Example Guideline:
Care and stabilization for the birthing person with opioid use disorder and/or in withdrawal in a hospital setting

Introduction:
Thank you for your willingness to offer compassionate and trauma-responsive service that is patient- and evidence-centered care for vulnerable people with substance use disorder. We live in unique times that allow us to present an opportunity for every healthcare provider to be a healer and contribute to beautiful healthy beginnings for birthing people, newborns, and their families.

The purpose of this document is to offer guidance to providers, staff, and health systems to facilitate compassionate, non-judgmental care for people with active opioid use disorder and to provide evidence-based treatment in a patient-centered fashion to provide choices and stabilization with pharmacotherapy that fosters shared decision-making to meet people where they are.

Hospital stays create an opportunity to engage in prenatal and postpartum care and address medical conditions, including mental health and comorbidities. This document will provide guidance and tools to help with medical and whole person care to set people up for success after hospital discharge.

How to use this guideline
This document is an example to hospitals of a written guideline from which content can be borrowed and applied to individual hospital guideline templates. Not all information needs to be included in a guideline or the body of a guideline. There are many MOUD initiation regimens available, there is no "right way." Multiple brand names exist with different concentrations.

Title:
Care and stabilization for the birthing person with opioid use disorder and/or in withdrawal in a hospital setting, warm handoff, and care coordination to facilitate longitudinal and comprehensive service.

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Purpose Jump to top	To guide the use of medications for opioid withdrawal management, including fentanyl, and/or initiation or continuation of medications for opioid use disorder in patients with opioid use disorder (OUD) who are hospitalized or seen in a designated emergency department (including OB Triage). To offer guidance to providers, staff, and health systems to facilitate compassionate, non-judgmental care for people with active opioid use disorder and to provide evidence-based treatment in a patient-centered fashion to provide choices and stabilization with pharmacotherapy that fosters shared decision-making to meet people where they are.
Inclusion criteria Jump to top	Patients diagnosed with substance use disorder, including OUD, who desire stabilization and treatment.

Regulatory Considerations
 	
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	• Methadone and buprenorphine are Schedule II controlled substances. Providers may prescribe controlled substances at the level provided for on their DEA certificate (including APRNs).
	• Title 21 of the Code of Federal Regulations, Section 1306.07 [B]:
	  ○ Practitioners who can order opioids can order methadone or buprenorphine products to treat patients with OUD in a hospital setting
	  ▪ Including hospital designated emergency rooms (including obstetric unit triage)
	  ○ Hospital staff can administer and dispense methadone and buprenorphine per their scope of practice, such as nurses and pharmacists
	  ▪ The patient can receive these medications without being enrolled in an opioid treatment program
	• The Drug Addiction Treatment Act (DATA) of 2000:
	  ○ As of January 2023, DATA 2000 a DEA “X-waiver” is no longer required to prescribe buprenorphine
	• Methadone federal regulations:
	  ○ Only accredited Opioid Treatment Programs can prescribe methadone for OUD
	  ○ Methadone may not be prescribed at discharge from the hospital for ongoing treatment of OUD

Roles and Responsibilities	**Ordering provider** • Confirms diagnosis of OUD

[Jump to top](#)	○ "CDC: Opioid Use Disorder: Preventing and Treating." https://www.cdc.gov/opioids/healthcare-professionals/prescribing/opioid-use-disorder.html • Recommends treatment for OUD to patient • Counsels patient on options, obtains informed consent: ○ MOUD is the standard of care and preferred over detoxification from opioids, including during pregnancy ○ MOUD can improve health and reduce harms (i.e., return to use, overdose, death) in the short and long term ○ MOUD can prevent or alleviate opioid withdrawal symptoms to facilitate treatment for other health conditions while at the hospital ○ Patients are not required to continue treatment following discharge ○ If desired, every effort will be made to coordinate ongoing treatment ○ Discuss patient-specific treatment options between buprenorphine or methadone (preference, past experience, treatment availability) • Place orders, monitor response, revise as necessary • Review nursing assessments and documentation, as applicable • Coordinate discharge with other members of the team • Prescribe buprenorphine and comfort/adjunct medications to bridge to outpatient MOUD provider • Recommend follow-up plan • Prescribe naloxone at discharge **Nursing:** • Verbally screen all patients using a validated tool for substance use disorder (SUD) ○ i.e., 5Ps, NIDI Quick Screen • If verbal screen positive for SUD, notify provider and obtain orders, as applicable • Per order, assess and document patient withdrawal symptoms using COWS score (Appendix A) ○ Typically no longer than every 4 hours during the first 48 hours after substance exposure • Ensure patient and family are educated on use of naloxone at discharge **Pharmacy:** • Review medication profile for interacting drug therapy • Recommend dose adjustments, if necessary • Collaborate to review medication reconciliation **Care management (social worker, RN case manager):** • Identify and discuss patient-specific treatment options with patient and care team (preference, insurance, availability, transportation, etc.) • Address barriers to care, as able • Facilitate and coordinate intake process with outpatient treatment program, if able or as applicable • Connect patient with community partners (i.e., peer recovery mentors, case management, AA meetings, legal advocates, housing and food resources)
Consulting	*[THIS IS AN EXAMPLE, INDIVIDUALIZE THIS SECTION BASED ON YOUR HOSPITAL/ORGANIZATIONAL RESOURCES]*

Jump to top	• The following experts are available for provider-to-provider consultation for pregnant and postpartum people with substance use disorder, although not 24 hours a day ○ Peer-to-peer support line, Washington Society of Addiction Medicine, 833-YesWeCan (833-937-9326) • START Clinic, East Pierce Family Medicine, 253-697-1414 • Consider consulting a pain management specialist, or anesthesia provider if acute pain control is not achieved using the acute pain considerations below • Consider the need of higher level of care and consult involvement for people with medical complications (alcohol, benzodiazepine, and severe fentanyl withdrawal)

Best Practices and general principles for treating OUD
 	
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	General principles
	• Medications for Opioid Use Disorder (MOUD), compared to abstaining from opioids:
	  ○ Is the standard of care and safe for patients with OUD, including people who are pregnant or lactating
	  ○ Is associated with lower rates of return to use and better health outcomes
	  ○ Facilitates effective treatment of other health conditions by managing withdrawal symptoms
	• Initial patient assessment considerations:
	  ○ Urine drug screen
	  ○ Syphilis, hepatitis, HIV, chlamydia, gonorrhea, trichomoniasis
	  ○ CMP if known or suspected hepatic dysfunction
	  ○ Prior to methadone, baseline electrocardiogram (ECG)
	• In pregnancy, MOUD doses are often increased and split into twice daily dosing
	• Hospital discharge:
	  ○ Coordinate outpatient opioid treatment, if not enrolled and requested
	  ▪ Buprenorphine: Discharge patients with a prescription for buprenorphine and comfort medications, as needed, to bridge to their first appointment with an outpatient prescriber
	  ▪ Methadone: Navigate closures and weekends to minimize gaps in treatment. Consider options that may be available, such as prolonged care in the hospital birthing center, planning for return through hospital triage, or the Newborn Admin Day Rate (for WA hospitals).
	  ○ Notify patient and treatment provider of controlled substances provided to anticipate these substances in urine drug screen results
	
	Acute Pain Considerations for pregnant and postpartum patients
	• Avoid partial opioid agonist medications (e.g., nalbuphine and butorphanol) as these could precipitate severe withdrawal
	• Continue MOUD while concurrently treating acute pain
	  ○ This includes full agonists (e.g., morphine, hydromorphone, oxycodone, hydrocodone) and epidural or spinal anesthesia
	  ○ Monitor for both pain relief and excessive sedation to guide opioid medication dosing (e.g., if the patient is still in pain but has no sedation, the dose is *not* too high)

	• Consider splitting daily doses to three or four times daily
	• Expect higher doses of opioids to achieve the desired analgesic effect
	  ○ People taking buprenorphine require 70% more opioids on average
	  ○ If typical dosing of oxycodone is 5-10 mg, consider 10-20 mg
	• Labor and Delivery:
	  ○ Consider early or extended regional anesthesia (epidural or spinal)
	• Vaginal delivery, postpartum:
	  ○ Provide non-pharmacologic pain management
	  ○ NSAIDs and acetaminophen as first line treatment
	• Cesarean section, postpartum, consider:
	  ○ Combined spinal epidural
	  ○ Extended epidural for 24 hours
	  ○ Patient-controlled anesthesia for 24 hours with a high potency opioid (e.g., hydromorphone)
	• Methadone:
	  ○ Full sedative effects can accumulate for several days after initiating treatment
	• Buprenorphine:
	  ○ Consider increasing the daily dose of buprenorphine by 10-15% while treating acute pain due to partial blockade of opioid receptors
	  ○ Fentanyl may be more effective for providing pain relief than other short-acting opioid agonists (due to high affinity for mu receptor)
	
	Neonatal Opioid Withdrawal Syndrome (NOWs)
	• Treatment with MOUD (particularly buprenorphine) decreases the likelihood of the infant needing treatment for NOWs when compared to continued illicit opioid use.
	• Risk of NOWs does not correlate with the dose of MOUD. Medication dose should be titrated to optimal dose for treatment of OUD for the birthing person.

Buprenorphine considerations
 	
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	• Pharmacology:
	  ○ Partial opioid agonist
	  ○ High affinity for the mu (μ) opioid receptors
	  ○ Decreases withdrawal symptoms and cravings without causing significant euphoria
	  ○ Buprenorphine-naloxone and buprenorphine-only formulations are bio-equivalent. The naloxone component is not bio-active when administered sublingually.
	• Administration:
	  ○ Sublingual or buccal tablets and films must fully dissolve for full results
	  ○ Patients should rinse mouth and brush teeth 15 minutes after administration
	  ○ If taken orally, will not receive the full dose
	  • Ordering providers may consider 80-100% re-dose
	• Response:
	  ○ Expect reduced cravings or withdrawal symptoms within 20-45 minutes
	  ○ Adequate control of opioid cravings for some patients are experienced with a daily dose of ≤ 16 mg
	  • May need up to 32, especially for those who regularly use fentanyl

Methadone considerations
 	
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	• Pharmacology
	  ○ Stored extensively in the liver and secondarily in other body tissues
	  ○ Elimination half-life ~24-36 hours at steady state (range 4-91 hours)
	  ▪ Consider half of the day's dose to remain in the body and added to the next day's dose, until steady state is achieved
	• Response:
	  ○ Significant inter-patient variability exists in metabolism and tolerance
	  ○ Effects generally peak about 3-4 hours after dose
	  ○ Steady state takes ~4-5 days
	  ○ Pregnant or recently postpartum, may need higher doses and faster up-titration

Maintenance regimen	

Maintenance of current MOUD regimen during hospital admission
 	
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	• **Inclusion:**
	  ○ Admitted patients with OUD being admitted to a hospital who are receiving an outpatient maintenance MOUD regimen
	
	• **Ordering provider or pharmacist:**
	  ○ Methadone:
	  • Confirm methadone dose with outpatient opioid treatment program or prescriber
	  • Document confirmed maintenance dose in the EMR
	  • If treatment center or prescriber cannot be contacted:
	  ○ Dose may be ordered per provider discretion
	  ○ Confirm with treatment center or prescriber as soon as possible
	  ○ Buprenorphine:
	  • Confirm buprenorphine dose with the patient's pharmacy or through the state Prescription Drug Monitoring Program (PDMP)
	
	• **Ordering provider:**
	  ○ Order a confirmed maintenance dose for the duration of the hospitalization
	  ○ Methadone:
	  • If unable to confirm maintenance dose of methadone:
	  ○ Order a first dose of no greater than 40 mg
	  • Per provider discretion, may order a larger dose if there is reason to think the patient is on a higher dose
	  ○ Consider ordering additional prn dose if patient complains of withdrawal symptoms > 4 hours after dose
	  ○ If higher maintenance dose is confirmed, give the difference as soon as possible
	
	• **Nursing:**
	  ○ Monitor for over-sedation and respiratory depression, per orders
	  ○ Offer non-pharmacologic comfort care

Initiation of MOUD (MOUD induction)	

Initiation of MOUD Considerations
 	
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	• **Considerations for stabilizing people with fentanyl use**
	  ○ People with a recent history of fentanyl use more than 15-20 fentanyl tablets daily or more than ½ gram fentanyl daily, may benefit from:
	  • Buprenorphine 8mg every 6 hours (total of 32 mg split daily) or
	  • Methadone 100mg BID or higher
	  ○ People with a recent history of fentanyl use who use less may stabilize on
	  • Buprenorphine 24-32 mg daily
	  • Methadone 50mg BID or higher
	  ○ Due to the intensity and severity of fentanyl withdrawal, current evidence suggests offering and stabilizing with higher doses of buprenorphine such as 24-32 mg
	  ○ Duration of action ~1 hour
	  ○ Stored in fatty tissue for days to weeks, released over time
	  ○ Renal clearance delayed for people with history of daily fentanyl use, current evidence suggests that urine toxicology remains positive for up to 4-6 weeks after last use, which could be a factor to consider when discussing breast/chest feeding policies
	  ○ Creates short and long duration withdrawal symptoms
	  ○ Creates a variable half life
	  ○ Higher risk of precipitated withdrawal
	
	• **Both methadone and buprenorphine:**
	  ○ Recommend scheduled adjunctive medications (Appendix B) and monitor the appropriateness of the daily treatment plan (including medication dose, assessment frequency, administration parameters, notification parameters, etc.).
	  ○ May give additional full agonist opioids (e.g., oxycodone) if cravings and/or withdrawal symptoms persist and if appropriate for the patient's clinical picture
	
	• **Buprenorphine:**
	  ○ There are many buprenorphine initiation regimens available, there is no "right way"
	  ○ Goal is to avoid precipitating withdrawal
	  ○ Anticipate and plan for precipitated withdrawal
	  ○ For people who use fentanyl, consider accelerated or cross-titration strategies versus traditional strategies
	  ○ Precipitated withdrawal:
	  • A sudden, significant worsening of withdrawal symptoms
	  • Onset 30-60 minutes after buprenorphine is administered
	  • Buprenorphine has a high affinity at the mu receptors, and is a partial opioid agonist
	  ○ It replaces full agonists with partial agonist properties, causing withdrawal
	  • Treatment options should include:
	  ○ Consider accelerated low dose or cross-titration strategies, particularly if exposed to fentanyl

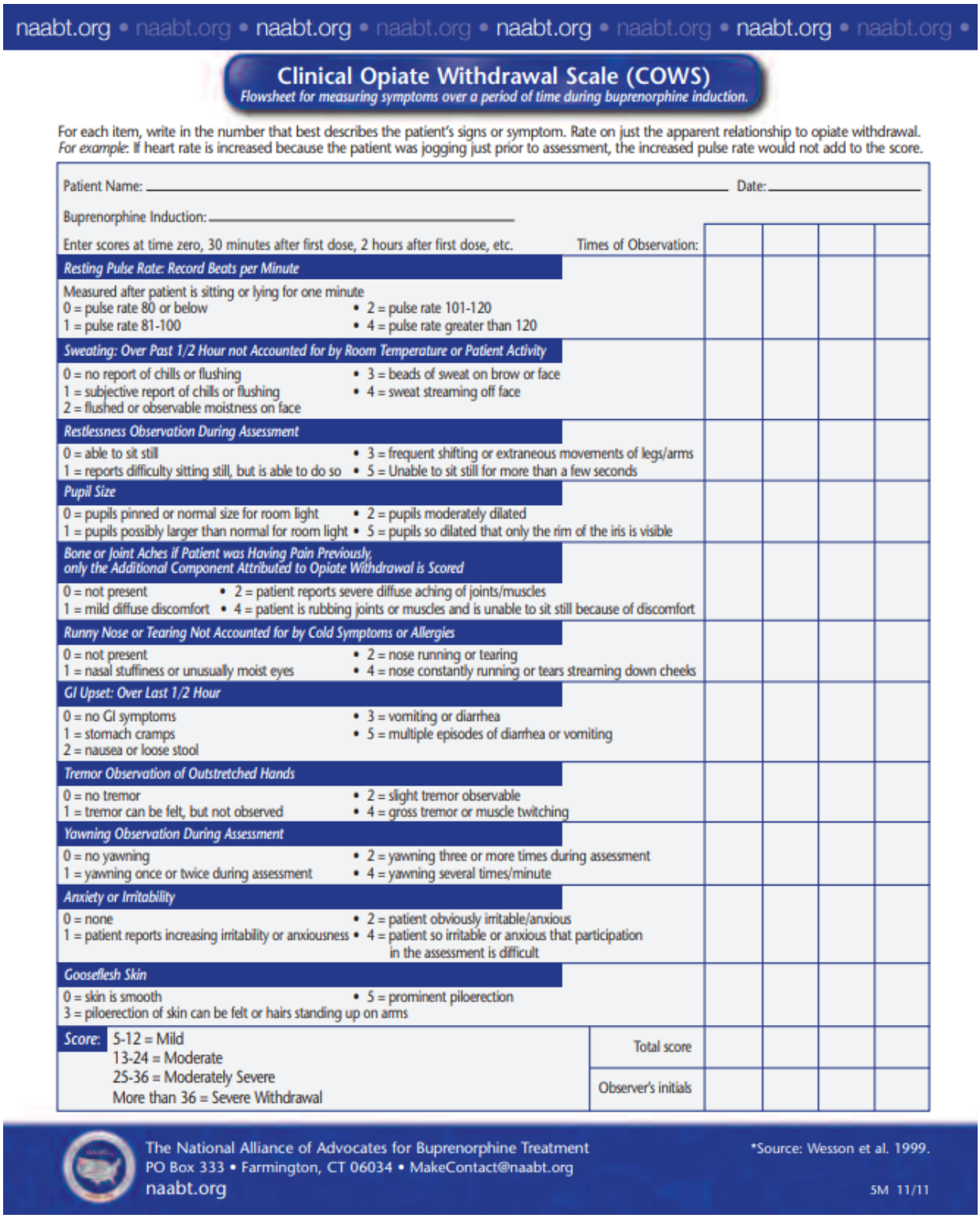
	○ Partner with patient to plan for precipitated withdrawal and treatment ○ Plan for supportive care medications (such as lorazepam 1-2 mg PO/IV) ○ Consider large additional doses of buprenorphine until resolution (max dose 32 mg in 24 hours) • **Methadone:** ○ Consider using lower doses of methadone for patients who: • Only take prescription opioids or lower doses of oral opioids • Do not use opioids or heroin daily • Have risks for over-sedation ○ e.g., respiratory disorder, cor pulmonale, morbid obesity, sleep apnea, kyphoscoliosis, prolonged QT interval, known arrhythmia, recent MI, family history of cardiac death, frail, advanced age • **Methadone serum level considerations:** ○ Methadone/metabolite serum ratio (MMR) • Definition: The ratio of parent drug to its metabolite is a tool of pharmacogenetic research on genes coding for P450 enzymes that metabolize most medicines. That research has categorized drug metabolism as: Ultra rapid (URM), Extensive, normal (EM), Intermediate (IM), and Ultra slow (USM). All P450 substrate medications have a spectrum of metabolism because people have different metabolic genetics • Average serum MMR in two studies of non-pregnant methadone maintenance patients is roughly 11-13. First trimester mean 7.2. Second trimester 5.9. Third trimester 5.1. Postpartum 7.2 -> return to 12 after a few weeks • Monitor post-partum carefully for oversedation, adjust dose as indicated ○ Trough serum levels: • Trough levels have established therapeutic ranges (V. Dole: 150-600ng, other studies show 400ng for best efficacy). They reassure the birthing person and provider about fetal exposure. Methadone dose is not an accurate proxy for fetal exposure. Only the serum level measures fetal exposure. ○ Peak/trough ratio (PTR): • Peak is 3-4 hrs after the AM dose and trough is just before the next AM dose. A ratio of serum methadone at peak divided by methadone at the trough of 2 or greater means ultra-rapid metabolism, e.g. 800ng peak/400ng trough = 2. The drop of 400ng is too much to assure stability of mu receptor occupancy. A drop from 800 to 200 (PTR = 4) would cause major withdrawal.
Initiation of buprenorphine	• **Accelerated buprenorphine cross-titration** (formerly called “micro-induction") ○ Inclusion considerations: ▪ Patients who are not in withdrawal and: • Exposed to fentanyl

[Jump to top](#)	• Taking full opioid agonists (methadone or short-acting opioids) ▪ Accelerated titration can be achieved over 2 to 4 days • For patients with expected short hospital stay • For patients who can tolerate accelerated titration • Multiple options exist ▪ Slower cross-titration • For patients with expected longer hospital stay • For patients who cannot tolerate accelerated titration ○ Treatment plan: ▪ Initiate prior to withdrawal symptoms ▪ Start administration of scheduled adjunct medications around 6 hours prior to first dose, then for 48-96 hours ▪ Buprenorphine: • Start at very low doses and titrate up over days ▪ Full opioid agonists: • Taken simultaneously until ~8 mg buprenorphine daily ○ At 8 mg, significantly less likely to experience precipitated withdrawal ○ For patients taking full opioid agonists prior to hospital admission, can keep at same dose ▪ After 8mg buprenorphine • May increase buprenorphine more rapidly, until cravings or withdrawal symptoms are controlled • May increase buprenorphine more rapidly, until cravings or withdrawal symptoms are controlled • May discontinue full opioid agonists immediately, or titrate down by 30% or 20% daily
Initiation of methadone [Jump to top](#)	• **Accelerated methadone titration** ○ Inclusion considerations: ▪ Appropriate for patients who are: • Smoking 10 or more tabs of fentanyl daily • Using any IV form of fentanyl ○ Relatively contraindicated for patients who have: ▪ Significant renal impairment ▪ Significant liver dysfunction ▪ QTc > 500 msec ▪ Concurrent use of benzodiazepines ▪ Concurrent use of cyp3A4 inhibitors ▪ Age > 65 ○ Treatment plan ▪ Initiate prior to withdrawal symptoms ▪ Start administration of scheduled adjunct medications around 6 hours prior to first dose, then for 48-96 hours ▪ Start at low scheduled daily dose and administer prn methadone for withdrawal or cravings

	• prn doses to be given no sooner than 4 hours after last dose ▪ Subsequent days, as long as prior day's dose was tolerated and a larger dose is needed to control withdrawal symptoms and cravings: • Scheduled daily doses can be up-titrated and split to every 12 hours for pregnant patients, with prn methadone available

Appendix A: COWS score

Example of COWS scoring sheet



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Clinical Opiate Withdrawal Scale (COWS)

Flowsheet for measuring symptoms over a period of time during buprenorphine induction.

For each item, write in the number that best describes the patient's signs or symptom. Rate on just the apparent relationship to opiate withdrawal.
For example: If heart rate is increased because the patient was jogging just prior to assessment, the increased pulse rate would not add to the score.

Patient Name: _____ Date: _____

Buprenorphine Induction: _____

Enter scores at time zero, 30 minutes after first dose, 2 hours after first dose, etc.	Times of Observation:			
Resting Pulse Rate: Record Beats per Minute				
Measured after patient is sitting or lying for one minute 0 = pulse rate 80 or below 1 = pulse rate 81-100 • 2 = pulse rate 101-120 • 4 = pulse rate greater than 120				
Sweating: Over Past 1/2 Hour not Accounted for by Room Temperature or Patient Activity				
0 = no report of chills or flushing 1 = subjective report of chills or flushing 2 = flushed or observable moistness on face • 3 = beads of sweat on brow or face • 4 = sweat streaming off face				
Restlessness Observation During Assessment				
0 = able to sit still 1 = reports difficulty sitting still, but is able to do so • 3 = frequent shifting or extraneous movements of legs/arms • 5 = Unable to sit still for more than a few seconds				
Pupil Size				
0 = pupils pinned or normal size for room light 1 = pupils possibly larger than normal for room light • 2 = pupils moderately dilated • 5 = pupils so dilated that only the rim of the iris is visible				
Bone or Joint Aches if Patient was Having Pain Previously, only the Additional Component Attributed to Opiate Withdrawal is Scored				
0 = not present 1 = mild diffuse discomfort • 2 = patient reports severe diffuse aching of joints/muscles • 4 = patient is rubbing joints or muscles and is unable to sit still because of discomfort				
Runny Nose or Tearing Not Accounted for by Cold Symptoms or Allergies				
0 = not present 1 = nasal stuffiness or unusually moist eyes • 2 = nose running or tearing • 4 = nose constantly running or tears streaming down cheeks				
GI Upset: Over Last 1/2 Hour				
0 = no GI symptoms 1 = stomach cramps 2 = nausea or loose stool • 3 = vomiting or diarrhea • 5 = multiple episodes of diarrhea or vomiting				
Tremor Observation of Outstretched Hands				
0 = no tremor 1 = tremor can be felt, but not observed • 2 = slight tremor observable • 4 = gross tremor or muscle twitching				
Yawning Observation During Assessment				
0 = no yawning 1 = yawning once or twice during assessment • 2 = yawning three or more times during assessment • 4 = yawning several times/minute				
Anxiety or Irritability				
0 = none 1 = patient reports increasing irritability or anxiousness • 2 = patient obviously irritable/anxious • 4 = patient so irritable or anxious that participation in the assessment is difficult				
Gooseflesh Skin				
0 = skin is smooth 3 = piloerection of skin can be felt or hairs standing up on arms • 5 = prominent piloerection				
Score: 5-12 = Mild 13-24 = Moderate 25-36 = Moderately Severe More than 36 = Severe Withdrawal	Total score			
	Observer's initials			

The National Alliance of Advocates for Buprenorphine Treatment
PO Box 333 • Farmington, CT 06034 • MakeContact@naabt.org
naabt.org

*Source: Wesson et al. 1999.

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Appendix B: Adjunctive/comfort medications used to treat opioid withdrawal symptoms

Medication	Dose	Reason	Considerations
Scheduled adjunct medications Around the clock x 48-96 hours for buprenorphine initiation. Ideally, give 4-6 hours prior to first dose.			
Tizanidine	2-4 mg po every 6 hrs	Buprenorphine initiation. Muscle spasms or cramps, myalgia, restlessness.	Fewer cardiovascular effects than clonidine, may lower BP
Hydroxyzine	50 mg po every 6 hrs	Buprenorphine initiation. Nausea, vomiting, insomnia, anxiety	
Gabapentin	300 mg po every 6 hrs	Buprenorphine initiation. Anxiety, restlessness	Decrease dose with renal insufficiency
Dicyclomine	20 mg po every 6 hrs	Buprenorphine initiation. Abdominal cramps	
Mirtazapine	15 mg po hs daily	Methamphetamine withdrawal	
Nicotine replacement therapy (NRT)	Nicotine 2-4 mg lozenge oral, every 1 hour prn OR Nicotine 21 mcg/24 hr patch, Transdermal, daily prn	Smoking cessation, any nicotine withdrawal symptoms	
Prenatal vit	Daily		
Vitamin D	2000 units daily		
Probiotics	Hospital formulation		
PRN medications			
Ondansetron	4 mg SL every 6 hrs prn	Nausea	Caution when used with methadone, may cause QTc prolongation
Loperamide	4 mg po once, then 2 mg prn	Loose stools	
Acetaminophen	650 mg po every 6 hrs prn	Pain	Max 2000 mg with liver insufficiency
Ibuprofen (postpartum)	400 mg every 6 hrs prn postpartum	Pain	Caution in pregnancy > 28 weeks gestation. Caution with renal insufficiency, hypertensive disorders of pregnancy.
Melatonin	3 - 6 mg po nightly prn	Insomnia	

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Appendix C: Overview of withdrawal management and stabilization with medications for treatment of opioid use disorder

Appendix & title		Daily doses	Days					
			1	2	3	4	5	6
E	Bup & hydro prn	Buprenorphine	6.5-7	24-32				
		Hydromorphone prn	2-8	2-8	2-8	prn	prn	taper
F	Bup & prn full agonist	Buprenorphine	1.05	7.2	16	24	24-32	
		Hydromorphone prn	2-8	2-8 taper	taper			
H	Bup cross-titration with methadone	Buprenorphine	~0.48	3	6	9-32		
		Methadone	30-50	30-50	30-50	none		

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Appendix D: Example of accelerated buprenorphine initiation with adjunct medications and prn hydromorphone (8mg by day 2)

<table>
<tr><th>Day</th><th>Buprenorphine schedule (using buprenorphine/naloxone 2/0.5 film for low doses)</th><th>Total daily buprenorphine dose</th><th>Adjunct meds*</th><th>Full opioid agonist prn</th></tr>
<tr><td>1</td><td>0.25-0.5 SL Q4h x2
THEN
1 mg SL Q4h x2
THEN
2 mg SL Q4h x2</td><td>0.5-1 mg
+ 2 mg
+ 4 mg
= 6.5-7 mg</td><td rowspan="3">Scheduled x 96 hours</td><td rowspan="2">Hydromorphone 2-8 mg Q4h PRN**</td></tr>
<tr><td>2</td><td>4 mg SL Q4h x 2
THEN
8 mg SL TID-QID</td><td>8 mg
+ 16-24 mg
= 24-32 mg</td></tr>
<tr><td>3</td><td rowspan="3">8 mg SL TID-QID</td><td rowspan="3">24-32 mg</td><td rowspan="2">Stop or continue for acute pain</td></tr>
<tr><td>4</td><td>PRN x 48 hours</td></tr>
<tr><td>5</td><td rowspan="2"></td><td rowspan="2"></td></tr>
<tr><td>6+</td><td>Consider tapering</td></tr>
</table>

*Scheduled adjunct medication regimen example: Tizanidine 2-4 mg Q6h, hydroxyzine 50 mg Q6h, gabapentin 300 mg Q6h, dicyclomine 20 mg Q6h. Give scheduled and around the clock for the first 48-96 hours of buprenorphine administration. Ideally, give x4-6 hours prior to first buprenorphine dose

**Consider hydromorphone based on COWS and history of fentanyl use:
Hydromorphone 2-4 mg Q4h PRN - COWS > 7 (if Fentanyl < 15tabs / 0.5g powder)
Hydromorphone 4-8 mg Q4h PRN - COWS > 7 (if Fentanyl > 15tabs / 0.5g powder)
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Appendix E: Example of accelerated buprenorphine initiation with adjunct medications and prn hydromorphone (8mg by day 3)

<table>
<tr><th>Day</th><th>Buprenorphine schedule (using Buprenex SL liquid for low doses)</th><th>Total daily buprenorphine dose</th><th>Adjunct meds*</th><th>Full opioid agonist prn</th></tr>
<tr><td>1</td><td>0.075 mg SL Q4h x2
THEN
0.15 mg SL Q4h x2
THEN
0.3 mg SL Q4h x2</td><td>0.15 mg
+ .3 mg
<u>+ 0.6 mg</u>
= 1.05 mg</td><td rowspan="4">Scheduled x 96 hours</td><td rowspan="2">Hydromorphone 2-8 mg Q4h PRN**</td></tr>
<tr><td>2</td><td>0.6 mg SL Q4h x 2
THEN
1 mg SL Q4h x 2
THEN
2 mg SL Q4h x2</td><td>1.2 mg
+ 2 mg
<u>+4 mg</u>
= 7.2 mg</td><td rowspan="2">Stop or continue for acute pain</td></tr>
<tr><td>3</td><td>4 mg SL Q4h x 2
THEN
8 mg SL once</td><td>8 mg
<u>+8 mg</u>
= 16 mg</td></tr>
<tr><td>4</td><td>8 mg SL TID</td><td>24 mg</td><td>Consider tapering</td><td></td></tr>
<tr><td>5</td><td>8 mg SL TID-QID</td><td>24-32 mg</td><td>Discontinue</td><td></td></tr>
</table>

*Scheduled adjunct medication regimen example: Tizanidine 2-4 mg Q6h, hydroxyzine 50 mg Q6h, gabapentin 300 mg Q6h, dicyclomine 20 mg Q6h. Give scheduled and around the clock for the first 48-96 hours of buprenorphine administration. Ideally, give x4-6 hours prior to first buprenorphine dose.

**Consider hydromorphone based on COWS and history of fentanyl use:
Hydromorphone 2-4 mg Q4h PRN - COWS > 7 (if Fentanyl < 15tabs / 0.5g powder)
Hydromorphone 4-8 mg Q4h PRN - COWS > 7 (if Fentanyl > 15tabs / 0.5g powder)
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Appendix F: Example of accelerated buprenorphine-methadone cross-titration

Day	**Buprenorphine schedule (using Butrans 20 mcg/hour for low doses)**	**Buprenorphine total daily dose**	**Adjunct meds ***	**Methadone dose**
1	Butrans 20 mcg/hour patch once	~0.48 mg	Scheduled x 96 hours	Scheduled: 30 mg once - PRN (4+ hours since last) 10 mg x 2 for withdrawal symptoms or craving
2	1 mg SL TID	3 mg		
3	1 mg SL every 3 hours for 6 doses (0800-1100)	6 mg		
4	Belbuca 450 mcg SL ONCE early morning (@0600?) - **THEN** - 3 hours after initial 450 mcg dose (@0900?) buprenorphine 8 mg SL once - Continue to titrate to withdrawal or cravings up to 24 mg – 32 mg daily	1 mg + 8 mg = 9 mg - **THEN** - Up to 24 – 32 mg	Consider tapering	none
5+	Continue to titrate to withdrawal or cravings up to 24 mg – 32 mg daily	Up to 24 - 32 mg	Discontinue	

*Scheduled adjunct medication regimen example: Tizanidine 2-4 mg Q6h, hydroxyzine 50 mg Q6h, gabapentin 300 mg Q6h, dicyclomine 20 mg Q6h. Give scheduled and around the clock for the first 48-96 hours of buprenorphine administration. Ideally, give x4-6 hours prior to first buprenorphine dose.

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Appendix G: Example of accelerated methadone titration

Day	Scheduled Methadone	As Needed Methadone	Total Daily dose	Adjunct meds *	Full opioid agonist
1	30 mg x1	10mg Q4H prn patient reported withdrawal or craving	Up to 80 mg	Scheduled x 96 hours	Hydromorphone 2-8 mg Q4h PRN**
2	20 mg q12hr	10mg Q4H prn patient reported withdrawal or craving	Up to 90 mg		
3	30 mg q12hr	10mg Q4H prn patient reported withdrawal or craving	Up to 110 mg		Taper
4	40 mg q12hr	10mg Q4H prn patient reported withdrawal or craving	Up to 130 mg		
5	50 mg q12hr	10mg Q4H prn patient reported withdrawal or craving	Up to 150 mg	Consider tapering	
6+	Increase scheduled dose by 5-10 mg every 3-5 days prn			Discontinue	

*Scheduled adjunct medication regimen example: Tizanidine 2-4 mg Q6h, hydroxyzine 50 mg Q6h, gabapentin 300 mg Q6h, dicyclomine 20 mg Q6h. Give scheduled and around the clock for the first 48-96 hours of buprenorphine administration. Ideally, give x4-6 hours prior to first buprenorphine dose.

**Consider hydromorphone based on COWS and history of fentanyl use:
Hydromorphone 2-4 mg Q4h PRN - COWS > 7 (if Fentanyl < 15tabs / 0.5g powder)
Hydromorphone 4-8 mg Q4h PRN - COWS > 7 (if Fentanyl > 15tabs / 0.5g powder)

Relative contraindications to using an accelerated methadone titration: significant impairment in kidney and/or liver function, QTc>500 msec, concurrent benzodiazepine use, age >65, concurrent use of CYP3A4 inhibitors.
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Appendix H: Order Set Example

This is an add-on order set example to be used in conjunction with your standard admission orders.

Order	Indication / notes
Nursing	
Notification: COWS > ___ after daily maximum MOUD administered.	
Notification: Withdrawal symptoms and cravings despite interventions.	Be specific: Interventions may include maximum daily MOUD and scheduled adjunct medications.
Notification: Precipitous withdrawal symptoms.	
Assessment: Continuous pulse oximetry until stable on MOUD x48 hours.	
Assessment: COWS, symptoms, cravings, blood pressure, and respiratory rate hourly while titrating. May decrease assessments to every 4 hours as dose and symptoms stabilize x4 hours.	
Labs	
Urine drug screen	
Communicable infections: Syphilis, hepatitis, HIV, chlamydia, gonorrhea, trichomoniasis	
CMP	Known or suspected hepatic dysfunction
Methadone level	48 hours after methadone initiation, and again upon hospital discharge on stable dose. 48 hours postpartum for patients who were taking methadone during pregnancy.
Studies	
Electrocardiogram (ECG)	Once methadone daily dose is 100 mg or more
Medications	
Adjunct medications	(See appendix B)
MOUD initiation medications	(See appendices D-M)
Naloxone 0.1-0.2 mg IV every 2-3 minutes not to exceed 10 mg	Concern for opioid overdose, including RR < 10 breaths per minute or apnea, oxygen saturation < 90% on room air. This is a lower amount than recommended for adults who are not opioid-dependent to avoid acute withdrawal. Your organization may have a standard order.
Consults	
Social work / care management	Address barriers to care. Facilitate and coordinate intake process with outpatient treatment program. Connect patient with community partners.
Substance use expert	Recommend dose adjustments, adjunct medications. Provide council to patient and care team.
Perinatology	Provide council to patient and care team on high-risk pregnancy-specific considerations.
Pharmacy	Review medication profile for interacting drug therapy. Recommend dose adjustments. Review medication reconciliation.

Discharge	
Buprenorphine prescription	
Naloxone prescription	
Education: Naloxone use for patient and support people, follow-up, when to seek care, safe storage	

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Appendix I: Example of harm reduction and naloxone information for after visit summary

Dear valued patient,

Your condition has stabilized to allow for discharge from Swedish Medical Center. Our Medical Team is grateful for the trust you have invested in us. We would like to provide you and your family with information about your discharge medications.

You're discharged with a prescription for opioid medication. What are opioids?

Opioid medications bind to specific receptors in the brain that reduce the transmission of pain signals throughout the body. However, they can also be dangerous, especially if misused (see below). Opioids include:

- Pain medications like: hydrocodone (Vicodin), hydromorphone (Dilaudid), meperidine (Demerol), morphine (MS Contin), oxycodone (OxyContin, Percocet), codeine, fentanyl, methadone
- Medications for opioid use disorder such as methadone or buprenorphine support evidence-based treatment for people with opioid use disorder, and optimize whole person and health outcomes
- Illicit substances like heroin and synthetic fentanyl are also opioids, which are chemically similar to prescription opioids

Opioid medications are very strong and create risk of side effects such as dizziness, sedation, opioid tolerance, physical dependence, addiction and possible overdose 1 2

- Surgical patients are four times more likely to get opioid pain medications at discharge than their non-surgical counterparts
- There's a subsequent 44% increase in opioid misuse for every refill filled 3 4
- 3% to 10% of opioid naive patients eventually become chronic opioid users 9
- Opioids increase chance of non-fatal and fatal opioid overdose, especially if not taken as prescribed
- Opioid replacement therapy with methadone or buprenorphine further increases risk of medication interaction and overdose
- Increased risk with opioid misuse or diversion 10

Learn about opioid overdose

Opioid overdoses are occurring at an alarming rate in the United States. Since the early

2000s, age adjusted rates of opioid overdose have tripled and now rank as the leading

cause of death related to unintentional injury. 1 2

Prescription opioids are implicated in most of the cases, as rates of opioid prescription quadrupled and were paralleled by increasing rates of deaths from overdose 5 6.

Non-fatal overdose events from prescription opioids account for 7-11 times more episodes than fatal overdoses and have similarly increased by more than 50% over 10 years. 2 7 8

The majority non-fatal overdose episodes take place in patients identified as non-chronic (<90 days) opioid users. 8

What causes overdose?

All patients exposed to opioids are at risk for overdose. When there is too much opioid in the body, a person can lose consciousness and stop breathing. An opioid overdose can happen suddenly or come on slowly over a few hours. Without respiratory support, a person can die.

Risks for an opioid overdose include:

- Using opioids again after you have stopped them and when your opioid tolerance has dropped. After a break from opioids, the body can't handle as much as it did before.
- Taking prescription pain medication more often or in higher doses than prescribed-or using someone else's prescription opioid medication. The dose could be fatal to any given individual.
- Using heroin or opioid pills bought on the street. Heroin and illicit opioid pills often contain other substances that can be dangerously toxic.
- Using opioids with alcohol or other drugs including sleeping pills, benzodiazepines ("benzos" like Valium and Xanax), cocaine and methamphetamine.
- Any current or chronic illness that weakens the heart or makes it harder to breathe.
- Using opioids alone. You are more likely to die from an overdose if no one is there to help you.
- Previous overdose. A person who has overdosed before is more likely to overdose again.

Naloxone:

- You're given Naloxone nasal spray kit and a prescription today as part of your discharge medications.
- Naloxone is an opioid antagonist that reverses the effects of opioid overdoses. 11
- Naloxone is very safe, very effective, and can be administered intramuscularly or intranasally, using a preloaded nasal spray. 12 13
- Intranasally administered naloxone has comparable effectiveness with intramuscularly administered naloxone 3-6 but has the added benefit of not requiring the use of needles to administer the drug. 13

What to do in an opioid overdose?

Seconds and minutes count in an opioid overdose. If you think someone has overdosed, follow these steps:

<u>1. Check for signs of overdose:</u>

- ✓ Won't wake up. Try rubbing your knuckles hard on their sternum.
- ✓ Slow or no breathing
- ✓ Pale, ashy, cool skin
- ✓ Blue lips or fingernails
- ✓ Limp body
- ✓ Skin is pale and/or clammy to the touch

<u>2. Call 911. Tell the dispatcher where you are and that someone is not breathing or is unconscious.</u> If you are trying to help in an overdose, WA State's 911 Good Samaritan/Overdose Law protects both you and the overdose victim from drug possession charges.

  - Don't be afraid to call 911 for help!
  - If you can't stay until 911 help arrives:

Place the person on their side and where first responders can find them.

3. Give naloxone and rescue breaths.

Rescue Breathing: By providing rescue breathing during an overdose, the rescuer can potentially prevent the person with overdose from developing organ damage.

- ✓ Tilt head back. Lift chin. Pinch nose.
- ✓ Give a full breath. Their chest should rise when you exhale
- ✓ Give a breath every 5 seconds.

Naloxone:

If you have naloxone, give one dose. Naloxone can take 2-3 minutes to work, depending on how it has been administered so start giving rescue breaths. If the person is still not breathing after 2-3 minutes, give a second dose of naloxone. Continue rescue breathes until the person wakes up or medical help arrives.

In WA State, anyone who might have or witness an overdose can legally possess and administer naloxone.

4. If the person wakes up and starts breathing, stay with them. Encourage them to get follow-up medical care.

When the naloxone wears off in 30-90 minutes, the person could stop breathing again. Encourage the person to be taken to a clinic or emergency room where health care staff can:

• Monitor their breathing.

• Manage any withdrawal symptoms.

• Treat any other medical conditions.

Is naloxone effective in treating other types of overdoses?

No, naloxone is only effective in reversing an opioid overdose. At times, it may be difficult to distinguish opioid overdose symptoms from other overdoses or illnesses. Therefore, it is important to immediately seek medical help.

Can naloxone be administered to pregnant women?

Yes, in an opioid overdose, naloxone can and should be administered to a pregnant woman. Pregnant and postpartum women on opioid replacement therapy with methadone or buprenorphine are encouraged to receive and fill naloxone prescription following every hospital discharge. Education and precautions on opioid overdose prevention and possible risk for opioid withdrawal are provided with each prescribed naloxone medication. Please, keep this educational material for your records and do not hesitate to contact us with questions or concerns.

We're here to help and support you in your efforts for good health and successful post hospital recovery.

For More Information:

- Watch an overdose training video. Choose between the video for community health workers or the one for pain patients and their families and friends.
- Download the Opioid Overdose brochure. This brochure provides information about opioids, overdose risks, what to do if someone is overdosing.
- www.stopoverdose.org
- www.prescribetoprevent.org

- www.harmreduction.org

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Appendix J: Definitions

- **Clinical Opiate Withdrawal Scale (COWS)**: a numbered scale designed to help clinicians tailor opioid withdrawal treatment to individual people. Built in Epic flowsheet, for use in determining the severity of opioid withdrawal and monitoring symptom change over time during treatment *(Clinical Opiate Withdrawal Scale)*
- **Drug Addiction Treatment Act of 2000 (DATA 2000)**: federal legislation that allows qualified providers to treat opioid use disorder with buprenorphine.
    - As of January 2023, a DEA "X-waiver" is no longer required to prescribe buprenorphine
- **Opioid use disorder (OUD):** A pattern of opioid use that causes significant impairment or distress. A diagnosis is based on specific criteria such as unsuccessful efforts to cut down or control use, or use resulting in social problems and a failure to fulfill obligations at work, school, or home, among other criteria. *(ASAM Criteria for Diagnosing Opioid Use Disorder)*
- **Medications for opioid use disorder (MOUD)**: medications used to treat OUD (methadone, buprenorphine, and naltrexone). (*ASAM National Practice Guideline for Treatment of Opioid Use Disorder)*
- **Opioid agonist:** A medication that interacts with the opioid receptors to reduce pain. Examples include morphine, hydromorphone, oxycodone, fentanyl, and methadone.
- **Partial opioid agonist:** medications with high affinity but low efficacy at the mu receptor where it yields a partial effect. Examples include buprenorphine.
- **Opioid antagonist**: a medication that blocks opioid receptors and inhibits the action of opioid agonist. Examples include naloxone and naltrexone.
- **Low dose buprenorphine cross-titration, also known as "micro-dose induction"**: an approach to starting buprenorphine where buprenorphine is gradually increased while the patient continues to take an opioid agonist. The buprenorphine gradually displaces the opioid agonists then the agonist is stopped. This approach eliminates the need for a period of abstinence from opioids and opioid withdrawal prior to starting buprenorphine.
- **Precipitated opioid withdrawal**: A sudden, significant worsening of withdrawal after an opioid antagonist or partial agonist/antagonist is administered (e.g., buprenorphine or naloxone).
- **Opioid Treatment Program (OTP)**: a clinic specifically certified and accredited by the federal government to provide methadone and other treatments for OUD
- **Harm Reduction:** a set of evidence-based strategies known to improve the health of people who use drugs by minimizing the negative impact of ongoing use.

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