OPIOIDS AND PAIN

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Disclosure Statement

The members of the faculty and planning committee for this conference have indicated that they have no relevant financial relationships to disclose related to the content of the CME activity.
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OBJECTIVES

Increase awareness of the current prescription opioid epidemic.

Increase understanding of what causes chronic pain.

Improve approach to patients with chronic pain.
PAIN PATHWAYS IN THE BRAIN

- Descending modulatory circuit of pain inhibition
  - Opioid dependent (mu-receptor mediated)
  - Augmented by placebo and other cortical circuitry
  - Negative emotion can decrease signaling
- There are also descending pathways of pain facilitation
- Up and down regulation of opioid sensitive pathways and receptor response to opioids
- Opioid tolerance and opioid hyperalgesia
  - Both increasing need for more opioids
  - But also, pain in areas not part of original injury

Seven Years of Cervical Pain
PAIN IN PERSPECTIVE (PRESCRIPTION OPIATES)

- 15,000,000 individuals on prescription opiates
- 7,500,000 recreational users
- 1,500,000 addicted (10%)
- 600,000 ER visits per year
- 150,000 admitted to hospitals (1/100)
- 15,000 babies born each year addicted to opiates (1/300 births)
- 15,000 people dead from prescription meds (1/1000)
- Nonmedical use of prescription opiates cost $72.5 billion
- Enough OPR were sold in US in 2010 so every American could have 5 mg of hydrocodone every 4 hours for a month
- 40% of patients obtain a 30% reduction in pain compared to control group
- Side effects include constipation, nausea, hypogonadism, fatigue, depression, hypersensitization, tolerance, habituation, personality changes
PRESCRIPTION PAIN MEDS ON THE RISE

- Prior to 1990’s chronic pain was not widely recognized
- In mid 90’s we were told that we were under-treating pain
  - Economic issues
  - Oxycontin glossies
  - Opiate centers = profit centers
  - Invention of the “5th vital sign”
  - JCAHO
  - Patient satisfaction surveys
- Derek Boogaard (NY Times Article)
  - 7 month period
  - 25 prescriptions for opioids
  - 10 doctors
Diagnosis and Management of Back Pain in the Primary Care Setting
The Three C's, Conservative, Comprehensive, and Coordinated

Practice Guidelines for Chronic Pain Management
An Updated Report by the American Society of Anesthesiologists Task Force on Chronic Pain Management and the American Society of Regional Anesthesia and Pain Medicine

Important Safety Information
OPANA ER is contraindicated in patients with a known hypersensitivity to oxymorphone hydrochloride, morphine analogues such as codeine, or any other ingredients of OPANA ER; patients with moderate to severe respiratory impairment or in any situation where opioids are contraindicated such as with morpheaform depression or the absence of circulatory excitement or unmonitored setting; acute or severe bronchial asthma, chronic bronchitis, any patient who has or is suspected of having paralytic ileus. OPANA ER is not indicated for the immediate post-opioid use of the pain is not, or not expected to be performed or kept for a period beyond 10 days. Patients should be monitored for signs of respiratory depression, including drowsiness, do not use for pain. Although OPANA ER is not available in a size that is appropriate for the patient's age or weight, it may be concerning caution should be exercised when OPANA ER is administered to children.

Important Safety Information
Please see inside for additional Important Safety Information, Individualized treatment, and Adverse Event Reporting.
Opiate Prescription Rates
http://ppsg-production.heroku.com/chart
Unintentional Drug Overdose Deaths
United States, 1970–2007

27,658 unintentional drug overdose deaths

Unintentional Overdose Deaths Involving Opioid Analgesics, Cocaine and Heroin
United States, 1999–2007

Unintentional Overdose Deaths Involving Opioid Analgesics Parallel Opioid Sales
United States, 1997–2007

- Distribution by drug companies
  - 96 mg/person in 1997
  - 698 mg/person in 2007
    - Enough for every American to take 5 mg Vicodin every 4 hrs for 3 weeks

- Overdose deaths
  - 2,901 in 1999
  - 11,499 in 2007

National Vital Statistics System; multiple cause of death data set
and Drug Enforcement Administration ARCOS system
* 2007 opioid sales figure is preliminary
OXYCODONE SALE GROWTH

Percent change for drug sales per capita 2000 - 2010

Minnesota
Change in per capita sales: +230%
2000
Per capita: 35.03 mg
Total: 177 kg
2010
Per capita: 115.69 mg
Total: 614 kg
Our Local Environment:

- State Program Patients
  - 33,423 unique patients
  - 18.2% with controlled substance orders (Primary Care)
  - Average of 5 controlled substance orders per patient
- Patients with back pain
  - Baseline Data
    - 15,834 eligible patients
      - 7,213 (45%) received narcotics
      - 30,586 opiate prescriptions (roughly 4 scripts per patient)
OPIATES IN BACK PAIN (CONTINUED)

• 16,500 members with acute low back pain (11/2010 – 10/2011)
  • 29% prescribed an opioid medication within first six weeks of LBP visit – 40% of these patients had greater than one prescription

• ER patients given opiates for back pain
  • 45% had narcotic Rx in the year prior to LBP visit
  • 40% had narcotic Rx in the year post LBP visit
  • Patients with greater than 1 prescription
    o Average narcotic scripts/patient = 7.6
    o Average pills/script = 57

• Clinic variability 3 - 44% narcotic prescriptions
• Individual variability 0 to 57% opiates
NUMBER OF OPIATES PRESCRIBED FOR LOW BACK PAIN

Table 1: Pills and Days per Patient Statistics for Narcotic Drug Prescriptions -- LBP

<table>
<thead>
<tr>
<th>Drug Form</th>
<th>% of Opioids Prescribed</th>
<th>Quantity or Pills per Pt</th>
<th>Days per Pt</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N/A</td>
<td>Mean</td>
<td>Median</td>
</tr>
<tr>
<td>ORAL-TAB/CAPS</td>
<td>98.6%</td>
<td>55.1</td>
<td>30.0</td>
</tr>
<tr>
<td>TRANSDERIM</td>
<td>0.9%</td>
<td>19.4</td>
<td>13.5</td>
</tr>
<tr>
<td>ORAL-LIQUID</td>
<td>0.3%</td>
<td>335.0</td>
<td>300.0</td>
</tr>
<tr>
<td>SUBLINGUAL</td>
<td>0.2%</td>
<td>88.7</td>
<td>90.0</td>
</tr>
<tr>
<td>INJECTION</td>
<td>0.0%</td>
<td>300.0</td>
<td>300.0</td>
</tr>
<tr>
<td>Overall</td>
<td>100.0%</td>
<td>55.3</td>
<td>30.0</td>
</tr>
</tbody>
</table>
“It has been his life's work. Now, Russell Portenoy appears to be having second thoughts. Two decades ago, the prominent New York pain-care specialist drove a movement to help people with chronic pain. He campaigned to rehabilitate a group of painkillers derived from the opium poppy that were long shunned by physicians because of their addictiveness. Dr. Portenoy's message was wildly successful. Today, drugs containing opioids like Vicodin, OxyContin and Percocet are among the most widely prescribed pharmaceuticals in America. Opioids are also behind the country's deadliest drug epidemic. More than 16,500 people die of overdoses annually, more than all illegal drugs combined. Now, Dr. Portenoy and other pain doctors who promoted the drugs say they erred by overstating the drugs' benefits and glossing over risks....Recent research suggests a significantly higher risk of addiction than previously thought, and questions whether opioids are effective against long-term chronic pain. The change of heart among former champions of opioid use has happened quietly, largely beyond the notice of many doctors. ... Dr. Portenoy argued that they could be also safely be taken for months or years by people suffering from chronic pain. Among the assertions he and his followers made in the 1990s: Less than 1% of opioid users became addicted, the drugs were easy to discontinue and overdoses were extremely rare in pain patients. Many of those experts now say those claims were weren't based on sound scientific evidence ...”

Goes on to report on the scan evidence in the literature and the billions of industry dollar tied into these drugs
PAIN: THE OPPORTUNITY

- Decrease the number of patients with pain
- Improve the care of patients with chronic pain from the first visit
- Decrease the opiate diversion, risk of addiction, and pain amplification
- Decrease inappropriate or ineffective medical and surgical interventions in pain patients
- Better strategy for addiction care
- Optimal use of behavioral health services
- Improve patient safety in and out of hospital
WHAT CREATES CHRONIC PAIN

- **It is not** related to ongoing injury
- Correlates better with:
  - Belief system
  - Pain reaction
  - Life events
  - General activity
  - What meds they are treated
- Pain amplification
  - Fear and anxiety
  - Medications
  - Exercise

The Journal of Neuroscience, September 11, 2013 • 33(37):14729 –14737
DEGENERATIVE CHANGES WITHOUT PAIN
Organizational Wide Steering Committee

Other System Initiatives

Clinical Expert Panel

Best Science Guidelines Protocols Care Plans

Clinical Advisory Group

Drives change at a local level
HealthPartners Organization
Wide Pain Management
Patient with Pain

History/Examination

Diagnostic Assessment

Nonspecific, limited, not disease related pain?

Yes

Education
Exercise
Optimal Meds
Psychosocial

Out

Does Well

No

Expanded Primary Care Pain Visit

Routine Primary Care Visit

Patient worse no improvement

Pain Clinic Consultation

Follow-up needed

Patient already in the system with non-end of life pain. Primary disease controlled

Original injury healed or no longer acute but pain persists

Education
Exercise
Optimal Meds
Psychosocial

Out

Does Well

Does Well

* **

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*STANDARD CARE FOR EARLY PAIN*

- **Education**
  - Pain is normal
  - Pain is self limited
  - Activity and Exercise is good even with pain
  - Psychosocial milieu affects pain
  - Medications may help today but some medications taken frequently can limit can inhibit healing and increase pain over time

- **Exercise**
  - Stay active
  - Injury specific exercise
  - General exercise program

- **Optimal Meds** (typically do not include opiates except for major tissue injury, and then with an endpoint in mind)

- **Psychosocial**
**PATIENT ALREADY IN THE SYSTEM OR FAILING TREATMENT**

- Education
  - Pain is normal
  - Pain improves with time under correct circumstances
  - Activity and Exercise is good even with pain
  - Psychosocial milieu affects pain
  - Some medications that feel like they are helping can maintain or worsen pain with time
- Exercise – increasing activity and exercise is paramount
  - Optimize Meds including opiate weaning
  - Consider narcotic hypersensitization and habituation/addiction
  - Addressing psychosocial issues are more important than medications
OPTIMAL MEDICATIONS

• Acetaminophen up to 1000 mg four times a day
• Non-steroidal anti-inflammatory medications
  • Ibuprofen 400 to 800 mg every 4 to 6 hours to max of 2400 mg a day
  • Naproxen 220 up to 750 mg twice a day
• Opiates should be avoided (if provided, no more than 10 to 20 pills and no refills) if a second prescription considered, consider pain consultation
• Nerve stabilizing medications
  • Gabapentin/pregabalin
  • Tricyclics
  • Duloxetine
  • Other anti-epileptic medication
OPIATE WEANING

- 10% of the original dose per week or faster in some patients (generally over 6 to 8 weeks), can slow to monthly in others
  - The longer the wean the longer pain hypersensitization will be present
- Symptoms of withdrawal: nausea, diarrhea, muscle pain and myoclonus
  - Try clonidine 0.1 to 0.2mg orally every 6 hours or transdermal patch 0.1mg per 24 hours
  - Symptoms of mild withdrawal can last 6 months
- Antidepressants for irritability, sleep disturbance, or anti-epileptics for neuropathic pain
- Avoid benzodiazepines
- Determine if opioids can be immediately withdrawn or taper is needed
  - Therapy length less than 10 days, taper NOT necessary
  - Therapy dose is less than 30 morphine equivalent dose (MED), taper is optional depending on therapy length, patient-specific characteristics and clinical judgment
EXERCISE GUIDELINE

• Education
• Injury specific exercise
• Individualized / graded approach to developing a plan with short and long term goals
• Long-term goal of aggressive exercise (CDC)
  - 2.5 hours of moderate-intensity aerobic activity every week along with muscle-strengthening activities on 2 or more days per week that work all major muscle groups or
  - 75 minutes of vigorous-intensity aerobic activity every week along with muscle-strengthening activity on 2 or more days per week that work all major muscle groups or
  - An equivalent mix of moderate and vigorous activity on 2 or more days per week
This represents a 25% relative reduction in patients with narcotic prescription.

Source: HBI; 2013 data through November.
ICSI OPIOID PROTOCOL

• “Acute Pain Assessment and Opioid Prescribing Protocol”
• ICSI in concert with MMA
• Attempt to minimize use of opioids outside of major tissue damage or end of life
• Increase the awareness of lack of support for opioid use and dangers of prescribing
• Highlights
  • Avoid narcotics if no major tissue damage
  • Review care plans and PMP (prescription monitoring program)
  • If opioids are felt indicated: No more than 20 pills or 3 days of medication
EVALUATING AND TREATING THE PATIENT

- History, physical and testing as appropriate
- Pain scales are not adequate
- Look for care plan and access Prescription Monitoring Program (PMP)
- Script: Pain is normal and self limited
- Avoid prescribing opiates unless major tissue injury
- In face of major tissue injury, set up goals for when patient will be off of last narcotic
- In typical self limited illness, prescribe < 20 pills and set up for appropriate follow-up
- If already on opiates, avoid prescribing additional opiates
- If opiate withdrawal is a consideration – refer for treatment
WHEN CONSIDERING OPIOIDS (ABCDPQRS)

• Alcohol use
• Benzo and other drug use
• Clearance and metabolism
• Delirium, dementia and fall risk
• Psychiatric comorbidities
• Query the PMP
• Respiratory insufficiency
• Safe driving, storage, work and disposal
A SIMPLE MESSAGE

- What makes pain worse
  - Anxiety
  - Lack of exercise
  - Medications that increase pain over time

- What makes pain better
  - Reassurance and education
  - Exercise – stay active
  - Minimizing medications
WHY DO PATIENTS FAIL?

- Hypervigilance/ central hypersensitization/ somatoform disorders
- Narcotic induced hypersensitization and addiction
- Axis I diagnosis
- Personality disorders
- Sleep disorders
- Deconditioning
- Uninvested / secondary gain
SCRIPTING AND TREATMENT

• You are ok and will be ok
  • Pain is normal
  • Pain improves over time
• Exercise/activity is good
• It is ok to not take medications and you must come off of narcotics in the long run if you want your pain to improve
• Interdisciplinary support can be helpful
• Watch-out for addictive behavior
ADDICTION CONSIDERATIONS

• Category 1 – willing to come off narcotics as part of pain treatment plan
• Category 2A – willing to come off, but needs and willing to meet with addiction services
• Category 2B – not interested in coming off drugs, addictive behavior. “High Risk”.
• Category 3 – dangerous to self or others and can be placed on a hold
TAKE HOME MESSAGES

- Pain is normal
- When acute injury is healed, pain typically goes away
- The structural injury does not predict chronic pain
- Psychosocial situation does contribute to chronic pain
- Pain is worse when anxious or worried
- Pain is improved with exercise
- Pain may be better today with medications, but medications can make the pain worse over time
- Opiate prescriptions are responsible for an epidemic of addiction, and medication related morbidity and death