Managing Acute & Chronic Pain
*(requiring opioid analgesics)*
in Patients on MAT

**Case Discussions**

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- I have nothing to disclose with regards to commercial support.

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**Agenda**

- **Methadone**
  - Case 1: MMT and acute pain management
  - Case 2: MMT and chronic pain management

- **Buprenorphine**
  - Case 3: BMT and perioperative pain management
  - Case 4: BMT and acute pain management
  - Case 5: BMT and chronic pain management

- **Naltrexone**
  - Case 6: NMT and acute pain management
Case 1: MMT and acute pain management

You are called by an orthopedic surgeon colleague for advice on pain management for the following patient...

- 55 y.o. male with h/o opioid use disorder on MMT, well-controlled hypertension and tobacco use (1 ppd) is s/p motor vehicle crash with a pelvic and femur fracture. He is currently in the operating room having an internal fixation of his femur.
- He has a 38 year history of opioid (heroin) dependence and has been maintained on methadone 120 mg per day with weekly group counseling for the past 10 years. He has been on maximum take home doses for the past 8 years.

Questions

- What would you recommend regarding...
  - this patient’s methadone peri-operatively?
  - this patient’s acute pain peri-operatively?
Case 1: MMT and acute pain management

Take Home Points

• Communicate with the MMT program
  – On admission verify dose
  – On discharge, last dose and any meds that may show up in drug testing
• MMT will not treat acute pain
• Manage “opioid debt” po or parenteral dosing
• Opioid analgesics in addition to MMT will not increase CNS or respiratory depression or compromise patient’s recovery
• Increased pain sensitivity may necessitate higher doses at shorter intervals
• Scheduled dosing or PCA vs “prn” during the severe acute pain

Case 2: MMT and chronic pain management

• 42 yo male with type 2 DM (insulin requiring) with painful diabetic neuropathy, diabetic nephropathy (GFR 40 = CKD stage 3B), hepatitis C on MMT 90 mg per day for the past 5 years
  • Neuropathic pain treated with gabapentin 800 mg tid, acetaminophen 500 mg tid, amitriptyline 25 mg qhs and acupuncture
  • Has been tried, without benefit, capsaicin, NSAIDs (now limited by CKD), tramadol, duloxetine, venlafaxine and cognitive behavioral therapy
  • Pain remains very severe (7-9/10) including allodynia and is disabling
  • Exam c/w diabetic neuropathy, normal vascular exam, no skin lesions
  • He is requesting a 10 mg increase in his methadone dose to 100 mg from his MMT program to better control his chronic pain
Case 2: MMT and chronic pain management

Questions

• Would you recommend an increase his methadone dose, why or why not?

• Would you consider adding an opioid analgesic to his pain regimen? If so, how?

Take Home Points 1

• Analgesia from methadone lasts 6-8 hours

• Methadone dosed qd may be a good test for opioid responsiveness
  • “Do you get any pain relief from your morning methadone dose”
    • “yes, all day but not enough” (pain likely withdrawal mediated pain)
    • “yes, but it only lasts 8 hours” (pain may be opioid responsive)
    • “no, not at all” (pain may be opioid resistant)

Take Home Points 2

• For patients on MMT
  – Closely monitored e.g., drug testing, pill counts
  – Methadone will block euphoric effects of opioid analgesics
  – Prescribed opioid analgesics may interference with drug testing e.g., opiates and semisynthetics
  – Risk of diversion

• Most MMT programs only able to dose QD (some clinics will dispense “split doses”)
Case 3: BMT and perioperative pain management

- You are called by an orthopedic surgeon colleague for advice on pain management for the following patient...
  - 65 y.o. female with h/o opioid use disorder, asthma and right hip avascular necrosis due to long-term corticosteroid use is being scheduled for an elective total hip replacement
  - Maintained on buprenorphine 16 mg SL per day for treatment of her opioid use disorder for the past 2 years
  - Chronic pain has been managed with a combination of maximum dose naproxen and acetaminophen but pain has recently become more severe and is limiting her ability to continue working as a bank manager

Case 3: BMT and perioperative pain management

Questions

- The surgeon remembers hearing at a national conference that the buprenorphine should be stopped 5 days prior to the surgery.
  - Do you agree with this recommendation? If so, why? If not, why not?

- What would you recommend regarding buprenorphine and pain management in this patient scheduled for elective surgery?
Case 3: BMT and perioperative pain management

Take Home Points

• Stopping buprenorphine 5 days preop, while makes sense if you are concerned about opioid blockade, is likely destabilizing the patient's recovery preoperatively and is likely not necessary

• Options...
  • If you believe the observational data that is accumulating mostly from observational studies, then continuing buprenorphine perioperatively will not prevent postoperative opioid analgesic efficacy (Bourland H 2010, Jones H et al 2008, Olf S et al. 2006; Meyer M et al. 2010, Mackenzie H et al. 2012)
  • If you are worried about opioid blockade, stop buprenorphine on the day of surgery and treat both the perioperative pain and "opioid debt" with combination of ER/LA opioids and IR/SA opioids

Case 4: BMT and acute pain management

• You are called by an ED colleague for advice on treating acute pain in your patient...
  • 32 y.o. male with severe, 10/10, right shoulder pain after an acute dislocation and rotator cuff tear while playing flag football
  • His shoulder will be reduced and stabilized in the ED with orthopedic follow-up in 5 days
  • Has a 10 year history of prescription opioid addiction
  • Has been maintained on buprenorphine 16 mg SL per day for the past 2 years
  • Engaged in weekly group counseling, goes to NA meetings 2-3 times per week and has had no relapses since starting office-based treatment
  • He works full-time as a mechanic at a VW dealership
Case 4: BMT and acute pain management

Questions

- What would you recommend for pain management in the ED?
- What would you recommend for pain management upon discharge from the ED?

Case 4: BMT and acute pain management

Take Home Points

There are options...

- Divide buprenorphine to every 6-8 hours for analgesic properties and add non-opioids or IR/SA opioids or dual mechanism opioids (e.g., tramadol) if you believe the animal studies showing opioid efficacy in spite of buprenorphine maintenance (Kopel B, et al. 2005, Englberger W et al. 2006)

- Use supplemental doses of buprenorphine if you believe the data suggesting that there may not be an analgesic ceiling effect (Dahan A et al. 2006)

BMT and Chronic Pain Management
Case 5: BMT and chronic pain management

• 42 yo female with chronic LBP after a bicycling accident 8 years ago has been referred to you for BMT for her “oxycodone addiction”.
  • She is s/p 2 failed back surgeries, numerous steroid injections, nerve blocks, and currently has a spinal cord stimulator
  • Pain is constant 7-10/10 and radiates down both legs. It is worse when she is sitting and walking and best when she is lying down
  • She is married, with 2 children and is unemployed on disability
  • Exam, no numbness or weakness or point tenderness
  • Back pain is being treated with ER/LA oxycodone 40 mg bid with IR/SA oxycodone 10 mg q8 for breakthrough pain
  • Has had numerous aberrant medication taking behaviors including escalating her dose and running out early on numerous occasions
  • She is also on ibuprofen 800 mg with acetaminophen 500 mg tid
  • The patient does not think she is “addicted” but just in terrible pain

Case 5: BMT and chronic pain management

Questions

• If you think she has an opioid use disorder and chronic pain, would you start her on buprenorphine maintenance?

• If so, how would you dose the buprenorphine?

Case 5: BMT and chronic pain management

Take Home Points

• Systematic review of 10 studies- all studies (low quality) reported effectiveness in treating chronic pain (Cotes J, Montgomery S, 2014)

• Buprenorphine can be prescribed in office-based practice for both opioid dependence (requires X-number, likely covered) and chronic pain management (off-label, no X-number required, likely not covered)

• For pain, buprenorphine will need to be dosed every 8 hours
  – Use same universal precautions that you would use with any prescription opioid for chronic pain including a patient-provider agreement with informed consent, drug testing, pill counts, use of the Prescription Drug Monitoring Program (Gourlay DL et al. 2005)
Case 6: NMT and acute pain management

- You are called by an ED colleague for advice on treating acute pain in the following patient...
  - 25 y.o. female presents with acute right sided flank pain due to large renal/ureteral stones
  - She is maintained on IM depot naltrexone 380 mg every 4 weeks for treatment of her opioid dependence
  - Her last naltrexone injection was 7 days ago

Questions

- What would you recommend for pain management?
Case 6: NMT and acute pain management

Take Home Points

- IM depot naltrexone - peak plasma within 2-3 days, decline begins in 14 days
- For acute pain consult anesthesia and either try to use nonopioids or interventional strategies
  - If opioids are required...
    - overriding naltrexone blockade, in animal models, was achieved at 6-20x usual dose without significant respiratory depression or sedation (Dean RL et al. 2008)
    - should be done in monitored setting
- Delay elective surgery for at least 30 days from last injection