Chronic Opioid Therapy in Persistent Pain: Patient Selection, Risk Reduction Strategies

Michelle Lavelle-Henry A.P.R.N., C.N.P.  
Certified Pain Management Nurse  
Fairview Ridges Hospital  
Inpatient Pain and Palliative Care Service.

09/29/18

Disclosures

No disclosures or relevant financial relationships.

Objectives

1. The learner will increase their knowledge of the CDC guidelines for opioid prescribing.
2. The learner will list 3 co-morbid conditions that increase risk of chronic opioid use.
3. The learner will identify at least three exit strategies that facilitates opioids tapering.
4. The learner will gain a working knowledge on a safe opioid tapering schedule.
Overview

• Opioid use
• Statistics, US compared to state trends
• Definition of terms related to opioid use
• Diagnostic criteria for Opioid use disorder
• Practice Guidelines
  – CDC 2015 guidelines for PCP’s
    » Example of guideline implementation
  » Fairview Chronic Pain Care Package
• Initiating opioid therapy
• Comorbid conditions that increase risk
• Exit Strategies for opioid tapering
• Case review.

Pre lecture questions

• In a 2014 study, what percent of persons addicted to Heroin started first with an opioid prescription?
  - A. 78 %, B. 88%, C. 60 %
• What is the difference between pseudo-addiction and addiction (substance use disorder)?
• What are three therapies a patient should have tried before starting chronic opioid therapy?

US Prescribing statistics

Center for Disease Control and Prevention
National Center for Injury Prevention and Control, Division of Unintentional Injury and Prevention, 03/14/2016
Opioid Prescribing in the US

- The majority of drug overdose deaths (more than six out of ten) involve an opioid. From 2000-2014 half million people died from drug overdose.
- In 2008 the CDC estimates that for each prescription pain killer written there were 10 treatment admissions for abuse, 32 emergency room visits for misuse and abuse, 130 who were abusers or dependents and 825 non medical users.
- 2014, 78 Americans die everyday from an opioid overdose. 75% heroin users came to it via prescription drugs.

CDC 2014

- 2017 46 Americans die per day of an opioid obtained by prescription.
- In 2017, 72,000 American die from opioid overdose compared to 40,000 MVA and 12,000 to gun violence.

National Conference of State Legislature 04/2018

- Most common prescribed controlled substance
  - Hydrocodone, Oxycodone, Tramadol, Codeine, Methadone, Clonazepam, Alprazolam, Zolpidem, Lunopectin, Methylphenidate, Dextromethorphan

Opioid Prescribing in the US

- Between 1997 and 2002
  - Prescriptions for oxycodone increased by 227%
  - Prescriptions for fentanyl increased by 403%

- Between 1997 and 2006
  - Oxycodone sales increased by 8-fold
  - Methadone sales increased by 9-fold
  - 2009 there were >250 million opioid prescriptions written.

Saper 2010

Legislative Efforts

Federal

- Sept.10,2018 Senate passed overwhelmingly legislation to combat the opioid epidemic.
- Similar to House bill passed June 2018—OCRA
  - (S 2680 Opioid Crisis Response Act)
- Directs funding federal agencies to establish or expand programs dealing with prevention, treatment and recovery
The paradigm shift in chronic opioid use

Minneapolis

- May 09, 2017: Minneapolis VA research back ups arguments for curtailing opioid use, could help form state and federal prescribing policies.
- Minnesota’s trends in opioid overdose are consistent with the national average.
- State passes new law that allows patients to get Naloxone in 2016 and went into effect Jan 1.

? other states

Definition of terms

- Substance misuse and abuse:
  - Misuse is the use of any drug in a manner other than how it is intended.
  - Abuse is any unlawful use of a substance.
- Physical Dependence
  - The body’s natural adaptation to a drug
- Physical Tolerance
  - The body’s natural adaptation to drug exposure that has diminished effect over time
- Pseudo-addiction
  - Behavioral changes that appear similar to a person with SUD, but are indicative of inadequate pain control.

Diagnostic Criteria  Opioid use disorder

A problematic pattern of opioid use leading to clinically significant impairment or distress as manifested by at least two of the following, occurring within a 12-month period:

- Denies taking larger amounts than initially intended.
- Denies unsuccessful efforts to cut down or control use.
- Denies spending a great deal of time in activities necessary to obtain, use and recover from opioids.
- Denies cravings or a strong desire to use.
- Denies failure to fulfill obligations at work, school or home.
- Denies continued use despite negative consequences.
- Denies giving up important activities to use.
- Denies use in situations in which it is physically dangerous.
- Denies tolerance (in the setting of at least 2 of above).
Diagnostic Criteria  Opioid use disorder (Cont.)

- Has experienced the following withdrawal symptoms in the past:
  - Sweating, shakes/tremors, agitation, problems with sleep, muscle aches, nausea/vomiting, diarrhea, loss of appetite, and goose bumps.
  - 2-3 Criteria Mild
  - 4-5 Criteria Moderate
  - >6 Criteria Severe

Remission
- 3-12 months = early remission
- >12 months = sustained remission

Practice Guidelines

- CDC Guidelines

- Fairview’s chronic pain care package. In process of rolling out further initiatives.
  - Fairview intranet >Quick Links>FMG>Staff and provider resources>FMG Care Model Resources>Care Packages>Chronic Pain Management.

CDC Guidelines

- Opioid prescribing:
  - Acute vs chronic
  - Mitigating risk
  - Comorbid conditions
  - Monitoring:
    - Opioid use or initial therapy
    - Monitoring frequency
    - Monitoring of pain medication
  - Monitoring of opioid
    - Opioid selection, dosing, and type
    - Opioid selection, dosing, and type

- Mitigating risk
  - Naloxone >50 MME
  - Opioid selection, dosing, and type
  - Opioid selection, dosing, and type

- Document!!!!!
Chronic Pain Care Package

Chronic Opioid Management: Entrance Strategies—Before the 1st Rx and ongoing

- Pain assessment Neuropathic, Visceral, Musculoskeletal
- Usual and customary treatments tried first or continued
- Urine drug screen assay VS comprehensive
- Opioid agreement (informed consent)
- Use an opioid risk assessment tool.
  - DIRE Score
  - ORT
  - SOAPP
- Check PDMP database (pmp.pharmacy.state.mn.us) each renewal of opioids, many states it’s the law!

Opioid Prescribing: Informed Consent

Everyone knows:
- Constipation/nausea
- Dizziness
- Urinary retention
- Pruritis
- Respiratory depression
- Potential interactions with other controlled substances (i.e., benzo and benzo-like medications) and ETOH

Might surprise your pt:
- Disruption of sleep architecture & breathing
- Opioid-induced hyperalgesia
- Hormonal dysregulation
  - 40% men low testosterone
- Immune dysfunction
- Depression/apathy/cognition
Opioid Induced Adverse Events

Opioid Induced Hyperalgesia OIH
- Short term infusion can exacerbate pain (Ossipov, 2003)
  - 30 mg morphine/morphine equivalents can decrease the pain threshold leading to OIH (Chang, 2007; Chu 2008; Angst 2006)
  - Intra op infusions can reduce pain threshold.
  - Let your patients know more is not better (may cause more pain)

Co-morbid conditions
- Central sleep apnea
- More refractory depression and anxiety.
- Cortisol reductions

Opioid Equivalence to oral morphine
- Tramadol 50 mg = Morphine 10 mg (1:5 ratio)
- Oxycodone 20 mg = Morphine 30 mg
- Hydrocodone 20 mg = Morphine 30 mg
- Hydromorphone 7.5 mg = Morphine 30 mg
- Codeine 200 mg = Morphine 30 mg (1:8)
- Methadone 1 mg = Morphine 6 mg (nonlinear)
- Buprenorphine 10 mg/hr = Morphine 24 mg daily
- Fentanyl 50 mcg/hr = Morphine 75 mg daily

Setting goals realistic expectations
- Pain control will not be perfect
- Need a diversity of pain management strategies
- Self care to manage ups and downs of chronic pain
- Set realistic goal
  - Cyclical pattern of working at:
    - Pain reduction (level 3-5)
    - Activity level
    - Self care
    - Quality of life
    - Life role
Level of Function/ Pain status

- Function
  - Pain Disability Questionnaire (PDQ)
  - Oswestry
  - Self care (are they doing it)
- Pain status
  - Variety of numeric tools available for measuring
  - Functional pain scores, what are they able to do indicating reasonable pain control.
- Use of the 4 A's
- Sleep and mood

Risk reduction medical co-morbidities

- Chronic Respiratory Disease
  - COPD, sleep apnea
    - Opioids can suppress central respiration in an already respiratory compromised individual. Increase risk of Hypoxemia and Hypercapnia
- Diabetes, CAD, HTN, Obesity, CRD
  - Polypharmacy
    - May lead to unhealthy behaviors weight gain, poor disease management, minimal exercise and deconditioning
- Substance abuse (personal and family), tobacco, alcohol, illicit use.
- Mood disorders—the limbic system suppression—opioids increase this further
- Age

Substance Abuse Screening tool

- CAGE 4 Item 1 point, 95 % accuracy
  - 4 item questionnaire
  - alcohol use
- COMM (Current Opioid Misuse Measure)
  - patient currently on opioids
  - identifies those currently misusing
- SOAPP-R (Screener of Opioid Patients with Pain Revised)
  - self report screening for substance abuse potential, mainly alcohol
- ORT
  - brief self report addiction risk potential,
- DIRE
  - clinician driven used to predict suitability for long term opioid treatment in non-cancer pain
DIRE Score Patient Selection for Chronic Opioid Analgesia

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>1 Benign findings</th>
<th>2 Moderate slowly progressive</th>
<th>3 Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intractability</td>
<td>1 Maladaptive coping</td>
<td>2 Poor pain management, self-management</td>
<td>3 Good pain management, self-management</td>
</tr>
<tr>
<td>Risk - Psych health</td>
<td>1 Active</td>
<td>2 History or current</td>
<td>3 No history or current</td>
</tr>
<tr>
<td>Risk - Chemical Health</td>
<td>1 Active</td>
<td>2 History or current</td>
<td>3 No history or current</td>
</tr>
<tr>
<td>Risk - Reliability</td>
<td>1 Non-compliant</td>
<td>2 Mostly compliant</td>
<td>3 Highly compliant</td>
</tr>
<tr>
<td>Risk - Social roles/support</td>
<td>1 Life in chaos</td>
<td>2 Some loss of roles/support</td>
<td>3 Life roles intact/good support system</td>
</tr>
<tr>
<td>Efficacy</td>
<td>1 Marginal, despite moderate doses</td>
<td>2 Moderate improvement or unknown</td>
<td>3 Good improvement, stable doses, improved function</td>
</tr>
</tbody>
</table>

DIRE Score 7-13: Not a suitable candidate for long-term opioid analgesia
DIRE Score 14-21: May be a suitable candidate for long-term opioid analgesia

Compliance monitoring

Opioid contract
Prescription monitoring program
Urine drug screen
Aberrant Behaviors
Prescription Monitoring Program

• Minnesota law requires that this be checked each time an opioid is prescribed.
• How to get access.
  – http://pmp.pharmacy.state.mn.us/
• Information on the PMP ----HIPPA
• Delegate accounts

Urine drug screen

• Strengths and Limitations
  ▪ Types of sample collection
  ▪ Cross reactants
  ▪ Cut off
  ▪ Metabolites of commonly prescribed opioids

Types of Urine Drug Testing

• Urine immunoassay (EIA)
  ▪ Enzyme induced sensitivity but no specificity
  ▪ Can produce false positives due to reactivity with other substances i.e.: Quinolone antibiotics and common OTC’s (antihistamines, decongestants)
  ▪ Quick easy to use
  ▪ Should always follow with GC/MS with + EIA
• Lab based specific drug identification
  ▪ Results take longer
  ▪ Types of testing
    ▪ Gas chromatography/mass spectrometry (GC/MS)
    ▪ Liquid chromatography tandem mass spectrometry (LC/MS/MS)
    ▪ High performance liquid chromatography (HPLC)
False Positives Drug Cross Reactants

- **Cannabinoids**: NSAID's, Marinol, Protonix
- **Opioids**: Poppy Seed, Chlorpromazine, Rifampin, Quinine, Dextromethorphan
- **Amphetamines**: Ephedrine, Methylphenidate, Bupropion, Desipramine, AMTetine, Ranitidine, Trazodon, Phenytoin, Trazodone, Vick's VapoRub
- **Benzodiazepine**: Oxaprozin, some herbal medicine
- **Methadone**: Propoxyphene, Quetiapine
- **PCP**: Chlorpromazine, Thioxazolazine, Meperidine, Diphenhydramine, Doxylamine.

---

### Cutoff selection

<table>
<thead>
<tr>
<th>Drug</th>
<th>Analytic cut-off</th>
<th>Confirmation cut-off</th>
<th>Confirmation cut-off</th>
<th>Confirmation cut-off</th>
<th>Cutoff detection time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opioids</td>
<td>300 60</td>
<td>2,000</td>
<td>3 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocaine</td>
<td>300 60</td>
<td>2,000, 500</td>
<td>1.5 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ephedrine</td>
<td>300 60</td>
<td>2,000</td>
<td>1.5 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methadone</td>
<td>300 60</td>
<td>2,000</td>
<td>2 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>200 1.50</td>
<td>NA</td>
<td>Up to 7 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caffeine</td>
<td>300 60</td>
<td>150</td>
<td>3 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methaemacceline</td>
<td>30 13</td>
<td>20</td>
<td>5.5 day for serum or up to 30 days for urine on</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amphetamines</td>
<td>1,500 500</td>
<td>500</td>
<td>2 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diphenhydramine</td>
<td>1,500 500</td>
<td>500</td>
<td>2 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heroin</td>
<td>30 10</td>
<td>NA</td>
<td>2.5 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzodiazepine</td>
<td>25 60</td>
<td>50</td>
<td>3.5 days for urine or up to 10 days for serum on</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*NA: not available, but the specific metabolites are tested for in-house.

---

### Opioids and their Metabolites

<table>
<thead>
<tr>
<th>OPIATE</th>
<th>METABOLITE</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine</td>
<td>Hydrocodeine</td>
<td>Good and free from ethyl alcohol</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>Hydrocodeine</td>
<td>Good and free from ethyl alcohol</td>
</tr>
<tr>
<td>Hydroxyzine</td>
<td>Hydroxyzine</td>
<td>Good and free from ethyl alcohol</td>
</tr>
<tr>
<td>Metabolite</td>
<td>3-Hydroxy-2-hydroxy-2-hydroxy-3-alpha-ethyl derivatives, 3-beta-ethyl derivatives, 3-alpha-ethyl derivatives</td>
<td>Good and free from ethyl alcohol</td>
</tr>
<tr>
<td>Codeine</td>
<td>Codeine</td>
<td>Good and free from ethyl alcohol</td>
</tr>
<tr>
<td>Morphine</td>
<td>Morphine</td>
<td>Good and free from ethyl alcohol</td>
</tr>
<tr>
<td>Oxymorphone</td>
<td>Oxymorphone</td>
<td>Good and free from ethyl alcohol</td>
</tr>
</tbody>
</table>
Opioids and their Metabolites

- Nortriptyline
- Doxepin
- Amitriptyline
- Amoxapine
- Desipramine

Aberrant Behaviors
- Lost prescriptions
- Running out of medication too early
- Problematic Behavior
- Calls office too frequent
- Need for earlier appointment
- Hostility and aggressive behavior

Opioid Discontinuation
- Aberrant Behaviors
- Reduction in function
- Exacerbation of co-morbid conditions
- Working harder than the patient with opioid management.
- Opioids just not working
- Patient not willing to engage in other pain management options.
How to Say No: What NOT to Say

• I just don’t prescribe narcotics
• That is not my area
• I am just not comfortable with that
• I don’t treat chronic pain
• Well, I’ll give you enough to get to your pain clinic appointment. Then it will be up to them

How To Say No

• Opioids aren’t indicated for your condition
• There are other treatments that are more effective.
• We don’t prescribe opioids for chronic pain when patients are using illicit drugs (even Marijuana) or medical cannabis.
• Your past experiences when using opioids (OD, multiple lost Rxs, poor function, frequent ER visits, etc) puts you at too high a risk if we go back to that type of treatment.

Opioid Tapering

• Don’t feel bad if you as the provider decide to stop prescribing.
  – You can continue to provide other aspects of chronic pain management, just not opioids.
  – More rapid dangerous behavior (Q 3 days) Clonidine
  – Taper of 10% - 15% per week is safe and no withdrawal
  – Refer to detox (Visit frequencies with taper, nurse visits
  – Chronic pain referral.
Case Presentations

• TS is a 36 y.o. female presents to your clinic with worsening widespread diffuse pain, increase fatigue and insomnia for the last 16 months. She has seen the rheumatologist per your recommendations. ESR and CRP persistently positive, negative RF and ANA, CMP and TFT’s normal. Pain rating 8/10
  - Past medical history:
    - depression, insomnia, obesity. Chronic fatigue, fibromyalgia
  - Social history:
    - Single, one school age child, no history of substance abuse, or abuse triad. She is working full time, but you note her sick days have increased.
  - Medications:
    - Amitriptyline 50 mg, Gabapentin 1800 mg QD, NSAID’s prn, Zolpidem 5 mg at hs.
  - You have ordered PT in the past. She is not seeing mental health.
  - What are your next steps? Are there non-opioid pharmacologic or complimentary therapies that would be appropriate?

Case Presentation

• RJ is a 55 y.o. male with a history of chronic low back pain, Lumbar stenosis L4-5, Degenerative disc disease, Failed surgical back, alcohol abuse in remission for 5 years, OSA, COPD. He is compliant with CPAP. He is asking for an increase in his opioids.
  - Pain rating 6-8/10 average 7/10,
  - Social history: married, smokes cigarettes 1/2ppd, reports no alcohol or illicit drugs use. He is on disability.
  - Medications: MS Contin 15 mg bid, Oxycodone 5-10 mg, (70 MME/day) Lyrica 600 mg, Cymbalta 90 mg.
  - What changes would you make if any?

Thank you!

Michelle Lavelle-Henry, CNP
mlavell2@fairview.org
References


Boersma, K, Linton, and Steven J. Screening to Identify Patients at Risk: Profiles of


References


https://www.ag.state.mn.us/Consumer/Protection/OpioidReport.pdf