Acute Pain Management and Buprenorphine

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Objectives

- Acute Pain in Bup/Nx patients

Acute Pain Management in Bup/Nx Patients

- Why is acute pain management difficult in buprenorphine patients?

Acute Pain Management in Bup/Nx Patients

- Should we stop the bup/nx?
- If so, when?
- If not, should we decrease it? And how much?
- What type of analgesia regimen will even work with bup/nx?
- Does patient preference play a role?
- What about risk of relapse?

Acute Pain Management in Bup/Nx Patients

- Regions Hospital example:
  - "…I have never felt (acute) pain management has gone great no matter what we do with the bup…I honestly think that the suboxone prescribing doc makes a big difference…feeling that they are heard and understood makes a difference."
  - "…I feel like the ones who stay on do better, though it is always a struggle. But, the ones who come off feel more unstable and anxious…"

Acute Pain Management in Bup/Nx Patients

- **No high level evidence to support a unified pain management strategy**
- June 2017, Anderson et al. Anesth, To Stop or Not to Stop, That Is the Question
  - Reviews
    - 4 case reports that support DC
    - 1 case reports that suggest that pain management is difficult either way
    - 3 cohort studies that support continuation
  - Recommendations:
    - Urgent/Minimal pain: Continue bup, no post op opioids
    - Urgent/Mod-Severe pain: DC bup, start PCA, traditional post op opioids post op

Acute Pain Management in Bup/Nx Patients

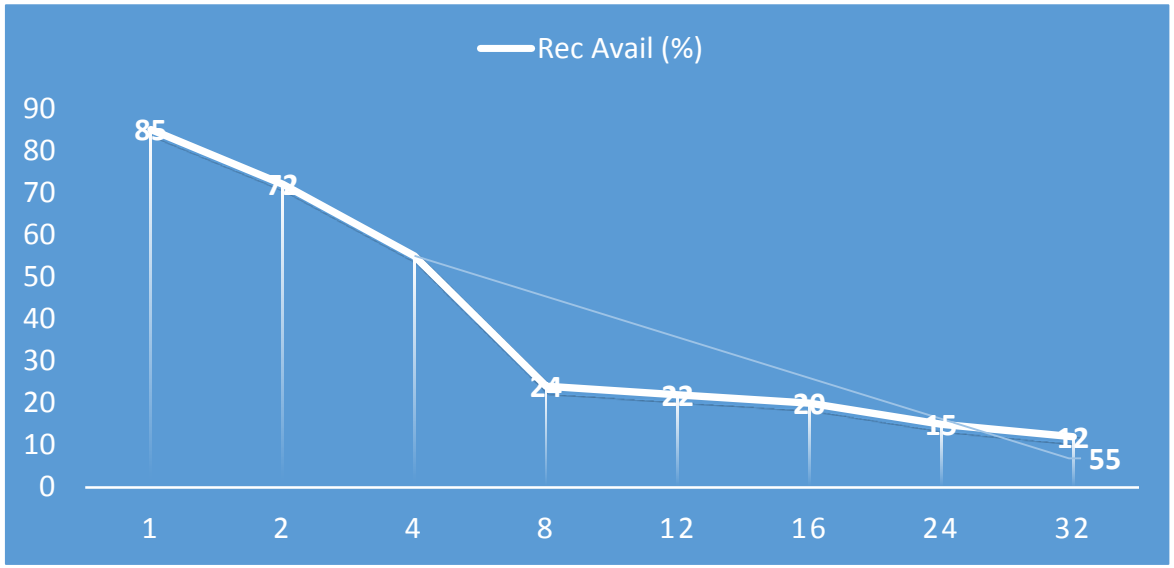
- Nov 2018, Quaye, et al. Pain Medicine, Perioperative Management of Buprenorphine: Solving the Conundrum
  - Reviews
    - 4 Case reports supporting DC
    - 2 Case series, 1 secondary observational, one prospective matched cohort, 4 retrospective cohorts supporting continuation
  - Recommendation:
    - “We feel that it is unnecessary and may be harmful to…completely stop”
    - “The evidence suggests that analgesic or moderate doses of bup combined with opioid agonists can have additive effects…”

Acute Pain Management in Bup/Nx Patients

- **Evidence that pain control is difficult with continuation**
  - Case reports: McCormick Pain Med 2013, Huang Can J Anesth 2014, Brummet J Opioid Manag 2009, Harrington Am Surg 2010, Gillmore Am J Em Med 2012
- **Evidence that it pain control is manageable when continued**
  - Cohorts: Hansen Arthoplasty 2016, Macintyre Anaesth Int Care 2013, Kornfield Am J Ther 2010
  - Peri-partum, Cohorts: ASAM Recommends continuing bup before elective c-sxn to avoid NAS, Jones Am J Drug Alc Ab 2009, Meyer Eur J Pain 2010, Vilkins J Addict Med 2017
- **Evidence that DC associated with increased rates of illicit opioid use**
  - Ling Addiction 2009, Bentzley J Subst Abuse Treat 2015, Sen Curr Pain Headache Rep 2016, Sigmon JAMA Psych 2013, Breen Drug Alcohol Dep 2003

Acute Pain Management in Bup/Nx Patients

- Receptor Availability
  - Optimal dose range for additive analgesia rather than competition?
  - Estimated receptor availability (Greenwald Biol Psych 2007, Greenwald Drug Alcohol Dep 2014)
    - 1mg: 71-85%
    - 2mg: 53-72%
    - 4mg: 36-55%
    - 8mg: 11-22%
    - 12mg: 13-24%
    - 16mg: 9-20%
    - 24mg: 4-15%
    - 32mg: 2-12%

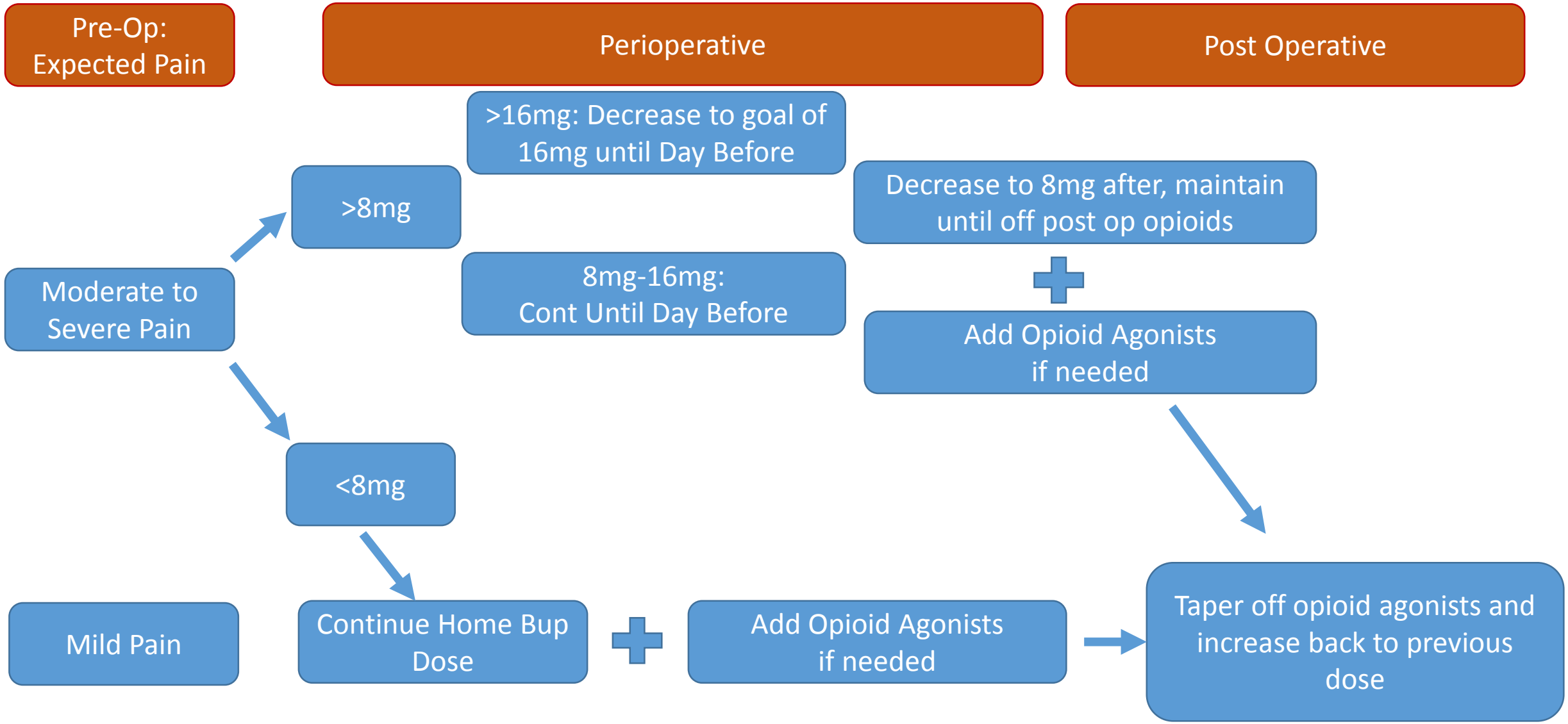


Acute Pain Management in Bup/Nx Patients

- Receptor Availability
  - Optimal time interval between bup and opioid agonists?
    - Slow dissociation
    - 10 patients on 16mg bup, told to withhold dose (Greenwald Biol Psych 2007)
      - Agonist symptoms produced by 24 mg hydromorphone were blocked at 4 hours, but recovered increasingly at 28, 52, and 76 hours

	4hrs	28hrs	52hrs	76hrs
OR availability	30%	54%	66%	82%
WD Score	1.8	3.5	6.9 (sig diff)	6.6

      - Suggests about 50% binding is required to suppress WD symptoms



Nov 2018, Quaye, et al. Pain Medicine, Perioperative Management of Buprenorphine: Solving the Conundrum

Acute Pain Management in Bup/Nx Patients

- As the bup providers ALWAYS:
  - Shared decision making with risks and benefits
  - Pain management goals
  - Risk of relapse
  - Prior experiences
  - **REASSURE** patient that their pain will be well managed
    - This is a very vulnerable time
    - They are scared of pain, but also of relapse
    - They want to know that you are on top of it

Acute Pain Management in Bup/Nx Patients

- Talk to the surgeon pre-op: What is time frame?
- Give the patient a 1 week supply
- See me 1 week post op
- Expect higher dose or potency of opioids required
- If it is not cutting it, increase dose or potency

Acute Pain Management in Bup/Nx Patients

- Back to Regions:
  - Low dose ketamine infusion (5mg/hr) during the case
  - Possibly ICU for Dexmedetomidine (Precedex) or ketamine 5-10mg IV q4h prn
  - PLUS
    - Acetaminophen
    - Gabapentin
    - NSAIDs
    - Muscle relaxants
  - Opioids
    - Higher doses needed, assume they will need more and increase all of the above if pain not controlled

Acute Pain Management in Bup/Nx Patients

- Patient on 8mg TDD bup has complicated tooth extractions
  - Likely no opioids needed, d/w dentist
  - Can split to TID dosing or increase bup temporarily

Acute Pain Management in Bup/Nx Patients

- Patient on 12mg TDD bup has femur fracture, ORIF
  - Can decrease to 8mg (or stay on 12mg)
  - Maximize non opioids
  - Speak to surgeon, ask to given them 1 week of opioids and what is normal time frame
  - 2-3 weeks
    - 1st post op visit: Oxycodone 5 mg q3h in terrible pain. Change to hydromorphone 2mg q4h, call if problems, rtc 1 week
    - 2nd visit: Pain well controlled, decrease to 2mg q6h, RTC 1 week
    - 3rd visit: decrease to 2mg q8h, RTC 1 week
    - 4th visit: 2mg q12h x3 days, 2mg at HS q3 days
    - Off within 27 days
  - Increase back to previous dose, even in during taper

Acute Pain Management in Bup/Nx Patients

- Patient on 16mg TDD falls and hurts back, no acute pathology seen
  - No opioids needed
  - I would not split bup (do not encourage use of any opioid in acute flare of chronic pain)
  - Muscle relaxants, NSAIDs, heat, activity

Acute Pain Management in Bup/Nx Patients

- Patient on 24mg has planned cervical fusion
  - Slowly decrease towards 16mg, or continue current dose
  - Day of surgery take 8-16mg (depending on if they can taper down)
  - Maximize non opioids
  - Speak to surgeon, ask to given them 1 week of opioids and what is normal time frame
  - 4-6 weeks
    - 1st post op visit: Oxycodone 15 mg q3h in terrible pain. Change to hydromorphone 6mg q4h, RTC 1 week
    - 2nd visit: Pain well controlled, decrease to 4mg q6h, RTC 1 week
    - 3rd visit: decrease to 4mg q8h, RTC 1 week
    - 4th visit: 2mg q8h x3 days, 2mg q12h x 3 days, 2mg at HS q3 days
    - Off within 30 days
  - Increase back to previous dose when cravings occur, even if during taper

Acute Pain Management in Bup/Nx Patients

- Bup was DCd by outside provider?
  - Taper off post op opioids as fast as possible for pain
    - Days - Weeks
    - Manage risk
      - Length of the taper
      - Frequency
      - Relapse
  - After off opioids, re-induct

Questions?

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