Spectrum Medical Group, Southern Anesthesia Division
Guidelines for Perioperative Management of

BUPRENORPHINE (SUBOXONE / SUBUTEX)

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Buprenorphine is currently used for opioid and heroin addiction and also used for the management of pain. There has been an increase in the number of patients presenting for surgery taking buprenorphine. Buprenorphine is a partial agonist/antagonist with a very long half life and tight receptor binding. Pain treatment with opioids is complicated by the high affinity of buprenorphine for the mu receptor. This high affinity risks displacement of, or competition with, full opioid agonist analgesics when buprenorphine is administrated concurrently or sequentially. As such, its effects can inhibit the efficacy of opioids in the post-operative course and patients are likely to experience poor post-operative analgesia. This can lead to uncontrolled pain and the potential for serious adverse events. Two preparations are available:

1. Subutex: Buprenorphine
2. Suboxone: Buprenorphine and naloxone

Perioperative pain management guidelines for patients on buprenorphine:

- **Minor Operations/Day Cases** (Elective and Urgent/Emergent Admissions)
  1. Continue buprenorphine maintenance therapy and titrate a short-acting opioid analgesic to effect.
  2. Maximize non-opioid analgesia, regional techniques and adjunctive therapy
  3. **OB patients:** both laboring and elective/non elective C- sections recommend not stopping the buprenorphine for these pregnant patients. Postop analgesic plan C-sections: CSE so that the epidural catheter may be used postop.
- **Major Operations** (Elective Admissions)
  1. Send the **fax memo to the surgeon** recommending that the last dose of buprenorphine be 4 days prior to surgery date. The surgeon should ensure that the prescribing physician is aware of the upcoming surgery. Buprenorphine withdrawal peaks at 3-4 days and symptoms may persist for 7days[1]. In computing transition opioid doses, IV buprenorphine is at least 25 times more potent than IV morphine in analgesic efficacy[2]. However, such transitions should be conservative in the outpatient setting, and a much lower dose will suffice for this short duration of transition, i.e. oxycodone 40mg/day (10mg QID), is sufficient to prevent withdrawal syndrome.
  2. Anticipate patient's course will be similar to a chronic opioid tolerant patient.
  3. Regional analgesia – consider epidural or peripheral nerve catheter.
  4. IV PCA
  5. Maximize adjuncts, e.g. Ketamine
  6. Maximize non-opioid therapy, e.g. Tylenol, NSAIDS
  7. Restarting buprenorphine is done at the discretion of the prescribing physician.
- **Major Operations** (Urgent/Emergent Admissions)
  1. Discontinue buprenorphine. Surgeons should ensure that the prescribing physician is aware of the upcoming surgery.
  2. Anticipate patient's course will be similar to a chronic opioid tolerant patient.
  3. Regional analgesia – consider epidural or peripheral nerve catheter.
  4. IV PCA
  5. Maximize adjuncts, e.g. Ketamine
  6. Maximize non-opioid therapy, e.g. Tylenol, NSAIDS
  7. It is important to remember that the dose requirement of an opioid may drop as the buprenorphine dissociates from the mu receptor, which may take 24-72 hours after the last dose[2].
  8. Restarting buprenorphine is done at the discretion of the prescribing physician.

References

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3. Johnson RE, et al. Buprenorphine: Considerations for Pain Management. J Pain Symptom Management. 2005;29(3): 297-326
4. Alford DP, et al. Acute Pain Management for Patients Receiving Maintenance Methadone or Buprenorphine Therapy. Ann Intern Med 2006:144(2): 127-134.
5. Brummett C. Perioperative Management of Buprenorphine (Suboxone/Subutex). University of Michigan 2008.