

Management of Inpatient Opioid Withdrawal and Opioid Use Disorders (Addiction) in Non-Pregnant Adult Patients BMC Medication Guideline



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Section: Pharmacy

Management of Inpatient Opioid Withdrawal and Opioid Use Disorders (Addiction) in Non-Pregnant Adult Patients Guideline

This medication guideline contains information specific to practice at Boston Medical Center (BMC), and is not intended for use as an inclusive drug information reference. For comprehensive drug information, please consult Micromedex®, a tertiary reference to which BMC subscribes.

I. Patient is physically dependent on illicit opioids and is NOT ENROLLED in a Methadone or Suboxone (buprenorphine/naloxone) Program:

GOAL: To alleviate acute opioid withdrawal signs and symptoms and manage opioid use disorders (addiction).

Please page the Addiction Consult Service #6226 to discuss treatment of opioid withdrawal symptoms with methadone or buprenorphine/naloxone

Hospital day #1:

- **Assess for acute opioid withdrawal** either based on a Clinical Opioid Withdrawal Scale (COWS) score of at least 5 or by assessing withdrawal based on the following clinical signs and symptoms: symptoms: yawning, sweating, anxiety, restlessness, insomnia, chills, nausea cramping, abdominal pains, muscle aches; signs: lacrimation, rhinorrhea, dilated pupils, piloerection, tachycardia, hypertension, diarrhea, vomiting.
- Regardless of amount of opioid (e.g., heroin) reported by history, start with:
 - methadone 20 mg solution PO X1 dose
OR
 - buprenorphine/naloxone 4/1mg tablet under the tongue (sublingual) x 1 dose.
 - **CAUTION – buprenorphine/naloxone SHOULD NOT BE GIVEN within 48 hours of prior methadone administration, 24 hours of prior long-acting opioid analgesic (eg. MS Contin) or 12 hours of prior short-acting opioid analgesic (e.g. oxycodone) or illicit heroin/fentanyl because of the risk of precipitating opioid withdrawal. Be sure to review the patients MAR for other opioids prior to starting buprenorphine**
 - Discuss specific treatment (e.g., methadone or buprenorphine/naloxone dose) and goals openly with the patient.
 - If concerns about safety (e.g., precipitated withdrawal) with starting buprenorphine/naloxone, page Addiction Consult Service #6226
 - If withdrawal symptoms worsen (precipitated withdrawal) with first dose of buprenorphine/naloxone, page Addiction Consult Service #6226.
 - With either methadone or buprenorphine/naloxone treatment, expect some opioid withdrawal relief within 2 hours.

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- Order naloxone PRN for hypoxia or unresponsiveness.
- Reevaluate the patient every 2-3 hours.
 - For patients started on **methadone**, give additional doses of methadone in increments of 5-10 mg per dose of solution orally every 2-3 hours until withdrawal abates, COWS < 5 to a maximum of 40 mg.
 - For patients started on **buprenorphine/naloxone**, give additional doses of buprenorphine in increments of 4/1mg per dose sublingually every 2-3 hours until withdrawal abates, COWS < 5 to a maximum of 12/3 mg.
 - Assess and document with the COWS scale at each re-evaluation
- **DO NOT exceed 40 mg of methadone or 12/3mg of buprenorphine/naloxone in the first 24 hours of admission.**
 - Consult Addiction Consult Service #6226 if considering methadone doses >40mg or >12/3 mg of buprenorphine/naloxone in the first 24 hours
- **DO NOT give additional methadone or buprenorphine/naloxone doses if the patient is sedated or has respiratory depression (RR < 8 breaths per minute).** For patients with significant sedation and respiratory depression, consider naloxone administration if patient does not respond to physical stimuli.

Hospital day #2:

- On the morning of the following day:
- For **methadone**, give the amount of methadone given over the previous 24 hours at one time or split into two doses, but do not exceed 40mg.
 - Doses may exceed 40mg a day with guidance and approval of the Addiction Consult Service
- For **buprenorphine/naloxone**, give the amount given over the previous 24 hours at one time or split into two doses, the dose can be increased to 16/4 mg if the patient continues to experience opioid withdrawal, but do not exceed total daily dose of 16/4 mg.
 - Doses may exceed 16/4 mg a day with guidance and approval of the Addiction Consult Service
- Discuss the following options with the patient:
 - Option A: Maintenance (recommended)
 - Continue daily methadone or buprenorphine/naloxone with last dose given on day of hospital discharge.
 - **If the patient is interested in continuing methadone or buprenorphine/naloxone after discharge, please consult the Addiction Consult Service #6226 as soon as possible during the hospitalization**
 - Option B: Taper
 - For methadone, taper by 5-10 mg/day with last dose given on day of hospital discharge.
 - For buprenorphine/naloxone, taper by 2/0.5 mg – 4/1 mg/day with last dose given on day of hospital discharge.
 - **Discharge should not be delayed** in order to complete a taper.
- **DO NOT write an outpatient prescription for methadone**
- **DO NOT write an outpatient prescription for buprenorphine/naloxone unless you are a qualified clinician (waivered with a DEA “X” number) and after reviewing the prescription with the clinician who will be taking over the buprenorphine/naloxone as an outpatient. Consider calling the pharmacy to ensure the prescription went through insurance prior to discharging the patient.**

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- Refer the patient to addiction treatment by contacting your social worker. This should not delay discharge plans. You can also refer your patient to the MA Statewide Helpline 1-800-327-5050 or www.helpline-online.com

II. Patient is ENROLLED in a Methadone Program:

- Verify the current methadone dose by calling the patient's methadone program. Most programs are open 6-7 days/week from 7AM until early afternoon. Until dose verification, treat acute opioid withdrawal signs and symptoms by utilizing recommendations listed in the NOT ENROLLED section (listed above).
- Order naloxone PRN for hypoxia or unresponsiveness.
- Continue daily methadone dose (liquid solution) without interruption or taper. If NPO, utilize the following table for PO to IM conversion. IM doses are usually given q12h.

Equianalgesic Dose Conversion Table

Opioid	Parenteral	Oral
Methadone	10mg	20mg

**Of note, parenteral methadone is available as 10mg/ml, 2 ml vials.

At times, deviating from confirmed methadone maintenance dosing is clinically appropriate. Consider consulting the Addiction Consult Service #6226 to assist. Recommendations regarding HOLDING, DECREASING or INCREASING the confirmed methadone maintenance dose include:

- **HOLDING** methadone if the patient becomes sedated, has altered mental status, has respiratory depression (RR < 8 breaths per minute) or had a cardiac arrest in the setting of prolonged QTc interval. Consider the following underlying causes a) medical illness (e.g. infection or liver dysfunction), b) polypharmacy (e.g. synergistic effects of multiple psychoactive medications), c) methadone dose is too high, or d) illicit medication use in the hospital.
- **DECREASING** methadone daily dose as needed to address ongoing oversedation.
- **INCREASING (TITRATING)** methadone daily dose as needed to address continued opioid withdrawal signs and symptoms (see Clinical Opioid Withdrawal Scale, Appendix A). Doses should only be titrated above the confirmed methadone maintenance dose, in consultation with the outpatient methadone maintenance program physician and/or the Addiction Consult Service. This consultation must be documented in the medical record.
- On the day of discharge
 - Give the patient a letter to their methadone clinic, called a "Last Dose Letter," stating:
 - Date(s) of hospitalization
 - Date and amount of last methadone dose
 - Names of other opioids and sedatives given during hospitalization
 - **DO NOT write an outpatient prescription for methadone**

ACUTE PAIN MANAGEMENT: The patient's methadone maintenance dose or daily methadone dose used to treat acute opioid withdrawal in patients not enrolled in a methadone maintenance program **DOES NOT** provide adequate analgesia for acute pain. If pain requires opioid analgesia, it is prudent to use non-opioids (e.g., NSAIDs, acetaminophen) along with opioid analgesia. Larger and more frequent opioid doses are often required due to opioid cross-tolerance with the patient's usual methadone dose. Continue methadone maintenance dose in addition to the opioid

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analgesic. Avoid using mixed agonist/antagonist opioid analgesics (i.e. Butorphanol (Stadol), Nalbuphine (Nubain)) as they may precipitate withdrawal.

III. Patient is ENROLLED in a Buprenorphine (e.g., Suboxone, Subutex) Program:

- If enrolled in the BMC buprenorphine program, check EPIC to verify enrollment. The OBAT (Office-Based Addiction Treatment) Program can be contacted at ext. 4-4107 or 617-797-6712 in an emergency. If enrolled in a buprenorphine program outside of BMC verify with the outside provider or check the state online Prescription Monitoring Program (e.g., MassPAT <https://massachusetts.pmpaware.net/login>).
- If patient is not in need of pain management, continue patient's usual daily buprenorphine dose to be taken sublingual once per day. Of note, some patients prefer to take their buprenorphine dose as a split dose BID or TID, which is also acceptable.
- On day of discharge
 - Notify outpatient buprenorphine provider of discharge plans to ensure appropriate follow-up
 - **DO NOT write an outpatient prescription for buprenorphine unless you are a qualified clinician (DEA waived with a "X" number) and the patient's buprenorphine provider requests you to do so.**

ACUTE PAIN MANAGEMENT: The patient's buprenorphine maintenance dose **DOES NOT** provide analgesia and may prevent opioid analgesics from working. If pain requires opioid analgesia, it is prudent to use non-opioids (e.g., NSAIDs, acetaminophen) along with one of the following options based on the anticipated pain acuity and duration:

- For Moderate or Severe Pain
 - Divide the buprenorphine daily dose to q8 hour dosing to take advantage of buprenorphine's analgesic properties.
 - Either increase usual buprenorphine maintenance dose by 2-4 mg per dose to achieve increased analgesia up to a maximum dose of 32 mg per day **OR** use concurrent short-acting opioid analgesics. Larger and more frequent opioid doses are often required due to opioid cross-tolerance with the patient's usual buprenorphine dose. Avoid using mixed agonist/antagonist opioid analgesics (i.e. Butorphanol (Stadol), Nalbuphine (Nubain)) as they may precipitate withdrawal. NOTE: it is SAFE to add opioids on top on buprenorphine if the patient has been continuously receiving buprenorphine in past 24 hours
 - Convert patient to usual daily buprenorphine maintenance dose and dosing when acute pain resolves.
 - For patients with uncontrolled pain on buprenorphine, contact Addiction Consult Service #6226

Regulatory issues:

- **Inpatient Use:**
 - The admitting physician should confirm the patient's treatment history with the patient's addiction treatment provider.
 - Under the federal DEA regulations, there are no restrictions limiting the care of a patient admitted to the hospital for a primary medical problem who also requires therapy (methadone or buprenorphine/naloxone) to prevent opioid withdrawal that would complicate the primary medical problem.
 - A DATA 2000 waiver/DATA DEA number is not required for practitioners in order to administer or dispense buprenorphine (or methadone) in this circumstance. In other

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words, medical residents may write the inpatient orders, however they cannot be the prescriber for the written prescription on discharge (see next section).

▪ **Outpatient Use:**

- Outpatient prescriptions must be written and signed by a provider with an authorized DATA DEA number.
- Authorized attending physicians with this special DATA DEA number are responsible for writing the prescription on the day of discharge, if appropriate.
- The BMC inpatient pharmacy and the BMC Emergency Department **are not** licensed to fill outpatient prescriptions for buprenorphine.
- Dose adjustments between scheduled appointments should not be a reason for an Emergency Department visit or inpatient admission.

General Information:

- Refer to Appendix A for Clinical Opioid Withdrawal Scale (COWS).
- Refer to Appendix B for Algorithm for Management of Inpatient Opioid Withdrawal in Non-Pregnant Adult Patients.
- For any concern for acute opioid withdrawal, staff can assess patients using the validated COWS scale at any point in time.
- For patients on buprenorphine at BMC, contact OBAT at 617-414-4107
- For general addiction medicine concerns page the BMC Addiction Consult Service pager #6226

References:

Alford DP, Compton P, Samet JH. Acute Pain Management in Patients Maintained on Methadone or Buprenorphine. *Ann Intern Med* 2006;144: 127-134

Alford DP. "Acute and Chronic Pain". Handbook of Office-Based Buprenorphine Treatment of Opioid Dependence. 2nd edition Renner JA, Levounis P eds. American Psychiatric Publishing, Inc (APPI) Arlington, VA 2017 *in press*

Storey, S. An algorithm for managing opiate-dependent inpatients. *The British Journal of Clinical Pharmacy* 2010 (2): 279-80.

Roberts DM, Meyer-Witting M. High-dose buprenorphine: perioperative precautions and management strategies. *Anaesth Intensive Care* 2005;33:17-25.

Responsibility: Pharmacists, nurses and physicians

Other Related Guidelines or Policies:

- Methadone and Buprenorphine during Pregnancy Guideline
- Perioperative Management of Non-Pregnant Patients on Buprenorphine Maintenance Therapy

Section: Pharmacy

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Appendix A. Clinical Opiate Withdrawal Scale (COWS)

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 increase pulse rate would not add to the score.	Patient Name				
	MRN				
	Date				
	Time				
Resting Pulse Rate: (Record Beats per minute) Measured after patient is sitting or lying for 1 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 ½ 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 Opiates 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 ½ 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 >36= Severe Withdrawal	Total Score (Sum of all 11 items)				
Observer's Initials					

Adapted from Naabt.org, NAABT 2007

Appendix B: An Algorithm for Management of Inpatient Opioid Withdrawal and Opioid Use Disorders (Addiction) in Non-Pregnant Adult Patients*

