

The College of Physicians & Surgeons of Manitoba

Buprenorphine/naloxone Recommended Practice Manual

Managing Acute, Chronic, and Perioperative Pain in the Context of Opioid Agonist Therapy

INTRODUCTION

Pain management in patients receiving opioid agonist therapy (OAT) presents a unique set of challenges to the practitioner. The practitioner must consider appropriate management of the patient's pain, a largely subjective condition, in the context of an opioid use disorder (OUD). They must also consider the impact of additional medications that are prescribed concurrently with the patient's OAT.

To compound the situation further, there is often a history of mistrust of the medical system. It is not uncommon for patients with a substance use disorder to present late in the course of their illness, due to fear of having their pain inadequately managed, or of being told they are “just drug seeking”. When treating pain in a patient with OUD, healthcare professionals need to be aware of their own biases and recognize the impact those biases may have on the management of the patient's pain.

Pain is a complex condition to treat, for numerous reasons. The International Association for the Study of Pain defines pain as, “**an unpleasant sensory and emotional experience associated with or resembling that associated with actual or potential tissue damage.**”¹ Pain cannot be objectively measured, and two patients experiencing the same degree of tissue damage can have very different pain experiences. Understanding the complex interactions that can drive or enhance *the pain experience* can be helpful in managing pain.

Principles of Pain Management in the Context of OAT

Pain management should begin with a comprehensive pain assessment. While such an assessment can be time consuming, it is important to understand the type of pain that is being treated. This allows therapy to be tailored to the specific type/cause of pain.

The pain assessment should elucidate:

- The cause and type of pain (neuropathic vs nociceptive vs nociplastic),
- The temporal nature of the pain (acute or chronic), and
- The functional limitations caused by the pain.

Understanding the patient's experience with previous similar pain, and the management of that pain, can also be helpful in guiding treatment. There are several guidelines available, as well as primary literature, that can assist in the management of specific types/causes of pain.

Setting Mutually Agreed Upon Expectations

Establishing realistic expectations, through discussion with the patient and their support system, is important for successful pain management. In most cases it is not achievable to completely eliminate pain, at least not in the short term. It is thus important that patients have realistic expectations of their treatment outcomes. Having a mutual understanding of safety parameters should be a part of this discussion. The patient should be made aware that there are limits around the prescribing of both opioid and non-opioid medications for them to be used safely.

If additional opioids are being prescribed to the patient already on OAT, highlighting the importance of a naloxone kit can be helpful to increase the patient's understanding of the risks of using additional opioids. If the patient does not already have a kit, **providing a naloxone kit and education is strongly recommended.**

It may be more successful to work toward functional goals that allow the patient to directly observe and report the impact of their pain management. This also has the benefit of shifting the focus away from the negative perception of pain, toward goal-oriented functional improvement. Helping the patient understand what is achievable will contribute to successful patient interactions.

ACUTE PAIN MANAGEMENT IN PATIENTS ON OAT

In general, acute pain in a patient on OAT should be managed similarly to someone who is not on OAT. The initial management should take into consideration the type/source of pain and the evidence for managing that particular pain. Often non-opioid analgesics (e.g., NSAIDs,

acetaminophen, gabapentinoids) are recommended as first-line treatment and the approach should be the same for someone on OAT. However, it is important to note that gabapentinoids have significant abuse potential. If they are prescribed as part of an overall acute pain management strategy, it is important to discuss this risk with the patient and have a plan for monitoring and discontinuation after an agreed upon period of time. **In the interest of patient safety, gabapentinoids should generally be dispensed at the same interval as OAT.**

A multimodal approach to the management of acute pain is recommended and should be tailored to the patient's clinical circumstances and injury/surgical procedure. In hospitalized patients, regional anesthesia or other advanced pain management techniques may be an option in consultation with acute pain services and/or anesthesia.

Opioid Analgesia

For the most part, if the acute pain management would normally require the use of opioid analgesics (e.g., hip arthroplasty), it would also be appropriate for the patient on OAT. **Given the baseline tolerance of patients on OAT to opioids, doses may need to be escalated to achieve an adequate response.** The practitioner should start at doses similar to those used in a patient not on OAT and reassess early in order to provide adequate pain management. Additionally, it is important for the practitioner to discuss the short-term nature of the opioid analgesic. The plan to taper and discontinue the opioid analgesic should be part of the initial discussions.

Controlled Dispensing

Additional opioids prescribed in the community setting, or continued post hospital discharge, **must be dispensed at the same interval as OAT.** If short-term additional pain management is required (opioids and/or gabapentinoids) and the patient cannot attend the pharmacy regularly due to their pain/injury, regular pharmacy deliveries, if available, can also enhance the safety of the overall pain management plan.

The request to deliver OAT doses must be made by the OAT prescriber and discussed with the pharmacy directly. This request must only be made in *exceptional circumstances* and for the shortest period of time, to accommodate recovery from acute injury/pain that immobilizes the patient and thus makes pharmacy attendance impossible.

Further to the above, delivery of OAT doses typically implies that the dose is not witnessed. This is not acceptable practice in most circumstances. Deliveries must only be considered for mandatory infectious isolation periods and significant acute injury/pain that makes pharmacy attendance impossible for a limited time.

CHRONIC PAIN MANAGEMENT IN PATIENTS ON OAT

Additional use of opioids for the management of chronic non-cancer pain is not recommended in most cases.² Chronic pain does not have the same protective biologic benefit as acute pain. In general, chronic pain is also much harder to treat.

A multidisciplinary approach with emphasis on non-drug related modalities and non-opioid analgesics should be exhausted first. If these treatments are unsuccessful, it may be appropriate to consider a trial of opioids. The opioid trial should have clear functional goals and timelines for reassessment. There should be a clear plan for discontinuation if benefit is not shown. **Additional opioids must be dispensed at the same intervals as OAT.**

ADDITIONAL CONSIDERATIONS FOR PAIN & OAT

Continue the OAT medication

It is important to recognize that the maintenance opioid (e.g., methadone or buprenorphine) the patient is taking for OAT is the baseline for preventing withdrawal and does not provide significant pain relief. If possible, the OAT should be continued at the current dose.

This recommendation to continue OAT applies to the perioperative period as well, where it should similarly be considered baseline for withdrawal management and not a significant contributor to analgesia.³ Holding methadone or buprenorphine on the day of surgery can lead to the additional complication of withdrawal at the time of surgery. Any decision to hold methadone or buprenorphine on the day of surgery must be discussed and coordinated between the OAT prescriber and the anesthesiology team.

Depending on the surgery, consideration can be given to regional anaesthesia and/or nerve blocks. A pre-operative assessment is recommended for elective surgical procedures where it is anticipated that the patient will experience significant post-operative pain.

Split Dosing for Analgesic Benefit

Some patients will experience analgesia from their OAT medication in the hours immediately post-dose. In this case split dosing of the OAT medication can be considered to help manage acute pain. This option should only be considered as an adjunct if all other non-opioid modalities of treatment are not effective or appropriate. This may be easier to facilitate in the inpatient setting than in the community setting.

Patients who are clinically unstable and who do not have routine take-home doses (carries), may not be appropriate candidates for split dosing in the community. Prescriptions with split dosing for these patients would require multiple trips per day to the pharmacy, which may be impossible or impractical.

In determining if a trial of split dosing is appropriate in the community setting, the OAT prescriber should consider:

- The overall stability of the patient,
- The number of regular take-home doses,
- The nature and duration of the pain condition,
- The patient's overall mobility, and
- Public safety.

A transitional plan back to once daily dosing at the earliest opportunity should be included in the care plan.

Similarly, split dosing for the management of chronic pain in the context of OAT should only be explored if all other non-opioid modalities of treatment are not effective or appropriate. A multidisciplinary approach is strongly recommended, where available. Long-term split dosing for the management of chronic pain must be reviewed with a provider experienced in managing pain in the OAT population, or an Addiction Medicine Specialist.

Avoid Drug of Choice

If the decision is made to use an additional opioid, the opioid(s) identified by the patient as their drug(s) of choice associated with their OUD should be avoided if possible. For example, if fentanyl is their drug of choice, morphine or hydromorphone may be better options.

Shared Decision Making

The patient should be included in the decision about how to manage pain, especially when considering the use of an additional opioid. Some patients stabilized on OAT will refuse treatment with opioid analgesics out of fear of relapse.

In the interest of keeping the patient safe, it is important to set initial boundaries around dose escalation, quantities, and the expected duration of analgesic need. This is not to say that the dose cannot be increased, or the duration extended if the clinical situation warrants it. However, this should not happen without reassessment and intentional consideration of risks and benefits by both the practitioner and the patient.

PRESCRIPTION CONSIDERATIONS FOR OPIOID ANALGESIA

Communication is Paramount

Ideally the patient has one prescriber, or identified group of prescribers, responsible for all their controlled medications. This includes their OAT, additional opioids used for pain

management, and all other psychoactive medications. Similarly, best practice is to utilize one community pharmacy for all medications dispensed.

If the decision is made to prescribe opioid analgesia in addition to the patient's OAT, this opioid should be prescribed by their OAT provider and dispensed from their regular community pharmacy. If this is not possible, the OAT prescriber must be consulted and made aware of the treatment plan. Similarly, the patient's regular community pharmacy must be made aware of the treatment plan. The prescription for the additional opioid should include a note that it is to be used in conjunction with the patient's OAT, to avoid any interruptions to care at the receiving pharmacy, especially if a different pharmacy is used.

Ensuring that this information is clearly communicated to the community provider and pharmacy at the time of discharge from hospital is extremely important. **A “warm handoff” where all parties are involved (including the patient) can ensure a common understanding of the care plan, identify potential issues, and set timelines for follow up.**

NIHB Sole Prescriber

Patients whose medications are covered by Non-Insured Health Benefits (NIHB) for First Nations and Inuit are required to have a *sole prescriber* (or identified group of prescribers) as a provision for coverage of opioids (including OAT medications), benzodiazepines, stimulants, gabapentinoids, and/or nabilone.

Often the sole prescriber will be their regular OAT prescriber (or group of prescribers), and this should be considered when developing the care plan. If an opioid, benzodiazepine, gabapentinoid, stimulant, or nabilone is prescribed by a clinician not listed as the sole prescriber through NIHB, medication cost will not be covered.

Mitigating Risk of Misuse

As noted previously, additional opioids prescribed in the community setting **must be dispensed at the same interval as OAT**. Limiting the medication supply dispensed at one time can help mitigate potential misuse of the opioid analgesic.

For example, if the patient is on daily dispensed OAT, the new opioid analgesic should also be dispensed daily. If significant concern for misuse exists, *witnessed* daily dosing may be implemented, depending on the formulation of the opioid. For patients with routine take-home doses (carries) of OAT, the number of days' supply of the new opioid analgesic should not exceed the number of carry days dispensed. If the patient has weekly carries (i.e., OAT is witnessed once weekly), it may be prudent to initially dispense the opioid analgesic at shorter intervals to mitigate risk of misuse.

SPECIAL CONSIDERATIONS FOR PATIENTS ON BUPRENORPHINE

Continuing Buprenorphine

Buprenorphine binds very tightly to the mu-opioid receptor, however, as a partial agonist, it has low intrinsic activity. This can make acute pain management for patients maintained on buprenorphine challenging. **In most circumstances, buprenorphine should be continued when treating acute and perioperative pain.** Discontinuing buprenorphine can result in delayed surgeries and put the patient at risk for relapse if not restarted quickly.

Additionally, restarting buprenorphine while receiving a full mu opioid agonist can pose logistical challenges (e.g., the risk of precipitated withdrawal) or take a significant amount of time if a micro-dosing approach is utilized. In many cases, acute pain can be managed with non-opioid analgesics.

Adjusting Buprenorphine

Splitting the daily buprenorphine dose into 3-4 divided daily doses may also be considered. If the person is maintained on a lower daily dose of buprenorphine (e.g., 8-16 mg) a *temporary increase* in the total daily dose may provide the additional analgesia needed. If additional opioid analgesics are required, a full mu opioid agonist may be used in addition to the patient's baseline buprenorphine dose.

In some cases, where adequate analgesia has not been achieved with the above strategies, or where a significant amount of post-operative pain is anticipated (e.g., spinal surgery), a *temporary reduction* in the buprenorphine dose to 8-16 mg per day may improve the analgesic efficacy of a full mu opioid agonist, by increasing the proportion of available opioid receptors that are not occupied by buprenorphine.⁴ When considering this approach, there should be careful assessment of the risk/benefits of decreasing the dose and the patient should be included in this decision.

If the buprenorphine dose is lowered, this should be done only for the shortest time required. If the patient is in hospital, the buprenorphine dose should be increased back to the maintenance dose prior to discharge, to minimize the risk of relapse. If this is not possible, a plan should be created, prior to discharge, in conjunction with the patient's OAT prescriber, to return to their baseline buprenorphine dose. This plan must also be communicated to the patient's regular OAT community pharmacy.

Depot Buprenorphine Formulations

Patients who are using the depot formulation of buprenorphine will need to be managed with adjunctive therapy, with non-opioids and/or additional opioids. Additional monitoring for adverse effects, in particular respiratory depression, may be prudent given the high doses of opioids that may be required.

IN SUMMARY

Pain management can be complex in patients on OAT. In general, patients should be managed like any other patient who presents similarly but that does not have OUD. However, **additional considerations apply to ensure adequate analgesia and patient safety.** Both undertreated pain and the inappropriate use of additional opioids can precipitate relapse or serious adverse outcomes.

While the patient's OAT medication may not supply sufficient analgesia on its own, is it paramount to continue as it provides a baseline for withdrawal prevention, and is integral to minimizing the risk of relapse and to avoiding additional withdrawal-mediated pain. If an opioid is prescribed for acute pain, the short-term nature of this management should be discussed at the outset. Communication between all parties involved (including the patient) can ensure a common understanding of the care plan, identify potential issues, and set timelines for follow up.

Buprenorphine, as a partial agonist with a very high affinity for the mu-opioid receptor, can make management of severe acute pain more challenging and may require special consideration.

OAT prescribers who are inexperienced in managing acute, perioperative, and chronic pain, are strongly encouraged to consult with an experienced colleague, an Addiction Medicine Specialist, or the HSC Addiction Medicine Consult Team on-call physician.

References

1. <https://www.iasp-pain.org/resources/terminology/#pain>
2. Busse, J et al . The 2017 Canadian Guideline for Opioids for Chronic Non-Cancer Pain, CMAJ May 08, 2017 189 (18) p 4,5
3. American Society of Addiction Medicine. National Practice Guideline For the Treatment of Opioid Use Disorder 2020 Focused Update.
4. Kohan L, et al. Buprenorphine management in the perioperative period: educational review and recommendations from a multisociety expert panel. *Reg Anesth Pain Med* 2021; 46: 840-859.
5. Kohan L, et al. Guidelines for the use of buprenorphine for opioid use disorder in the perioperative setting. *Reg Anesth Pain Med* Oct 2021; 46: 860-1.
6. Anderson, TA et al. To Stop or Not, That Is the Question; Acute Pain Management for the Patient on Chronic Buprenorphine. *Anesthesiology*, June 2017; 126:1180-6.
7. Quaye, AN & Zhange, Y. Perioperative Management of Buprenorphine: Solving the Conundrum. *Pain Medicine*, 0(0), 2018, 1-14.

8. Goel A et al. The perioperative patient on buprenorphine: a systematic review of the perioperative management strategies and patient outcomes. *Can J Anesth*. Nov 2018.
9. Goel A et al. Perioperative Pain and Addiction Interdisciplinary Network (PAIN) clinical practice advisory for perioperative management of buprenorphine: results of a modified Delphi process. *British Journal of Anaesthesia*. 2019; 123 *2): e333-42.
10. Lembke, A et al. Patients Maintained on Buprenorphine for Opioid Use Disorder Should Continue Buprenorphine Through the Perioperative Period. *Pain Medicine*, 2018; 00:1-4
11. Dunn KM, Saunders KW, Rutter CM, Banta-Green CJ, Merrill JO, Sullivan MD, Weisner CM, Silverberg MJ, Campbell CI, Psaty BM, VonKorff M. Opioid prescriptions for chronic pain and overdose: a cohort study. *Annals of internal medicine* 2010;152(2):85-92
12. Krebs EE, et al. "Effect of Opioid vs Nonopioid Medications on Pain-Related Function in Patients With Chronic Back Pain or Hip or Knee Osteoarthritis Pain". *JAMA*. 2018. 319(9):872-882.
13. Martin, YN et al. Perioperative opioid requirements of patients receiving sublingual buprenorphine-naloxone: a case series. *BMC Anesthesiology* 19, 68 (2019)
14. Veazie S et al. Managing Acute Pain in Patients Taking Medication for Opioid Use Disorder: A Rapid Review. *J Gen Intern Med*. 2020 Dec; 35. (Suppl 3): 945-53.
15. Macintyre PE et al. Pain relief and opioid requirements in the first 24 hours after surgery in patients taking buprenorphine and methadone opioid substitution therapy. *Anaesth Intensive Care*. 2013 Mar; (2): 222-30.
16. Namiranian K et al. Postoperative opioid misuse in patients with opioid use disorders maintained on opioid agonist treatment. *J Subst Abuse Treat*. 2020 Feb; 109 8-13.