Pain Management in Patients Taking Medications for OUD

JULIE CHILDERS, MD, FASAM, FAAHPM
ASSOCIATE PROFESSOR OF MEDICINE
DIVISION OF GENERAL INTERNAL MEDICINE
UNIVERSITY OF PITTSBURGH/UPMC

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Learning objectives

Describe strategies for engaging patients with pain and SUDs in their care

Dose opioids for acute pain in patients who are opioid tolerant

Manage acute pain in patients with OUD who are taking:
- Buprenorphine
- Methadone
- Naltrexone
- Street opioids

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Myths about pain in individuals with SUDs

Methadone or buprenorphine ("Suboxone") will treat their pain adequately
- Fact: These are dosed for treatment of withdrawal and cravings, NOT pain

Giving high-dose opioids will worsen their addiction
- Fact: NOT giving appropriate doses of opioids might lead them to disengage in care

They are "drug-seeking"
- Fact: They are often very afraid that their pain will not be treated appropriately when they have an acute event

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Common Patient Fears

Withdrawal

Untreated pain

Judgment and stigma

Fear of relapse if re-exposed to opioids (among those in recovery)

Quinlan J, Cox F. Acute pain management in patients with drug dependence syndrome. Pain Reports. 2017 Jul;2(4).

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With adequate treatment patients more likely to engage with care

Common reasons for patient-directed discharge*:
- Perception of stigma from clinical staff
- Undertreatment of pain

Reducing stigma and building a therapeutic alliance
- Learning to discuss substance use openly and non-judgmentally
- Using medical terms and person-centered language
- Showing caring about their pain and about them as an individual
- Titrating doses appropriately based on the patient's tolerance

*Simon R, Snow R, Wakeman S. Understanding why patients with substance use disorders leave the hospital against medical advice: a qualitative study. Substance abuse. 2020 Oct 1;41(4):519-25.

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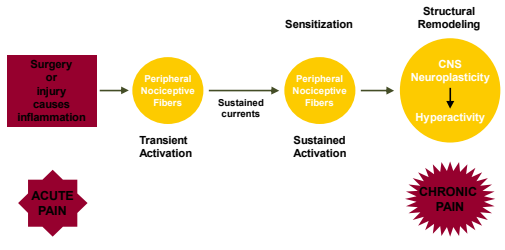
Acute and chronic pain are different



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Chronic pain

More than three months duration

Often no (remaining) tissue injury

Prevalence: 20% in US population

Abnormal pain processing

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Correlates of chronic pain

Psychiatric diagnoses
- Depression
- Anxiety disorders
- PTSD

Low socioeconomic status

Unemployment and disability

History of abuse and/or trauma

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Patient who take medications for opioid use disorder (MOUD)

Significant overlap with chronic pain
- Pain often contributes to initiation of use
- Majority of patients with OUD have chronic pain
  - 64% in one analysis*

Chronic pain challenges:
- Typically not curable
- Much chronic pain is severe
- Pain as the "fifth vital sign"
- Setting expectations (for ourselves and the patient)

*Hser et al 2017

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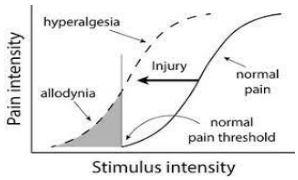
Hyperalgesia

Common in individuals on chronic opioids

Nonpainful or minimally painful stimulus becomes painful

Pain can become diffuse



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What is acute pain?

Identifiable tissue injury
- Trauma
- Surgery
- Cancer*

Short term (<3 months)

Decreases as injury heals

Opioid-responsive

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When assessing a patient with pain and OUD

Assess cause(s) of pain and differentiate from chronic pain
- Did you have pain on a daily basis before this injury occurred?
- How well was your pain controlled?
- How is this current pain different from the pain you've had?

Ask nonjudgmental questions about substance use and recovery
- How many bags of heroin/fentanyl per day
- How do you feel like you're doing in recovery?
- Length of time in methadone clinic, how often going

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Treating pain: maximize non-opioid treatments

Specialist interventions
- Nerve blocks
- Low-dose ketamine

Non-specialist treatments
- Acetaminophen
- NSAIDs
- Gabapentin

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NSAIDs

NSAIDs equivalent to opioids in musculoskeletal pain*

One study compared NSAID, acetaminophen, and opioid – all equivalent**

*Friedman BW, Dym AA, Davitt M, et al. Naproxen with cyclobenzaprine, oxycodone/ acetaminophen,or placebo for treating acute low back pain: a Randomized Clinical Trial. Jama. 2015 Oct 20;314(15):1572–1580.

**Ridderikhof ML, Lirk P, Goddijn H, et al. acetaminophen or nonsteroidal anti-inflammatory drugs in acute musculoskeletal trauma: a Multicenter, Double-Blind, Randomized, Clinical Trial. Ann Emerg Med. 2018 Mar;71(3):357–68.e8. .

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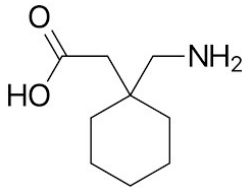
Gabapentin

GABA analogue

Ligand of α2δ calcium channel subunit

Approved for focal seizures

Some evidence for short course of gabapentin pre- or post operatively to decrease opioid requirements



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Patients with severe acute pain will still require opioids

Opioids are effective for acute pain due to tissue damage

Tolerance in patients on medications for OUD, or who are using street opioids

May require MUCH higher doses
- Nearly 8 times as much after TKA in one study
- Start with double the dose for an opioid-naïve patient, and increase
- Oxycodone 5 → 10 mg
- IV hydromorphone 0.5 mg →1 mg

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Deciding about opioids

Is this chronic or acute pain?
- Mixed evidence for opioids in chronic pain
- Not recommended for individuals with SUDs

What is the expected duration of the pain?
- Pain due to trauma versus due to cancer

How risky is outpatient prescribing?
- Current substance use vs. SUD in remission
- How the patient is monitored
  - Frequency of visits
  - Family involvement

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Medications for OUD

Buprenorphine
- Brand names: Suboxone, Subutex, Zubsolv

Methadone

Naltrexone
- Brand names: Vivitrol (injectable), Revia (oral)

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Buprenorphine

- A partial opioid agonist
- Minimal euphoria and respiratory depression
- Absorbed sublingually (not orally)

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Low dose buprenorphine formulations approved for pain

Transdermal buprenorphine ("Butrans")

Buccal buprenorphine ("Belbuca")

Do not require an X waiver to prescribe

Very low dose

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Buprenorphine and Acute Pain

40 year old woman with OUD on buprenorphine, 24 mg/day

Oral surgery

Surgeon supplies her 10 5-mg oxycodone post-op

Calls my office the day after surgery, severe pain, three oxycodone at a time minimal effect

Taking ibuprofen and naproxyn

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Continue buprenorphine during acute pain episode

Some experts recommend decreasing to 12-16 mg (Lembke)

Add opioids as indicated

Expect that opioid requirements will be high

Buresh M, Ratner J, Zgierska A, Gordin V, Alvanzo A. Treating perioperative and acute pain in patients on buprenorphine: narrative literature review and practice recommendations. Journal of general internal medicine. 2020 Dec;35(12):3635-43.

Lembke A, Ottestad E, Schmiesing C. Patients maintained on buprenorphine for opioid use disorder should continue buprenorphine through the perioperative period. Pain Medicine. 2019 Mar 1;20(3):425-8.

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Plan

Continued buprenorphine at same dose

Increase prn oxycodone to 20- 25 mg

- 60 5 mg tabs sent
- Required additional 30 tabs in three days

Add ibuprofen 800 mg TID (avoid other NSAIDs)

Acetaminophen 1000 mg tid

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Methadone

Full agonist of mu opioid receptors

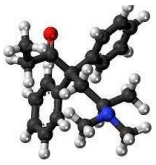
Dosed once daily at designated opioid treatment programs (i.e., methadone clinics)

Treating withdrawal and cravings

Effective dose typically 80 – 120 mg/daily

Methadone for analgesia → tid or qid

Methadone clinics cannot dose methadone "for pain"



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Acute pain in patients on methadone

- Do not change methadone dosing (inpatient)
- Add prn opioids if needed
- Communicate with methadone clinic

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Naltrexone

Pure opioid antagonist: blocks opioid craving and analgesia

Given orally or through a monthly injection

Not a controlled substance

Does not cause withdrawal when stopped

Used for opioid use disorder and alcohol use disorder
- Endogenous opioids mediate euphoric effect of alcohol

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Naltrexone: a Case

30 year old man with OUD in remission, on IM naltrexone (Vivitrol)

Increasing abdominal and back pain

Imaging identifies a large tumor in the abdomen

Admitted for biopsy and surgery

Received Naltrexone injection one week prior to admission

Severe pain on IV hydromorphone 0.5 mg q 2 hours and oxycodone 5 mg q 4 hours

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Managing acute pain in patients receiving naltrexone

Pre-planning: stop naltrexone if painful procedure planned
- Three days for oral form
- One month for injectable

Monitor closely – risk of overdose with opioid exposure as naltrexone wears off

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Unplanned pain event in patient on naltrexone

Take a careful history

Vivitrol peaks 3 days after injection, levels stable for another 15 days

Blockade can be overcome
- Increased doses
- Higher-affinity opioids such as fentanyl, hydromorphone

Inpatient: may require PCA

Dean RL, Todtenkopf MS, Deaver DR, Arastu MF, Dong N, Reitano K, O'Driscoll K, Kriksciukaite K, Gastfriend DR. Overriding the blockade of antinociceptive actions of opioids in rats treated with extended-release naltrexone. Pharmacology Biochemistry and Behavior. 2008 Jun 1;89(4):515-22.

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Case, continued

Patient had received naltrexone injection one day prior to admission

He was started on a hydromorphone PCA
- Required up to 900 milligrams oral morphine equivalent daily

Transitioned to oral opioids at discharge

Continues on oral hydromorphone for cancer-related pain

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A patient not currently in treatment

50 year old man admitted overnight with soft tissue infection
Uses IV fentanyl daily
Plan for surgical debridement
Oxycodone 5 mg q 4 hours prn ordered
The day after admission – agitation, tachycardia, sweating, severe pain

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Harm Reduction

Meet people who use drugs (PWUD) where they're at
Drug use is part of our world → minimize negative effects
Goals are to improve individual and community well-being
Non-judgmental, non-coercive provision of services and resources

Hawk M, Coulter RW, Egan JE, Fisk S, Reuel Friedman M, Tula M, Kinsky S. Harm reduction principles for healthcare settings. Harm reduction journal. 2017 Dec;14(1):1-9.

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What are our goals for this patient?

Stay in the hospital
Complete a course of treatment
Avoid future infections caused by drug use
Keep him safe from overdose in the hospital and afterwards
Keep other patients and staff safe
Engage him in treatment for substance use disorder to the extent that he is willing

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How can we achieve our and the patient's goals?

Treat withdrawal:

- Ask the patient if he prefers methadone or buprenorphine
- You can start one of these in the hospital!
- Consult addiction medicine, toxicology, or detox service
- Use a power plan to start MOUD
  - Methadone for withdrawal and initiation power plan
  - Buprenorphine for withdrawal and initiation power plan
- Consult addiction medicine, toxicology, or detox service

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Treat pain and offer SUD treatment

Pain: Will require much higher doses of opioids than an opioid naïve patient

- Oxycodone: start 10, doses of 20 to 45 mg are common
- Use PCA if needed
- Adjunctive treatments: scheduled acetaminophen, NSAIDs if able, gabapentin, other non-opioid medications
- It will likely take longer to wean off opioids than for a typical patient

Offer SUD treatment

- Recognize ambivalence
- Willingness may fluctuate during course of hospitalization

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What about SUDs other than OUD?

Strong association between pain and SUDs

Alcohol, stimulants, and cannabis have known analgesic properties

Similar issues: stigma, fear, psychiatric comorbidities can make pain worse

Beliveau GM, McMahon VM, Arenander J, Angst MS, Kushel M, Torres A, Santos GM, Coffin PO. Stimulant use for self-management of pain among safety-net patients with chronic non-cancer pain. Substance Abuse. 2022 Dec 1;43(1):1179-86.

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Image courtesy of Wikimedia commons

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Conclusions

Be aware of stigma and eradicate it

Differentiate acute and chronic pain

Maximize non-opioid treatments

Understand opioid tolerance and dose opioids appropriately for acute pain

Continue medications for opioid use disorder for patients experiencing acute pain

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