sublingual buprenorphine
Day 1 = 16mg injectable buprenorphine (right thigh)
Day 3 = 8mg injectable buprenorphine (left thigh)
Day 8 = 24 mg injectable buprenorphine (abdomen)
Day 28 = 96mg injectable buprenorphine (buttocks) and then monthly moving forward

What about Xylazine?

The duration of action in humans can vary from 7 to 72 hours. There is no reversal agent for it (such as naloxone for opioids) so if a patient is nonresponsive to naloxone it is likely playing a role. It can cause independent dependence and withdrawal symptoms including irritability, anxiety and dysphoria). It is often associated with skin and soft tissue infection (anywhere, not just the injection sites). Highest prevalence is in Philadelphia, Maryland and Connecticut. Alpha-2 adrenergic agents (clonidine, tizanidine, guanfacine) can help with withdrawal symptoms but may exacerbate the bradycardia and hypotension that xylazine causes. Thus benzodiazepines may be used more for patients with xylazine withdrawal symptoms.

What about Kratom?

It is a plant (mitragyna speciosa) that is native to Thailand, Indonesia and Malaysia that was traditionally used for fatigue, pain and mild opioid withdrawal.

Patients can wind up with opioid-like withdrawal symptoms, severe cravings, insomnia, diaphoresis… and then often have negative drug screens.

Major Alkaloids 7-hydroxymitragynine (7-OH) is naturally present only in tiny amounts, but designers have been changing this ratio in a problematic way.
Alkaloid and Relative abundance
Mitragynine ~60–70%
Paynantheine ~10%
Speciogynine ~10%
7-Hydroxymitragynine <2% naturally

It is now available as gummies, tablets, liquids and vapes. It often costs $50 for four tabs. Patients have had financial collapse trying to pay for kratom (Second mortgages, etc.) 7-hydroxymitragynine (7-OH) is a problematic metabolite and alkaloid of kratom. 7-hydroxymitragynine (7-OH) is also sold in synthetic form, often marketed as “7-OH tablets” “legal opioids” or “kratom extracts.” The

first wave was powdered leafs, the second wave was extracts and the third wave is 7-hydroxymitragynine (7-OH) enriched products.

It is a potent mu-opioid receptor agonist. It has approximately 13x binding affinity to morphine. This problematic metabolite is responsible for much of kratom's opioid activity. Use will result in a rapid rise of concentrated kratom alkaloid products, an increase in 7-OH enriched products and their potency is approaching classical opioids. It is a mu opioid receptor agonist with G-protein biased signaling. It also affects the alpha-2 adrenergic receptor, serotonergic receptors, and dopaminergic receptors.

Animal studies suggest that 7-hydroxymitragynine (7-OH) may be 10-20 times more potent than mitragynine and that it approaches morphine potency. This explains rapid tolerance and dependence. Withdrawal symptoms often last longer than anticipated.

It is dangerous because there are no dosing standards, no regulatory oversight, highly concentrated alkaloids and misleading labeling/marketing. It can be hepatotoxic, cause seizures, cause respiratory depression and overdose with co-ingestants.

What are the gonadal risks of long-term buprenorphine use?

Gonadal suppression (low testosterone) is a risk, but this is lowest with codeine, tramadol and buprenorphine, increases with hydrocodone and tapentadol, increases further with hydromorphone and morphine and is highest with methadone, oxycodone and fentanyl.

What are the gonadal risks of long-term methadone use?
Almost half of patients receiving methadone had testosterone levels that were below 300ng/dL (below normal). It is sedating. The dose is often escalated over time. Patients on methadone often continue to intermittently use fentanyl at higher rates.

Low testosterone is found in 60-90% of chronic opioid users (especially those on fentanyl). The levels are often low enough that they fit a picture consistent with castration. 50-75% of these men develop osteopenia or osteoporosis. They have higher rates of fatigue and sexual dysfunction.

Gonadal steroids may also modulate pain. Women in general complain of more pain than men (in general) in many speculate this is why. Hypogonadism that results from chronic opioid use might be one of the main mechanisms for resulting hyperalgesia causing opioids to be less effective long term. Clinical trials involving testosterone therapy for opioid patients have shown improved libido, quality of life scores and aspects of nociception. Results from the PATH Trial will shed further light on the antinociceptive efficacy of testosterone therapy.

Women will have both low testosterone and low estrogen. Opioids can suppress their cycles. Current guidelines do not recommend checking testosterone levels in most women. Even a postmenopausal ovary that is no longer making estrogen will continue to make testosterone. Women with oophorectomy or premature ovarian failure can have very low testosterone levels. Testosterone levels in women have to be measured via mass spectrometry because traditional lab measuring methods are not reliable for them.

Recovery of the gonadal axis depends upon the cumulative dose (higher dose for longer time period indicates a worse prognosis). Predicting whether a patient will recover testosterone function after stopping fentanyl and switching to buprenorphine is tough to predict.

Why is buprenorphine preferred over methadone?

No risk of overdose
The buprenorphine blocks other opioids from making you high
It can be prescribed in a thirty-day take home supply with ease from a regular PCP
It is nonsedating and you can still do most “safety sensitive” work
Androgen (testosterone) suppression is low with buprenorphine and high with methadone & fentanyl

DPC Frontier, LLC DPC Summit July 2026

**Substance Use Disorder**
**History**

Have you ever used more alcohol or drugs than you initially planned?
Have your friends or family complained about your substance use?
Have you ever wanted to reduce your alcohol or drug use?
Have you been diagnosed with PTSD, depression, anxiety, personality, psychotic or bipolar disorders?
What is your educational and work history?

Do you have issues with:
Control
Compulsion
Cravings
Continued use of a substance despite the negative consequences

What was your drug of choice (last use, frequency, amount, route of administration)?
Have you previously signed a controlled substance agreement?
Have you undergone "behavioral therapy"?
Have you had inpatient treatment?
Have you been incarcerated?
When did you start using?
Do you use tobacco?

If Opioid Use Disorder:
Do you have any opioid withdrawal symptoms right now?
- Restlessness, irritability, anxiety
- Insomnia
- Muscle aches and muscle twitching
- Yawning
- Abdominal cramps, nausea, diarrhea, vomiting

Have you taken buprenorphine/naloxone (suboxone) or methadone?
If yes, what was your dose? How did you get it? Were you stable? Did you divert it?
Did you plan to take it for life or did you try tapering off of it?
How many times have you relapsed? Did you overdose during that relapse? Prior naloxone use?
If you were treated with opioids for chronic pain was an "exit plan" discussed initially?

If Alcohol Addiction: (Complete the AUDIT) (Men score 4+ or Women score 3+ = positive)
One drink in the US contains roughly 14 grams of pure alcohol per NIAAA/NIH.
12 ounces beer = 5 ounces wine = 1.5 ounces spirits
How often did you have a drink containing alcohol in the past year?
(0 = Never, 1= 1/month, 2 = 2-4/month, 3 = 2-3/week, 4 = 4+ week)
How many drinks did you have on a typical day when you were drinking in the past year?
(0 = 1 or 2, 1 = 3 or 4, 2 = 5 or 6, 3 = 7 to 9, 4 = 10+)
How often did you have six or more drinks on one occasion in the past year?
(0 = Never, 1 = less than monthly, 2 = monthly, 3 = weekly, 4 = daily or almost daily)

Have you ever had alcohol first thing in the AM (eye-opener) to steady nerves or get rid of a hangover?
Have you ever felt you should cut down on your drinking?
Have people annoyed you by criticizing your drinking?
Have you ever felt bad or guilty about your drinking?

How many times in the past year have you had four or more drinks? (if more than once go to DSM-5)
Have you suffered from seizures, delirium or tachycardia on prior cessation attempts?
How many withdrawals have you attempted in the past (ICU stay? Kindling?)?

**Physical Exam**
Gen: NAD, not in active withdrawal
Neck: no JVD
Eyes: pupils are not dilated, no increased tearing
Nares: without rhinorrhea
Skin: without diaphoresis, no obvious bruising or track marks, no piloerection
Abd: without ascites or palpable organomegaly
Lungs: CTA
Heart: S1, S2, RRR (no tachycardia), no murmur
Neuro: no tremor, normal gait, stable mentation, responds appropriately to questions

**Labs/Testing**
Urine Drug Screening & Urinalysis 003038 ($2.25)
TSH 004259 ($3.95) (often underactive if history of heavy and recent stimulant use)
CMP 322000 ($2.91) & CBC 005009 ($2.39)
Hepatitis Panel 322744 ($21.70) HIV screening 083935 ($7.00)
EKG (if referring for methadone treatment – historically recommended, probably not necessary)

**Medications**

Buprenorphine 8mg tabs $53.16
Buprenorphine/Naloxone (Suboxone / Zubsolv) tabs 8/2mg BID $53.16
Buprenorphine/Naloxone (Suboxone / Suboxone) films 8/2mg BID $64.40
Sublocade (buprenorphine) extended-release injection (monthly 19 5/8 gauge needle, keep in fridge)
Brixadi (buprenorphine) extended-release injection (23 ½ gauge needle, no fridge, weekly or monthly)
Methadone 30 to 120mg daily $9.29
Naltrexone 50mg daily $24.09 (opioid and alcohol use disorder indications)
Naltrexone (Vivitrol) 380mg IM monthly $1,495.91
Gabapentin 600mg TID $14.48
Topiramate 100-300mg per day (better if cocaine used in addition to etoh) $7.50
Acamprosate 666mg TID (often better if already abstinent, second line to naltrexone for etoh) $55.02
Disulfiram 250mg daily (many Rx interactions, pt will be ill if they drink etoh) $28.88
Clonidine 0.1mg PO Q 6 hours prn ($2.46)

Dicyclomine 10-20mg PO Q6 hours prn ($8.65)
Loperamide 2mg PO Q 6 hours prn ($13.38)
Ondansetron 4mg PO Q 6 hours ($19.19)
Diazepam

**Assessment =**
F10.929 Alcohol use, unspecified with intoxication, unspecified
F11.10 Opioid abuse, uncomplicated
F12.10 Cannabis abuse, uncomplicated
F13.939 Sedative, hypnotic or anxiolytic use, unspecified with withdrawal, unspecified
F14.929 Cocaine use, unspecified with intoxication, unspecified
F15.90 Other stimulant use, unspecified, uncomplicated
F16.929 Hallucinogen use, unspecified with intoxication, unspecified
F18.929 Inhalant use, unspecified with intoxication, unspecified
F19.929 Other psychoactive substance use, unspecified with intoxication, unspecified
F19.10 Other psychoactive substance abuse, uncomplicated

**Orders** = Monthly follow up (via phone 2x and quarterly in person), random UDS, rarely labs
Join Alcoholics Anonymous or Smart Recovery or similar mutual aid groups

**Education**:

CDC attempted to reduce rates of addiction by noticing that around 80% of opioid prescriptions related to procedural pain went unused because patients generally stopped the medications around day three.

Simple dependence vs complex dependence (addiction). Addiction is a continuum of disorders. Only severe substance use disorder is addiction. Simple dependence involves stopping an opioid, having a few days of withdrawal symptoms and then feeling well. In complex dependence you also have some withdrawal for a few days, but rather than going back to normal you might have hyperalgesia, dysphoria, sleep disturbances that persist for weeks to months.

Studies show that up to 65% of incarcerated individuals meet the criteria for a substance use disorder and up to one-quarter of these inmates have OUD. Also, studies have found that individuals with OUD have a much higher risk of death from drug overdose in the first 2 weeks after release from prison compared to the general population.

<u>When do opioid withdrawal symptoms usually start?</u>

Short-acting opioids – as early as 8 hours up to 10 days
Long-acting opioids – as early as 36 hours up to 14 days

The American Society of Addiction Medicine (ASAM) recommends using a COWS score or ≥ 11 as an appropriate level of withdrawal for starting buprenorphine in patients who are current opioid users. Patients are likely to achieve this level of withdrawal after a period of time has elapsed from the last opioid dose, depending on the duration of action of the opioid, as follows:
• 6-12 hours for short-acting opioids (immediate-release morphine, heroin)
• 24 hours for sustained-release opioid medications

• 24-72 hours for methadone (For methadone doses ≥ 30mg, more time may be required before buprenorphine can be initiated.)

What happens if addiction is not viewed as a chronic disease?

Treatment with methadone or buprenorphine following a non-fatal opioid overdose reduced subsequent opioid overdose deaths by 59%. Studies show that medications for OUD reduce drug use, disease rates, and overdose events and increases retention in treatment programs while promoting recovery among individuals with OUD, according to studies. Benefits of treatment include:
• Reduced risk of overdose-related deaths
• Reduced risk of HIV and viral hepatitis infections in injection drug users
• Lower rates of cellulitis for injection drug users
• Reduced criminal behavior in the community
• Reduced rates of psychiatric complications in the community

Behavioral therapy includes motivational interviewing, cognitive behavioral therapy, family therapy, 12-step programs, addiction counseling, and group therapy

The DSM-5 criteria for opioid use disorder are based on identifying at least two out of 11 manifestations of "clinically significant impairment or distress" resulting from opioid use. The criteria
also address severity of the condition (mild, moderate, or severe) and status of treatment (early remission, sustained remission, and/or the use of maintenance therapy).

Are there false positives on a UDS?

Yes. Amphetamines are commonly positive due to Adderall. Others might include bupropion, metformin, Sudafed, labetalol can all lead to a positive amphetamine UDS screening. Diazepam is long acting and can be detected for 30 days. Morning specimens are more likely to have a higher concentration of drug metabolites. Late day testing is more prone to a false negative result. Rarely fluoroquinolones can cause false positives. Heroine, codeine and hydromorphone, but oxycodone and methadone are more likely to be missed on a urine immunoassay. Sertraline can cause a false positive on a benzo.

When testing for buprenorphine, a positive test should reflect BOTH buprenorphine and the metabolite norbuprenorphine. If buprenorphine alone is in the sample, this would indicate that the sample is most likely adulterated. Absence of a prescribed medication in a UDT suggests non-adherence to the treatment regimen and possible diversion.

"For institutions operating as an OTP: the Code of Federal Regulations requires eight urine drug tests
per year for patients on maintenance treatment with methadone or buprenorphine. The eight required
urine drug tests for an OTP can be presumptive and/or definitive. Although eight UDTs are required per
year for patients in an OTP, additional testing can be done on a case-by-case basis. For OBOT settings: Patients being treated with buprenorphine as prescribed under an individual provider's

DATA 2000 waiver in an OBOT setting do not have a mandatory UDT requirement. Ongoing clinical monitoring that includes urine drug testing is part of a good practice in order to acquire objective evidence of any ongoing illicit substance use and confirm buprenorphine adherence. Frequency of UDT should be clinically determined but should occur not less than at the time of initial evaluation and regularly during initiation of treatment with buprenorphine. For patients prescribed ongoing maintenance treatment with buprenorphine in an OBOT setting, the BOP suggests at least quarterly UDTs with more frequent testing as clinically indicated."

What about methadone?
In the US, methadone for OUD can only be initiated by an OTP, hospital, or correctional facility. It is usually started at 30mg per day and increased by as much as 10mg per day depending upon patient side effects and tolerance. The risk of torsades de pointes is small. Most OTPs do not require a baseline EKG.

What about alcohol withdrawal?
Expect dehydration. These patients should have lots of Gatorade at the ready. Early symptoms are possible (first 24 hours) follow the CIWA-Ar. Hallucinations (tactile, auditory, visual) are possible (usually day 2-3). Seizures are possible (1% even without meds) (day 3-4) along with delirium and Sympathetic overdrive (tachycardia, hypertension, hyperthermia). Most patients can be managed in the outpatient setting (unless hx of seizures, CHF, Cirrhosis, CKD, COPD).

"If someone drinks more than 10 standard drinks in a day, opt for a higher medication dose on day 1. Increase diazepam to 20mg Q6H, chlordiazepoxide 100mg, or gabapentin to 600mg Q6H on day 1. If an individual drinks LESS than 10 standard drinks a day, opt for diazepam 10mg Q6H, chlordiazepoxide 50mg, or gabapentin 300mg Q6H on day 1. Days 2-4 approaches are the same regardless of # of drinks. Prescription allows for one PRN dose per day.

Consider benzodiazepines as the first line and choose gabapentin instead in someone for whom you expect the withdrawal course to be milder. A bonus for gabapentin is that it can be continued as an effective long-term medication for AUD (Mason 2014). Gabapentin may also reduce the alcohol kindling phenomenon (Stock, 2013).

Other Options: Can also consider carbamazepine as a reasonable alternative option. Although this is less commonly used in the United States, it is a co-first-line medication in the NICE (UK) guidelines. The use of other medications (phenobarbital, valproic acid, baclofen, clonidine) for ambulatory alcohol withdrawal doesn't have significant supportive data so would avoid them in ambulatory management at this time." See the Curbsiders Addiction Medicine Alcohol podcast.

Alcohol considerations:
> 95,000 deaths/yr in the US attributed to alcohol = leading cause of preventable death in the US.
Alcohol accounts for ~ 28% of all US traffic-related deaths.
Excessive drinking accounts for ~ 1 in 10 deaths among US working age adults.
Around 28% of US adults exceed National Institute on Alcohol Abuse and Alcoholism (NIAAA) threshold for risky Alcohol use.
Data suggests that DUI arrests represent one percent of self-reported alcohol-impaired driving episodes.
An average drunk driver has driven drunk over 80 times before first arrest.

FAA says pilot cannot fly within 8 hours of drinking or with an alcohol concentration of 0.04 or greater.
Level limit in most states is 0.08 except in Utah where it is 0.05. Naltrexone can reduce cravings, but the NNT is high at 9 for abstinence and Antabuse has better data for abstinence.

What about stimulant use disorder?

There are no FDA approved medications. Mirtazapine, naltrexone, bupropion, psychostimulants (but ONLY if you have diagnosed the patient with co-occurring ADHD) and topiramate can be considered. If patients overdose on stimulants they can appear to be psychotic. More and more drug dealers are adding fentanyl to stimulants as well, so these patients should have naloxone readily available for safety purposes. Topiramate may help with cocaine, but does not appear to help with methamphetamine.

What about cannabis?

Treat underlying source of anxiety. Limited data for N-acetyl-cysteine (NAC) 1,200mg twice daily in younger patients.

What about buprenorphine dosing?
Start it at the right time – typically 12 hours if using short acting opioids (heroin and oxycodone) and typically closer to 24-48 hours if using long acting opioids. See this curbsiders podcast for details. Begin with 4-8 mg of buprenorphine, then repeat this dose every 1-2 hours until symptoms resolve (a usual daily dose is 16-24mg). Some medications can be used to make the patient more comfortable during the withdrawal period before a patient can start buprenorphine. These medications may include ondansetron for nausea, loperamide for diarrhea, acetaminophen or NSAIDs for muscle or joint pain, or clonidine or hydroxyzine for anxiety. Drink a lot of Gatorade! Stay ahead of likely dehydration (especially if low body weight!).

What about Brixadi (injectable buprenorphine)?
Day 0 = 4mg of sublingual buprenorphine
Day 1 = 16mg injectable buprenorphine (right thigh)
Day 3 = 8mg injectable buprenorphine (left thigh)
Day 8 = 24 mg injectable buprenorphine (abdomen)
Day 28 = 96mg injectable buprenorphine (buttocks) and then monthly moving forward

What about Xylazine?

The duration of action in humans can vary from 7 to 72 hours. There is no reversal agent for it (such as naloxone for opioids) so if a patient is nonresponsive to naloxone it is likely playing a role. It can cause independent dependence and withdrawal symptoms including irritability, anxiety and dysphoria). It is often associated with skin and soft tissue infection (anywhere, not just the injection sites). Highest prevalence is in Philadelphia, Maryland and Connecticut. Alpha-2 adrenergic agents (clonidine, tizanidine, guanfacine) can help with withdrawal symptoms but may exacerbate the bradycardia and hypotension that xylazine causes. Thus benzodiazepines may be used more for patients with xylazine withdrawal symptoms.

What about benzodiazepines?

Chronic daily use in older adults is associated with a higher risk of falls, fractures, hospitalizations and death. Withdrawal symptoms such as anxiety, sleep disturbances, and agitation are common and often prolonged. Often there is a slow taper over weeks to months or longer to minimize the intensity of withdrawal symptoms. The most common adverse effects are sedation, confusion, memory loss, paradoxical anxiety, or worsening depression. Per the Society for Post-Acute and Long-Term Care Medicine "Do not routinely continue sedative hyponitics (e.g. temazepam, zolpidem), diphenhydramine, benzodiazepines, or serotonin modulators (e.g. trazodone) for long-term treatment of insomnia in geriatric populations." Paradoxical anxiety can develop after only one month of continued use. Chronic use worsens depression. Fatal motor vehicle crashes were 2.3 times more likely when the driver was taking a benzo. Evidence is lacking to support one tapering regimen over another. Switching from a short-acting benzodiazepine to a long-acting option, such as diazepam, before tapering is a widely accepted protocol based on expert opinion. 90% of patients experienced mild to moderate withdrawal symptoms with no difference in withdrawal symptoms between groups. Doses can be decreased up to 25% initially with lower doses requiring 5 to 15% reductions. Often there are 2-4 weeks between taper adjustments.

Psychotherapy with benzo discontinuation is important. "Patients 65 years and older tapering long-term benzodiazepines for sleep disorders achieved higher rates of discontinuation at eight weeks, three months, and 12 months with weekly 90-minute cognitive behavior therapy for weight weeks compared with tapering alone (70% vs 24% NNT = 2)." PMID: 37725458. No meds are approved for benzo withdrawal. Valproate and TCAs can help with some withdrawal symptoms.

At the half year mark 50% of patients taking buprenorphine will have failed treatment and at the year mark only 25% will still be taking it. Psychedelics such as psilocybin, ketamine and ibogaine are being researched. GLP-1s are also being researched.

Retratrutide = 25% weight loss in a year which is comparable to bariatric surgery

Orforglipron is not a peptide. It is a small molecule and it will be effective if taken orally.
30 mins

Appetite phase (dominated by wanting)
Consummative phase (dominated by liking)
Satiety phase

Recommended Resources:

FBOP guide for opioid use disorder

WDOC uses the Addiction Severity Index (ASI) and ASAM scores for SUD screening. WDOC also uses the ORAS, WRNA, Static/Stable, and Acute as needed/as appropriate.

Robertson S, Peacock EE, Scott R. Benzodiazepine Use Disorder: Common Questions and Answers. Am Fam Physician. 2023 Sep;108(3):260-266. PMID: 37725458.

https://thecurbsiders.com/addiction