Medical Management of Opioid Use Disorders

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Objectives:

1. Describe the rationale for employing medication assisted treatment in the primary care setting
2. Outline the scope of the opioid epidemic
3. Recognize the importance of widespread access to naloxone for opioid reversal
Definition Pain

Pain – physical suffering or discomfort caused by illness or injury

Cancer pain – pain related to cancer/tumor burden

Chronic pain/non-cancer pain - Any painful condition that persists for ≥ 3 months, or past the time of normal tissue healing, that is not associated with a cancer diagnosis

Pain types

- Nociceptive
- Nociplastic
- Neuropathic
- Mixed Nociceptive/Neuropathic
Question

What percentage of your patients present with complaint of pain?

1. 10%
2. 25%
3. 50%
4. 75%
Evaluation pain-
History/Exam/Work-up

- Good history include treatment hx
- Exam
  - Look for signs illicit drug use
- Imaging
- Labs
- Opioid risk tool
- DOCUMENT
Assessment pain

- Pain assessment tool
  - PAINAD
  - 0-10 scale

- Opioid misuse risk assessment tool
  - Examples
    - ORT-OUD-Opioid risk tool
    - SOAPP – Screener and opioid assessment for patients with pain
The opioid epidemic in the U.S.

- >2.5 million persons estimated to meet criteria for opioid abuse or dependence
- 11.5 million adults misuse prescription opioids
- 116 individuals die each day from opioid related overdoses - projected to increase to 224 by 2025
The opioid epidemic in the U.S.

- 30% increase in opioid-related overdose from 7/16 to 9/17
- Economic cost >500 billion a year

The opioid epidemic

- Among the more than 70,200 drug overdose deaths estimated in 2017, the sharpest increase occurred among deaths related to fentanyl and fentanyl analogs (other synthetic narcotics) with more than 28,400 overdose deaths. Source: CDC WONDER

- https://www.cdc.gov/drugoverdose/opioids/fentanyl.html
- https://www.cdc.gov/drugoverdose/data/fentanyl.html
Treatment pain

- Multi-modal
  - Non-pharmacologic
  - Topicals
  - Interventional
  - Cognitive-Behavioral
  - Physical modalities
  - OMM
Opioid prescribing

Tools to assist with prescribing
- Pain assessment tool
- PDMP- Prescription Drug Monitoring Program
- Initiating opioids
- Monitoring opioids
Question

- How many of you have changed your opioid prescribing practices in the last 2 years?
Substance Use Disorder

- Opioid use disorder - usually name type of opioid
- Heroin use disorder - 2/3 people that use heroin reported to have additionally used prescription opioids

- Cicero, TJ. The changing face of heroin use in the US - a retrospective analysis of the past 50 years. JAMA Psychiatry 2014
DSM-V – Opioid Use Disorder (OUD)- over a 12 month period

1. Tolerance
2. Withdrawal
   - Loss of control
3. using larger amounts and/or for longer periods
4. Inability to cut down or control use
5. Increased time spent obtaining, using or recovering
6. Craving/compulsion
Symptoms Opioid Use Disorder

- Additional symptoms
  - Giving up or reducing other activities because of opioid use
  - Using opioids even when it is physically unsafe
  - Continued use opioids despite despite physical or psychological problem
  - Impaired social function
Severity OUD

- Number of symptoms
  - Mild 2-3 criteria
  - Moderate 4-5
  - Severe 6 or more
Opioid Use Disorder

What is the risk for my patient?

- Risk of opioid use disorder in patients on chronic opioid therapy (COT) for chronic non-cancer pain (CNCP) is up to 26%
- Risk is always highest with past history of substance use disorder (SUD) or psychiatric comorbidity

Who is Most Vulnerable

Low hedonic tone
Psychiatric illness
Genetic predisposition to substance abuse
Probability of long term opioid use increases in first 5-30 days of treatment
Opioid Receptors in the Brain
Opioid Mechanisms of Action

- Activate specific transmembrane neurotransmitter receptors (Mu, Kappa, Delta) that couple G proteins
OUD- areas of brain

The periaqueductal gray, which sub-serves opioid analgesia.

The nucleus accumbens (part of the limbic system) which sub-serves reward or euphoria.

The locus coeruleus, which is the main noradrenergic center in the CNS and is involved in physical dependence and withdrawal

Prefrontal cortex: decision making, reasoning, judgment (shown for reference)

Vulnerable individuals- euphoria, relief anxiety via opioid interaction in the nucleus accumbens
OUD

Opioids taken regularly
- development of physical dependence
- opioid withdrawal syndrome when opioids are reduced or stopped abruptly.

Hyperadrenergic signs and symptoms of opioid withdrawal are the result of unopposed noradrenergic output from the locus coeruleus, previously in homeostasis with exogenous opioid intake.

Clonidine works for withdrawal because it inactivates the locus coeruleus.
### ORT: Opioid Risk Tool

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<td>1. Family History of Substance Abuse</td>
<td>Alcohol</td>
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<td>2</td>
<td>3</td>
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<td></td>
<td>Prescription Drugs</td>
<td>1</td>
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<td>3</td>
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<tr>
<td>2. Personal History of Substance Abuse</td>
<td>Alcohol</td>
<td>1</td>
<td>3</td>
<td>4</td>
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<tr>
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<td></td>
<td>Prescription Drugs</td>
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<td>5</td>
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<td>3. Age (Mark box if 16 - 45)</td>
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<tr>
<td>4. History of Preadolescent Sexual Abuse</td>
<td>Attention Deficit Disorder, Obsessive Compulsive Disorder, Bipolar, Schizophrenia</td>
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<td>3</td>
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<td>5. Psychological Disease</td>
<td>Depression</td>
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<tr>
<td><strong>TOTAL</strong></td>
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<tr>
<td><strong>Total Score Risk Category</strong></td>
<td>Low Risk 0 - 3</td>
<td>Moderate Risk 4 - 7</td>
<td>High Risk ≥ 8</td>
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Terminology

Misuse – using medication outside prescribed use
Abuse – using medication intentionally to get high
Addict/Addiction – substance use disorder
Drug seeking – using meds as not prescribed.
Examples opioid misuse/abuse

- taking opioids for unintended use/prescribed use
  - i.e. for sleep
    - for new pain/HA
  - dose escalation
- forging prescription

Obtaining opioids from more than one source, illegal source
More Terminology

Tolerance – increased dose of opioid needed over time to achieve desired effect
Withdrawal – Occurrence of uncomfortable symptoms or physiological changes caused by an abrupt discontinuation or dosage decrease of a pharmacologic agent
Dependence– state in which organism functions normally in presence of substance
Diversion – Transfer of a legally controlled substance, prescribed to one person, to another person for illicit (forbidden by law) use
Treatment OUD

When you first suspect/concerned that there is an OUD, that’s when you refer if you don’t feel qualified to handle that.

- More important to individualize a treatment plan than an established ‘best practice’.

- Medication treatment with methadone, buprenorphine, and naltrexone is evidence based. Relapse rates are in the 90% range over time in those patients with an OUD who decline pharmacotherapy.
Treatment OUD

- Medication options for addiction treatment (MAT)
  - Methadone (Schedule II)
  - Buprenorphine (Schedule III)
  - Naltrexone (not a controlled substance)

- Supplementary psychosocial and recovery support services
  - Housing, childcare, support groups, employment services

- Temporal considerations
  - Frequency of administration (daily versus long-acting formulations)
  - Length of treatment
    - No recommended time period for treatment
    - Patients who discontinue and resume risk overdose and death
Considerations for medication choice

- **Setting** (methadone can only be dispensed in OTPs)
- **Regulations governing prescribers** (e.g. waiver for buprenorphine prescribing)
- **Induction time** (6-10 days of withdrawal before starting naltrexone)
- **Patient access and preferences**
Treatment  OUD

- **Methadone** for the treatment of OUD can only be accessed in Federally Regulated Opioid Treatment Programs (OTPs). Methadone may NOT be prescribed by a HCP for treatment of OUD.

- A training course and then obtaining a WAIVER (DEA number) is required to prescribe approved **buprenorphine** formulations for the treatment of OUD. There are regulations on number of patients a HCP can treat at any one time.

- **Naltrexone** is not a controlled medication. Does not require any special waiver to prescribe. It is approved for both alcohol and opioid use disorders.

- “Detoxification” regimens treat the withdrawal syndrome, not the OUD. After “detoxification”, relapse is the rule.
Treatment  OUD

Follow CDC guidelines
methadone and buprenorphine maintained patients
  -4x/day dosing
  -PRN IR full opioid agonists to control pain.

Remember that oxycodone metabolizes to oxymorphone;
morphine to hydromorphone, and codeine metabolizes to
morphine.

Difficult to monitor with Urine drug testing
Urine drug testing
Treating pain in patient with OUD

- Untreated pain can cause relapse-need to treat pain and OUD
- Specialist- multidisciplinary pain team
- Avoid other psychotropic medication
- Buprenorphine pain and OUD
- Use opioids that do not metabolize to other meds
- Recovery program
- Continue use all tools
- family
Medication assisted treatment (MAT)

Medication with counseling and behavioral therapies
Reduced rates of relapse
Fewer overdoses
Improved retention in treatment
Improved social functioning.
Barriers to MAT

- Only about 10% of patients with OUD receive MAT
- Lack of available prescribers and support for prescribers- limited psychiatrists
- Limits on dosages
- Authorization and reauthorization
- Minimal counseling coverage
- “fail first” criteria
- Workforce attitudes
Safety and effectiveness of MAT

- Reduces opioid-related deaths
- Keep people in treatment longer
- Help opioid-dependent pregnant women have better outcomes
MAT in primary care - obtaining the waiver

- DATA 2000 waiver
- Treat opioid addiction with Subutex and Suboxone
- 8 hours of approved training in opioid addiction
- [http://www.buprenorphine.samhsa.gov](http://www.buprenorphine.samhsa.gov)
Why become FDA-waived physician for MAT

- Improved public health
- Develop continuum of care
- Expanding currently available treatment options and increasing the overall availability of treatment.
Comprehensive addiction and recovery act

NP and PA can qualify to prescribe buprenorphine

High buprenorphine noncompliance – higher risk of relapse

Long acting buprenorphine – monthly dose developed.

Weekly subcutaneous deposit

Buprenorphine deposit
If you use for pain- don’t need a waiver
If you use for OUD, need a waiver
Partial mu-agonist with “plateau effect” for resp depression
Good efficacy and safety
FDA- approved products for pain
  - Butrans- 7 day transdermal patch
  - Belbuca – buccal mucosal film- BID
Opioid overdose

Naloxone
- opioid antagonist administered intranasally or parenterally
- Reverses acute opioid-induced respiratory depression
- May precipitate withdrawal

Safety and effectiveness
Naloxone

- Displaces opioid from receptor site
- Make a plan with patient/caregiver
- Some states require co-prescribing with opioids
- Check if pharmacy dispenses
Suboxone

- Combination of Naloxone and Buprenorphine
- Article on potential for buprenorphine overdose:

https://bmjopen.bmj.com/content/5/5/e007629
Abuse-deterrent formulation opioids

- The FDA defines abuse-deterrent as: “those properties shown to meaningfully deter abuse, even if they do not fully prevent abuse.”
- Mixed evidence on prevention misuse
- Expensive
Role of the Physician...

- To Cure Sometimes
- To Relieve Often
- To Comfort Always

Anonymous
What tormented Ivan Ilych most was the deception, the lie . . . That he was not dying but was simply ill, and that he only need keep quiet and undergo treatment and then something very good would result.