Improving Opioid Stewardship
Amidst an Opioid Crisis

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Disclosures

• Jonah J Stulberg is the Principal Investigator (PI) on the following grants:
  1. NIH (R34DA044752)
  2. Digestive Health Foundation
  3. Pacira (Collaborative Agreement with ISQIC)

• Jonah J Stulberg teaches and consults on behalf of:
  1. Intuitive Surgical

I do not speak on behalf of any of the above funding agencies. The ideas presented herein are my own. The content of this presentation promotes quality improvements in healthcare and does not promote a specific business or commercial interest.
Opioids in the News

- **Opioid Prescriptions and Addictions Are on the Rise in the US**
  *Forbes – September 16, 2013*

- **Painkillers Now Cause More Than Half of Drug Related Deaths Worldwide**
  *PRWeb – September 6, 2013*

- **Attorneys General Call for Tamper-Resistant Versions of Generic Prescription Pain Relievers**
  *National Association of Attorneys General – March 11, 2013*

- **CVS Cuts Off Docs Who Prescribe Too Many Narcotics**
  *NBC News – August 22, 2013*

- **FDA Restricts Long-term Opioid Use to Combat Abuse**
  *Medscape – September 13, 2013*

- **NYC Limits Emergency Department Opioid Prescriptions**
  *Emergency Physicians Monthly – February 8, 2013*
Leading Cause of Injury-Related Death

Death Rates per 100,000

- Motor Vehicles
- Guns
- Drug Overdoses

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Age-adjusted rate of drug overdose deaths and drug overdose deaths involving opioids—United States

![Graph showing the age-adjusted rate of drug overdose deaths and drug overdose deaths involving opioids in the United States from 2000 to 2014. The graph indicates a steady increase in both categories, with a sharper rise in deaths involving opioids.]
Prescription Opioid Deaths on the Rise

National drug overdose deaths by drug, 1999-2014

- Cocaine
- Heroin
- Non-Opioid Prescription
- Prescription Opioids

Illinois Criminal Justice Information Authority

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Rise in Prescription Opioids Mimics the Increase in Opioid Related Deaths

National Vital Statistics System, DEA's Automation of Reports and Consolidated Orders System

CDC Division of Unintentional Injury Prevention
One Patient Experience

- Thumb surgery
- Dental Procedure
- Toe Procedure
- 10%
- Diversion

<table>
<thead>
<tr>
<th>Date</th>
<th>#30 Percocet</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 23rd</td>
<td>#30 Percocet</td>
</tr>
<tr>
<td>April 17th</td>
<td>#30 Percocet</td>
</tr>
<tr>
<td>June 7th</td>
<td>#30 Percocet</td>
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</tbody>
</table>
Over Prescribing

Patients prescribed opioids after outpatient orthopedic surgery. Almost half of patients used less than 5 pills from the average of 30 dispensed\textsuperscript{1}.

Sources of Prescription Painkillers Among Past-Year Non-Medical Users

- Given by a friend or relative for free
- Prescribed by ≥1 physicians
- Stolen from a friend or relative
- Bought from a friend or relative
- Bought from a drug dealer or other stranger
- Other

Notes:
- Obtained from the US National Survey on Drug Use and Health, 2008 through 2011.
- Estimate is statistically significantly different from that for highest-frequency users (200-365 days) (P<.05).
- Includes written fake prescriptions and those opioids stolen from a physician’s office, clinic, hospital, or pharmacy; purchases on the Internet; and obtained some other way.

Over Prescribing Can Lead to Diversion

Excess pills are a readily available source for non-medical use

**Surgeons Tend to Overprescribe**
- >50% of pts use ≤5 pills
- Average Prescription = 30 pills

**Diversion is Common**
- Diversion = >70% of Non-Medical Use
- Diversion is non-medical use of legally prescribed prescription medication

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Heroin Addiction Starts with Prescription Addiction

We need more responsible prescribing practices

Three out of four heroin addicts began by using prescription drugs.

https://www.cdc.gov/vitalsigns/opioids/index.html
Minimizing Opioid Prescribing in Surgery (MOPiS)

- Expectation Setting
- Risk Screen
- Optimize Function
- Monitor and Improve

Prescriber Opioid Patient
A Comprehensive Solution

Preoperative
- **Screen and Prepare**
  1. Abuse Risk Analysis
  2. Opioid Education
     - Risks/Benefits
     - Storage
     - Disposal
  3. Pain Expectation setting

Perioperative
- **While Inpatient** (ERAS¥)
- **Upon Discharge** (MOPiS£)
  1. Prescribing Opioid Alternatives
  2. PMP Look-up
  3. Safe Handling
  4. Prescribing Minimization

Postoperative
- Provide Safe Retrieval Option
  1. Retrieve
  2. Educate

¥ - ERAS (Enhanced Recovery After Surgery)
£ - MOPiS (Minimizing Opioid Prescribing in Surgery)
• 56 leading Illinois hospitals working together to improve quality and safety of surgical care while also lowering costs.

• **Objective:** To obtain rapid, meaningful, and sustained improvement in surgical quality by facilitating engagement in mentored, targeted QI/PI initiatives
Opioid Stewardship Toolkit

- Targeted to Surgical Departments
- Overview of current statistics
- Strategies for improvement
- Materials to support implementation
- PowerPoint templates to generate support
- Patient handouts
Minimizing Opioid Prescribing in Surgery (MOPiS)

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Expectation Setting

This is a low risk surgery. You'll go home after...

Surgery Hurts. I'm scared...

Setting Appropriate Expectations for Postoperative Pain: Best Practices

1. Surgery is painful, but current pain management techniques are very good and the pain is temporary. It is normal for patients to be very worried about pain after surgery. It is important to focus on the knowledge that the pain will improve in a few days and that we can usually manage post-operative pain well.

2. The goal of controlling pain is to remove suffering. It is important for patients not to focus on getting their pain score down to zero. Instead, the goal of pain control is to allow for restoration of function. Providers must work with patients to achieve safe pain relief that allows patients to actively participate in their recovery (e.g., physical therapy).

3. Two-way communication between patients and providers is essential. Pain control expectations, patient participation, and surgical outcome are linked together. Poor communication and treatment of pain can impair physiological function, psychological well-being, and quality of life. It is important to stress that patients take an active role in their recovery and work through expected pain to achieve the best possible outcome.

4. Patients should be open to opioid adjuvants. The perioperative team may suggest medications (e.g., gabapentin or procedures (e.g., nerve blocks) the patient may not be familiar with. The surgical team can reinforce that keeping an open mind about adjuvant treatments could improve pain.

5. Pain management expectations do not end at hospital discharge. Recovery can take weeks or even months, and the patient's baseline pain may be altered during that time period. Surgery is not a quick fix; it takes dedication and work on the patient and provider sides.

6. Limiting perioperative opioid is in the best interest of the patient. In limiting opioid perioperatively, there is greater ability to safely increase dosage to address acute postoperative pain. If your patient is on chronic opioids, consider working with their primary care doctor or pain management doctor to limit their current regimen prior to surgery.

Patient Education Tools and Handout

Know your options and be safe!

- Follow instructions carefully.
- Talk to your physician about non-opioid treatment options.
- Keep track of what you take and when.
- Have your physician adjust your dose.

If you have further questions, an instructor in the program can help you.

Prescription opioids are a necessary and effective treatment for pain. However, they are also highly addictive and can cause serious harm when taken improperly.

Avoiding the problems:

- Overdose: While prescription opioids can be safe and effective when used as directed, they can also be dangerous if misused or abused.
- Addiction: Prescription opioids can lead to addiction, which can be difficult to overcome and can have serious consequences.
- Dangers: Prescription opioids can cause serious side effects, including respiratory depression, which can be life-threatening.

What is in an opioid?

Opioids are a class of drugs that work by binding to receptor sites in the brain and spinal cord, which can cause a feeling of pain relief and euphoria. They are often prescribed for pain management, but can also be abused.

Understanding the risks and benefits:

- Benefits: Opioids can provide effective pain relief for certain conditions, such as cancer pain or pain after surgery.
- Risks: Opioids can be addictive and can cause serious side effects, including respiratory depression, which can be life-threatening.

Prescription Opioids

- Learn about the risks and benefits of prescription opioids.
- Follow instructions carefully and talk to your physician about alternative treatment options.
- Keep track of what you take and when.
- Have your physician adjust your dose.

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The patient

Knowing what to expect:

- You may feel some pain relief soon after taking the opioid.
- You may feel some euphoria, but also some drowsiness or other side effects.
- You may feel some nausea, vomiting, or constipation.
- You may feel some dizziness or other changes in balance.
- You may feel some sweating or tremors.

Protecting your family and friends:

- Talk to your family and friends about the risks and benefits of prescription opioids.
- Help them understand the importance of taking the medication as directed.
- Encourage them to seek help if they experience any problems.
- Provide them with information about the risks and benefits of prescription opioids.

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Minimizing Opioid Prescribing in Surgery

(MOPiS)

Expectation Setting

Risk Screen

Optimize Function

Monitor and Improve

Prescriber

Opioid

Patient
Screening for High Risk

Brief intervention prior to OR Scheduling

• Provider Script for Risk Screening

 Providers should ask patients the following question:

“Have you used an illegal drug or used a prescription medication for non-medical reasons?”

If the patient answers yes, they should be referred for formal screening using the 10-item Drug Abuse Screening Test (DAST). Formal screening may be conducted by providers such as social workers, psychologists, addiction counselors, and other providers identified by your institution.

• Patient completed

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Status of Prescription Monitoring Programs

National Alliance for Model Drug State Drug Laws, 2016
IL-PMP

• Government Program that collects information on controlled substance prescriptions
  o (schedule II, III, IV and V)

• This data is reported on a daily basis by retail pharmacies throughout Illinois
  o (1 million prescriptions/month)

• Gives prescribers access to patients’ histories (opioid orders and re-fill activities), allowing for the supervision and monitoring

Data from [www.ilpmp.org](http://www.ilpmp.org) © 2014-2018 ISQIC. Not for reuse or distribution without permission
Screening using IL-PMP
Illinois law (720 ILCS 570/314.5)
Senate Bill 772

Statute Effective January 1, 2018

1) Prescribers must register with IL-PMP
   (https://www.ilpmp.org/)

2) All new Schedule II prescriptions
   – PMP must be checked
   – Must document

3) PMP must be linked to EMR by 2021
Minimizing Opioid Prescribing in Surgery (MOPiS)

- Expectation Setting
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Rethink Pain Control

- IV opioids
- Oral opioids
- Gabapentin, nerve blocks, acetaminophen, NSAIDs, Cox-2 inhibitors, and alternative modalities such as: cognitive behavior therapy, physical therapy, massage, pet therapy, etc.
# Standardized Protocols

## Optimizing Perioperative Practices: Non-Opioid Alternatives

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Protocol Details</th>
</tr>
</thead>
</table>
| **Preoperative** (3 hours before surgery) | • Acetaminophen (Tylenol) 1,000mg  
• Ibuprofen (Motrin) 600 mg  
• Gabapentin 300mg (optional) |
| **Perioperative** | • Infiltration of local anesthetic recommended prior to incision  
• Coordination with anesthesia recommended to minimize intra-operative opioid use |
| **Post-operative (Days 1-3)** | • Use cold pack on surgical site 20 minutes on, 20 minutes off  
• Acetaminophen (Tylenol) 1,000mg every 6 hours  
• Ibuprofen (Motrin) 600 mg every 6 hours  
• Gabapentin 300mg every 8 hours  
• Tramadol 50 mg every 6 hours, as needed  
• Oxycodone 5mg every 4 hours, as needed for breakthrough pain |
| **Post-operative (Days 4-7)** | • Use cold pack on surgical site 20 minutes on, 20 minutes off, as needed  
• Acetaminophen (Tylenol) 1,000mg every 6 hours, as needed  
• Ibuprofen (Motrin) 600 mg every 6 hours, as needed  
• Gabapentin 300mg every 8 hours  
• Tramadol 50 mg every 6 hours, as needed |
| **Post-operative (Days 8-14)** | • Gabapentin 300mg every 8 hours  
• Acetaminophen (Tylenol) 1,000mg every 6 hours, as needed  
• Ibuprofen (Motrin) 600 mg every 6 hours, as needed |
## Lowering Default Quantities

Realign pill quantities with patient need

### PROCEDURE

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Recommended Quantity of Opioid Pills to Prescribe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laparoscopic cholecystectomy</td>
<td>15</td>
</tr>
<tr>
<td>Laparoscopic appendectomy</td>
<td>15</td>
</tr>
<tr>
<td>Laparoscopic inguinal hernia repair</td>
<td>15</td>
</tr>
<tr>
<td>Open inguinal hernia repair</td>
<td>20</td>
</tr>
<tr>
<td>Colectomy</td>
<td>25</td>
</tr>
<tr>
<td>Umbilical hernia repair</td>
<td>15</td>
</tr>
<tr>
<td>Laparoscopic ventral hernia repair</td>
<td>15</td>
</tr>
<tr>
<td>Laparoscopic hiatal hernia repair</td>
<td>15</td>
</tr>
<tr>
<td>Open whipple</td>
<td>30</td>
</tr>
<tr>
<td>Open liver resection</td>
<td>30</td>
</tr>
<tr>
<td>Melanoma and skin excision procedures</td>
<td>15</td>
</tr>
<tr>
<td>Laparoscopic hysterectomy</td>
<td>15</td>
</tr>
<tr>
<td>Open hysterectomy</td>
<td>25</td>
</tr>
<tr>
<td>Breast biopsy</td>
<td>5</td>
</tr>
<tr>
<td>Carotid endarterectomy</td>
<td>15</td>
</tr>
<tr>
<td>Cesarean section</td>
<td>15</td>
</tr>
<tr>
<td>Cataract surgery</td>
<td>0</td>
</tr>
<tr>
<td>Coronary artery bypass</td>
<td>25</td>
</tr>
<tr>
<td>Debridement of wound</td>
<td>Variable</td>
</tr>
<tr>
<td>Dilation and curettage</td>
<td>5</td>
</tr>
<tr>
<td>Free skin graft</td>
<td>25</td>
</tr>
<tr>
<td>Hemorrhoidectomy</td>
<td>20 (use sparingly, causes constipation)</td>
</tr>
<tr>
<td>Hysteroscopy</td>
<td>5</td>
</tr>
<tr>
<td>Total mastectomy, simple or radical</td>
<td>25</td>
</tr>
<tr>
<td>Partial mastectomy [lumpectomy]</td>
<td>15</td>
</tr>
<tr>
<td>Open prostatectomy</td>
<td>25</td>
</tr>
<tr>
<td>Robotic prostatectomy</td>
<td>15</td>
</tr>
<tr>
<td>Tonsillectomy</td>
<td>5</td>
</tr>
<tr>
<td>Thyroidectomy</td>
<td>10</td>
</tr>
<tr>
<td>Parathyroidectomy</td>
<td>10</td>
</tr>
<tr>
<td>Video-assisted thoracic surgery lobectomy</td>
<td>15</td>
</tr>
<tr>
<td>Open lobectomy</td>
<td>25</td>
</tr>
<tr>
<td>Chemical or mechanical pleurodesis</td>
<td>25</td>
</tr>
<tr>
<td>Total hip replacement</td>
<td>25</td>
</tr>
<tr>
<td>Total knee replacement</td>
<td>25</td>
</tr>
</tbody>
</table>
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- Expectation Setting
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- Monitor and Improve

Prescriber
Opioid
Patient

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Avoiding Multiple Prescribers
Incentivize and Monitor Use of the IL-PMP

Status of Prescription Monitoring Programs

National Alliance for Model Drug State Drug Laws, 2016
Electronic Prescribing

e-Prescribing is a CMS meaningful use core measure
Allows for refill authorization without a physical prescription
Make Disposal Easy
Opioid Stewardship Toolkit

- Targeted to Surgical Departments
- Overview of current statistics
- Strategies for improvement
- Materials to support implementation
- PowerPoint templates to generate support
- Patient handouts

Download at: www.isqic.org
Thank You

www.ISQIC.org/Opioid-Reduction-Initiatives

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