



Prescribing Guidelines for Pennsylvania



TREATING PAIN IN PATIENTS WITH OUD

This guideline provides information on the treatment of pain in patients with opioid use disorder (OUD). This information may also be of value when providing pain care to patients with other substance use disorders.

Chronic pain is a common condition in adults, and it can, and often does, impact all aspects of an individual's life.¹ Chronic pain can prevent individuals from being fully employed and often impairs physical and mental wellbeing. The impact of chronic pain can go beyond

the individual with the condition, and places significant burden on the family and community.

Likewise, OUD is associated with significant harm to the individual, their family and society. Overdose death numbers are staggering, with 5,456 reported drug-related overdose deaths in Pennsylvania in 2017.² However, these reflect only a part of the toll that these diseases have on the fabric of our society.

Unfortunately, many patients suffer from both pain and OUD, and the combination of these two conditions makes treatment of both conditions more difficult.³ Patients with OUD have lowered pain tolerance,⁴ increased sensitivity to pain,⁵ and a higher incidence of chronic pain conditions when compared to individuals without OUD.⁶ In addition, the presence of chronic pain may increase the risk for continued opioid abuse and poor psychiatric functioning in patients receiving care for OUD.⁷

Efforts are underway to expand access to proper patient assessment and treatment for OUD throughout Pennsylvania. Therefore, one can expect a growing number of individuals with OUD who are active in treatment to present for care for co-occurring health conditions. Institutions and individual providers must be prepared to offer high quality pain care to this patient population, who may be at increased risk for harm with improper pain care.⁸

It is important to note that evidence to guide decision-making regarding best practice is limited for this patient population. However, opportunity exists to improve patient outcomes to these individuals. These guidelines are intended to help healthcare providers improve patient outcomes and to supplement, but not replace, the individual provider's clinical judgment. It is recommended that providers review other evidence-based guidelines and the Pennsylvania State guidelines on various medical subspecialties and patient populations, which may provide additional insight into effective treatment options.

Interdisciplinary pain care treatment options

Proper treatment of chronic pain includes an interdisciplinary and multi-model approach that is tailored to help the patient control pain and relieve suffering.

1. Treatments for chronic pain may include physical therapy, acupuncture, osteopathic or chiropractic manipulative treatment, cognitive behavioral therapy, proper use of medications from several drug classes, and other focused interventions.
 - a. Selection of treatment options should be based on completion of a careful history and physical examination, use of medically-indicated tests, followed by the establishment of a diagnosis and

therapy, aquatic therapy, and life style changes that may lead to sustained improvement in pain control and physical functioning.

Chronic non-cancer pain

It is important to note that both pain and OUD are associated with increased risk of the presence of several other disorders that can adversely impact outcomes, including depression, anxiety disorders, axis II disorders, and sleep disorders. The literature suggests that the presence of both chronic pain and OUD increase the risk for suicidal ideation, plans, and attempts. Indeed, the presence of SUD, mental health disorders, medical comorbidity and chronic pain are associated with increased risk of poor health and increased mortality, driven by increased risk for overdose and suicide.

Chronic pain is highly prevalent in patients with OUD, as up to 75% of patients receiving buprenorphine or methadone for the treatment of OUD report chronic pain.⁶ Patients with both OUD and chronic pain who are receiving methadone have higher rates of adverse physical, psychiatric, and personal/social functioning than patients receiving methadone without chronic pain.⁷ However, similar differences are not observed in patients with OUD treated with buprenorphine.⁷

There are data that suggest that pain outcomes may be improved with the use of buprenorphine when compared to methadone for the treatment of OUD.⁴

Patients on high opioid doses (daily doses of 200 - 1,370 oral morphine or equivalent) report improved pain control and quality of life 60 days after rotating to buprenorphine therapy.^{9,10} This may be due to the effect of lower daily opioid dose, effects of buprenorphine, or both. However, note that the sample sizes for these studies was comparatively low, ranging from 18 to 35 subjects, and these studies were often limited to buprenorphine only.

1. Chronic pain care in this patient population must be integrated as much as possible to improve patient outcomes.
 - a. Care should include careful patient evaluation, looking beyond the underlying causes of chronic pain, and include evaluation for the conditions that commonly are present which adversely impact patient outcomes.
 - b. The care plan should include treatment for these conditions, including care for substance use disorders, pain, psychiatric and sleep-related disorders.
 - c. Activating interdisciplinary care is the mainstay, and non-opioid medication management should be carefully provided to avoid drug-drug interactions leading to increased risk of harm. Chronic opioid use in addition to buprenorphine or methadone in

patients with OUD is rarely indicated and should be avoided.

Cancer-related pain

Some patients with cancer or cancer-related pain may also suffer from OUD. Patients presenting for cancer treatment should be screened for OUD, and referral for proper treatment should be made early. The presence of OUD can significantly disrupt cancer care and associated patient outcomes.

Patients with OUD undergoing cancer therapy pose significant challenge. Cancer and cancer treatment are associated with a variety of painful conditions, increasing the likelihood of having to treat both OUD and pain.

1. Patients with OUD and cancer-related pain should have both conditions treated concurrently whenever possible.
 - a. While coordination of care can be difficult, initiation of OUD treatment with either buprenorphine or methadone should be offered to all patients. If untreated OUD is identified in a patient during hospitalization, OUD treatment with either buprenorphine or methadone should be offered during the hospitalization whenever possible, rather than waiting for discharge to offer treatment.

2. In patients active in cancer therapy, particularly those with advanced disease and/or severe pain, OUD treatment with methadone or buprenorphine can be difficult or impossible in patients active in cancer therapy.

- a. Options for continuation of methadone or buprenorphine should be discussed with the methadone treatment providers, and all options should be explored.

3. Multi-modal pain care should be provided early in course of pain treatment.

- a. Every effort to offer ongoing supportive care, which may include home health care nursing, social work services, as well as psychology and psychiatric care, should be offered.
- b. Methadone treatment programs may be able to increase the frequency and intensity of treatment during high stress periods, including during ongoing cancer treatment.
- c. Specialty care consultation, including palliative care, pain medicine, and addiction medication should be considered.

Acute pain and peri-operative management

Screening for and identifying opioid use and OUD in patients with acute pain

4357 (HELP) or contact their [local county drug and alcohol office](#).

1. All patients admitted to an acute care hospital should be screened for OUD.
 - a. The DSM-5 has criteria for diagnosing an OUD, which includes 11 diagnostic criteria that evaluate patients' behavior, withdrawal symptoms, and tolerance.¹¹ Patients with an active OUD should be referred for treatment during the hospitalization whenever possible.
 - b. Indeed, hospitalization can present an excellent opportunity for proper diagnosis and initiation of treatment for OUD. Patients with symptoms of an OUD should have a facilitated referral for addiction specialty evaluation and treatment.
 - c. If treatment for OUD is started during the hospitalization, the inpatient team should carefully coordinate continuation of addiction treatment starting immediately after hospital discharge.
 - d. If initiation of addiction treatment during the hospital stay is not possible, a provider may refer the patient to their insurance carrier or the Department of Drug and Alcohol Programs Get Help Now line at a 24/7 hotline at 1-800-662-

Acute pain and peri-operative management in patients currently dependent / using

Recent evidence documents that one in 37 hospitalizations in Pennsylvania, 37,712 hospitalizations in 2017, are related to opioids.¹² The vast majority of these admissions, 30,476 in 2017, were admissions of patients with OUD admitted for the treatment of another health condition. Patients with OUD have a significantly increased risk for postoperative pulmonary complications, experience longer length of stay, and their care is associated with increased costs.¹³ In addition, these patients are at increased risk for leaving the hospital prematurely before completion of treatment, which may lead to increased re-admission rates as well as increased morbidity and mortality.

Patients who are physically dependent and/or actively using opioids admitted for acute medical conditions may experience rapid onset of withdrawal symptoms, usually without warning. While abrupt discontinuation of opioids is generally not life threatening, it can cause immense suffering and impact ongoing care. Inpatient detoxification absent the initiation of either buprenorphine or methadone in patients with OUD is associated with an extremely high relapse rate, and an increased risk of opioid overdose following hospital discharge. Failure to address the symptoms of abrupt

opioid withdrawal may lead to patients leaving the hospital without completing treatment, or patients obtaining and using illicit opioids during the hospitalization. Further, abrupt discontinuation of buprenorphine or methadone was associated with a very high relapse rate. Illicit opioid relapse rates were over 90% if buprenorphine treatment for OUD was discontinued after 12 weeks of treatment.⁸ Because of this, it's acceptable to prescribe tapering doses of opioids to avoid a deleterious effect on patient care. Patients who are identified as having an OUD should have treatment for this condition offered during the hospitalization whenever possible.

2. Patients with an active opioid use disorder who are admitted to the hospital for a painful condition can be especially challenging to care for.

- a. When possible, specialty consultation with pain medicine, addiction medicine, and/or psychiatry should be initiated early during the admission. A well-coordinate pain and addiction treatment plan is essential.
- b. Initiation of medication management for the underlying opioid use disorder is a critical aspect of care and should not be delayed whenever possible. Multi-modal analgesia should be provided whenever possible.

- c. While systemic opioids may be necessary, extreme care should be used when administering potent opioids to patients with active opioid use disorder.
- d. It is important to note that patients with OUD may be highly tolerant to the analgesic effects of opioids, and as a result, opioids, even at high doses, may not provide adequate analgesia. Systemic administration of opioids in opioid-tolerant patients is associated with increased risk of harm.
- e. Therefore, patients should be carefully monitored for the development of sedation, respiratory compromise, opioid-induced constipation and euphoria

Acute pain and peri-operative management in patients with OUD on methadone

1. Patients with OUD on methadone should continue to receive methadone during their hospital stay.
 - a. The outpatient methadone dose should be confirmed with the methadone treatment program. Methadone dispensed through the methadone treatment program will not be included in dispensing information reported in

the state prescription drug monitoring program.

2. Acute pain during the hospitalization will usually not be adequately controlled with methadone alone. Multi-modal analgesia should be provided whenever possible.
 - a. Additional systemic opioids may be necessary and can be initially provided via intravenous patient-controlled analgesia. However, both the patient and providers should be aware that opioids, even at high doses, may not provide adequate analgesia, and systemic administration of opioids in opioid-tolerant patients are associated with increased risk of harm.
 - b. Therefore, patients should be carefully monitored for the development of sedation, respiratory compromise, opioid-induced constipation and euphoria. Pain medicine or addiction medicine specialty consultation should be considered.
3. Careful coordination of care should be implemented when making discharge planning related to post-discharge pain care. Patients with substance use disorder, especially OUD, are at increased risk for opioid overdose after discharge.

- a. Patient education regarding these risks should be provided. Careful planning, including safe medication storage, home nursing visits, limited duration of opioid prescribing and early return visits, should be considered.
- b. Opioid use should be carefully monitored and discontinued as soon as possible. Patients receiving methadone for treatment of OUD who are then prescribed additional opioids for the treatment of acute pain should be co-prescribed naloxone.

Acute pain and peri-operative management in patients with OUD on buprenorphine

1. Patients receiving buprenorphine for OUD may present a challenge when admitted for surgery or other painful acute medical condition.
 - a. Whenever possible, specialty consultation (often pain medicine, addiction medicine, medical toxicology and/or psychiatry) should be obtained to establish a pain treatment plan for patients on buprenorphine in advance of scheduled elective surgery.

Acute pain and peri-operative management in patients with OUD on buprenorphine

1. Previous guidelines have suggested that buprenorphine be discontinued before surgery so that the patient can be rotated to an alternative opioid agonist during the perioperative period. However, there is growing evidence that patients should not be rotated from buprenorphine to short-acting opioids before treatment and use of short-acting opioids may be associated with increased risk of overdose and relapse.¹⁴

- a. Therefore, this guideline suggests that the patient be continued on buprenorphine throughout the perioperative period.^{15,16}
- b. The cornerstone of pain care is multimodal treatment, focusing on the use of regional analgesic techniques whenever possible, as well as the use of non-opioid pain treatment options.

2. Short-acting opioids for breakthrough pain during the hospitalization can be used in addition to buprenorphine but may not be effective and such use may increase the risk of relapse.¹⁶

- a. If patients who have been on buprenorphine for the treatment of OUD are discharged with prescriptions for opioids other than buprenorphine for short-term use, consideration

should be given to also prescribing naloxone.

- b. Opioids prescribed in addition to buprenorphine should be prescribed in the lowest effective dose for the shortest period possible.
- c. These patients should receive well-coordinated, frequent visits following hospital discharge with experienced care givers to allow for careful monitoring for both adequate pain control as well as possible relapse.

Acute pain and peri-operative management in patients with OUD on naltrexone

Naltrexone is an opioid antagonist which blocks the effects of opioids on the opioid receptor. Naltrexone can be used for the treatment of OUD and for other off-label indications and can be administered orally or via an extended-release intramuscular formulation that is administered monthly. Chronic use of naltrexone is associated with an increase in the density of opioid receptors and loss of tolerance to the effects of opioids. Therefore, patients who have been on naltrexone who then stop the medication and receive opioids are at significant risk for overdose and death.

- 1. Patients receiving naltrexone for the treatment of OUD may have strong preferences regarding being exposed to opioids at the time of surgery.

Pain care should honor these preferences whenever possible.

- a. Careful planning and coordination of care should be implemented in advance of elective surgery. The cornerstone of pain care is multi-modal treatment, focusing on the use of regional analgesic techniques and non-opioid medications whenever possible.
2. If opioids are to be used for the treatment of pain, oral formulations should be discontinued at least 72 hours in advance of surgery, and surgery should be scheduled four weeks after the last dose of intramuscular naltrexone.
 - a. Patients will be at increased risk for relapse at this time, and if relapse occurs, they will be at increased risk for opioid overdose and death. Likewise, extreme care should be made regarding opioid dosing, both in the inpatient setting and following hospital discharge.

References

1. Nahin RL. Estimates of pain prevalence and severity in adults: United States, 2012. *J Pain*. 2015;16(8):769-780.
2. Administration USDE. 2017 Drug-related overdose deaths in Pennsylvania. https://www.dea.gov/press-releases/2018/08/21/dea-announces-5456-drug-related-overdose-deaths-pennsylvania-2017-0#_ftn1. Published 2018. Accessed 17 November 2018, 2018.
3. Pohl M, Smith L. Chronic pain and addiction: challenging co-occurring disorders. *J Psychoactive Drugs*. 2012;44(2):119-124.
4. Compton P, Charuvastra VC, Ling W. Pain intolerance in opioid-maintained former opiate addicts: effect of long-acting maintenance agent. *Drug Alcohol Depend*. 2001;63(2):139-146.
5. Wachholtz A, Gonzalez G. Co-morbid pain and opioid addiction: long term effect of opioid maintenance on acute pain. *Drug Alcohol Depend*. 2014;145:143-149.
6. Manhapra A, Becker WC. Pain and Addiction: An Integrative Therapeutic Approach. *Med Clin North Am*. 2018;102(4):745-763.
7. Dennis BB, Bawor M, Naji L, et al. Impact of Chronic Pain on Treatment Prognosis for Patients with Opioid Use Disorder: A Systematic Review and Meta-analysis. *Subst Abuse*. 2015;9:59-80.
8. Myers J, Compton P. Addressing the Potential for Perioperative Relapse in Those Recovering from Opioid Use Disorder. *Pain Med*. 2018;19(10):1908-1915.
9. Daitch D, Daitch J, Novinson D, Frey M, Mitnick C, Pergolizzi J. Conversion from high-dose full-opioid agonists to sublingual buprenorphine reduces pain scores and improves quality of life for chronic pain patients. *Pain Med*. 2014;15(12):2087-2094.
10. Baron MJ, McDonald PW. Significant pain reduction in chronic pain patients after detoxification from high-dose opioids. *J Opioid Manag*. 2006;2(5):277-282.
11. https://www.asam.org/docs/default-source/education-docs/dsm-5-dx-oud-8-28-2017.pdf?sfvrsn=70540c2_2
12. Council PHCCC. Research Briefs: Hospital admissions for opioid overdose and opioid use disorder. <http://www.phc4.org/reports/researchbriefs/overdoses/101618/>. Published 2018. Accessed 17 November 2018, 2018.
13. Sayal P, Bateman BT, Menendez M, Eikermann M, Ladha KS. Opioid Use Disorders and the Risk of Postoperative Pulmonary Complications. *Anesth Analg*. 2018;127(3):767-774.
14. Sordo L, Barrio G, Bravo MJ, et al. Mortality risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies. *BMJ*. 2017;357:j1550.
15. Vilkins AL, Bagley SM, Hahn KA, et al. Comparison of Post-Cesarean Section Opioid Analgesic Requirements in Women With Opioid Use Disorder Treated With Methadone or Buprenorphine. *J Addict Med*. 2017;11(5):397-401.
16. Lembke A, Ottestad E, Schmiesing C. Patients Maintained on Buprenorphine for Opioid Use Disorder Should Continue Buprenorphine Through

the Perioperative Period. *Pain Med.* 2019;20(3):425-428.

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