The Opioid Crisis vs. Competency

Facts, Figures, and the Future of Anesthesia Care and Pain Management

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Disclosure Statement

• I have no financial relationships with any commercial interest related to the content of this activity.

• I may discuss off-label use during my presentation and will disclose such information as applicable.
Learner Objectives

• Discuss the history of opioid practice and the state of current practice
• Review evidence of post-op pain management’s potential role in the opioid crisis
• Detail national efforts to raise awareness of opioid crisis and increase education of providers in multi-modal pain management
• List evidence based treatment alternatives to opioid use in acute and chronic pain management
• Locate resources to aid providers in opioid education initiatives and reduction of opioid use in chronic pain management
- Up to 25% of those who receive prescription opioids long term for non-cancer pain in a primary care setting admit to addiction struggles.
- Greater than 50% suffered from pain in the last days of their lives with research showing 50-75% die in moderate to severe pain.
- 20% US adults report pain/physical discomfort interfering with sleep at least several nights/week.
- NIH fact: LBP leading cause of disability American <45 yrs, those with LBP being in worse physical/mental health than those without LBP.

Facts and Figures - CDC
• 2006, Special Report on Pain
• > 25% of Americans age 20 and over (77 million) report pain that lasted more than 24 hours – these figures do not account for acute pain
• Adults 20-44, 25% reported pain
• Adults 45-64 group most likely to report pain > 24 hrs (30%)
• Adults 65 and over were least likely to report pain (21%)

US National Center for Health Statistics  (Who is reporting Pain?)
June 2017

Media Coverage
Drug Overdose Deaths 2013-14

Source: Centers for Disease Control and Prevention
• Sunday June 1, 2017 USA Today: “Fear of Addiction” 80% oral surgery patients would choose a non-opioid for pain management even if it cost more
• Mid 1990’s
• JCAHO, patient’s right to have pain managed
• Pain as the 5th vital sign
• Hospital reimbursement tied to patient satisfaction
• Patients rated hospitals on pain management

The PERFECT Storm
National Strategies

What Came Next?
Increased Interest in Pain Management

US Congress dubbed 2001-2010 as “the decade of pain”

National Pain Care Policy Act and VA Pain Act -- 2009
Chronic pain, a condition that affects more than 100 million Americans and costs the U.S. between $560 and $635 billion annually in medical treatment and lost productivity.
• Much of the chronic pain experienced by Americans isn't treated correctly, in part because doctors are not taught in medical school how to help patients manage pain
• Called for a cultural change in order to prevent, assess, treat and understand all types of pain and laid out a blueprint for providing relief from pain.

IOM Report
• Directed the Department of Health and Human Services to develop a plan to increase awareness about pain, its health consequences; improve how pain is assessed, how treatment of pain is paid for by the federal government; and to address disparities in how different groups of people experience pain

IOM Report
The report recommended healthcare providers engage in **continuing education programs**, and that **licensure, certification, and recertification should include assessment of providers' knowledge of pain management**.
ALL providers need more training in pain management!
• Public Law 114-198 (114th Congress, 2015)
  • Authorized the Attorney General and Secretary of HHS to award grants to address prescription opioid abuse, heroin use crisis & others
  • SEC. 101. Task Force on Pain Management. The Secretary HHS, in cooperation with the Secretary of Veterans Affairs and the Secretary of Defense, shall convene a Pain Management Best Practices Inter-Agency Task Force.
HHS/NIH Interagency National Pain Strategy Team
New Educational Model: PAIN as a Disease

• Chronic pain, or unrelieved pain isn’t just a symptom – it affects every organ system and causes a change in physiologic responses (cardiovascular, pulmonary, GI, renal, coagulation, immunologic, neuromuscular, psychiatric).
The NIH/HHS National Pain Strategy Report
• National Pain Strategy: A Comprehensive Population Health-level Strategy for Pain
• Final report published May 2015


Increasing Knowledge and Effectiveness in Pain Management
• Appendix D – Chronic pain screening questions (determine chronicity and severity of pain)
• Appendix E – Operational questions for determining high-impact chronic pain (functional limitations)
• Appendix F – Diagnostic clusters for population pain research
• Appendix J – Core competencies for pain education (4 domains)
Domain 1 – Multidimensional Nature of Pain: What is Pain?

- Fundamental concepts of pain: the science, nomenclature, experience of pain
- Impact of pain on the individual and society
• How pain is assessed, quantified, and communicated
• How the individual, the health system, and society affect these activities

Domain 2 – Pain Assessment & Measurement: How is Pain Recognized?
• Collaborative approaches to decision-making, diversity of treatment options, importance of patient agency, risk management, flexibility in care, and treatment based on appropriate understanding of the clinical condition.

Domain 3 – Management of Pain: How is Pain Relieved or Reduced?
• The clinician’s role in applying the competencies developed in domains 1-3 and in the perspective of diverse patient populations, settings, and care teams.

Domain 4 – Clinical Conditions: How Does Context Influence Pain Management?
• Appendix K
  • Public education general awareness campaign
  • 11 learning objectives

• Shouldn’t we teach these to the pain providers also?
• Awaiting funding for implementation
• Health and Human Services Pain Management Best Practices Inter-Agency Task Force
• Dr. Bruce Schoneboom, PhD, CRNA, FAAN, COL (Ret) AANA Chief Learning Officer
• Inaugural meeting, end of May 2018

New HHS Task Force
Obama Administration Announces Additional Actions to Address the Prescription Opioid Abuse and Heroin Epidemic

FACT SHEET (March 2016)
FACT SHEET (July 2016)
• More Americans die each year from drug overdoses than motor vehicle crashes
• Majority of the overdoses involve prescription medications
• Health care providers wrote 259 million prescriptions for opioid pain medications in 2012 – enough for every American adult to have a bottle of pills
• March 2016 the White House called for opioid prescriber education to be included in healthcare provider education
• 60 Medical Schools signed a pledge to require prescriber education beginning Fall 2016 as a requirement for graduation (to include CDC Guidelines for Prescribing Opioids for Chronic Pain)
August 10, 2017 Trump declared the opioid crisis a national emergency

Two days after the presidential opioid commission recommended this action

142 deaths a day in US

Ohio AG filed lawsuits against 5 Pharm companies “flooded Ohio with prescription painkillers creating patients who are physically and psychologically dependent”

Opioid Crisis = National Emergency
• 35,000 heroin or opioid ODs 2015 (National Institute on Drug Abuse)
• Aug 7th, 2017 UVA study reports mortality rates underreported by 24% for opioids and 22% for heroin

Opioid Crisis = National Emergency
• April 2016, AACN announces nursing schools commitments to combat opioid use disorder
• AACN, American Association of Nurse Anesthetists, American Association of Nurse Practitioners, American College of Nurse-Midwives, American Nurses Association, National Association of Clinical Nurse Specialists, and National Organization of Nurse Practitioner Faculties unite in joint educational series for practicing nurses, faculty and students
• Set up a 4 part webinar on the opioid crisis in Fall 2016

Nursing Stands United for Collaborative Education
• Speciality pain training began 2008, now basic and advanced with didactic training and cadaveric training
• Post Master’s Certificate in Advanced Pain Management Hamline University 2011-2015, moved to Fellowship 2014
• Pain Management Fellowship Texas Christian University 2016
• National Board for Certification and Recertification of Nurse Anesthetists certification exam began in 2015 Non-Surgical Pain Management (NSPM-C)
The Center for Disease Control (CDC)
Goals

- Increase communication/improve understanding among providers and patients concerning risks/benefits of opioid use in chronic pain management
- Improve safety and effectiveness of pain treatment
- Reduce risks of long term opioid therapy

The CDC Prescribing Guidelines (March 2016)
• Non-opioid therapy
  • Exercise
• Multi-modal therapies
• First line pharmacologic agents
• Cognitive behavioral therapy
• Timing and appropriateness of opioid use
  • Never monotherapy
  • Goal directed
  • Realistic discussion of use and discontinuance if no meaningful clinical benefit (30% increase in function/pain)
  • Use of evidenced based tools for pain measurement

**CDC Prescribing Guidelines**

**Overview**
• Communication of evidence
  • Opioids good for short term, no long term evidence for function/pain improvement
  • Complete pain relief expectation is unrealistic
  • Focus on increased function which is often with a continued presence of pain
• Medication selection
  • Avoid extended release (ER) or long acting (LA) pharmacologic agents as initial agent
  • Avoid ER/LA in combination with immediate release agents
  • Carefully consider use of transdermal fentanyl if limited knowledge of pharmacodynamics and pharmacokinetics; unable to adequately educate
Prescribing

- First line for LBP is acetaminophen, NSAIDs
- Start at lowest effective dose
- Careful eval before increases to 50 MME/day
- Follow-up evaluation at least q 90 days
- Avoid increases of 90 MME/day
- Consider naloxone for history of OD, substance abuse, concurrent opioids/benzos
- Provide education on opioid use, risks

CDC Opioid Prescribing
Overview
• **Risk Assessment**
  • Review history of medication use – prescription drug monitoring programs (initial and on-going)
  • UDS (initial, for cause, on-going)

www.cdc.gov/drugoverdose/prescribing/guideline.html

**CDC Prescribing Guidelines**

**Overview**
• Following release of the *CDC Guideline*, focus has been on opioid use for noncancer chronic pain
• Little focus devoted to nonmedical use of post op prescriptive opioids
  - Many patients first exposed to opioids after surgery
  - Need to minimize introduction of opioids into circulation by reducing avoidable exposure

**Response to Opioid Epidemic Does Not Address Postop RX**
Incidence of New Persistent Opioid Use by Surgical Condition (Brummet, *JAMA Surg* 2017)

- **Minor Surgery 5.9%**
  - Varicose vein removal
  - Lap chole
  - Lap appy
  - Hemorrhoidectomy
  - TURP
  - Parathyroidectomy
  - Carpal tunnel

- **Major Surgery 6.5%**
  - Incisional hernia repair
  - Colectomy
  - Reflux surgery
  - Bariatric surgery
  - Hysterectomy

- **Nonoperative comps 0.4%**
• ~50 million ambulatory surgical procedures performed in the US in 2010
• >2 million individuals/yr may transition to persistent opioid use
• May be higher when including inpatient surgical procedures and considering the growth in surgical care
<table>
<thead>
<tr>
<th>Procedure</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Urologic</td>
<td>67%</td>
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<tr>
<td>Orthopedic</td>
<td>77%</td>
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<tr>
<td>Thoracic</td>
<td>81%</td>
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<tr>
<td>Dermatologic</td>
<td>89%</td>
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<tr>
<td>C-section</td>
<td>90%</td>
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<tr>
<td>Dental</td>
<td>91%</td>
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<tr>
<td>General</td>
<td>92%</td>
</tr>
</tbody>
</table>

Storage and Disposal of Opioids After Surgery (Bickett, JAMA Surg, 2017)

- **Storage prescription opioids**
  - Medicine cabinet/other box:
    - 54-70%
  - Cupboard or wardrobe:
    - 21-26%
  - Unlocked location:
    - 73-77%

- **Opioid disposal**
  - Planned to/actually disposed of unused opioids:
    - 4-30%
  - Considered/used method recommended by FDA:
    - 4-9%
• Opioid pain control pain has become engrained as a component of surgical care and is a conduit for opioid entry into the community
• With surgery increasingly performed during a single-day hospital stay, more patients sent home with opioids
• Providers incentivized to overestimate opioid needs in order to reduce the burden of hospital discharge
• Seemingly innocent strategy can create a reservoir of unused opioids

Role of Postsurgical Prescribing in the Opioid Crisis
Current Anesthesia Trends
• Will this help address the opioid crisis?

YES!

Enhanced Recovery After Surgery (ERAS)
• Provides a pathway to limit/avoid perioperative influencers of the opioid crisis
  • Central principle: multimodal pain therapies will reduce dependence on opioids
• Perioperative providers must carefully consider analgesia and AEs but must now also consider the opioid crisis impact
• **Position Statement** “A Holistic Approach to Pain Management: Integrated, Multimodal, and Interdisciplinary Treatment” July 2016

• **Enhanced Recovery After Surgery Considerations for Pathway Development and Implementation** July 2017

  • aana.com (resources/professional practice)

**AANA Resources for ERAS**
Array of Some Non-opioid Alternatives

- Local anesthetic infusions (lidocaine)
- Ketamine & magnesium, N2O
- Gabapentin
- Esmolol
- Anti-inflammatory medicines
- Corticosteroids
- Precedex, or other alpha2 agonists
- Topical agents
- BZDs or other muscle relaxants
- **Magnesium** 2 - 3 gm, or 30mg/kg
- Ketamine should be co-administered with Versed or propofol
- Will spare the usual needed narcotic dose by approximately 50%
- Should be discontinued in the last 30 minutes prior to surgery end for outpatients, or those patients without a history of CP
- Ketamine 0.25 - .50 mg/kg bolus
  - Drip rates: 10-15mg/hr or achieve the same by timed bolus
  - Drip rates: 0.05 – 0.3 mg/kg/hr

Sample Ketamine/Mg$^{2+}$ Dosing
Pressure to decrease or eliminate Opioid use in anesthetics?
Society for Opioid Free Anesthesia
• Goal 1: summarize the existing literature on this anesthetic technique and provide evidence-based recommendations
• Goal 2: Promote new research in this area of anesthesia
• Goal 3: Educate and help guide anesthesia professionals as they learn about and transition to practicing opioid free anesthesia
• First Annual Meeting, Nov. 10-11th, 2018, UAB

• [https://goopioidfree.com](https://goopioidfree.com)

Society for Opioid Free Anesthesia
Homeopathic or Herbal Alternatives

Ideas That Work: Herbal Post-op Pain Control

Outpatient Surgery
June 2017
Hernia Center -- CA

HOMEOPATHIC THERAPY
For Pain Control

START 3 DAYS BEFORE SURGERY
1. Arnica Montana 12C - Reduces inflammation & bruising
   Take 5 pellets sublingual three times a day.
2. Bromelain 500 mg - Reduces inflammation & swelling
   Take 1 Tablet twice a day with meal

START 24 HOURS AFTER SURGERY
1. Arnica Montana 12C - Reduces inflammation & bruising
   Take 5 pellets sublingual three times a day. Start 3 days
   before surgery.
2. Alpha Lipoic Acid 300 mg - Reduces inflammation & nerve
   pain
   Take 1 Capsule once a day
3. Bromelain 500 mg - Reduces inflammation & swelling
   Take 1 tablet twice a day
4. Ginger Root 550 mg - Reduces inflammation, prevents nausea
   Take 1 Capsule twice a day
5. Super B-Complex - Reduces nerve pain
   Take 1 tablet daily
6. Turmeric 500 mg - Reduces inflammation and nerve pain
   Take 3 tablets once a day or in divided doses

450 North Roxbury Drive, Suite 240 • Beverly Hills, CA 9021
Tel 310.358.5020 Fax 310.358.5025
beverlyhillsherniacenter.com
3 days prior to surgery

- Arnica 12C 5 pellets SL TID (inflammation/bruising)
- Bromelain 500 mg 1 BID (inflammation/swelling)

Inflammation as key source of post-op pain
Outpatient Surgery article: 24 hour post-op regimen

- Arnica Montana 12C 5 pellets SL TID (inflammation and bruising)
- Alpha Lipoic Acid 300 mg 1 QD (inflammation/nerve pain)
- Bromelain 500 mg 1 BID (inflammation/swelling)
- Ginger Root 550 mg 1 BID (inflammation/nausea)
- Super B-Complex 1 QD (nerve pain)
- Turmeric 500 mg 3 QD or 1 TID (inflammation/nerve pain)
• Injection local before incision
• Toradol IV at end of surgery
• Ice pack 1-2 days (French study 1 hr before surgery)
• <5% patients get opioid scripts
• 15% patients need more analgesia
• Herbals don’t interfere with bleeding or healing, no drug interactions
Summary
• Delays discharge or requires hospitalization
• Decreases ability to participate in Rehab
• Delays recovery and return to normal activities
• Ineffective treatment increases possibility of progression to chronic or neuropathic pain
• Associated with poor treatment outcomes
• Increased use of healthcare resources
• Increased cost of care
Scientific evidence is clear: pain is best managed using multi-modal techniques

Over Prescribing

Limited Access/Street Acquisition/Overdose

Access to Unused Opioids/Overdose

Education on Effective Management of Pain/Multi-modal Techniques

Access to Treatment & First Responder Naloxone

Diversion & Addiction

Interprofessional Collaboration

Managing the Opioid Crisis
• Scientific evidence is clear: pain is best managed using multi-modal techniques
• There is a place for opioid use but it is not suitable for long term, chronic pain management
• We must educate ALL of our healthcare providers in best practices in pain management
• ERAS demonstrates effectiveness in decreasing opioid use

The Future of Anesthesia Care and Pain Management

• **National Pain Strategy: A Comprehensive Population Health-Level Strategy for Pain**


• [http://www.aacn.nche.edu/](http://www.aacn.nche.edu/)

**Recommended Reference**


• Brummett CM et al., New Persistent Opioid Use After Minor and Major Surgical Procedures in US Adults, *JAMA Surg* 2017;152:e170504


References


References