Best Practices for Opioid Tapering

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Learning Objectives

1. Review evidence of risk for opioid misuse.
2. Describe best practices for opioid tapering.
3. List options for opioid withdrawal symptom management.

The Harsh Reality

• In the US, 1 in 7 will develop substance addiction
• Patients prescribed opioids for chronic pain:
  • 21-29% will misuse
  • 8-12% will develop an opioid-use disorder
• Mortality on the rise
  • Deaths from natural and semi-synthetic opioids increased 1999-2000, plateaued 2010-2013, climbed 2013-2014
  • Deaths synthetic opioids (e.g., fentanyl, heroin) also increased dramatically

Opioid Prescribing After Nonfatal Overdose & Repeated Overdose

• *Annals of Internal Medicine* published which noted:
  • 15% of patients experiencing a nonfatal opioid overdose continued to receive and 7% had a repeat overdose
  • Repeat overdosing increased with higher-dose opioids or concomitant use of benzodiazepines
  • 70% of patients who continued to receive opioids after the overdose obtained them from a prescriber who had treated them before the overdose

Doctors Are Poor Predictors of Abuse

• In a study of patients clinicians thought were not at risk for misuse of medications 60% had urine drug tests showing illicit or the prescribed drug was not found.

Who Is At Greatest Risk?

• Opioid naïve
  • < 30 days of use
• White, non-urban, young adult and middle-aged Americans
• Socioeconomic status
  • Didn’t graduate high school
  • Lack health insurance or use Medicaid
  • Disabled from work
• Geographic role
  • South census region
  • 5 states with highest opioid mortality (2016): West Virginia, New Hampshire, Ohio, Maryland, Massachusetts
**Problematic Opioid Use**

- Systematic review from 38 studies (26% primary care settings, 50% pain clinics)
  - Misuse rates: 21% - 29%
  - Misuse: Opioid use contrary to the directed or prescribed pattern of use, regardless of the presence or absence of harm or adverse effects.
  - Addiction: Pattern of continued use with experience of, or demonstrated potential for, harm (e.g., "impaired control over drug use, compulsive use, continued use despite harm, and craving").

**Recognizing Opioid Misuse**

- Use inconsistent with how it was prescribed
  - Higher dose
  - Increased frequency
  - Different route of administration
  - Different indication
  - Using another person’s medication
  - Selling, trading, or sharing (i.e., diversion)

**Misuse: the new opioid use disorder**

- 21-29% of patients misuse their medications
- **US-specific factors:**
  - Higher doses of opioids per patient
  - Lesser regulatory restrictions
  - Pro-profit orientation

**Duration of Use is Strong Predictor of Misuse**

- Retrospective database study of 1+ million patients
  - No history of opioid misuse or ongoing opioid use
  - 56% received post-op opioids
    - 0.6% ultimately misused (opioid dependence, abuse, overdose)
  - Each prescription refill = 44% increase in rate of misuse
  - Each additional week of opioid use = 20% increase in risk of misuse

**Don’t Believe Me?**

- Insurance database of 36,000+ claims for shoulder surgery
  - Minor surgery (e.g., shave bone spur) – 5.9% continued use
  - Major surgery (e.g., total replacement) – 6.5% continued use
  - Vs. 0.4% in control group
- **Risk factors identified:**
  - Presence of preoperative pain
  - Medical comorbidities
  - Depression
  - History of drug, alcohol, or tobacco use
  - Lower socioeconomic status
  - Use of benzodiazepines or antidepressants pre-surgery
Surgical Impact

- Anatomic location and surgery type impact degree of expected post-op pain

- Opioid requirement prior to discharge after inpatient surgery may predict post-discharge requirements

- 333 abdominal surgery patients with post-op admission

- Strongest predictor of post-discharge opioid use was amount used day prior to discharge

  - Patients using zero = 1.5 tabs after discharge
  - Patients using 1 – 3 tabs = 7.6 tabs after discharge
  - Patients >4 tabs = 21.2 tabs after discharge


Excessive Prescriptions

- 2300+ surgical patients

  - Mean number of opioid prescribed post-op = #30 (H/A, 5/325mg)
  - Median use = #9 tabs

- 250 upper extremity surgery patients

  - Most received prescription for #30 opioids
  - 77% took half or less of prescribed tablets
  - 45% took less than five tablets
  - Total # of unused tablets = 4,639


Level-Up On The Pain

- 642 opioid naïve patients

- Number necessary to supply opioid needs of 80% of patients, in 5mg oxycodone equivalency:

  - Partial mastectomy: 5
  - Partial mastectomy with sentinel lymph node biopsy: 10
  - Laparoscopic cholecystectomy: 15
  - Laparoscopic inguinal hernia repair: 15
  - Open inguinal hernia repair: 15

- Zero opioid needs:

  - 22% of open inguinal hernia repair
  - 82% of partial mastectomy

https://medium.com/
Accessed: Oct 30, 2019

Patient Education & Instruction

1) Expectation for pain relief
2) Risks of opioid therapy
3) How to take medication
4) Safe storage and disposal
5) Written information
When to Discontinue

- Addiction (to opioids or other substance)
- Adverse effects
  - Serious adverse events: overdose, falls, MVA/DUI, suicide attempt
  - Adverse effects not responsive to dose lowering: urinary retention, sedation, hypotension
- Failure to meet treatment goals
- No significant improvement for risk
- Diversion

<table>
<thead>
<tr>
<th>Slowest Taper (over years)</th>
<th>Slowest Taper (over months or years)</th>
<th>Faster Taper (over weeks)**</th>
<th>Rapid Taper (over days)***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce by 25-50% of daily dose every 3-4 weeks with pauses in taper as needed</td>
<td>Reduce by 5 to 20% every 4 weeks with pauses in taper as needed</td>
<td>Reduce by 10 to 20% every 4 weeks</td>
<td>Reduce by 20 to 50% of first dose if needed, then reduce by 10 to 20% every day</td>
</tr>
<tr>
<td>MEDD= morphine equivalent daily dose (for assistance calculating MEDD go to: <a href="https://www.cdc.gov/drugoverdose/pdf/calculating_total_daily_dose_2.pdf">https://www.cdc.gov/drugoverdose/pdf/calculating_total_daily_dose_2.pdf</a>)</td>
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</table>

*Most common taper**

**Continue the taper based on patient response. Pauses in the taper may allow the patient time to acquire new skills for management of pain and emotional distress without altering the neurobiological equilibration.

***May consider morphine IR 15 mg ½ tablet (7.5 mg) twice daily.

†Long acting opioid: methadone, oxymorphone, sustained-release morphine, sustained-release oxycodone, transdermal ER, transdermal fentanyl, others

Case Scenario: Mr. Martinez

53 year-old male who underwent hernia repair 2 years ago and unfortunately suffers from chronic nerve pain in his abdomen from the surgical mesh. Surgical revision did not relieve his pain.

- Pain medications include gabapentin 300 mg by mouth three times daily, morphine controlled-release 30 mg by mouth twice daily and morphine 15 mg by mouth every 12 hours (total 90 mg/day)
- Morphine is no longer helping and he is severely constipated which worsens his pain. Gabapentin is maybe helping but he did not tolerate higher doses (felt “out of it”)
Case Scenario: Mr. Martinez (cont.)

- His anxiety level has been high and he is angry and sad about his surgical outcome and struggles with daily functioning. He had to retire early because he could no longer sit at his desk job or concentrate. He sleeps poorly. His life has changed drastically since before the surgery.

- He asks you for help with:
  - Weaning morphine and what to do with the leftover medication

Opioid Tapering

- Tapering plans should be individualized and should minimize symptoms of opioid withdrawal, while maximizing pain treatment with nonpharmacologic medications
- Go slowly!
  - A decrease of 10% of the original dose per week is a reasonable starting point
  - Some patients who have taken opioids chronically for years may need even slower tapers (e.g., 1% per month)

  - Consider risk factors when tapering (e.g., unstable heart disease, pregnancy)
  - Monitor for behavioral changes, behaviors concerning for SUD
  - Provide encouragement and support

Example Taper

Current regimen: Morphine CR 30mg po q12h
Morphine IR 15mg po q12h PRN (up to 90MME)

- Week 1:
  - Morphine controlled-release: 20 mg PO in the morning and 15 mg at bedtime
  - Morphine immediate-release: 15 mg PO every 12 hours
- Week 2:
  - Morphine-controlled release: 15 mg PO twice daily
  - Morphine immediate-release: 15 mg PO every 12 hours

Week 3:
- Morphine controlled-release: 15 mg PO in the morning
- Morphine immediate-release: 15 mg PO every 12 hours

Week 4:
- Morphine immediate-release: 15 mg PO once daily

Another Patient Taper...

Who Should Get Naloxone?

- High-risk patients who:
  - Received emergency care for opioid intoxication or overdose
  - Have suspected substance abuse or nonmedical opioid use
  - Are taking >100mg morphine equivalents/day
  - Are receiving an opioid prescription for pain PLUS:
    - A prescription for buprenorphine or methadone
    - A history of poorly controlled respiratory disease or infection
    - A history of renal dysfunction, hepatic disease, or cardiac comorbidities
    - Known or excessive alcohol use or dependency
    - Concurrent use of benzodiazepines, antihistamines, muscle relaxants, barbiturates, or alcohol
    - Suspected poorly controlled depression

Who Should Get Naloxone?

- Are taking opioids but have unreliable access to emergency medical services
- Have been recently incarcerated/released from prison
- Have resumed opioid use after a period of abstinence
- Any patient or family requesting naloxone kit
### Withdrawal Symptom Management

<table>
<thead>
<tr>
<th>Early Symptoms (Hours to Days)</th>
<th>Late Symptoms (Days to weeks)</th>
<th>Protracted Symptoms (weeks to months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety/insomnia</td>
<td>Restlessness,夜醒</td>
<td>Night sweats</td>
</tr>
<tr>
<td>Rapid short respirations</td>
<td>Nausea, vomiting</td>
<td>Anorexia, muscle cramps</td>
</tr>
<tr>
<td>Runny nose, tearing eyes</td>
<td>Diarrhea</td>
<td>Appetite disturbances</td>
</tr>
<tr>
<td>Insomnia</td>
<td>Increased white blood cells</td>
<td>Body temperature increases</td>
</tr>
<tr>
<td>Dilated reactive pupils</td>
<td></td>
<td>Gastrointestinal spasms</td>
</tr>
</tbody>
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### Adjuvant Meds for Symptom Reduction

#### Indication

- Fatigue
- Sleep disturbance

#### Treatment Options

- Naproxen 500 mg once daily or ibuprofen 400 to 800 mg four times daily
- Taper as symptom improves

#### Indication

- Headache

#### Treatment Options

- Methadone 20 mg every 6 to 8 hours as needed

#### Indication

- Nausea, vomiting

#### Treatment Options

- Metoclopramide 30 mg orally every 4 hours as needed
- Ondansetron 8 mg every 6 hours as needed

#### Indication

- Constipation

#### Treatment Options

- Loperamide 4 mg orally initially, then 2 mg with each loose stool, not to exceed 16 mg daily
- Bisacodyl 5 mg orally every 0.5 to 2 hours orally, not to exceed 10 mg/day

#### Note

- **Avoid** in patients > 65 years old
- **Caution** in patients with risk of GI bleed, renal compromise, cardiac disease

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