Background:

These guidelines are designed for patients maintained on buprenorphine undergoing invasive procedures. There is currently a lack of evidence-based studies to direct the management of patients on buprenorphine maintenance in the peri-procedure period. Below are guidelines using expert opinion based on pharmacological principles with the intent to avoid under-treatment of acute pain while also avoiding potential opioid withdrawal and disruption of opioid addiction treatment.

The appropriate treatment of acute pain in patients on buprenorphine maintenance includes continuing the patient’s baseline opioid requirements to avoid increased pain sensitivity associated with opioid withdrawal. Thus daily opioid maintenance treatment requirements must be met before attempting to achieve analgesia. These patients have also been shown to have increased pain sensitivity and cross-tolerance to opioid analgesics, therefore adequate pain control will often necessitate higher opioid doses at shorter dosing intervals. All patients on buprenorphine maintenance should be co-managed with their buprenorphine provider during the pre- and post-procedure period.

Protocols:

A) Peri-procedure management

1) WITHOUT expected need for opioid analgesics

Recommendations:
- Patient takes usual buprenorphine dose on the morning of procedure
- If patient unexpectedly requires post-procedure opioid analgesics follow protocol B)
- If pain control is needed, split usual buprenorphine dose into every 8 hour dosing (e.g., 24 mg per day changed to 8 mg every 8 hours) and add NSAIDS and/or acetaminophen and/or tramadol
- Consider the use of local and regional anesthesia when indicated
- The buprenorphine provider should be contacted to assist in ongoing assessment, support, and post-procedure pain management

2) WITH expected need for opioid analgesics

Recommendations:
- Take last buprenorphine dose on the morning of the day prior to the procedure
- Hold buprenorphine dose on day of procedure
- Pre-procedure: give single dose of sustained-release morphine (e.g. MS Contin) 15 mg on the day of procedure (the prescription for the single dose of pre-procedure morphine can be given by the patient’s buprenorphine prescriber, primary care physician or the Internal Medicine Preoperative Assessment Clinic (IMPAC) provider
- Post-procedure: Opioids analgesics should be started using standard dosing protocols with careful monitoring since patients with opioid addiction often have decreased pain tolerance and cross-tolerance to opioid analgesics resulting in a need for higher opioid doses and shorter dosing intervals. Because of it’s high affinity at the opioid receptor consider fentanyl as the opioid of choice for analgesia during procedures and in PACU for these patients
Protocols (continued):

B) Post-procedure management

1) INPATIENT analgesia with opioids

Recommendations:
- Continue to hold buprenorphine
- All patients should be placed on sustained-release morphine (e.g. MS Contin) 15 mg bid to address the patients baseline opioid requirements and for pain control
- If patient also requires parenteral analgesia for breakthrough pain, use PCA with NO basal dose. Continue sustained-release morphine.
  - If the patient is NPO, use a basal dose of opioid to address the patient's baseline opioid requirements along with PCA or parenteral dosing for pain control.
- If patient does not require parenteral analgesia for breakthrough pain, use short acting oral opioids e.g., oxycodone, morphine. Continue sustained-release morphine.
- Consider local or regional anesthesia when indicated
- Consider adjuvant therapy with NSAIDs and acetaminophen if appropriate

2) OUTPATIENT analgesia with opioids

Recommendations:
- Continue to hold buprenorphine
- All patients should be continued on sustained-release morphine 15 mg bid. Discharge patient with enough sustained-release morphine to last until the patient's follow-up appointment with their buprenorphine prescriber.
- Treat patient’s breakthrough pain with short acting opioids e.g., oxycodone, morphine, hydrocodone.
- Schedule patient to be seen by their buprenorphine prescriber within 1 week post-procedure to have their post-procedure pain managed and to be restarted on buprenorphine maintenance when it is safe to do so

For Additional Information or clinical questions call the Boston Medical Center’s Office-Based Opioid Treatment (OBOT) Program at 617-414-4107 or page Colleen LaBelle RN or Daniel Alford, MD directly