Opioid Therapy: Risks vs. Rewards

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Faculty Disclosure

☐ Dr. Jones has no financial relationships to disclose
☐ Dr. Jones is a full time employee of the Kentucky Physicians Health Foundation
☐ Dr. Jones will not be speaking about “off label” uses of drugs or devices
Educational Need/Practice Gap

Opiate use is widespread in management of Chronic Pain and frequently the only modality applied. Optimally Opiate use would not be first line treatment and used only in conjunction with other modalities.

There is a need for better understanding of the nature and optimal management of Chronic Pain.

Objectives:

• Compare the difference between Acute and Chronic Pain
• Discuss the real risks of long-term opiates and societal costs
• Identify Opiate Induced Hyperalgesia
• Describe alternatives for medical management of Chronic Pain
Expected Outcome

- Improve Clinical recognition of Chronic Pain
- Increased use of non-opiate treatment modalities
- Better risk stratification of patients when opiates are used

"But Doc! I Really Hurt! " 
“Doctor, please, some more of these...

Outside the door, she took four more
What a drag it is getting old.”

The Rolling Stones
Mother’s Little Helpers
Smoking and Chronic Pain: A Real-but-Puzzling Relationship
Toby N. Weingarten, M.D et al Mayo Clinic  March 2011

• Smoking is a risk factor for chronic pain
• Smokers with chronic pain indicate that their pain is more intense
• Pain activates the sympathetic nervous system and the hypothalamic-pituitary-adrenal (HPA) axis
• The HPA system is down-regulated in smokers
Dopamine Pathways – Pleasure pathways

- striatum
- hippocampus
- substantia nigra/VTA
- nucleus accumbens

Drugs:
- cocaine
- heroin
- nicotine
- amphetamines
- opiates
- THC
- PCP
- ketamine
- alcohol
- benzodiazepines
- barbiturates
Pain Management vs. Patient Management

- Acute Pain
- Chronic Pain
- The Patient with the Pain

The International Association for the Study of Pain

- "an unpleasant sensory and emotional experience associated with actual or potential tissue damage…“
- **Pain is subjective in nature and is defined by the person experiencing it**
- Understanding of chronic pain now includes the impact that the mind has in processing and interpreting pain signals.
Brain in Pain

Acute vs. Chronic Pain
WHO 3-step ladder

1 mild
ASA
Acetaminophen
NSAIDs

2 moderate
A/Codeine
A/Hydrocodone
A/Oxycodone
A/Dihydrocodeine

3 severe
Morphine
Hydromorphone
Methadone
Levorphanol
Fentanyl
Oxycodone
± procedures

JCAHO Pain Standards (2001)

- Include pain treatment in patient bill of rights.
- Screen all patients for pain on admission and regularly thereafter.
- Ensure competency of staff and physicians in pain assessment and management.
Institutionalization of Pain

Pain Rating Scale

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<th>Description</th>
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<td>6</td>
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Direct to Patient Ads work!

Relief is possible with LYRICA.

Click before to learn about the indications and how LYRICA can help.
**Opioid Prescriptions Soar**

Between 1999 and 2002:

- Oxycodone Rx’s increased 50% to 29 million
- Fentanyl Rx’s increased 150% to 4.6 million
- Morphine Rx’s increased 60% to 3.8 million
Opioid Prescriptions Soar

- In 2004, the United States used 99% of the world’s supply of hydrocodone.

- Between 1999 and 2002, in the United States, there has been a 91.2% increase in deaths due to opioid overdose.

New Non-medical Users of Pain Relievers 1965-2002

Thousands of New Users

Source: 2003 NSDUH, SAMHSA
$634.5M settlement for OxyContin maker

The firm and the current and former executives, including the CEO, pleaded guilty in U.S. District Court...to a felony charge of misleading doctors and consumers about the drug's risks of abuse and addiction... CNN
The diversion of prescription opioids has become a major public health hazard - Paulozzi, et.al., 2006

ED visits for nonmedical use of opioid analgesics increased 111% from 2004-2008

Population Health Management, 2009; issue 12 (Pt’s in Pain clinic)

- Nearly 40% of all pt’s had no opiates on UDS
- 11% tested positive for illicit drugs
- Unprescribed opiates in 29% of samples
- Dr. Leider “startling results”

Jefferson School of Population Health and Ameritox
Managed Care concerns with Chronic Opiate use

- Chronic opiate users cost/yr. $23,049 vs. $4975 for nonusers
- Out-pt. visits/yr. average of 24.7 vs. 11.7
- ER visits 4.1 vs. 2.6
- Hospitalizations 1.0 vs. 0.4

Leider et al. AmJofMC Jan 2011

Mark Twain:

"It ain't what you don't know that gets you into trouble. It's what you know for sure that just ain't so."
Things we “know” that aren’t so

☐ If there is real pain, developing opiate dependence is rare- Not True!
☐ If is a legitimate Prescribed Drug it is safe- Not True!
☐ Even if they had past issues with drugs (or alcohol) if they need it then they ought to get it, just be careful- Haven’t seen this work too well

Long-term Safety Has Not Been Demonstrated

Despite absence of direct organ-specific toxicity, opioids nonetheless produce many adverse effects
- Hypalgesia -Mao, Pain, 2002
- Respiratory depression associated with chronic use of opioids has simply not been studied -Farney, et.al., Chest, 2003
- No long term studies for efficacy or safety
Long-term Safety Has Not Been Demonstrated

- Hormonal Imbalance - Ballantyne & Mao, NEJM, 2003
- The Pain Society, 2004
- Daniell, J. Pain, 2002

- Sleep disorders
- Adrenal suppression
- Decreased testosterone in males
  - Erectile dysfunction
  - Depression

ADVERSE EVENTS AND DEATH HAVE BEEN DEMONSTRATED

- Opiates associated with fourfold higher hip Fx risk
- 70 % higher risk for hospitalizations
- Doubling of all-cause mortality compared with NSAID’s

Solomon et al. Arch Internal Med Dec. 2010
## Risk Factors for opiate abuse

- History of alcohol or drug abuse
- History of physical/sexual abuse
- History of depression/anxiety
- Current chaotic living environment
- History of criminal activity

## Risk Factors for opiate abuse

- Prior failed treatment at a pain management program
- Regular tobacco use
- Regular alcohol use
- Multiple injuries or surgeries
- Family history of drug abuse
Rx Drug Monitoring system is essential

- If your state has a KASPER like system- Use It!
- If not work to establish one
- More critical to share data between state when close to boarders

What does a “bad” KASPER look like?

- Multiple controlled Rx’s per month
- More than one class of controlled Rx
- More than one prescriber
- More than one drug store or town
- Self prescribing is never, never OK.
To score them by risk: I use a standard of 2 years to review
- 1 point for each class of controlled Rx
- 1 point for each prescriber
- 2 points for each pharmacy
- 2 Points if different prescriber towns
- 6-7 some risk
- 8-10 higher risk
- Over 10 is a problem

KASPER Case Study 1 - Male Patient – Age 36

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KASPER Case Study 1 Notes
Risk score 16

- Male Patient – 36 years of age
- Report date range 01/28/2012 to 01/27/2013
- Doctor shopper
- Overlapping alprazolam prescriptions
- Patient died late in 2012

Sir William Osler

“It is more important to know what kind of patient has a disease… than what kind of disease a patient has”
Definitions

Acute Pain

- Acute pain is the normal, predicted physiological response to a noxious chemical, thermal or mechanical stimulus and typically is associated with invasive procedures, trauma and disease. It is generally time-limited.
Acute Pain

- Broken bones
- Incisions
- Burns
- Kidney Stones
- Childbirth
- Damaged or disrupted tissue

Definitions

Chronic Pain

Chronic pain is a state in which pain persists beyond the usual course of an acute disease or healing of an injury, or that may or may not be associated with an acute or chronic pathologic process that causes continuous or intermittent pain over months or years.
Chronic Pain

Neuropathy of the feet
Chronic Pain

- Low back pain more than 2 months in duration
- Neuropathy - Diabetic, Post Herpetic, Alcoholic ...
- Arthritis
- Chronic Non-Cancer Pain
- Several relatively new Diagnoses invented to cover a set of Sx’s

"We found that positive treatment expectancy substantially enhanced -- doubled -- the analgesic benefit of remifentanil."

"In contrast, negative treatment expectancy completely abolished remifentanil's painkilling effect" she said.

"Intriguingly, this very same pattern was found in the activation of those brain areas that are well known to be involved in the intensity of pain."

Dr. Ulrike Bingel, dept. of neurology University of Hamburg
In the Feb. 2011 issue Science Translational Medicine.
There are many ways to treat pain, but they fall into two broad categories...

- Palliation - Do whatever is necessary to reduce pain within the constraints of function
- Rehabilitation - Do whatever is necessary to increase function within the constraints of pain

Either is acceptable practice, but...They are mutually exclusive! William O. Witt, MD

"C’mon, c’mon—it’s either one or the other."

**Palliation**

- Pain - do something
- Measure the pain
- Don’t measure the function
- Conditioned responses expected - “breakthrough medication”
- Pain behavior is expected and rewarded - phone in a Rx
- Opiates may be effective
- **Behavioral Medicine is optional**

**Rehabilitation**

- Pain - do something *else*
- **Measure the function**
- Don’t measure the pain
- Conditioned responses are avoided - only scheduled medication
- Pain behavior is ignored and ultimately extinguished
- Self-administered opiates are usually ineffective
- **Behavioral Medicine is essential**
What we know about opioid induced Hyperalgesia?

- It occurs more frequently in the young
- It is probably on the same receptor that produces euphoria
- It occurs with the first dose of an opioid and is exacerbated by each subsequent dose
- If the pain condition is stable and the pain is worse, the opioids are not the solution, they are the problem
Opioid Induced Hyperalgesia

“...apparent opioid tolerance is not synonymous with pharmacological tolerance, but may be the first sign of opioid-induced pain sensitivity suggesting a need for opioid dose reduction....”

“...repeated opioid administration could lead to a progressive and lasting reduction of baseline nociceptive thresholds, hence an increase in pain sensitivity....”

Acute vs. Chronic Pain

Another Way that Works

- Detox of all opiates and mood changing drugs
- Assess function
- Use Non-opiate pain measures
- Encourage activity
- Present Spiritual aspects of Recovery
- Monitor activities
Non-Opiate Management

Sometimes, just thinking of something nicer makes the pain go away!

Non-Opiate Management

[Images: Massage, waterfalls, yoga poses, exercise equipment, people walking in a park]
Non-opiate management strategies

- NSAID’s and Acetaminophen
- Smoking Cessation
- Massage and Acupuncture
- Meditation and Mindfulness - (Jon Kabat-Zinn UMassMedSchool)
- Exercise and Sunshine
- PT and OT

WW Methadone Detox Experience:

- From 1999 through 2010- 54 patients were medically detoxified from Methadone at our facility.
- 42 of the total 54 patients completed detox (78%) and were on no opiates or mood changing drugs when they left our facility.
**WW Methadone Detox Experience:**

- 52 (96%) patients had a history of problem Alcohol use
- 42 (78%) had been using Benzodiazepines
- Forty-six patients (85%) were current Nicotine users.
- 17 (31%) left treatment AMA, but 10 had already completed detox.

**Case Studies**

- Early 30’s female- 11 year Hx of Tramadol after dental procedure- 2 Sz’s lead to Tx
- Early 30’s female- 1\textsuperscript{st} Tx at 12, back surgery 2 yrs prior on Morphine pump
Case Studies

- Mid 40’s male- DM neuropathy, neck injury, Gastric bypass, Abdominoplasty Alcohol-no opiate Hx

- Mid 40’s female- in long term Recovery DJD of hip with Total Hip Replacement

Never apologize for showing feeling. When you do so, you apologize for the truth.

Benjamin Disraeli
Thanks

"Mr. Osborne, may I be excused? My brain is full."