Ethical Considerations in Perioperative Pain Management

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Objectives

- By the end of this talk, the participant should be able to:
  - Discuss the basic principles of medical ethics
  - Discuss the basic principles of perioperative pain management
  - Discuss ethical conflicts that exist in perioperative pain management
  - Discuss an approach to resolve ethical conflicts

Disclosures:
I have no financial relationships with proprietary entities producing health care goods or services related to the content of this presentation.

What Do We Mean By “Medical Ethics”?*

- The moral conduct and principles that govern members of the medical profession (Mosby’s Medical Dictionary, 9th edition, 2009)
- Common code of conduct in pluralistic and multicultural society
- Standardized guideline for principled care, regardless of religious or cultural background of either the physician or the patient
- Guidance for shared medical decision making (healthy physician and patient interaction toward the same ultimate goal)
- Often confused with, but distinct from:
  - Law – minimum set of standards
  - Morals – an individual’s own principles of right and wrong
  - Professional ethics – appropriate medical charges, billing practices, and coding for services

Ethical Principles

- Non-hierarchical
- Autonomy: What does the patient want?
- Beneficence: What is good for the patient?
- Non-maleficence: What won’t harm the patient?
- Justice: What is fair for the patient (and the community)?
- Ethical dilemmas occur when 2 or more principles are in conflict
- Conflict is inevitable, and usually due to lack of communication
- Framework is available to resolve conflict
- Understanding can be reached with respect, even in disagreement

Autonomy

- Respect for a person’s ability to make medical decisions
- Requires informed consent
- Examples
  - Patient refuses neuraxial anesthesia because she doesn’t want anything near her spine
  - Recovering drug addict refuses opioid pain medication
- Violations
  - Offering general anesthesia as the only anesthetic option, when peripheral nerve block would also be appropriate
  - Performing a peripheral nerve block without valid consent

Pain Management: A Fundamental Human Right

“[T]he unreasonable failure to treat pain is poor medicine, unethical practice, and is an abrogation of a fundamental human right.”

Brennan et al, 2007

[Image of a building and a hospital setting]
Components of Informed Consent

- Capacity – ability to make informed decision
- Clarity – clear discussion of benefits, risks, likelihood of success, and alternatives
- Use consistent language at the patient’s education level
- Discuss possible complications, including both most common and most serious
- Have the patient restate the procedure benefits, risks, and alternatives to ensure full understanding
- Choice – no coercion or undue influence
- Learn the patient’s cultural perspective and values
- Empower the patient
- Willingness to accept or reject intervention may be affected by adequate disclosure and full understanding of alternatives

Beneficence

- Always acting in a patient’s best interest
- Must have a good understanding of the patient’s perspective and wishes to determine “what is best”
- Requires that physicians stay current on evidence-based treatments options and maintain procedural skills
- Examples
  - Providing evidence-based, optimal pain management, while minimizing side effects
  - Developing plan for post-operative pain management and discussing it prior to surgery
- Violations
  - Refusing peripheral nerve catheter to a patient with obstructive sleep apnea
  - Failing to provide bowel regimen while on opioids

Non-maleficence

- Doing the least harm, whether by acts of commission or omission
- Potential risks are inherent to all medical interventions
- Benefits must outweigh risks and patients must have informed consent to proceed
- Examples
  - Performing a pre-procedure time-out
  - Standardizing pharmacologic pain management orders – reduces risk of error
- Violations
  - Causing a pneumothorax during a supraclavicular block
  - Administering excessive local anesthetic dose, resulting in local anesthetic systemic toxicity

Procedural Safety Checklist

- Verify patient name and date of birth
- Verify correct surgery
- Discuss benefits, risks, contraindications, and alternatives
- Obtain anesthesia consent
- Verify block type and laterality
- Review the surgical consent
- Immediately mark the block site with legible initials (must be visible after draping)
- Verify that necessary equipment is present and drugs are prepared and labeled (including resuscitation drugs and equipment)
- Verify that the patient has IV access, ASA-specified monitors are applied, and sedation and oxygen are used (as indicated)
- Perform the procedure time out immediately prior to the block

Justice

- Fairness and equity among all persons
- Patients in similar situations should have similar treatment options
- Protects vulnerable patients without discrimination
- Considers allocation of limited resources and competing needs
- Examples
  - Ensuring adequate access for all patients to pain management services
  - Ensuring that patients at high risk for opioid misuse have adequate safety measures in place prior to opioid prescribing
- Violations
  - Refusal of regional anesthesia to indigent patients
  - Refusal of peripheral nerve block to dementia/cognitively disabled patients
Additional Considerations

- In order for principles of medical ethics to lead to good medical decisions, physicians must act honorably towards patients
- Moral conduct cultivates and strengthens the doctor-patient relationship and aids in shared decision making
- Veracity – telling the truth
- Fidelity – fulfilling promises and duties to patient
- Full disclosure – disclosing conflicts of interest, such as vendor relationships
- Privacy – maintaining patient confidentiality

Medical Ethics and Pain Management

“Effective pain management is a moral imperative, a professional responsibility, and the duty of people in the healing professions.”

Chou et al., 2016

Pain Management

- The American Pain Society, American Society of Anesthesiologists, American Society of Regional Anesthesia
- Findings
  - “More than 80% of patients who undergo surgical procedures experience acute postoperative pain and approximately 75% of those with postoperative pain report the severity as moderate, severe, or extreme.”
  - “Less than half of patients who undergo surgery report adequate postoperative pain relief.”
  - “Inadequately controlled pain negatively affects quality of life, function, and functional recovery, the risk of post-surgical complications, and the risk of persistent post-surgical pain.”

Chou et al., 2016

Physiologic Effects of Uncontrolled Acute Pain

Chou et al., 2005

Chronic Pain Epidemic: Prevalence and Cost

<table>
<thead>
<tr>
<th>Condition</th>
<th>Americans</th>
<th>Annual Cost</th>
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</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>29 million</td>
<td>$245 billion</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>16 million</td>
<td>$109 billion</td>
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<tr>
<td>Cancer</td>
<td>12 million</td>
<td>$201 billion</td>
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<tr>
<td>Stroke</td>
<td>7 million</td>
<td>$38 billion</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>64 million</td>
<td><strong>$593 billion</strong></td>
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</tbody>
</table>

**Chronic Pain**

116 million Americans
$565-$635 billion annually

Statistics from CDC, NIH, AHA, ADA, ACS, IOM; Gaskin et al., 2012
Opioid Epidemic: Prevalence and Cost

- Prescriptions
  - ~250 million opioid prescriptions/year
- Global opioid consumption has quadrupled in the past 15 years
  - Hydrocodone ~40 tons; 99% consumed in the U.S.
  - Oxycodone ~60 tons; 81% consumed in the U.S.
- With 4.5% of the world's population, the U.S. consumes 80% of all opioids
- Misuse
  - 1,000 people/day treated for overdose
  - Only ¼ of patients with opioid misuse were prescribed opioids
- Cost
  - $55.7 billion annually

CDC website

Adverse Effects of Opioids

- Opioid-related adverse drug events correlated with increased length of stay, 30-day readmission, higher cost of care, and increased mortality
- Closed claims analysis of respiratory depression events demonstrated that “88% occurred within 24 hours of surgery and 97% were judged to be preventable with better monitoring and response.”

Marchlinski et al (Part I) 2012; Fessler et al 2013; Lee et al 2013

Overdose Deaths

Overdose Deaths Involving Opioids, United States, 2000-2015

www.cdc.gov

Pain Management Recommendations

- Patient education – provide pain treatment options and document goals and plan of care, including explicit postoperative tapering instructions
- Pre-operative evaluation – ask about medical and psychiatric comorbidities, medications, history of chronic pain, substance abuse, previous postoperative treatment regimes and effectiveness
- Reassessment – determine treatment effectiveness and adverse effects
- Standardization – use standardized practices and pain management order sets
- Consultation – involve other specialists for patients with inadequately controlled postoperative pain or history of opioid misuse
- Review – implement continuous quality improvement processes

Chou et al, 2016

Ethical Pain Management

- Opioids, NSAIDs, APAP, ketamine, local anesthetics, antineuropathics, antidepressants

- Routine, limit naps, relax and retry if you can’t sleep

- Diet

- Activity

- Smoking cessation

- Neuraxial catheters; peripheral nerve blocks/catheters

- TENS

- Massage

- Acupuncture

- Deep breathing

- Compression

- Ice

- Elevation

- Distraction

- Prayer

- Reading

- Hobby

- Improve mobility, avoid social withdrawal

- Setting realistic expectations: goal is not “pain free”, opioids are addictive

- Chou et al 2016; Mitra 2004; White et al 2010

Summary

- Multimodal analgesia
  - Opioids
    - IV while NPO and convert to oral when tolerating food
    - Escalate post-operatively and provide explicit plan for taper
  - Non-opioid adjuncts – acetaminophen, nonsteroidal anti-inflammatory drugs, gabapentinoinds, ketamine, regional anesthesia
  - Non-pharmacologic adjuncts – education, cognitive-behavioral modalities
  - Aggressive treatment of side effects (anti-emetics, laxatives)
  - Safety
    - Monitoring for sedation, respiratory status, and other adverse events
    - Adding CPAP for OSA, and ETCO2 or continuous SpO2 for high risk

Chou et al 2016; Mitra 2004; White et al 2010
Avoiding Extremes

- Autonomy extreme
  - Isolated autonomy – patient makes decision without considering the physician's advice
  - Drawback – patient devalues and dismisses the physician’s medical expertise and obligation to actively pursue the patient’s best interest
  - Example – patient refusing to discuss anesthetic alternatives

- Beneficence extreme
  - Paternalism (sometimes justified) – physician does what he/she thinks is best for the patient, regardless of the patient's desires
  - Drawback – physician is far removed from the patient's experience (religion, philosophy, and ethics) and lacks expertise in these areas
  - Example – coercing patient to have neuraxial technique, despite patient's objections

Rubin, 2014

Collaborative Pain Management Model

- Shared medical decision-making model to resolve conflicts
- Recognizes case-specific nature of ethical conflicts
- Benefits both physicians and patients
- Medical discussion format
  - Patient and physician state goals of care
  - Physician provides layperson summary of condition
  - Physician presents risks, benefits, and alternative options
  - Physician makes recommendation
  - Patient asks questions/expresses preferences
  - Discussion continues until agreement is reached
  - Document everything

Rubin, 2014

Case #1

As part of an opioid-sparing, multi-modal anesthetic plan, you consider a thoracic epidural for all open thoracotomies. You are seeing a 67 year-old with severe COPD and obstructive sleep apnea scheduled for thoracotomy. You note that he also has a stable platelet count of 90,000. He tells you to do what you think is best.

Case #2

Your orthopedic surgeon colleague knows you offer peripheral nerve catheters to patients for post-operative pain control. He tells you not to bother placing a peripheral nerve catheter in the next patient because he has no insurance and you won’t get paid for it.

When you arrive to the pre-op bay, the patient is in severe pain and says he wants the shot the nurse told him about to numb his arm for 3 days. Do you offer a peripheral nerve catheter?

Would it change your decision if the patient said he was homeless?

What about alternatives? Does an opioid prescription increase the risk of harm to others through diversion/trafficking?

References

- The Joint Commission: “Informed consent: more than just a signature”. Quick Safety, Issue 21, Feb 2016
- Websites: CDC, NIH, ADA, AHA, ACS, IOM

References (cont’d)

- Kesler ER, Shah M, Gurschilus SK, Raje A: Cost and quality implications of opioid-based postsurgical pain control using administrative claims data from a large health system: Opioid-related adverse events and their impact on clinical and economic outcomes
- Rubin MA: The collaborative autonomy model of medical decision-making. 2014; 20:311-18