Safe Practices and Action Items

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Case Study

- A 58 year old patient
  - 20 year history of alcohol, opioid (Rx) use for pain
  - Multiple joint replacements
  - Diabetes II, HTN, obesity, depression
  - On at least 10 different prescriptions for multiple health issues
  - Not currently employed due to medical issues
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    - Escalated over time
  - Married with one child
  - Coexisting Anxiety and depression – managed with medication
  - Spouse desires future children
  - Maintains a full time job
  - Family has benefits however they don’t have very good mental health coverage
Objectives

• Describe resources available to address drug misuse and abuse

• Discuss the use of different prescription agents used for the treatment of addiction

• Compare and contrast the benefits and risks associated with the use of individual prescription agents for the treatment of addiction
FDA’s Gottlieb calls for greater use of medication-assisted treatment to fight opioid epidemic
Classification of Opioids

Full Agonists
- Non-synthetic
  - opium
  - papaverine
  - morphine
  - codeine

Semi-synthetic
- heroin
- hydromorphone
- oxycodone

Synthetic
- LAAM
- fentanyl
- Meperidine / pethidine
- hydrocodone
- methadone
- pentazocine

Partial Agonists
- buprenorphine

Antagonist
- naltrexone
Factors to Consider

- Age
- Social/Family Support
- Employment/Career
- Insurance Status
- Coexisting Conditions
- Prior History of Adherence Issues
- Prior Trials with MAT
- Patient Preference+/-
Methadone

- Approved for use by FDA in 1947
  - Use for substance abuse treatment begins in 1960’s
- Rediscovery for use in chronic pain – late 1990’s
- Tripling of prescriptions after 2000
• Synthetic opiate – not an alkaloid
• Full Agonist
• MOA –
  – Opiate receptors – mu and delta
  – MAO inhibitor – weak and only in limited areas of CNS
  – SNRI – weak
  – NMDA – antagonist
• Drug Interactions – Huge Issue!!
  – Who is checking????
• Cost Benefit
• Urine Drug Screens
How is Methadone Different

- Absorption/Routes of Admin
  - IV
  - Oral (Tablet and Liquid) 60-120mg
  - Sub Q
  - Topical
  - Rectal

- Distribution
  - Lipophilic – depot effect – Fat Loving
  - 90% Protein bound – alpha 1 acid glycoprotein
    - Behaves differently in weight loss
    - Stress situations

- Sites
  - CNS
  - Crosses Placenta – Pregnancy Class C
  - Small percentage to breast milk
Considerations

- QT prolongation
  - Methadone guidelines suggest – initial EKG and then annual
- Cognitive Dysfunction
- Immune Suppression – at higher doses
- Sexual Dysfunction
- Weight Gain/Edema
- Sleep disorders
- Overdose vs Sudden Death
Considerations

• Medication cost is not the primary issue
• Social/adherence factors are issues
• Long term coverage
• Mean 1 year retention rate is approx. 60%
Buprenorphine and Naloxone

• How is it Different?
  – Partial agonist and an antagonist
  – At 16mg it occupies 90% of mu receptors
• Administered daily
• Available as a tablet or film
• May precipitate withdrawal in patients still taking opioids
• Crosses into Breast milk in small amounts
• AAP recommends allowing breast feeding to continue on this agent -
• Only agent approved under the age of 18 (not approved under 16)
Considerations

- Extensive first pass metabolism by the liver
  - Sublingual administration
- Addition of naloxone reduces the chance of respiratory depression – not eliminate
- Most sources recommend initiation after first signs of mild withdrawal
Safety

• Pregnancy Class C
• Switching from methadone should only be done from doses less than 40mg – ASAM guideline – *J Addict Med* - 2015
Naltrexone Injection

• How is it different?
  – Antagonist
  – Abstain for 7-10 days before starting
  – Naloxone challenge may be used to test before initiation
  – Withdrawal has been reported up to 2 weeks after transition
  – May also be effective for alcohol related cravings
Practical

- Supplied as a kit – must be refrigerated
- Administered in gluteal muscle – alternate
- Every 28-30 days
- Post injection – the spheres – absorb water
  - Then slowly break down to release Naltrexone
Patients who may benefit

- Those who have not succeeded with methadone or Suboxone®
- Highly motivated for abstinence
- Wish to discontinue agonist
- Professions where complete abstinence is key
- Shorter history of opioid use or lower levels – withdrawal may be easier
Poor Candidates

• Patients who do not tolerate weaning or opioid free intervals
• Unable to complete withdrawal
• Experience protracted withdrawal symptoms
• Withdrawal includes psychiatric symptoms
• Chronic pain requires consideration or opioids or periodic procedures requiring opioids
• Advanced liver disease
## Subjective Opiate Withdrawal Scale (SOWS)

In the column below in today’s date and time, and in the column underneath, write in a number from 0-4 corresponding to how you feel about each symptom RIGHT NOW.

Scale: 0 = not at all 1 = a little 2 = moderately 3 = Quite a bit 4 = extremely

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Symptom</th>
<th>Score</th>
<th>Score</th>
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<th>Score</th>
<th>Score</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>I feel anxious</td>
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<td></td>
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<td>I feel like yawning</td>
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<td>I am perspiring</td>
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<td>My eyes are teary</td>
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<td>My nose is running</td>
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<td>I have goosebumps</td>
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<td>I am shaking</td>
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<td>I have hot flushes</td>
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<td>I have cold flushes</td>
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<td>My bones and muscles ache</td>
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<td>I feel restless</td>
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<td>I feel nauseous</td>
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<td>I feel like vomiting</td>
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<td></td>
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<td>My muscles twitch</td>
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<td>I have stomach cramps</td>
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<td>I feel like using now</td>
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TOTAL
Safety?

- Opioid Withdrawal
  - Separation – following protocol
- Risk of Overdose
  - 1/3 of patients “test” the blockade within a week
- Have to have enough muscle for the IM injection
- Depression
- Hepatotoxicity
- Inability to treat acute pain???
- Pregnancy Class C
- Transfers to breast milk – not recommended during breast feeding
Comparison Studies

• Lacking
• Very Small
• Inadequate Dosing of comparators
• Special Populations not represented
Lucemyra®
(Lofexidine)

- Alpha 2 Adrenergic Blocker
- Non-opioid treatment for withdrawal
- Treats symptoms – short term
- Should not be stopped abruptly
- Should not be used in pregnancy/breastfeeding
- Expensive – Wholesale $24/tablet
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Naloxone

- Antidote – Naloxone - Nasal Spray and Injector
  - No Prescription required in many states
  - Alabama – standing order
  - Cost

- Training
  - https://www.youtube.com/watch?v=WoSfEf2B-Ds
  - https://www.youtube.com/watch?v=-DQBCnrAPBY
Other Steps

• Drug Take Back Events
  • National Take Back Day – Fall and Spring
  • [https://takebackday.dea.gov/](https://takebackday.dea.gov/)
• Turn in Locations – local police and sheriff departments
• Safe Storage
• Education in our Communities