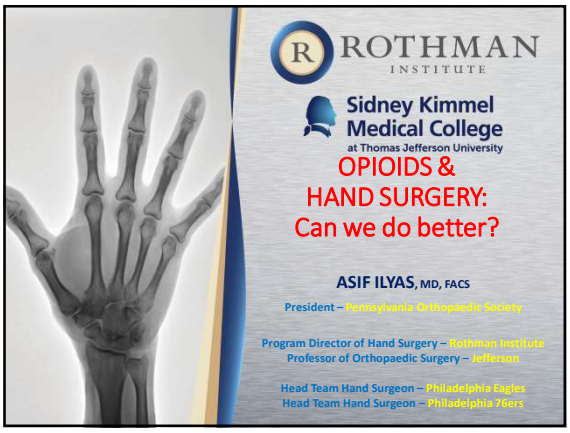

Disclosure

- Speaking
  - Depuy Synthes
- Consulting
  - Globus
- Royalties
  - Globus
  - Jaypee Publishers
- Research Support
  - Pacira
  - AFSH
- Boards
  - Rothman Institute
  - PA Ortho Society
  - JOMI

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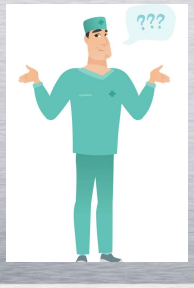
Poll....



- Do you have a number?
- Has it changed?

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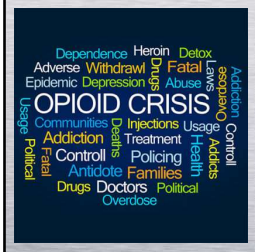
OBJECTIVES



To learn…

- **History of Opioid use**
- **Opioid Epidemic factors**
- **Strategies to smart prescribing**

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Brief History

- **3400 BC - Ancient Sumerians**
  - Opioid Poppy used in Mesopatamia: "Joy Plant"
- **460 BC – Hippocrates**
  - Recommended the juice of the white poppy for pain
- **300 BC – Alexander the Great**
  - Introduced poppy from Greek territories through Asia

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Brief History

- **1527 Paracelsus (Swiss-German alchemist)**
  - Experimented with several opioid concoctions
  - Produced the tincture "LAUDANUM" (still available today)
- **1806 Friedrich Serturner (German chemist)**
  - Isolated MORPHINE from opium

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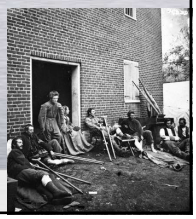
Brief History

- **1800s**
  - Morphine becomes mainstay of medical treatment
  - Used in all diseases, including "Consumption"
  - "Soldier's Disease": Civil War injury addicts
- **1858 – Hypodermic Needle**
  - Indication & Utilization increased
  - Addiction & Abuse also increased…



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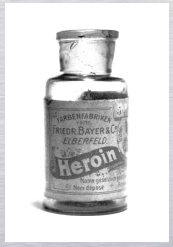
Brief History

- **1898 – Heroin (Bayer company)**
  - A non-addictive Morphine substitute
  - Cough syrup
- **1916 – Oxycodone (Bayer company)**
  - Stopped production of Heroin
  - Hoped it would be a non-addictive Morphine sub too



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Brief History

- **1909 – Opium Exclusion Act**
  - First US Congress anti-drug bill
  - Blocked importation of opium for smoking
- **1924 – Heroin Act**
  - Made the production, possession, and use illegal
  - (even for medicinal use)
- **1930s – Morphine / Oxycodone / Codeine**
  - Still readily available
  - Used ubiquitously in most diseases from cough to cancer
  - Consider by some a better alternative to alcoholism

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Brief History

- **1938 – FDA established**
  - Food, Drugs, Cosmetics had to be proven to be safe
  - Opioids still readily available to patients
- **1970 – Controlled Substance Act**
  - Established 5 "Schedules" of Pain Killers
- **1973 – DEA established**
  - "America has the largest number of heroin addicts of any nation in the world. Heroin addiction is the most difficult to control and the most socially destructive form of addiction in America today."
  - - NIXON

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Brief History

- **1980 – "Just Say No" campaign**
  - Started by President Reagan and First Lady Nancy

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Brief History

- **1980 – "Just Say No" campaign**
  - Started by President Reagan and First Lady Nancy
- **1990s – "Under treatment?"**
  - Rise of "Opiophobia" by physicians
  - Increasing complaints of under treatment of patients
  - Pharma & Docs push for increasing opioid utilization
  - Pharma develops and pushes extended release opioids

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TAKE 5

Pain: The 5™ Vital Sign

"If pain were assessed with the same zeal as other vital signs are, it would have a much better chance of being treated properly. We need to train doctors and nurses to treat pain as a vital sign. Quality care means that pain is measured and treated fully."

-James Campbell, MD
Presidential Address, American Pain Society
November 11, 1996

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Brief History

- **2000 – "5th Vital Sign"**
  - Joint Commission on Accreditation of Health Orgs
  - Opioid Prescribing doubles from 1998 – 2008
  - Giving rise to the current "Opioid Epidemic"…

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"The Opioid Epidemic"

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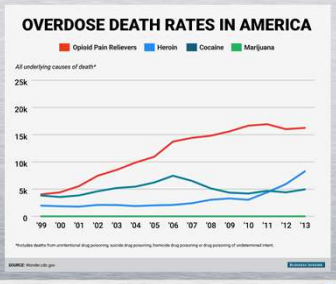
BACKGROUND

- The "Opioid Epidemic" is growing in size and scope in America.



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BACKGROUND

- The USA
  - Represents less than 5% of the world's population but consume 80% of all opioids.
  - 80% Heroin abusers said their addiction started with prescription opioids but turned to heroin because it was "cheaper" and "easier" to get.
  - Opioid-related deaths have become the leading cause of accidental deaths in young Americans.
  - Orthopaedic Surgeons 3rd largest opioid prescribers

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JAMA Surgery

April 12, 2017

New Persistent Opioid Use After Minor and Major Surgical Procedures in US Adults

Chad M. Brummett, MD[1,2]; Jennifer F. Waljee, MD, MPH, MS[2,3]; Jenna Goesling, PhD[1]; Stephanie Moser, PhD[1]; Paul Lin, MS[2]; Michael J. Englesbe, MD[2,3]; Amy S. B. Bohnert, PhD, MHS[2,4,5,6]; Sachin Kheterpal, MD, MBA[1,2]; Brahmajee K. Nallamothu, MD, MPH[2,6,7]

Author Affiliations

JAMA Surg. Published online April 12, 2017. doi:10.1001/jamasurg.2017.0504

Key Points

Findings In this population-based study of 36 177 surgical patients, the incidence of new persistent opioid use after surgical procedures was 5.9% to 6.5% and did not differ between major and minor surgical procedures.

Meaning New persistent opioid use is more common than previously reported and can be considered one of the most common complications after elective surgery.

BACKGROUND

- **There are many contributors to the "Opioid Epidemic":**
- **PATIENT FACTORS**
  - History of prior non-opioid substance abuse
  - Predisposing Psych conditions (ie, poor coping skills, anxiety, depression)
  - Expectation of a "zero pain" experience
- **SOCIETAL FACTORS**
  - Expectation of aggressive pain management by patients
  - Pharma's direct to consumer and physician marketing of opioids
  - Medical Societies and Regulatory Boards promoting pain as a 5th Vital Sign
- **PHYSICIAN FACTORS**
  - Aggressive or Inadvertant over-prescribing

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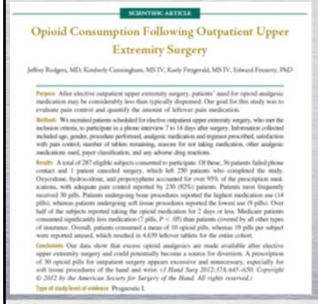

Opioid Consumption Following Outpatient Upper Extremity Surgery

- 250 Patients
- Average Pills Rx: 30 pills / per
- Average Pills Used: 10 pills
- Utilization rate: 33%
- Number of unused pills during the study: 5,000

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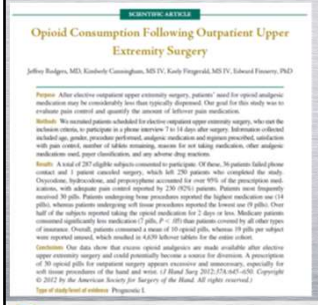

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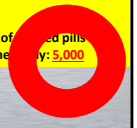

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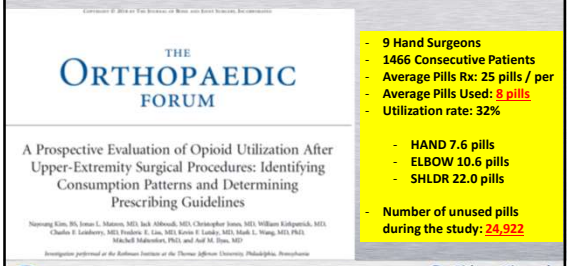
THE ORTHOPAEDIC FORUM

A Prospective Evaluation of Opioid Utilization After Upper-Extremity Surgical Procedures: Identifying Consumption Patterns and Determining Prescribing Guidelines

- 9 Hand Surgeons
- 1466 Consecutive Patients
- Average Pills Rx: 25 pills / per
- Average Pills Used: 8 pills
- Utilization rate: 32%
  - HAND 7.6 pills
  - ELBOW 10.6 pills
  - SHLDR 22.0 pills
- Number of unused pills during the study: 24,922

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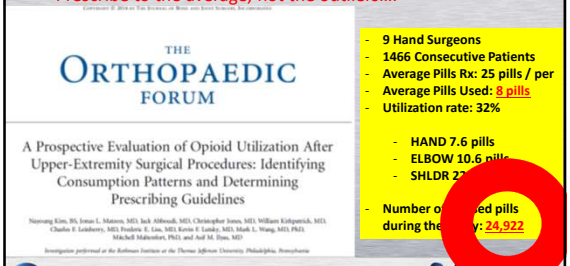
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3 Evidenced-Based Strategies

•(2) Consider non-Opioids for Post-Op pain

Postoperative Pain Management Following Carpal Tunnel Release: A Prospective Cohort Evaluation

Andrew Miller[1], Nayoung Kim[1], Benjamin Zmistowski[1], Asif M. Ilyas[1], and Jonas L. Matzon[1]

Abstract

Background: Managing postoperative pain in hand surgery is important for both patients and surgeons. However, there is growing concern over prescription opioid abuse. We hypothesized (1) that pain medications after carpal tunnel release (CTR) surgery are over-prescribed and (2) that opioids are unnecessary in the majority of patients. Methods: We prospectively studied 2 demographically similar patient cohorts receiving either opioid or tramadol for CTR performed by 2 hand surgery fellowship-trained orthopaedic surgeons over a 1-year period. The first cohort of patients undergoing CTR received opioids pills postoperatively. The second cohort of patients received a standard prescription of 10 tramadol pills postoperatively. Student t tests were performed to evaluate statistically significant differences between the tramadol and opioid cohorts in total pill consumption and number of postoperative days the medication was used. Results: The opioid cohort consisted of 159 patients with a mean opioid consumption of 4.9 pills for 2.3 days. Eleven of these patients declined the use of opioids postoperatively and instead substituted for nonsteroidal anti-inflammatories and/or acetaminophen. The tramadol cohort consisted of 110 patients with a mean tramadol consumption of 3.3 pills for 1.8 days. Seven of these patients requested opioids postoperatively, and 14 substituted for NSAIDs and/or acetaminophen. When comparing the postoperative consumption of opioids and tramadol for CTR, there was a statistically significant difference in total pill consumption based on both intention to treat as well as the medication ultimately prescribed. There was no difference in the duration of postoperative utilization. Conclusions: Following CTR, pain medications are being over-prescribed, with patients receiving more than double the amount of pills than they consume. Tramadol appears to be equally effective in managing postoperative pain compared with opioids.

- 2 Hand Surgeons
- Prospective Cohort trial
- 269 CTR cases
- 10 pills each
  - 159 Opioid cases (Ty#3)
  - 110 Tramadol cases (50mg)
- Results:
  - Opioid: 4.9 pills (11 took none)
  - Tramadol: 3.3 pills (7 requested an opioid)
- No diff in use
- No diff in pain (VAS)

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3 Evidenced-Based Strategies

•(2) Consider non-Opioids for Post-Op pain

Pain Management After Carpal Tunnel Release Surgery: A Prospective Randomized Double-Blinded Trial Comparing Acetaminophen, Ibuprofen, and Oxycodone

- 2 Hand Surgeons
- PRCT – s/p CTR or TFR
- 10 pills of TYL / IBU / OXY
- Both Patient & Surgeon blinded
  - ACE 3.1 pills
  - IBU 4.4 pills
  - OXY 2.9 pills
- No diff in use
- No diff in pain (VAS)
- More complications OXY
- No increased calls
- No diff in request for diff meds

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3 Evidenced-Based Strategies

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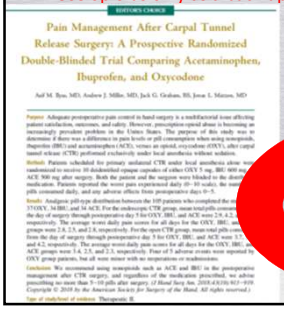

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3 Evidenced-Based Strategies

- **(3) Counsel your patients on Opioids**


A Prospective Randomized Study Analyzing Preoperative Opioid Counseling in Pain Management After Carpal Tunnel Release Surgery

- **40 Consecutive CTR cases**
- **Randomized**
- **All received 10 Ty#3**
  - **Not counselled: 4.2 pills**
  - **Counselled: 1.8 pills**
- **Counselling resulted in a 2/3 reduction in opioid use.**

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3 Evidenced-Based Strategies

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What Do I Do?

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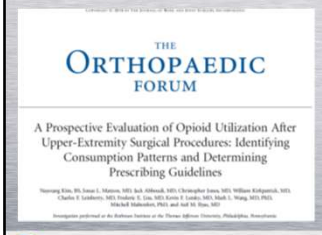

- **HAND: 5 pills**
- **WRIST: 10 pills**
- **ELBOW: 15 pills**
- **SHLDR: 20 pills**

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What Do I Do?

- **(2) Counsel your patients on Opioids**
- **(3) Consider non-Opioids for Post-Op pain**

- **Explain the Opioid Epidemic**
- **Explain Risks & Benefits**
- **Recommend non-Opioids first**
- **Instruct dosage and frequency of Opioids**
- **Instruct duration of Opioids**
- **Instruct on refills & disposals**

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Thank You!


SUPER BOWL LII
CHAMPIONS


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