AETC AIDS Education & Training Center Program
Mountain West

Pain Management in Individuals with Substance Use Disorders

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AETC AIDS Education & Training Center Program
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Disclosures

No conflicts of interest or relationships to disclose

We will discuss off-label use of medications

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Outline

- Chronic pain in patients taking medications for opioid use disorder (MOUD)
- Acute pain in patients taking MOUD
- Acute pain in patients with active OUD but not taking MOUD
- Pain in patients with OUD in prolonged remission
- Discussion / Q&A

Definitions

Acute Pain
Weeks 0-6

Sub-acute Pain
Weeks 6-12

Chronic Pain
Weeks 12+

Definitions, cont.

Moderate-Severe Pain	Mild-Moderate Pain
• Surgery • Fractures • Burns	• Musculoskeletal • Odontogenic • Headaches

Focus on function

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Case 1

- 52-year-old individual on methadone maintenance (110 mg/day) is seen in clinic for chronic low back pain.
- Pain has been present for over 15 years since a work-related injury. Has completed several courses of physical therapy, most recently was 2 years ago.
- Currently on permanent disability due to back pain and depression. Also has hypertension and chronic hepatitis C.
- Medications include: methadone (as above), sertraline 100 mg/day, acetaminophen (up to 2000 mg/day), HCTZ 25 mg daily.

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Case 1, cont.

How would you manage this patient's chronic pain?

A. Ask to split the methadone into 2 equal doses
B. Start ibuprofen 600 mg TID
C. Start oxycodone 5 mg QID PRN pain
D. Start gabapentin 300 mg TID
E. Another physical therapy referral

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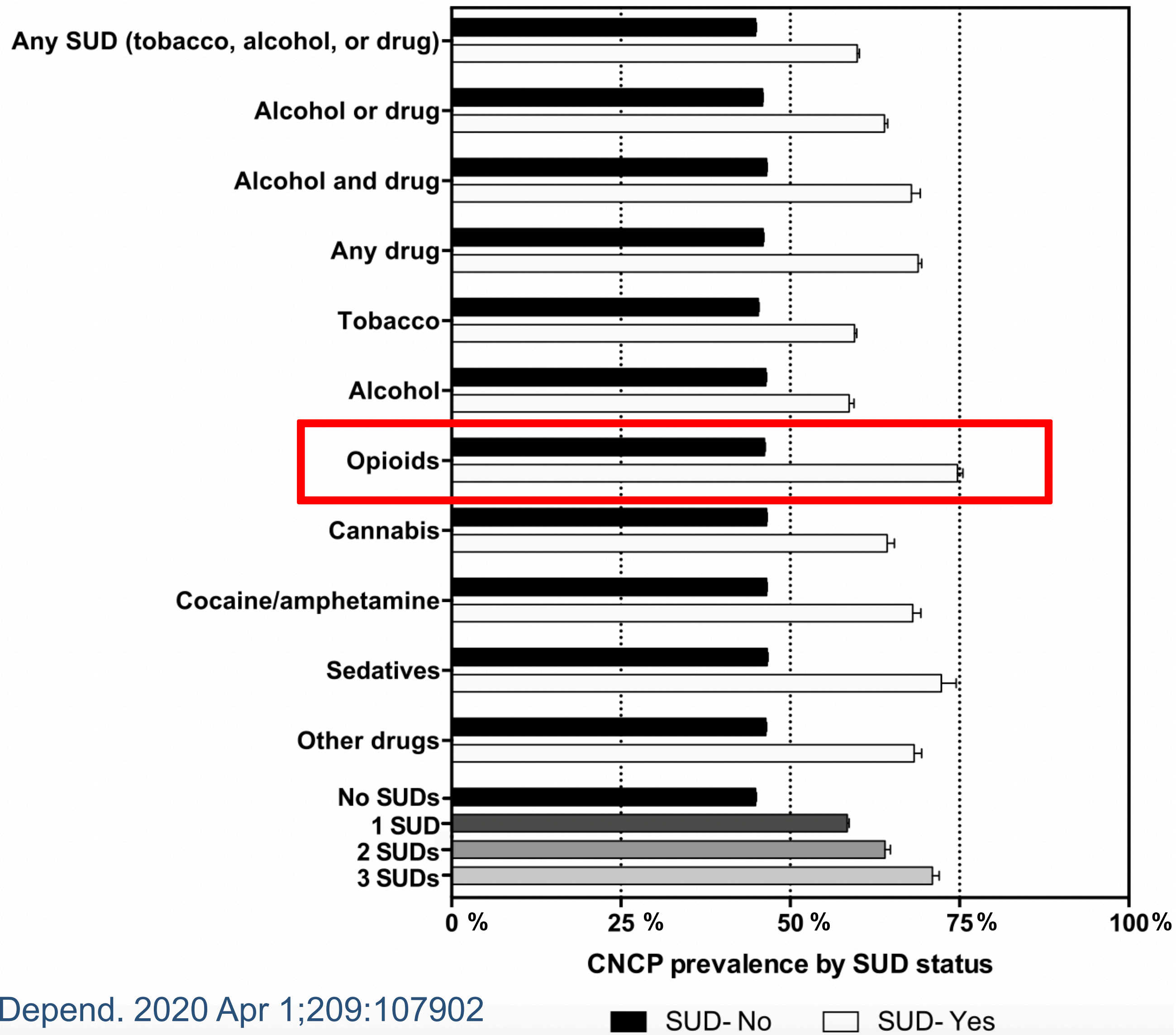
Chronic pain is common



Drug Alcohol Depend. 2020 Apr 1;209:107902

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OUD + pain = worse outcomes?

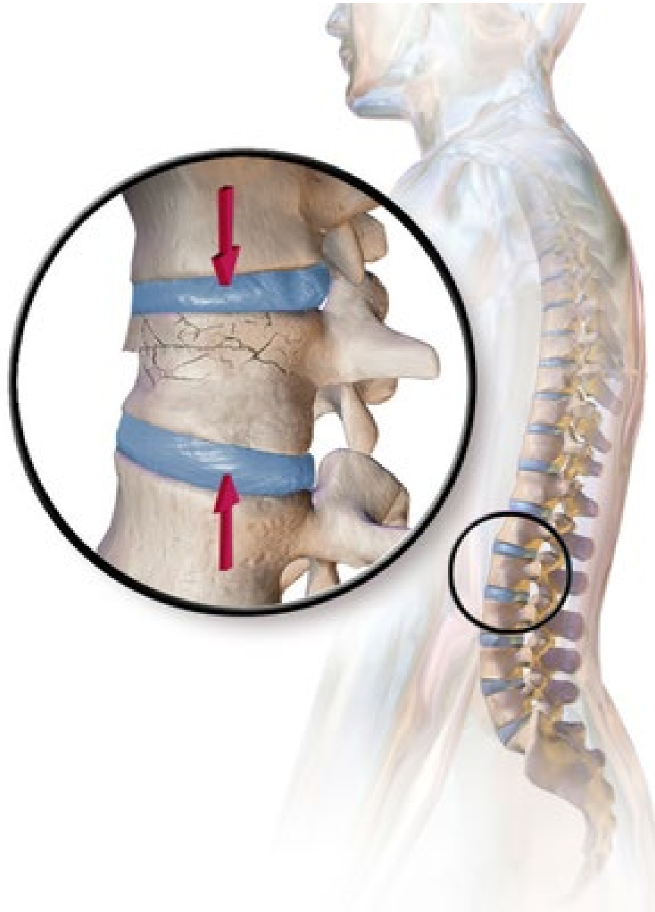
- PWUD with pain more likely to have difficulty accessing addiction treatment than those without pain
  - Dose-response trend (more pain = more difficulty accessing treatment)
  - Robust after adjusting for potential confounders

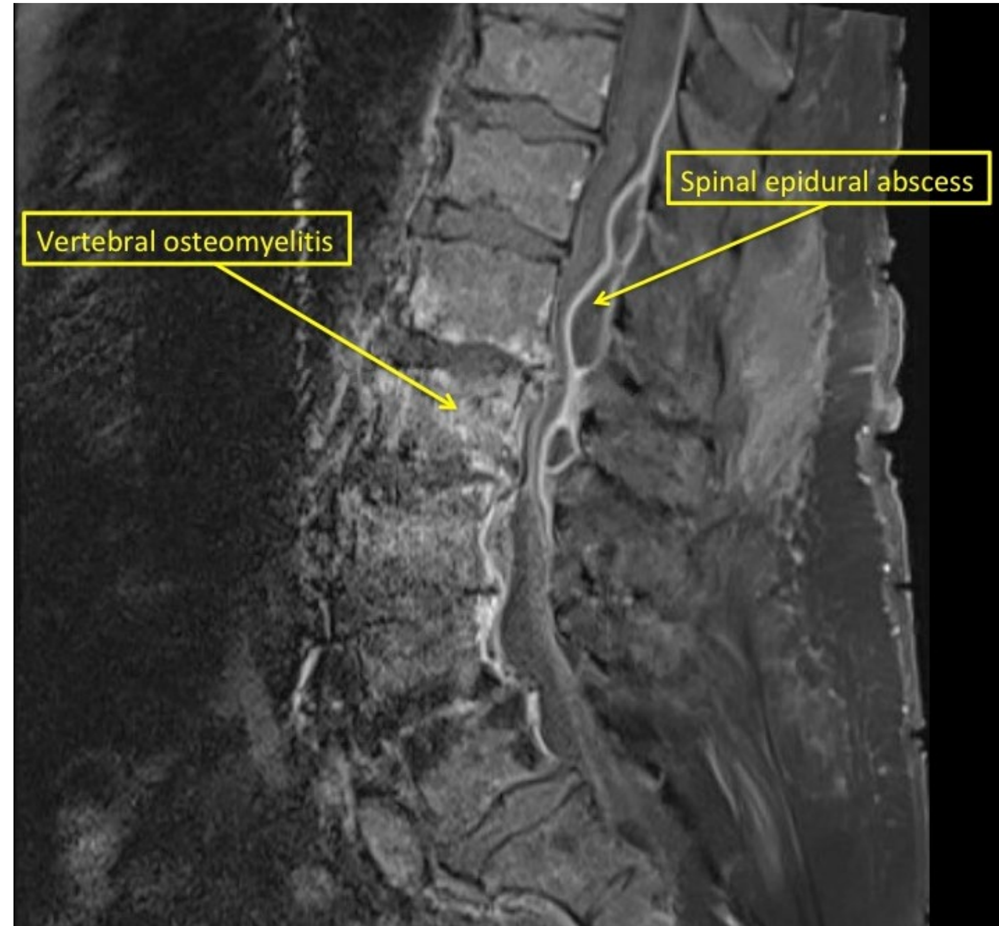
	Unadjusted		Adjusted[a]	
Average Pain Severity[b]	**Odds Ratio (95%CI)**	***p*-value**	**Odds Ratio (95%CI)**	***p*-value**
None (reference)				
Mild-moderate (1–5)	1.74 (1.07–2.83)	0.027	1.75 (1.08–2.82)	0.023
Moderate-severe (6–10)	2.17 (1.37–3.43)	0.001	1.98 (1.27–3.09)	0.003

- Lower retention and increased likelihood of ongoing non-prescribed opioid use in patients with OUD who have pain

Journal of Pain Research 2020:13

Critical to evaluate for underlying causes





Source: www.aans.org

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Multimodal pain treatment is the foundation

- ALWAYS institute multimodal pain treatment strategies

Non-opioid medications	Non-pharmacologic approaches
Acetaminophen	Comfort measures (repositioning, ice/heat)
NSAIDs	Physical modalities (PT, splinting, TENS)
Adjuvant agents (gabapentinoids, SNRIs)	Behavioral strategies (mindfulness, CBT)
Topicals	Manual therapies (acupuncture, massage)

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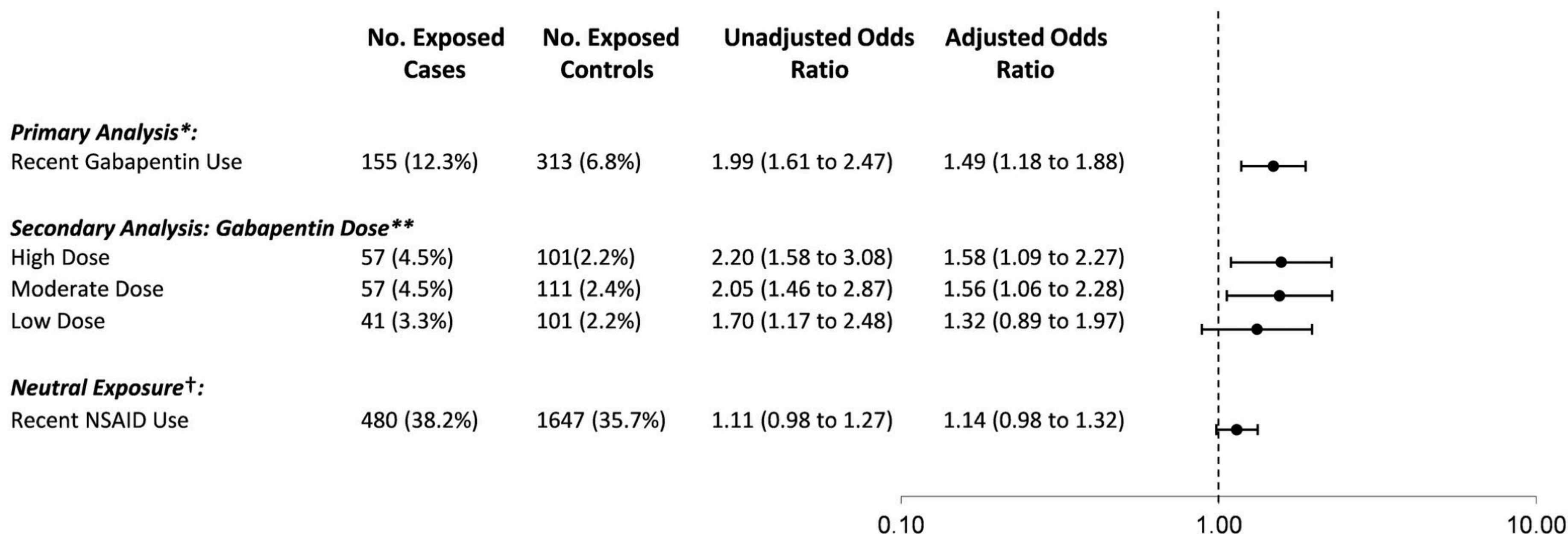
Gabapentin in patients with OUD

- Self-reported gabapentin & pregabalin misuse[1]
  - 15-22% among patients with OUD (vs 1% general population)
- Association between combination gabapentin-opioid prescription and overdose, especially at high dose[2]

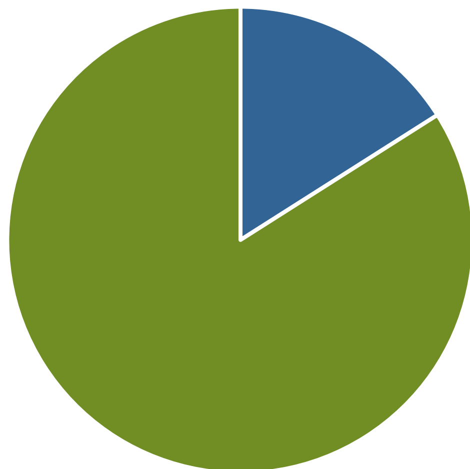


	No. Exposed Cases	No. Exposed Controls	Unadjusted Odds Ratio	Adjusted Odds Ratio
Primary Analysis*:				
Recent Gabapentin Use	155 (12.3%)	313 (6.8%)	1.99 (1.61 to 2.47)	1.49 (1.18 to 1.88)
Secondary Analysis: Gabapentin Dose*				
High Dose	57 (4.5%)	101(2.2%)	2.20 (1.58 to 3.08)	1.58 (1.09 to 2.27)
Moderate Dose	57 (4.5%)	111 (2.4%)	2.05 (1.46 to 2.87)	1.56 (1.06 to 2.28)
Low Dose	41 (3.3%)	101 (2.2%)	1.70 (1.17 to 2.48)	1.32 (0.89 to 1.97)
Neutral Exposure†:				
Recent NSAID Use	480 (38.2%)	1647 (35.7%)	1.11 (0.98 to 1.27)	1.14 (0.98 to 1.32)

[1]Addiction. 2016 Jul;111(7):1160-74.
[2]PLoS Med. 2017 Oct 3;14(10).

Depression is common, likely undertreated

The **16%** of Americans with mental illness receive >half of all opioid Rx [1]



50%

Most studies demonstrate at least half of patients with OUD have depression

[1]J Am Board Fam Med. 2017 Jul-Aug;30(4):407-417.
[2]J Gen Intern Med. 2020 May 29.

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Treating depression in pts with OUD + pain

- OK to use SSRIs – safe and modestly effective
- Possible preference for SNRIs
  - Modulate pain experience in the CNS by boosting levels of serotonin and norepinephrine
  - Duloxetine FDA approved for fibromyalgia, chronic low back pain and knee osteoarthritis
- Use TCAs with caution in patients on methadone
- Counseling should be offered and encouraged!

Adjust MOUD, when possible

- Methadone and buprenorphine have short (~6 hours) duration of effect for pain control
- Increase dose or split dose of MOUD
  - For patients on methadone who have take-home doses, they could consider splitting take-home dose BID
  - For patients on buprenorphine, consider dosing BID-TID

not always possible for patients dosed daily at opioid treatment program!

Generally avoid full opioid agonists

- Full opioid agonists carry risk of over-sedation/overdose, diversion and disrupting recovery
- Exceptions for palliative care situations or end-stage diseases with substantial functional impairment
- If prescribe full opioid agonists:
  - Ensure adequate shared decision-making about risks
  - Institute close monitoring (urine toxicology, PMP checks)
  - Establish functional endpoints
  - Coordinate with opioid treatment program, if applicable

Case 1, revisited

How would you manage this patient's chronic pain?

A. Ask to split the methadone into 2 equal doses
B. Start ibuprofen 600 mg TID
C. Start oxycodone 5 mg QID PRN pain
D. Start gabapentin 300 mg TID
E. Another physical therapy referral

Case 2

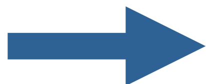
- 26-year-old individual on buprenorphine presents with right maxillary dental pain
- Dentist said they need a root canal, which is scheduled for next week
- Has been stable on buprenorphine for 18 months
- Housed, lives with partner and 2 young children

Case 2, cont.

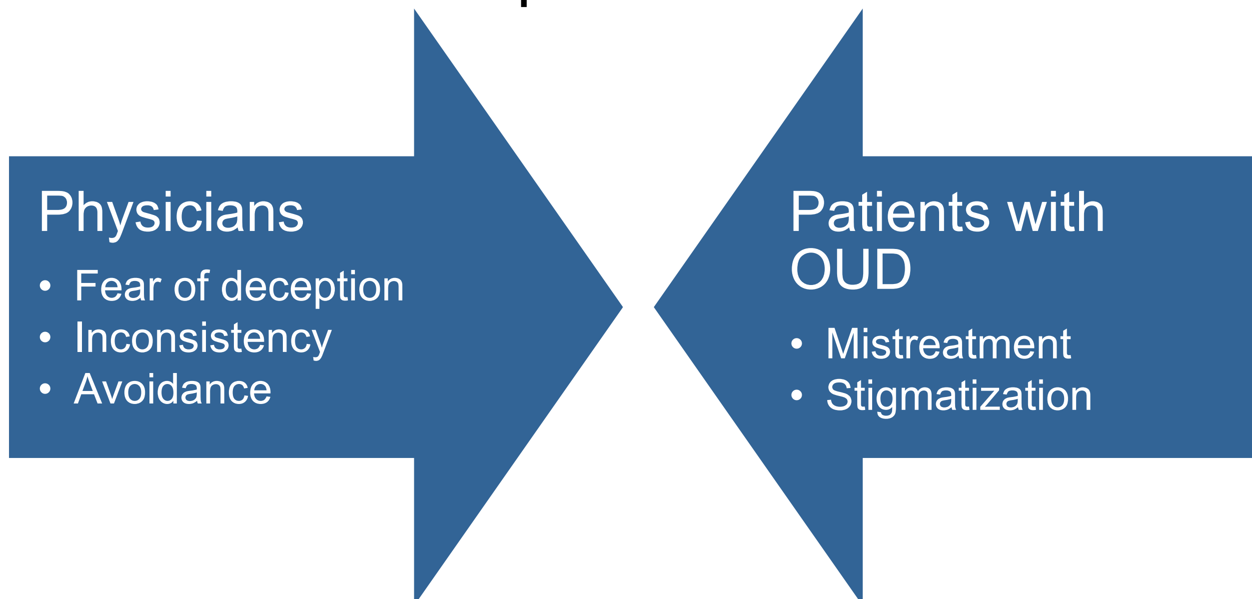
How would you manage this patient's buprenorphine?

A. Stop buprenorphine 5 days before the procedure
B. Stop buprenorphine the day before the procedure
C. Increase buprenorphine dose after the procedure
D. Continue buprenorphine and add oxycodone

Risky time for patients with OUD

- Acute pain 

- Anticipate conflict over opioids[1]



[1] J Gen Intern Med. 2002 May;17(5):327-33.

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Continue MOUD whenever possible

- **Methadone** easier to combine with full opioid agonists
  - No preferred full opioid agonist
  - Should coordinate with opioid treatment program
- Increasing evidence that full opioid agonists can be effectively added to **buprenorphine** to manage acute pain
  - Theoretical preference for higher affinity full opioid agonists (e.g. hydromorphone, fentanyl)
- **Naltrexone** should be discontinued for moderate-severe acute pain requiring full opioid agonists
- ***Disrupting MOUD may destabilize recovery without improvements in acute pain management***

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Multimodal pain treatment is still critical

- ALWAYS institute multimodal pain treatment strategies

Non-opioid medications	Non-pharmacologic approaches
Acetaminophen	Comfort measures
NSAIDs	Physical modalities
Adjuvant agents	Behavioral strategies
Topicals	Manual approaches

- *If available, consider involving anesthesia/pain medicine colleagues with complex cases for advanced techniques (regional blocks, ketamine, lidocaine infusions, etc.)*

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Adequately treat acute pain

- Anticipate tolerance
  - Consider 50% increase above usual opioid dose
  - Monitor closely for oversedation or undertreatment
- Opioid use disorder is a chronic disease
  - Do not expect to worsen OUD by using opioids
  - Do not expect to cure OUD by withholding opioids
- Institute safety measures
  - Small quantities
  - Frequent refills
  - Ensure naloxone available
  - Secure storage location

Case 2, revisited

How would you manage her buprenorphine?

A. Stop buprenorphine 5 days before the procedure
B. Stop buprenorphine the day before the procedure
C. Increase buprenorphine dose after the procedure
D. Continue buprenorphine and add oxycodone

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Case 3

- 32-year-old individual is admitted to the hospital with large deltoid abscess with surrounding cellulitis
- Started on IV vancomycin and taken to the OR for operative drainage
- 11-year history of opioid use, including daily heroin use for the past 6 years
- Previously on methadone 5 years ago but left treatment after about 6 months

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Case 3, cont.

How would you manage this patient's withdrawal symptoms?

A. Oxycodone 10 mg Q8 Hours
B. Methadone 10 mg TID
C. Loperamide, ibuprofen, clonidine
D. Hydromorphone PCA (patient-controlled analgesia)

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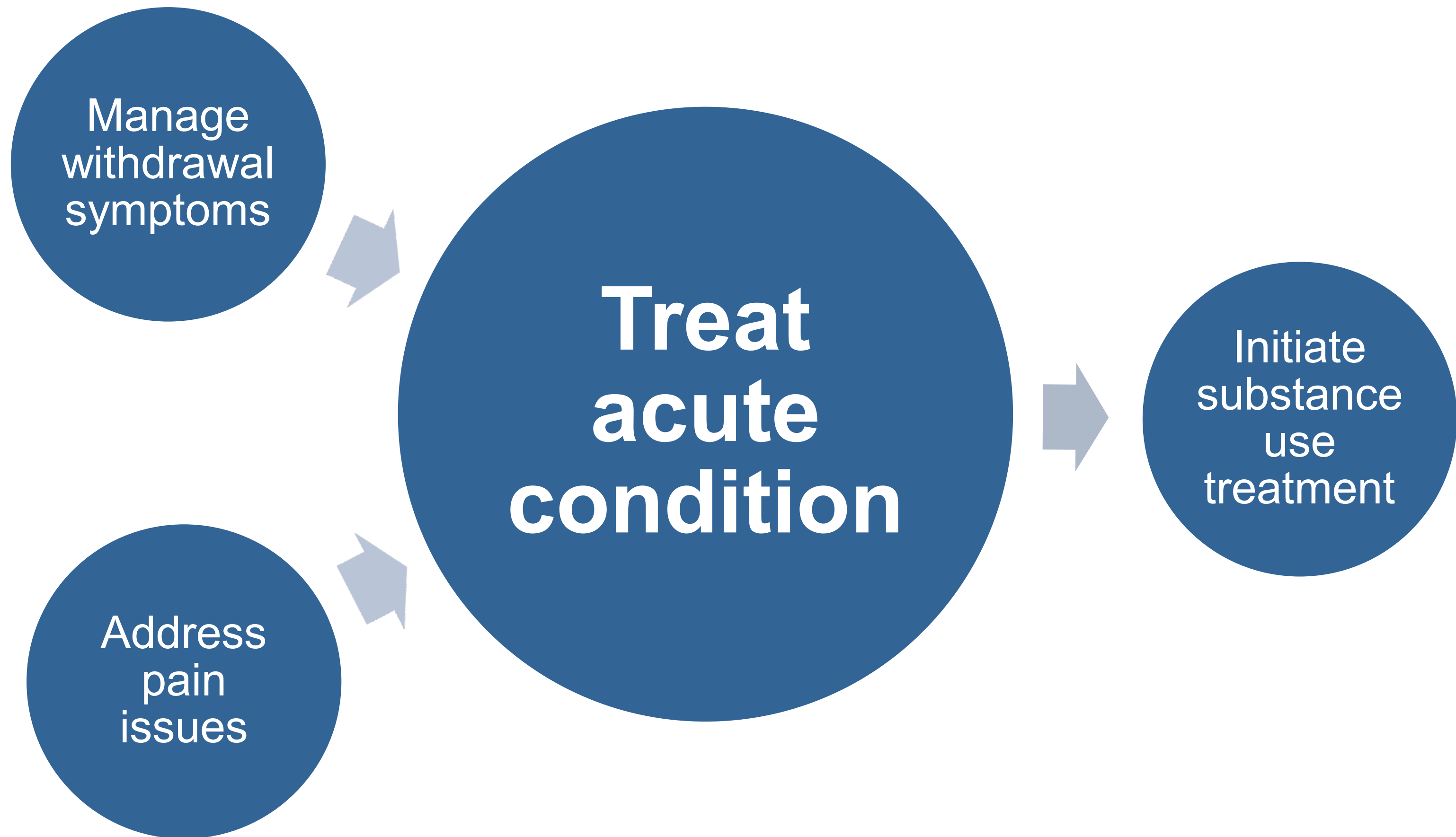
Hospitalized patients with OUD: Key Principles



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Methadone for opioid withdrawal

- Start with 20 mg
  - Reassess q2-3 hours, give additional 5-10 mg until withdrawal signs abate
  - Do not exceed 40 mg in first 24 hours
- Next day, give total in one daily dose *(may split dose for acute pain)*
- Monitor QTc, sedation and respiratory depression
- Taper versus maintained dose
- **No methadone Rx at discharge!!!**

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Buprenorphine for opioid withdrawal

- OK to use buprenorphine for withdrawal
  - Bup-nx 4-1 mg SL QID (or 8-2 mg SL BID)
  - Low threshold to increase to 8-2 mg SL TID for pain
- Use may be limited by concurrent full opioid agonist use and severe acute pain
- Generally defer induction if anticipate need for full agonists in the near future (e.g. impending major surgery)
- Decision re: methadone versus buprenorphine
  - Logistics
  - Patient preference

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Harm reduction and safety measures

- Opioid-specific measures
  - Use with others
  - Carry naloxone
  - Test for fentanyl
  - Use a test dose first
- Advice around other depressants (benzos, alcohol)
  - Cut back or avoid use while taking opioids
  - Explore interest in treatment for other SUD
- As always, institute routine safety measures when prescribing
  - Small quantities with more frequent refills
  - Ensure naloxone available
  - Secure storage location

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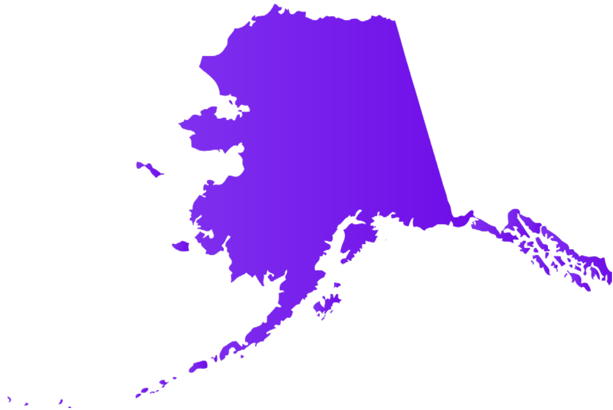
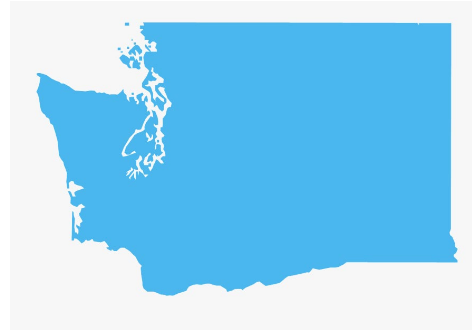
Be aware of opioid prescribing limits



≤7-day supply



7 days for non-op,
14 days for operative

No specific limits

<7-day supply

≤7-day supply

≤7-day supply

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Case 3, revisited

How would you manage this patient's withdrawal symptoms?

A. Oxycodone 10 mg Q8 Hours
B. Methadone 10 mg TID
C. Loperamide, ibuprofen, clonidine
D. Hydromorphone PCA (patient-controlled analgesia)

Case 4

- 48-year-old individual presents to clinic with right knee pain.
- Exam and MRI are consistent with meniscal tear and the surgeon advised arthroscopic repair.
- Has a history of opioid use disorder in prolonged remission, last use was over 10 years ago. Took buprenorphine-naloxone for 3 years, then gradually tapered off.
- Currently employed as a preschool teacher. Has a good relationship with their adult children.

Case 4, cont.

What advice would you give about peri-operative pain control?

A. The risk of return to use by taking opioids post-operatively is increased.

B. The risk of return to use by taking opioids post-operatively is similar to the general population.

C. Higher doses of opioids might be necessary for adequate pain control given the history of opioid use disorder.

D. The patient should reconnect with a sponsor or counselor if not already

Limited data for patients in prolonged recovery

- Risk of return to use
  - Mostly anecdotes and case reports
  - Plausible given stress, anxiety and opioid exposure
- Potential protective factors
  - Longer duration of recovery
  - Higher engagement with recovery support (sponsor, mutual support groups, etc.)
  - More stability of home and work environments
  - Better adherence to mental health treatment, if applicable

Pain Med. 2018 Oct 1;19(10):1908-1915.

Recommendations for acute pain among patients in prolonged recovery

Clear, open communication about risks

No longer physically dependent on opioids

- Proactive plan
  - Maximize non-opioid, multimodal analgesia
  - Enhance recovery supports
  - Avoid former drug of choice, if possible
  - Consider preemptively restarting MOUD, if patient amenable

Prim Care Companion J Clin Psychiatry. 2002 Aug;4(4):125-131.

Case 4, revisited

What advice would you give about peri-operative pain control?

A. The risk of return to use by taking opioids post-operatively is increased.

B. The risk of return to use by taking opioids post-operatively is similar to the general population.

C. Higher doses of opioids might be necessary for adequate pain control given the history of opioid use disorder.

D. The patient should reconnect with a sponsor or counselor if not already

Panel Discussion

- What challenges have you experienced in treating patients with OUD who present with acute or chronic pain?
- What are your practices for managing MOUD around the time of planned or unplanned pain episodes?
- What suggestions do you have for supporting patients with OUD in prolonged remission who are having pain issues?

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