Buprenorphine is a unique opioid that has the highest affinity to the mu receptor than any other clinically-used opioid. For this reason, it can block other opioids from being used, and result in withdrawals if started inappropriately. It requires pre-surgical planning and coordination of teams to avoid major complications.

**Surgical team/ Prepare Clinic identifies patient on buprenorphine**

(Butrans<sup>TM</sup>, Suboxone<sup>TM</sup>, Subutex<sup>TM</sup>, Zubsolv<sup>TM</sup>, Bunavail<sup>TM</sup>, Belbuca<sup>TM</sup>, Temgesic<sup>TM</sup>, Probuphine<sup>TM</sup>, Buprenex<sup>TM</sup> )

- Minimally painful ambulatory and inpatient surgery (no or minimal need for postoperative opioid therapy expected such as endoscopy, cataracts, FESS etc)
- Painful ambulatory and inpatient surgery. Expected need for postoperative opioid therapy. Patients taking higher daily doses of buprenorphine that would interfere with intra- and postoperative opioid therapy need to be identified. These are patients taking more than the equivalent of 8mg Suboxone/Subutex.

Patients on higher doses of buprenorphine use:
- > 8 mg/day Suboxone/Subutex,
- > 5.7 mg/day Zubsolv,
- > 4.2 mg/day Bunavail

Patients on lower doses of buprenorphine:
- Transdermal Buprenorphine (Butrans<sup>TM</sup> patch), any dose
- Probuphine implants
- Belbuca, any dose
- < 8 mg/day Suboxone/Subutex,
- < 5.7 mg/day Zubsolv,
- < 4.2 mg/day Bunavail

No preoperative dose adjustment needed
Continue home dose through procedure day and after discharge
Consult acute pain service if inpatient surgery (stay > 23 hours)

Operation Emergent

Pre-operative dose adjustment not possible. Anticipate need for high doses of opioids
Consult acute pain service
Consider postoperative ICU stay after surgery

Operation Urgent/ Elective

**Surgical Team**

Contact buprenorphine prescriber to discuss gradual dose reduction or discontinuation in anticipation of elective surgery
Schedule Prepare Clinic appointment not later than one week before surgery

PREPARE Clinic

Contact buprenorphine prescriber:
1. Instruct patient to reduce dose to <8mg/day Suboxone/Subutex, <5.7mg/day Zubsolv, <4.2mg of Bunavail by time of surgery
2. Update and record prescriber name and contact information in PREPARE note
Consult acute pain service if inpatient surgery (stay > 23 hours)

**SURGERY**

Perioperative plan per OR Anesthesia team/ Regional Anesthesia team
- Use non-opioid analgesics (gabapentin, pregabalin, acetaminophen, NSAIDS) pre-operatively if not contraindicated
- Use continuous regional anesthesia techniques if possible (epidural and peripheral nerve catheters)
- Use IV ketamine, lidocaine intra-operatively if not contraindicated
- Discuss pros and cons of delaying surgery for patient optimization if patient is still taking a higher dose of buprenorphine (>8mg Suboxone or equivalent dose)

**AFTER SURGERY**

The acute pain service (APS) will be following all patients postoperatively.
Postoperative Multi-Modal Analgesia Plan Per APS
- Maintenance or placement of axial or peripheral nerve catheters, or short-term nerve blocks as necessary
- Focus on non-opioid medication (gabapentinoids, acetaminophen, NSAIDS, antidepressants, α<sub>2</sub> agonists etc.)
- Use full agonist opioid with high binding affinity (hydromorphone, fentanyl, or sufentanil) orally, IV, or by PCA
- Avoid use of long-acting opioids!
- Continuation of buprenorphine, at home dose, lower dose, or higher dose
- Consider Ketamine infusion protocol (1-5mcg/kg/min infusion)
- Use Non-medication/non-procedural adjuncts (acupuncture, pet therapy, PT and mechanical supports as appropriate)
- Consider Chronic Pain Service consult in more complex patients

Buprenorphine Re-Induction Planning should not be necessary if patients continued to take buprenorphine during their hospital stay. If buprenorphine was discontinued, the pain service attending decides in collaboration with the buprenorphine prescriber and the UCSF Pain Management Center which re-induction strategy is appropriate.

Approved by P&T Committee 1/10/18
Approved by Pain Committee 1/17/18

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