Managing Patients With Opioid Use Disorder

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Disclosure

• Randall Hudspeth has:
  – no financial interest or employment relationship with any pharmaceutical company,
  – is not on a speaker’s bureau for any for-profit organization.
Objectives

- Define Substance Use Disorder as it relates to opioids
- Discuss effective management of patients with Substance Use Disorder: Assessment to treatment
- Discuss treating illicit drug users who seek addiction treatment
- Discuss treating addicted patients who are in remission and have a new acute pain issue
Defining Substance Use Disorder

- Defined by American Psychiatric Association [APA] and diagnostically replaces terms including substance addiction and substance abuse disorder.
- May 2013 termed in DSM-5 manual and addresses both addictive and non-addictive dysfunction.
- 8 Categories of drugs included for diagnosis
  1. Alcohol
  2. Cannabis
  3. Hallucinogens (LSD, etc.)
  4. Inhalants
  5. Opioids
  6. Sedatives
  7. Stimulants (cocaine, methamphetamine)
  8. Tobacco
Substance Use Disorder (Opioid Use Disorder)

Defined as a condition in which the use of one or more substances (alcohol or drug) leads to a clinically significant impairment of health or functional issues at home, school or work.

Although the term substance can refer to any physical matter, in the context of this presentation, “substance” is limited to opioid drugs.
SUD Patients Impact

- Pain Patients increasing in Family Practice
- NP Curricula often lacks formal pain content
- Pain CE is sporadic and expensive
- Prescribing restrictions in some states
- Limitations on types and amounts of drugs prescribed in some states
- Referral resources are very limited
Recognizing the Drug Abuser

• Unusual behaviors with staff and in waiting room
• Assertive personality, demanding action
• Extremes in appearance, overdressed to slovenly
• Had unusual knowledge of medications & allergies
• Textbook history or very vague
• No regular provider, no health insurance
• Reluctant to provide history information
• May have psychiatric disorders
• Cutaneous signs of abuse, skin lesions, scars
• Visitor to area who has lost or forgotten Rx
Assessing the Patient to Discover What Are You Dealing With?

1. Regular pain patient
2. Inappropriate Use of a Prescribed Opioid
3. Using or Addiction to recreational drugs obtained illegally and seeks recovery
4. OUD patient in treatment who has a new pain issue requiring more drug
Keys to Assessment

• Not all Safe Opioid Prescribing Screening tools will apply to this population
• Use effective abuse specific interview skills
• Recognize the high rate to psychiatric and medical comorbidity and screen for both
• Identify the stage of addiction
• Assess the kind of support and referral necessary if you cannot provide care
• Set limits on treatment
4 Stages of Drug Addiction

• **Stage ONE—Experimentation**—use out of curiosity or peer pressure/rite of passage. No change in behavioral or emotional context. Use is contained.

• **Stage TWO—Social**—Part of a social situation or for acceptance. Person feels normal and contains use to social situations.

• **Stage THREE—Instrumental**—Substance abuse first appears. Use escalates and tolerance develops. Decreased social actions, more isolation, interactions focus on areas where drugs are used.

• **Stage Four—Compulsive**—Full blown addiction. Risky behaviors to get drugs. Social circumstances fall apart.
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Assessment Components Comparison

**Pain patients with unknown risks**

- Opioid Risk Tool
- Urine Drug Screen
- PPA
- Informed Consent
- Trial prescribing to determine correct drug and dose

**Substance Use Disorder patient**

- Drug Screen Tool [NIDA]*
- Urine Drug Screen for undisclosed substances
- PPA with modifications
- Informed Consent
- Trial not appropriate—already using
- Consider abuse deterrent formulations

Three Phases of Assessment & Treatment

1. Use a validated tool (NIDA Drug Screen).
   a) Guides clinicians through a series of questions to identify risky substance use in adult patients.
   b) Accompanying resources assist clinicians in providing patient feedback and arranging for specialty care.

2. Assess and treat medical comorbid urgent issues.

3. Refer to specialty treatment if available.
Assessment Question

Quick Screen Question to identify recent use...

• “In the past year, how many times have you used alcohol, tobacco products, prescription medication for nonmedical reasons or illegal drugs?”

If the answer is...

• Used illegal drugs or prescription medications for nonmedical reasons one or more times, then do a full screen.

• Use National Institute of Drug Abuse [NIDA] Modified ASSIST or other validated screening tool
NIDA Modified Assist Tool

• **Screening for drug use allows clinicians to:**
  – Identify drug use early and prevent the escalation to addiction.
  – Increase awareness of the interaction of substance use with a patient's medical care, including potentially fatal drug interactions.
  – Identify patients in need and refer them to specialty treatment.

• The NIDA Quick Screen was adapted from a single-question screen for drug use in primary care by Smith et al. 2010 and the National Institute on Alcohol Abuse and Alcoholism's Helping Patients Who Drink Too Much: A Clinician's Guide Updated 2005 Edition. The NIDA-Modified ASSIST (NM ASSIST) was adapted from the World Health Organization (WHO) Alcohol, Smoking and Substance Involvement Screening Test (ASSIST), Version 3.0.
NIDA Modified Assist Tool

• Available at:
  – https://www.drugabuse.gov/nmassist/
What Are You Dealing With?

1. Regular pain patient?
2. Inappropriate Use of a Prescribed Opioid?
3. Using or Addiction to recreational drugs obtained illegally?
4. OUD patient in treatment who has a new pain issue requiring more drug?
Regular Pain Patient Treatment Steps

1. Determine a probable length of time that pain will be an issue

2. Short term pain
   a. Use the CDC guidelines
   b. Lowest effect dose of lowest intensity medicine to manage the situation (example: start with hydrocodone versus hydromorphone)

3. Long term pain
   a. Use the CDC guidelines
   b. Use the procedure outlined in CO*RE REMS
What Are You Dealing With?

1. Regular pain patient?
2. Inappropriate Use of a Prescribed Opioid?
3. Addiction to recreational drugs obtained illegally?
4. OUD patient in treatment who has a new pain issue requiring more drug?
Inappropriate Opioid Users Sometimes Difficult to Identify

Recreational Users

Pain Patients seeking more relief

People with Addictions or escaping emotional pain
Inappropriate Use of a Prescribed Opioid

Assessment and Treatment steps

1. Firing the patient is not the appropriate first move if you are treating addictive issues.
2. Investigate the reason, frequency, & effect.
3. Determine the stage of addiction or misuse.
4. UDT to confirm what the patient says and no other drugs are identified.
5. Reaffirm the PPA.
6. Review or re-institute an Informed Consent.
Inappropriate Use of a Prescribed Opioid

7. Dose change? More or less?
8. Consider a lesser potent drug/dose on a more frequent schedule if BT and issue.
9. Closer monitoring and thorough documentation is necessary.
10. Validate whatever the patients tells you if you can. Be cautious that what they tell you is 100% truthful.
What Are You Dealing With?

1. Regular pain patient.
2. Inappropriate Use of a Prescribed Opioid.
3. Using or Addiction to recreational drugs obtained illegally.
4. OUD patient in treatment who has a new pain issue requiring more drug.
Nature of Treating Addiction

TREATMENT STAGES

1. Withdrawal from the problem opioid (Detox)
2. Begin Recovery
3. Stay engaged with Recovery
4. Live addiction free and maintain support systems
Opioid Use & Heroin

- Almost 50% of injection heroin users report using prescription opioids prior to heroin
  
  *NIDA Research Report, February, 2014*

- Trajectory to addiction often initiated prior to opioid exposure (OA following prescribed opioids 28x more likely with prior SUD)
  
  Huffman KL et al. J Pain. 2015
  Compton et al, NEJM, 2016

- Most prescription opioid exposures do not lead to addiction
  
  - Incidence clinically identified OUD in chronic pain treatment: 1/500 with no prior SUD. 3/100 general population
    
    Fishbain et al, Pain Medicine, 2008
    Edlund et al, J Drug and Alcohol Dependence, 2010

- Heroin/fentanyl is cheap, potent, available, snortable. Future initiation is a possibility.
Hydrocodone, oxycodone, and heroin all use the same mechanisms of action.

Reduce perceptions by binding opioid receptors.

Binding yields sense of well being, while binding in deep brain depresses respiratory and cardiac centers.

Effects are mediated by specific opioid sub-receptors [mu, delta, kappa] that are innervated by body’s own endogenous opioid chemicals [endorphins, enkephalins].

Taking opioid decreases endogenous production, thus stopping opioids yields withdrawal symptoms.

Tolerance develops—needing more over time for same effect.
Why Tolerance is Deadly

• Tolerance is responsible for increasing overdose situations.
• Tolerance develops due to external opioids being able to desensitize brain’s own natural opioid system and being less responsive over time.
• Periods of intentional or situational abstinence yield tolerance loss.
• Resumed use at old dose level yields overdose.
Assessment and Decision Making

1. Become aware of any police or legal status issues, such as parole violations, etc.
2. Do you need to notify police or parole officer?
3. Assess to confirm addiction stage.
4. Are you qualified for drug addiction treatment of stages 2-3-4?
5. Consider consultation or referral.
6. Consider **Medication-Assisted Treatment** if you are qualified to manage MAT.
7. Abstinence-only programs are also an option, but may require in-patient stay.
MAT Versus Abstinence

- To be clear, the evidence supports long-term maintenance with these medicines in the context of behavioral treatment and recovery support, not short-term detoxification programs aimed at abstinence.


- Abstinence from all medicines may be a particular patient’s goal, and that goal should be discussed between patients and providers. However, the scientific evidence suggests the relapse rates are high when tapering off of these medications, and treatment programs with an abstinence focus generally do not facilitate patients’ long-term, stable recovery.

Medication Assisted Treatment

• MAT has 3 important components

  1. Medication
     a. Consider TOLERANCE and DEPENDENCE for dose calculations
     b. Know that guided medication treatment is not to create a new addiction but allows the person to participate in treatment while avoiding severe withdrawal

  2. Counseling

  3. Support mechanisms involving family and friends
Medication Assisted Treatment

GOAL

• The goal of MAT is to recover from addiction.
  – MAT does not replace one addictive drug with another.
  – MAT is intended to provide a safe, controlled level of medication to overcome the use of the problem opioid.
3 Agonist Medication Classes for Addiction Treatment

Agonist medications developed to treat opioid use disorders work through opioid receptors but are safer and less likely to produce the harmful behaviors that characterize addiction, because the rate at which they enter and leave the brain is slower.

1. Opioid Receptor Agonists—methadone (Dolophine or Methadone)

2. Partial Agonists—buprenorphine (Subutex, Suboxone, Zubsolve) that produce diminished receptor response

3. Antagonists—naltrexone (Revia, Depade, Vivitrol) block receptor and block reward effects
Medication Actions

• **Methadone and Buprenorphine**
  - Brain thinks it is still getting the problem opioid
  - Usually the person has normal feeling
  - Withdrawal does not occur

• **Naltrexone**
  - Acts to block opioid effects
  - Inhibits the feeling of “getting high” if opioid is used
  - Good choice for relapse prevention
Withdrawal Symptoms

- Yawning and other sleep problems
- Sweating more than normal
- Anxiety and nervousness
- Muscle aches and pains
- Stomach pain, nausea, sometimes vomit
- Diarrhea
- Generalized weakness
Treating Addiction

• People can safely take treatment as long as needed, months to years or a lifetime
• It is hard to be successful alone, patients need support systems
• Family/friend counseling is critical to success
Substance abuse treatment providers must obtain informed consent in writing before sharing information about patients.

There are two exceptions to this privacy ruling:

(1) if it appears that patients may harm themselves or others, and
(2) if patients have been ordered into treatment by the courts.
Methadone

- 3 forms: pill, liquid, wafer
- Methadone is taken daily
- Methadone for addiction is dispensed only at specially licensed treatment centers
- Dose escalation requires close monitoring
- May cause initial drowsiness
- Taper off to stop to prevent any withdrawal
- Overdose can happen easily
Methadone

- Methadone is the only substance abuse drug recommended for use in pregnancy.
- Liquid methadone is colored and has been confused with soft drinks, so use caution with storage.
- Methadone overdose symptoms, shallow breathing, extreme tiredness, blurred vision, trouble walking, feeling faint, confused.
Methadone Dosing for Opioid Dependence Detox

- Day 1—when withdrawal present, 20-30mg PO. May give 5-10mg after 2-4 hrs. if s/SX withdrawal present. Requires direct pt. supervision. Max daily dose 40mg.
- Titrate over 1 week based on symptoms.
- May increase at 2 day intervals based on symptoms.
- Target range when stable is 80-120mg/day
- Dose reduction 10% every 2 weeks.
NPs & Buprenorphine

- July 22, 2016, section 303 of Comprehensive Addiction & Recovery Act (CARA) expanded prescribing to NPs for 5 years (Oct 1, 2021).
- 24 Hours CE education required.
- Prescribing limited to 30 patients in first year. Rule being proposed to allow up to 100 patients per year thereafter.
- Rx authority waiver opened 21 February 2017.

Buprenorphine

- Pill form
- Has a dosing regimen, daily at first or QOD
- Requires approval for addiction treatment
- Usually started at the onset of withdrawal
- May cause initial drowsiness
- Taper off gradually to prevent withdrawal
- Overdoses less likely to occur
- Not recommended with pregnancy
Buprenorphine TM Dosing

• Buprenorphine TRANSMUCOSAL for Opioid Dependence
  Induction dose:
  - Day 1: Start 2mg, with symptoms up to 8 mg sublingually once a day
  - Day 2: 16 mg sublingually once a day

• Maintenance dose: 4 to 24 mg/day; dose adjustments may be made in increments/decrements of 2 or 4 mg to a level that suppresses opioid withdrawal symptoms and maintains the patient in treatment.
Naltrexone

- Oral form
- May be taken up to 3 days apart initially
- Usually started 7 to 10 days after withdrawal begins
- Stopping does not cause withdrawal
- Overdose is very unlikely
Naltrexone Dosing

• Start after pt. opioid free 7 to 10 days
• UDT to verify opioid abstinence
• Initial dose: 25 mg orally one time.

• Maintenance dose: If no withdrawal signs occur, 50 mg orally once a day may be started.

• Alternative dose schedules: (to improve compliance) 50 mg orally on week days and 100 mg orally on Saturday; or 100 mg orally every other day; or 150 mg orally every third day.

Extended-release injectable suspension: 380 mg every 4 weeks (or once a month) IM, alternating sites.
The “Do Not’s” of Addiction

- Do not use other opioids
- Do not drink alcohol
- Do not use illegal drugs
- Do not take any sedatives
- Do not take any tranquilizers
Nature of Treating Addiction

RELAPSE

• One or more relapse situations is common.
• Each relapse is a set-back, but not a failure.
• People who relapse can continue their treatment and achieve full recovery.
• Guard against impatience and overconfidence to avoid relapse.
• Avoid relapse triggers and problem social situations.
What Are You Dealing With?

1. Regular pain patient.
2. Inappropriate Use of a Prescribed Opioid.
3. Using or Addiction to recreational drugs obtained illegally.
4. The Opioid Use Disorder (OUD) patient in treatment who has a new pain issue requiring more drug?
The Problem

• A patient is undergoing treatment for SUD or OUD and is routinely taking one of the three meds, methadone, buprenorphine to naltrexone.

• **Scenario 1:** The patient is scheduled for an elective surgery and you can anticipate treating post-op pain.

• **Scenario 2:** The patient has an unplanned admission due to accident, trauma, etc.
Scenario ONE Treatment Options

1. Coordinate treatment plan with provider treating addiction. Decide stop-no stop plan. If stop, cease the drug and start an equivalent dose opioid that will be used or increased post-op. Set a time limit before restarting the agonist again.

2. Maintain the drug knowing that the post op opioid will compete for the receptor and may not relieve pain. Use Adjunctive tx.

3. Maintain the drug and use a non-opioid such as tramadol, IV Acetaminophen. Use Adjunctive tx.
Scenario TWO Treatment Options

- Patient with trauma or other unplanned admit.
  1. Determine when last dose taken.
  2. IV pain med with close monitoring knowing increased doses may be needed.
  3. Calculate conversion IV to oral dose as soon as possible. Use Adjunctive tx.
  4. Maintain the agonist therapy if pain meds to be used for 7 days or less.
Nature of Treating Pain in Addiction

- Usually multiple providers for support
- No definitive research supports stop or no-stop agonists with acute pain.
- Adjunctive therapy is very helpful
- Support groups
- Ethical considerations
Afferent nociceptive pathway

Afferent non-nociceptive sensory pathway

Lateral and Anterolateral Spinothalamic tracts

Nociceptors:
- Polymodal, high threshold
- A-delta, c-fibers
- Mixed fiber neurons

Dorsal Horn

Pain Nociceptive & Neuropathic

To Brain
- Multiple synapses
- Rich interconnections
- Modulation by
  - Meaning
  - Thoughts
  - Feelings
  - Memories

Spinal modulation
- norEpi, serotonin
- glutamate, NDMA

Mixed fiber neurons

Transmission Modulation

Lateral and Anterolateral Spinothalamic tracts

Transduction Modulation

Afferent nociceptive pathway
Afferent non-nociceptive sensory pathway

Sensitized by:
- kinins,
- H+
- norEpi
- hypoxia,
- prostaglandins

Perception Modulation

Modulation by
- Meaning
- Thoughts
- Feelings
- Memories

Modulation

Modulation
Addiction

- Secondary Physical Problems
- Sleep Disturbance
- Substance Misuse
- Anxiety
- Depression
- Functional Disabilities
- Cognitive Distortions
- Increased Stresses
Secondary Physical Problems
Sleep Disturbance
Substance Misuse
Functional Disabilities
Increased Stresses
Cognitive Distortions
Anxiety Depression
Pain ↔ Addiction
Pain Treatment with Addiction Treatment

• Acknowledge as important medical issue
• Assure will not deter goal of analgesia or recovery
• Encourage and support recovery using both
  – Intensify psychosocial support
  – Pharmacologic support
• Treat withdrawal if it happens
• Accommodate usual opioid doses
  • Whether maintenance opioid, street opioid or analgesic
  • Opioid debt / accustomed dose must be met
  • Add additional analgesia for acute pain
  • Address blockade effects of buprenorphine & naltrexone
• Be aware of opioid reward effects
Treat Pain Effectively

• Untreated pain may drive self-medication, misuse and further addictive behaviors
• Reduce or resolve causes when possible
• Appropriate pain relief
  – Non-medication approaches when effective, safe, easily available and acceptable to patient
  – Less-rewarding meds when safe & effective
  – Avoid using their “drug of choice” if possible
  – Structure care to prevent misuse
Pain Treatment Options

Reduce pain

Physical
- Modalities
- Orthotics
- Exercise
- Manual therapies

Medication
- NSAIDs
- Anticonvulsants
- Antidepressants
- Topical agents
- Opioids & others

Procedural
- Nerve blocks
- Steroid injections
- TPIs
- TENS Stimulators

Psychobehavioral
- Cognitive behavioral
- Tx mood/trauma issues
- Address substance

Cultivate well-being

Restore function

Improve quality of life
Cognitive Behavioral Interventions

Thoughts
- I can’t handle the pain
- If I move, I’ll hurt more
- No one cares. No one can fix me.

Feelings
- Anxiety, panic
- Powerless, paralyzed, depressed
- Anger & fear

Behaviors
- Sympathetic arousal
- Muscle tension
- Deconditioned disengaged,
  Muscle tension, Irritable

Pain
Meditation/Relaxation

- Varied techniques
  - Progressive muscle relaxation
  - Autogenic training
  - Hypnosis
  - Guided imagery
  - Meditation
    - Mindfulness
    - Mantra/focus-based
  - Attention to breath

Brain Mechanisms Supporting Modulation of Pain by Mindfulness Meditation

*J Neurosci*. 2011 April 6; 31(14): 5540–5548

F. Zeidan¹, K.T. Martucci¹, R.A. Kraft², N.S. Gordon³, J.G. McHaffie¹, and R.C. Coghill¹

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Movement & Exercise

- Stretch, aerobic, toning
- Pain reduction mechanisms
  - Improved circulation and healing
  - Restores movement through stretch
  - Reduces spasm through toning
  - Mobilizes joints reducing mechanical stress
  - Possible impact pain modulation thru endorphin system


- Possible “dysfunctional endogenous analgesia” in some pain syndromes (including FM)
  - Exercise without increasing pain Nijs J, Pain Physician. 2012
Movement & Exercise

Addiction & Pain

• Documented in addiction treatment & recovery
• Relevant for pain as well
  ▪ Endogenous opioid & dopamine enhance mood
  ▪ Reduced depression
  ▪ Alleviates sleep disturbances
  ▪ Improves cognitive function
  ▪ Improved self-efficacy
  ▪ Decreases stress reactivity

Brown et al, 2009; Brown RA et al, 2010; Smith MA et al,
Group Support

Oriented to Positive Self-Management

- Chronic pain support groups through ACPA
  - Positive messaging & great resources “Half the battle is won when you begin to help yourself”
  - Strong leadership and advisory board

- Chronic Pain Anonymous
  - Spiritually-based, based on AA, NA
  - In person, web based and phone based
    www.chronicpainanonymous.org

- AA & NA & RR & Smart Recovery
  - For patients with SUDs

- Disease specific support groups
  - Variable in format and quality
Engagement (Distraction)

Burn patients
Virtual reality immersion state during debridement
- 35-50% reduction in pain during debridement
- Less opioid required

*Hoffman et al, 2008*
Ethical Considerations

Benefits
- Relief of pain
- Improved function
- Restored quality of life

Risks
- Side effects
- Toxicity
- Unintended consequences
Ethical Concerns in the Use of Opioids

• Beneficence—act of doing good
  – Relieve pain

• Non-Maleficence – doing no harm
  – Prevent addiction, overdose, other harms

• Autonomy – support patients in self determination
  – Can a person with addiction act autonomously in their best self-interest?

• Justice – equitable treatment
  – Should all patients have equal access to opioids
Resolving Ethical Tension

Good Medical Care

• Consider potential risks and benefits of opioids (and other treatments) in individual context
  – Behavioral health co-morbidities
  – Physical risk factors
  – Severity of pain
  – Efficacy and risks of alternatives
• Structure pain treatment to reduce risk
• Monitor closely to detect emerging signs of risk
Effective OUD treatment is all about creating a better life for people and their families, and ultimately our communities. When addicts get better, we all get better.

Thank You