Pain Care for People who have Opioid Use Disorder

Mi-CCSI Pain and Addiction Series

Your Speaker

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I have no financial disclosures.

Objectives

1. Participants will be able to state the basic differences between the three FDA approved medications used to treat opioid use disorder.
2. Participants will have improved confidence in treating acute pain in patients also being treated for opioid use disorder.
3. Participants will be able to state at least one treatment recommendation for chronic pain that is nociceptive, neuropathic, and nociplastic.
4. Participants will be able to state at least two other professionals who might serve their patients with addiction and pain

Three Parts

1. Part 1:
   - Definitions
   - Types of treatment for opioid use disorder
   - Case presentation of someone with acute pain
2. **Part 2:**
   - **Return to our representative patient, Charlene who is now planning a surgery**
   - **How setting expectations and pharmacotherapy can be used**
   - **Where to put your hands**
3. Part 3:

Meet Charlene

- 62-year-old female patient who developed opioid use disorder due to long-term opioid prescribing that started after a lumbar surgery
- She was treated with SL buprenorphine for 9 years and then changed to XR injectable buprenorphine (XRB) 2 years ago
- Her ongoing chronic pain is managed through physical activity, occasional NSAIDs, steroid injections, occasional acetaminophen, Medrol dose pack every 12-18 months for flares in her pain

Charlene

- Charlene is seeing you for her usual monthly appointment and XRB injection
- She tells you that she is finally going to “do something” about her chronic knee pain
- She has met with a surgeon who agrees that she is a good candidate for a total knee replacement EXCEPT, he wants her recovery provider to manage her post-operative pain
- The surgeon told Charlene that he didn’t know “what to do about the buprenorphine” and “it would make pain pills not work.”
- He told Charlene that she should get off the buprenorphine prior to her surgery.

Making a Plan

Considerations

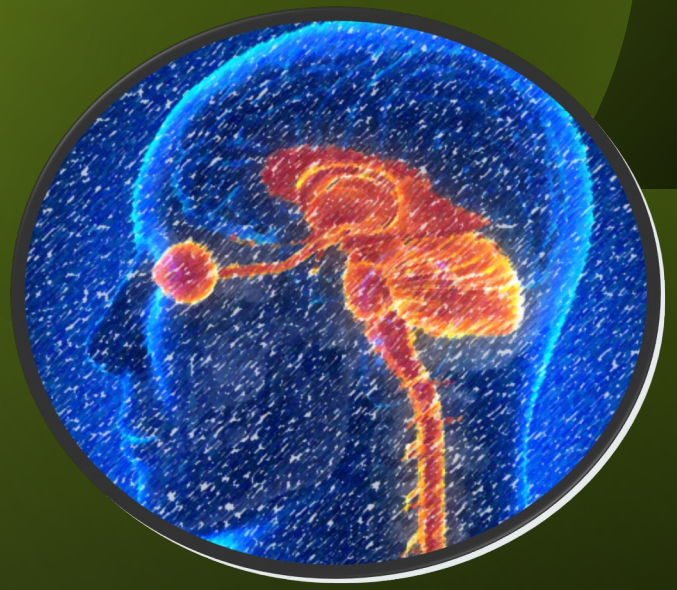
- People on MOUD and those treated with opioids for chronic pain have a decreased distress tolerance
- Catastrophizing thoughts and perceived injustice increases opioid craving and pain distress
- All literature recommends non-opioid therapy as part of the acute pain plan
- Some suggest the use of CBT, stress reduction, and exercise
- Communication with the patient and all other providers is paramount to a successful experience for the patient

Pacella-LaBarbara, et al. (2021). Distress tolerance among emergency department patients in acute pain: Associations with substance use treatment. *Stress and Health, 37*, 588-595.

Verner, et al. (2023). The association between perceived injustice and opioid craving in patients with chronic pain: The mediating role of daily pain intensity, negative affect, and catastrophizing. *Journal of Addiction Medidine, 17*(1), 35-41.

DiMeola, et al. (2022). A pilot investigation of nonpharmacological pain management intervention groups in methadone maintenance treatment. *American Society of Addiction Medidine, 16*(2), 229-234.

It’s ALL in your head



- Chronic opioid therapy leads to a sensitized response to acute pain
- Imaging revealed MORE brain activity in pain centers when subjected to identical painful stimuli among those on chronic opioids compared to those who were not
- The biological response is different and it’s measurable
- **TAKE HOME MESSAGE:** Patients are not making this up in order to obtain more drugs to treat their pain
- Change your thinking from “drug seeking” to “relief seeking.”

Dowdle, et al. (2019). Sensitized brain response to acute pain in patients using prescription opiates for chronic pain: A pilot study. *Drug Alcohol Dependence, 200,* 6-13.

Managing Expectations

- **Patient Expectations**
  - How painful is the anticipated surgery?
  - What do typical patients need for medication?
  - What things will be offered for pain care?
  - Who does the patient let know if pain is not controlled?
- **Team Expectations**
  - The care of the patient is the responsibility of EVERY person on the care team.
  - Be sure that everyone knows what is expected in the care of the patient.
  - Who can team members call if there are questions?
- **Our Own Expectations**
  - Our patients expect us to be EXPERTS
  - This takes a lot of work, you may need to be assertive in some of your communication
  - It's ok to need to re-group and adjust a plan that is not working

Dowdle, et al. (2019). Sensitized brain response to acute pain in patients using prescription opiates for chronic pain: A pilot study. *D*rug *Alcohol Dependence, 200,* 6-13.

Breathe!
This can be
OVERWHELMING!

So, where do I put my hands?

Planning

- **Communications**
  - Be sure to get written permission from your patient to speak with all members of their care team
  - In this case, the surgical team
  - Behavioral health?
  - Any supports for the patient (family, friends, children)
- **Preliminary Questions**
  - When will the surgery take place?
  - What hospital?
  - How painful is the surgery/procedure expected to be?
  - What is the usual pain care for this surgery?
  - Will there be a hospital stay?

Remember Charlene

- You try not to look shocked that a surgeon would toss her pain care directly into your lap
- Charlene tells you that her surgery is planned for 6 weeks from that day
- You talk with Charlene about the surgery and assure her that you will work with the team to help her control her pain
- You ask her if she has preferences in what medications are used in her care
- You enquire about her fears and expectations
- You find out who in her life supports her (family and/or friends)

Ferari, et al. (2022). Elective surgery for acute pain in patients with substance use disorder: Lessons learned at a rural neurosurgical center. Patient series. *Journal of Neurosurgical Case Lessons, 3*(13), Case21656.

Should patients be off buprenorphine or methadone for surgery?

NO

- Discontinuation of MOUD is now considered more harmful than helpful
- Could delay a needed surgery
- Creates a MME deficit that needs to be filled prior to reaching any kind of pain reduction
- May destabilize recovery
- Challenging to restart therapy – especially buprenorphine
- Increased risk of relapse

Maine Clinical Opioid Advisory Committee: Proposed position on the perioperative management of patients prescribed buprenorphine for opioid use disorder (OUD)

Isn't the buprenorphine or methadone enough to treat their pain?

NO

- Consider that MOUD and acute pain are two distinct conditions
- About 50% of patients on MOUD have baseline pain, methadone and buprenorphine (prescribed chronically) do not treat pain

Quinlan, J. (2017). Acute pain management in patients with drug dependence syndrome. *The International Association for the Study of Pain.* Doi: 10.1097/PR9.611.

Shulman, et al. (2020). Secondary analysis of pain outcomes in large pragmatic randomized trial of buprenorphine/naloxone versus methadone for opioid use disorder.

Doesn't buprenorphine block opioids making them ineffective?

NOT COMPLETELY

- Buprenorphine DOES have a stronger affinity than other mu agonists
- It DOES blunt the effect of other opioids
- However, in study after study, analgesia is achieved with mu agonists in the setting of buprenorphine
- The availability of mu receptors is relative to the dose of buprenorphine (2 mg = 59%, 16 mg = 20%, 32 mg = 16%)
- Some sources advise to taper to 16 mg or even 12 mg, but I question this in order to gain 4% receptors?

Dawson, et al. (Reviewers)(2022). Perioperative pain management guidance for patients on chronic buprenorphine therapy undergoing elective or emergent procedures February 2022. *Veteran's Administrations Advisory.*

Maine Clinical Opioid Advisory Committee: Proposed Position on the Perioperative Management of Patients Prescribed Buprenorphine for Opioid Use Disorder (OUD).

How about XR buprenorphine?

NOT DIFFERENT (enough)

- There is no evidence so far that this any more challenging than SL buprenorphine
- A case review of a patient on XRB revealed adequate pain control through use of mu agonist therapy post-surgically x2 in the same patient

Dawson, et al. (Reviewers)(2022). Perioperative pain management guidance for patients on chronic buprenorphine therapy undergoing elective or emergent procedures February 2022. *Veteran's Administrations Advisory.*

Maine Clinical Opioid Advisory Committee: Proposed Position on the Perioperative Management of Patients Prescribed Buprenorphine for Opioid Use Disorder (OUD).

Hickey, et al. (2023). Perioperative management of extended-release buprenorphine. *Addiction Medicine, 17*(1), e67-e71.

If the patient takes mu agonists, won't they withdraw?

NO

- The order matters
- If buprenorphine is in the system, then a mu agonist is added – no withdrawal
- If a mu agonist is in the system and buprenorphine is added – precipitated withdrawal
- The naloxone contained in buprenorphine/naloxone does not absorb enough when taken SL to be clinically relevant

What dose of mu agonist will treat patients on MOUD?

- All studies and all recommendations state that patients on methadone or buprenorphine will need **higher** doses of opioids than someone who is narcotic naïve
- This is due to tolerance (methadone and buprenorphine) as well as the mechanism of action of buprenorphine
- There are limited data telling us HOW MUCH MORE
  - 47-70% more according to Cleary (2022)
  - 40% more according to Salottolo, et al. (2019)
  - 3 times the usual dose according to Cobb et al. (2022)

Cobb, et al. (2022). A retrospective study of acute postoperative pain after cesarean delivery in patients with opioid use disorder treated with opioid agonist pharmocotherapy. *Addiction Medicine, 16*(5), 549-556.

Salottolo, et al. (2019). High on drugs: Multi-institutional pilot study examining the effects of substance use on acute pain management. *International Journal Care Injured, 50*, 1058-1063.

Cleary, et al. (2022). Postoperative cesarean pain management and opioid use disorder: Anticipate the need for higher opioid doses and communicate expectations with patients and the obstetric team. *American Society of Addiction Medicine, 16*(5), 495-498.

If we need to use opioids, which ones are best?

- When recommendations are made in a study, researchers feel that fentanyl or hydromorphone are better choices due to their high affinity relative to other mu agonists
- Fentanyl is available IV for inpatient use, but only patches for out patient use and would be of little utility for acute pain
- Hydromorphone is available both IV and PO
- With that said, I have personally used Oxycodone, Hydrocodone, and hydromorphone depending on the patient

CA Bridge (2019). Acute pain management in patients on buprenorphine treatment for opioid use disorder. Emergency department/critical care.

The Pain Plan: Before Surgery

- Discuss self-care strategies starting now, eating well, moving, resting
- Supports in their life, others in the household with use disorders?
- Plans for coming home post-surgically
- Reassurance that you will be there every step
- Discussion about how much pain to expect and the goal of pain care
- Help to develop a realistic set of goals “surgery hurts”
- How will they manage pills when they go home
- What to do with left over medication
- Who to call if they are having any problems

The Pain Plan: Surgery Day

Considerations (with monitoring)

- Regional anesthesia
  - Peripheral nerve blocks/spinal or epidural anesthesia
- Alpha-2 agonists
  - Clonidine 0.1-0.3 mg PO Q6-8 hours PRN (pain and anxiety)
- Gabapentinoids
  - 300-600 mg gabapentin PO tid, dose given prior to surgery has been shown to reduce opioid needs post-surgically
- Ketamine & Magnesium (both are NMDAR antagonists)
  - Ketamine: Infusion 0.3 mg/kg IV over 15 minutes followed by 0.3-1 mg/kg/hour prn
  - Magnesium: 30-50 mg/kg bolus, then 10 mg/kg/hour
- IV Lidocaine
  - Bolus 1-1.5 mg/kg, then 1.5-3 mg/kg/hour

Maine Clinical Opioid Advisory Committee: Proposed Position on the Perioperative Management of Patinets Prescribed Buprenorphine for Opioid Use Disorder (OUD).

CA Bridge (2019). Acute pain management in patients on buprenorphine (bup) treatment for opioid use disorder: Emergency department/critical care.

Sahmeddini, et al. (2019). Comparison of perioperative systemic lidocaine or systemic ketamine in acute pain management of patients with opioid use disorder after orthopedic surgery. *Journal of Addiction Medicine, 13* (220-226).

Schwenk, et al. (2018). Consensus guidelines on the use of intravenous ketamine infusions for acute pain management from the American society of regional anesthesia and pain medicine, the American academy of pain medicine, and the American society of anesthesiologists. *Regional Anesthesia and Pain Medicine, 43*(5), 456-466.

The Pain Plan: And Beyond

- 200 mg Ibuprofen + 500 mg acetaminophen taken together has the BEST efficacy of any pain medication for acute pain management (Teater, 2010)
- Continue gabapentinoids if helpful
- Continue alpha-2 agonists if helpful, hold for BP less than 100/70

Teater, 2010. Evidence for the efficacy of pain medications. *National Safety Council.*

Opioids

- While hospitalized and monitored
  - PCA may be employed depending on surgeon preferences
  - PO opioids with titration instructions given lack of EXACT data of how much will be needed
- When discharged
  - Determine how much is needed while hospitalized. Any complications from that?
  - 3-day duration
  - May need PA
  - May need Maine exemption code (code F)
  - Continue MOUD treatment

Some Patients Refuse Opioids

- Some people in recovery would rather hurt than risk relapse
- There are still some things that we can do
- Maximize all non-opioid options including self care, surgical blocks, topicals, gabapentinoids, alpha-2 adrenergic, ibuprofen-APAP is appropriate
- Consider methadone split dosing while in the hospital (clinics will not do this)
- Consider buprenorphine split dosing or consider additional SL buprenorphine if already on XR buprenorphine

Maine Clinical Opioid Advisory Committee: Proposed Position on the Perioperative Management of Patients Prescribed Buprenorphine for Opioid Use Disorder (OUD).

Summary: Part II

We talked about our representative patient, Charlene who is now planning a surgery

We talked about how to help manage post-surgical pain for patients who are in treatment for opioid use disorder

We talked about where to put your hands