


Information & Resources

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Abbreviations

Opioid Use Disorder (OUD)
 medication for OUD (MOUD)
 naloxone (Narcan)

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This clinical pathway is based on scientific evidence available at the time of publication. It is a guide for the provision of care and is not a substitute for a clinician's independent medical judgement when determining the course of treatment for a particular patient.

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Opioid Use Disorder (OUD) | Selection of Medications for Opioid Use Disorder (MOUD)
 For use at HUP, HUP Cedar, PPMC, PAH only

Confirm diagnosis of Opioid Use Disorder (OUD)
 See DSM-5 Criteria for Diagnosis of OUD

Obtain urine drug screen (UDS) and pregnancy testing

UDS

- Treatment should not be withheld pending UDS results
- Results are often required by outpatient or residential programs on discharge

Pregnancy

- Pregnancy status is helpful in planning treatment and disposition
- Either buprenorphine, buprenorphine-naloxone, or methadone are appropriate
- The choice should reflect shared decision making and a follow-up plan
- See attachments tab for MOUD pearls in pregnancy

Early discharge planning

Admitted patients

- [HUP/PPMC/PAH] CORE: Contact Certified Recovery Specialist (267-809-5080) who can help to further support the patient and engage them in care
- SW: Contact SW early if the patient is interested in residential treatment options after hospital discharge
- Follow-up: during admission, connect the patient to the substance use navigator at the **CareConnect Warmline (484-278-1679)** who can continue to engage the patient after discharge
- Narcan: use MyPennPharmacy (if available) to provide bedside delivery of intranasal naloxone (Narcan) on admission in case of self-directed discharge

ED patients

- If the patient is interested in residential treatment options, follow site-specific instructions
- Follow-up: during ED visit, connect patient to the substance use navigator at the **CareConnect Warmline (484-278-1679)** who can continue to engage the patient after discharge

Order adjunctive medications for symptomatic opioid withdrawal

- If the patient is using any illicit opioids (IV and IN > oral), consider that the patient is likely also experiencing xylazine (tranq) withdrawal as well
- Xylazine withdrawal syndrome has significant overlap with opioid withdrawal and patients may experience increased levels of autonomic symptoms, agitation, and anxiety

Assess interest in recovery and treatment options

Strongly recommend medication for OUD (MOUD) over medically supervised withdrawal ("detox")

- Treatment with buprenorphine and methadone has been shown to decrease the morbidity and mortality associated with OUD over other treatments
- If a patient is benefiting, they should be maintained on MOUD as benefits are durable and long-lasting
- There are high rates of return to opioid use after medically supervised withdrawal. The loss of tolerance after "detox" has been associated with increased overdose and mortality rates.

Outpatient management with MOUD is considered first-line treatment for OUD

- Psychosocial interventions can be considered for adjunctive treatment. They may be more strongly considered if patient achieves partial response from medication.

Adjunctive medications for symptomatic opioid and xylazine withdrawal

Symptom	Medication
Nausea/vomiting	Ondansetron 4-8 mg IV or PO q6-8h PRN
Autonomic (hypertension, tachycardic, diaphoresis, cramps, etc)	Clonidine 0.1-0.3 mg PO q6-8h Loperamide 2 mg PO q2h PRN diarrhea (max 16 mg/day)
GI distress	Dicyclomine 10 mg PO q6h PRN abdominal cramps
Anxiety/insomnia	Diphenhydramine 25-50 mg PO q6h PRN Hydroxyzine 25-50 mg PO q6h PRN
Pain	Trazodone 50 mg PO qhs PRN (insomnia) Acetaminophen 1000 mg q6-8h Ibuprofen 600 mg PO q6h PRN OR Ketorolac 15 mg IV 16h PRN, if no contraindications to NSAIDs
Agitation (mod/severe)	Opioids - full opioid agonist may be indicated to provide relief and stabilize withdrawal (refer to full agonist dosing pathway for patients with OUD) Lorazepam 2 mg IV or IM OR Haloperidol 5 mg IV or IM OR Droperidol 2.5 mg IV OR Olanzapine 5-10 mg PO or IM

Methadone vs. Buprenorphine

	Methadone	Buprenorphine
Mechanism	full opioid agonist	partial opioid agonist
Special risks	metabolized by the liver - monitor closely in patients with liver impairment prolongs QTc interval	none
Sedation	low to high depending on dose and use of concurrent drugs/medications	low due to ceiling effect (unless concurrent use of other sedating substances, e.g. alcohol/benzodiazepines)
Induction	requires careful titration (takes 5-7 days to reach steady state and therefore dosage must be increased slowly to avoid dose stacking)	precipitated withdrawal can occur if initiated without active withdrawal symptoms or if not using microinduction protocol (see Buprenorphine/Naloxone Induction pathway)
Retention in Treatment	may be higher than buprenorphine	may be lower than methadone
Who can prescribe?	cannot be prescribed (unless for pain), can only be dispensed at an opioid treatment program (OTP) any provider can order methadone in the hospital	any physician with a DEA (NEW) any provider can order buprenorphine in hospital
Frequency of visits	must participate in programming at OTP (counseling, group visits, etc) daily take-homes may be allowed if stable (>3 months)	office-based visits and can be provided in the primary care setting can range from daily to monthly depending on treatment needs and stability

What about naltrexone?

- Opioid antagonist therapy with naltrexone can be effective as MOUD
- Naltrexone requires completion of opioid withdrawal (usually lasting at least 1 week) prior to initiation. Thus, it is typically not an option for initiation during a hospital admission.

Contraindications or questions about selection of MOUD and treatment options

Place Addiction Medicine (where available) or Psychiatry consult for further guidance

Methadone

Buprenorphine

Pain and opioid withdrawal management

Prior to starting methadone, ensure that the patient will not be discharged to SNF, SAR, NH, or other care facility. Many facilities do not accept patients on methadone.
[Methadone for use as MOUD on the Penn Medicine Formulary Site](#)

[Click here to review Opioid Use Disorder \(OUD\); Buprenorphine/Naloxone Induction and Opioid Withdrawal Management](#)

For use in: 1. patients who are undecided or not interested in MOUD and/or 2. alongside the methadone and buprenorphine pathways to manage pain or opioid withdrawal
[Pain and opioid withdrawal in hospitalized patients on Penn Medicine formulary](#)

Discharge planning

Admitted Patients

- SW: Contact SW early if the patient is interested in residential treatment options after hospital discharge
- Follow-up: prior to discharge, connect the patient to the substance use navigator at the **CareConnect Warmline (484-278-1679)** who can continue to engage the patient after discharge
- Narcan: use MyPennPharmacy (if available) to provide bedside delivery of intranasal naloxone (Narcan) prior to discharge
- Methadone:
 - Discharge planning should begin immediately once the decision has been made to start MMT so that prompt linkage to an OTP can be obtained.
 - Contact SW early during admission to obtain an intake appointment at an OTP. **If SW is unable to obtain prompt OTP follow-up, the CareConnect Warmline can usually assist.**
 - Patients who are interested in residential treatment will require a facility that is capable.

ED Patients

- If the patient is interested in residential treatment options, follow site-specific instructions
- Follow-up: during ED visit, connect patient to the substance use navigator at the **CareConnect Warmline (484-278-1679)** who can continue to engage the patient after discharge
- Narcan: provide intranasal naloxone (Narcan) upon discharge (print prescription and give to RN who can dispense from the Pyxis)
- Methadone: provide an intake appointment (available Monday-Friday) at Merakey Parkside, 5000 Parkside Ave, Philadelphia, PA 19131
 - 9a-9p: Call the CareConnect Warmline at 267-584-2688 to make a referral for intake.
 - 9p-9a: Send the patient chart in Epic to the pool "CareConnect Warmline" to make a referral for intake.

Harm Reduction

- Consider enrolling the patient in mailed fentanyl test strips through this form
- Direct the patient to Prevention Point for syringes and safer use supplies
- Other resources at the Penn CAMP site