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OPIOID RESPONSE

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To: Buprenorphine prescriber and pharmacy communities

The Maine Opioid Response Clinical Advisory Committee consists of approximately 30 leaders in substance use disorder prevention, treatment and harm reduction in Maine. As part of our efforts, we have been working on developing clinical protocols to assist other clinicians who care for patients with substance use disorders. One of the common challenges clinicians encounter is managing perioperative pain in patients prescribed buprenorphine for opioid use disorder. In an effort to assist you as you care for patients prescribed buprenorphine we have attached our proposed recommendations and related patient education. These recommendations are intended to enhance your care and should not replace your own clinical judgement. If you have any questions, please do not hesitate to contact us.

Sincerely,
Maine Opioid Response Clinical Advisory Committee

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Maine Clinical Opioid Advisory Committee: Proposed Position on the Perioperative Management of Patients Prescribed Buprenorphine for Opioid Use Disorder (OUD)

Perioperative pain management of patients prescribed buprenorphine for opioid use disorder (OUD) remains a clinical challenge. In the past, most guidance recommended discontinuing buprenorphine prior to surgery. However, these recommendations are evolving as evidence accumulates.¹⁻⁷ Despite buprenorphine's high affinity for the mu receptor, additional receptors remain available for full agonist opioids to bind to, thereby providing effective pain relief in patients taking buprenorphine.⁸⁻¹³ Precipitated withdrawal is a risk only when buprenorphine (whether the mono or combination product) is newly introduced to patients with full agonist opioids already in their system. This is not the case for patients taking buprenorphine who then receive full agonist opioids. Of note, the naloxone component of the buprenorphine/naloxone combination medication is minimally absorbed when taken sublingually and its effect on full agonist analgesic activity is clinically insignificant. This means that patients can continue on any buprenorphine formulation and still achieve pain control from full agonists without the risk of precipitated withdrawal.

There are significant risks of discontinuing buprenorphine in the perioperative period. These include:

- delaying surgery to transition from a partial agonist to a full agonist;
- introducing an unnecessary complexity to a hospitalization with resultant confusion for nurses, pharmacists, and others on the care team;
- increasing the risk of exacerbating pain, since identifying the baseline opioid requirement, or 'opioid debt' (i.e., the MME of the buprenorphine that needs to be adequately replaced before any additional pain management is achieved) is inexact. Further, opioid tolerance and hyperalgesia are commonly misunderstood leading to inadequate analgesic dosing;
- increasing the likelihood of opioid withdrawal when transitioning to a full agonist prior to surgery and while restarting buprenorphine after surgery;
- destabilizing the patient's OUD which increases the risk of relapse and overdose;
- increasing the risk of relapse and overdose if buprenorphine is not appropriately re-initiated prior to hospital discharge;
- the questionable legality of prescribing full agonist opioids *to curb opioid withdrawal* prior to surgery if the patient is not experiencing pain (violation of the Harrison Anti-Narcotic Act).

Authors of a recent systematic review of perioperative strategies found that buprenorphine "discontinuation is not benign" and that there were few circumstances where the benefits of buprenorphine discontinuation outweighed the risks.³ Consistent with this conclusion and with growing clinical experience,^{7,14-15} **we recommend continuing patients on buprenorphine during the perioperative period.** An algorithm is provided in Figure 1.

Practical Considerations

In the medical/surgical inpatient setting, buprenorphine can be prescribed by any clinician with Schedule III prescriptive authority and does not require an x-waiver. Continuing buprenorphine while hospitalized ensures that the patient's baseline opioid requirement is met, leaving short acting full agonists to meet pain requirements. This avoids increased pain, anxiety, and potential for return of behaviors associated with active substance use disorders that can be caused by changes or disruptions to the patient's maintenance dose. Advice around whether to reduce the buprenorphine dose prior to surgery varies as related clinical data are

limited. Patients can likely continue on their home dose of buprenorphine throughout the perioperative period.^{7,15} However, if the patient is on 16 mg or more of buprenorphine daily and the surgical procedure is associated with significant pain, the daily buprenorphine dose can be lowered to 8-12 mg daily 24-48 hours prior to surgery.¹³ If the buprenorphine dose is lowered, it should be increased to prior home dose as the full agonist opioids are weaned. Buprenorphine dose verification using the PMP is recommended.

In the perioperative period, pain can be best addressed with a multimodal approach including:

- first, utilizing non-opioid medications including standing acetaminophen, nonsteroidal anti-inflammatory drugs (NSAIDs), and if appropriate, neuropathic agents such as gabapentin. Evidence is strong that NSAIDs are as or more effective than opioids in the management of acute pain¹⁶⁻¹⁸ and are probably synergistic when used in combination with opioids.¹⁹ If the patient has pain associated with spasticity or muscle spasms, consider baclofen or cyclobenzaprine, respectively. Topical agents such as lidocaine patches, NSAID creams, and others may also be helpful in some patients;
- maintenance or placement of neuraxial or peripheral nerve catheters, or short-term nerve blocks as indicated;
- prescribing short-acting opioid agonists, preferably those with high intrinsic activity to the mu receptor (such as morphine, fentanyl, oxycodone or hydromorphone). It is critical to remember that the full agonist opioid doses required to achieve adequate analgesia will likely be higher for patients on buprenorphine than in opioid naïve patients¹¹ and the duration of activity may be shorter (especially if the patient is also on rifampin);
- considering the use of a ketamine infusion protocol;
- using adjuvants such as acupuncture, physical therapy, osteopathic manipulative therapy, reiki, mindfulness/meditation, warm/cool compresses as indicated.

At discharge, document and clearly communicate goals and expectations with the patient around continuation of any short-acting full agonist opioids. If full agonist opioids are continued after discharge, it is helpful to communicate this plan to the outpatient pharmacy. Identifying a single clinician who will be responsible for these prescriptions is ideal. Limit prescriptions to three days typically, with seven days as the maximum per US CDC.²⁰ It is also vital to communicate with the patient's buprenorphine prescriber to ensure that the patient has adequate buprenorphine at discharge. If the hospitalist/surgeon does not have an x-waiver, the patient cannot receive a buprenorphine prescription at discharge. A sample communication form between the surgeon and the buprenorphine prescriber is provided (Attachment 1). It is recommended that patients with OUD leaving the hospital - with or without a prescription for full agonist opioids – receive a prescription for take-home naloxone as well as overdose education and instructions for the patient and close contacts.

Figure 1

Before Surgery

- Confirm buprenorphine dose in PMP. Either buprenorphine/naloxone or buprenorphine can be continued.
- Obtain release of information (ROI) between surgeon/anesthesia/buprenorphine prescriber to prepare plan for pain control. Anticipate need for higher doses of full agonist opioids to control pain in the perioperative period. Complete prior authorizations for the full agonists as needed (exemption code F).
- Continue buprenorphine at home dose. If the patient's dose is ≥ 16 mg and the surgical procedure is associated with significant pain, a dose reduction to 8-12 mg daily 24-48 hours prior to surgery may be considered.** Ideally, administer buprenorphine once daily.

During Surgery

- Administer non-opioid analgesics (acetaminophen, NSAIDs, gabapentinoids) preoperatively unless contraindicated.
- Use continuous regional anesthesia techniques if possible (epidural and peripheral nerve catheters).
- Use IV ketamine, lidocaine intra-operatively if not contraindicated.
- Restart home SNRI or TCA therapy as soon as possible after surgery.

After Surgery

- Continue daily dose of buprenorphine (X-waiver not required inpatient). Ideally administer as single dose in the morning.
- Maintenance or placement of neuraxial or peripheral nerve catheters, or short-term nerve blocks as indicated.
- Provide standing (not PRN) doses of non-opioid medication (gabapentinoids, acetaminophen, NSAIDs) unless contraindicated.
- Use full agonist opioids with high binding affinity (e.g., hydromorphone, oxycodone, fentanyl) orally, IV or by PCA. The patient will likely require higher doses of full agonist opioids than an opioid naïve patient.
- Consider ketamine infusion protocol.
- Use non-medication/non-procedural adjuncts (acupuncture, physical therapy, warm/cold compresses).

Before Discharge

- Buprenorphine re-induction not required as patient continued buprenorphine during hospital stay.
- Ensure patient has adequate buprenorphine at home until next appointment with buprenorphine prescriber. If the patient requires a buprenorphine prescription at discharge, the clinician must have a DEA X-waiver.
- If the patient requires ongoing full agonist opioids for pain control, determine which clinician will be responsible for providing these medications and discuss the expected duration of opioid pain management with the patient and the buprenorphine provider. Discuss the use of buprenorphine plus short acting opioids with the patient's community pharmacist and ask that a note be put in the patient's profile with the anticipated duration of concomitant use. Use Exemption Code F on the prescription.

*** Alternate formulations equivalent to 16 mg buprenorphine (i.e., Zubsolv 8.6 mg, Bunavail 6.3 mg) may also be reduced. If the patient is on a slow release buprenorphine formulation (i.e., Sublocade or Probuphine), consult with the buprenorphine prescriber as evidence is limited. This algorithm does not cover buprenorphine preparations available for pain (e.g., Belbuca, Butrans); however, they can likely be continued during the perioperative period as serum buprenorphine concentrations associated with the pain preparations are considerably lower than serum concentrations of those used for the treatment of OUD.*

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Attachment 1

Practice Communication Tool

PRACTICE NAME

Practice Address

PHONE: 207-xxx-xxx **FAX:** (207) xxx-xxxx

TODAY'S DATE:

RE:

DOB:

TO:

FROM:

LOCATION:

LOCATION:

For your records Please review & Respond

COMMENTS:

It is our understanding that _____ is scheduled for surgery on _____ and will require pain management post-surgery. I have attached a med list and a release of information for us to communicate ahead of or post-surgery. Should you have questions about patient's treatment needs please contact [name] at (207) xxx-xxxx.

- [PRACTICE NAME] will plan to follow patient for pain management immediately post-surgery.
- [PRACTICE NAME] will plan to follow patient for pain management should patient require additional pain management beyond their initial prescription post-surgery.
- It is our understanding that ongoing pain management will not be required after surgery.

The following is the recommended daily dosing of buprenorphine for the patient:

	Total daily dose buprenorphine
2-3 days prior to surgery	
Day of surgery	
Inpatient post-surgery	
Outpatient post-surgery	

Attachment 2

Patient Information: Pain Medication and Suboxone/Buprenorphine

These are some questions that people who are taking Suboxone may have when they are prescribed a pain medication. If you have questions or concerns about taking your Suboxone or pain medication, it is very important to talk to your provider. When you are no longer in pain, please dispose of any unused pain medications by bringing them to a take-back location.

Will I get “high” if I take pain medications while on Suboxone?

No, taking Suboxone lowers the possibility that you will feel high when taking pain medications. It is very important that you take your Suboxone properly for it to work.

Will I go into withdrawal if I take pain medications while on Suboxone?

No, taking Suboxone will continue to treat your opioid use disorder and the pain medications will treat your pain. When both medications are taken properly, they can safely be used together without causing withdrawal.

I am afraid my providers are going to think I am a drug seeker if I tell them I have pain?

Your providers are here to help you. It is important to tell your providers if you are in pain so that they can treat you appropriately.

Will I be at higher risk of relapse (return to using opioids) if I use pain medications after surgery?

No, the risk of relapse may be higher if your pain is not treated properly.

What if I am triggered by taking pain medications at home after surgery?

Talk to a supportive family member, friend, or your provider about coming up with a plan to safely store and take your medications at home if you are worried about having pain medications in your home.