Pain and Other Symptom Management

Total Pain

- Physical
- Emotional
- Social
- Spiritual

Cicely Saunders

Definition of Pain

- Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage
  - International Association for the Study of Pain
“Pain is whatever the person experiencing it says it is”
(Margo McCaffery, RN)

“Physical Pain”

Physical Pain

- Acute
  - Primarily symptom of pathological process or injury
  - Treating illness or injury typically will reduce or eliminate symptoms
  - Duration usually <3 months

- Chronic
  - Pain which lasts beyond ordinary duration of time that an insult or injury to the body requires to heal
  - Typically lasting > 3-6 months
    - Acute pain evolves into chronic pain in ~20% patients
Physical Pain

- **Nociceptive**
  - **Somatic**
    - Body surface tissue or musculoskeletal tissue
    - Localized, sharp
  - **Visceral**
    - Result of compression, obstruction, infiltration, ischemia, stretching, inflammation of thoracic, abdominal or pelvic visceral
    - Not well localized

- **Neuropathic**
  - Damage to or dysfunction of peripheral or central nervous system, rather than stimulation of pain receptors
  - Burning, lancinating, shooting

<table>
<thead>
<tr>
<th>Type of pain</th>
<th>How patients describe it</th>
<th>Examples</th>
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</thead>
<tbody>
<tr>
<td>Nociceptive</td>
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<tr>
<td>Somatic pain</td>
<td>Sharp, dull, often aching (familiar as &quot;headache&quot;) may be exacerbated by movement &quot;facial pain&quot;</td>
<td>Metastatic bone pain</td>
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<td>Musculoskeletal pain</td>
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<td>Post-surgical pain</td>
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<td>Musculoskeletal pain</td>
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<td>Metastatic bone pain</td>
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<tr>
<td>Visceral pain</td>
<td>Arises from distention of an hollow organ - sharply localized, deep, squeezing, cramping</td>
<td>Pancreatic cancer</td>
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<td></td>
<td>- Often associated with autonomic sensations: nausea, vomiting, diaphoresis</td>
<td>Intestinal obstruction</td>
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<td>- May be referred</td>
<td>Intraperitoneal metastases</td>
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<tr>
<td>Neuropathic pain</td>
<td>Patients may struggle to describe it, unfamiliar &quot;burning, electrical, numb&quot; (tissues stimuli may bring on pain (allodynia))</td>
<td>Trigeminal neuralgia</td>
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<td>- May have paroxysms of electrical sensation (lancinating or lightning pains)</td>
<td>Postherpetic neuralgia</td>
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<td>Diabetic neuropathy</td>
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Nociceptive Pain Pathway
Getting Started…

• Let the patient tell their story
  – Remember to listen and believe the patient!
  – Help the patient openly communicate
• Characterize the pain
  – Somatic, visceral, neuropathic
• Develop a therapeutic strategy

PQRSTU

P – precipitating, palliating, previous treatment
Q – quality
R – region, radiation
S – severity
T – temporal
U – (you) – impact on ADLs, quality, enjoyment

What if patient is

• Infant, young child
• Nonverbal
• Cognitively impaired
• Unresponsive

Behavioral Pain Assessments
General Principles for Pain Management

- Assess pain thoroughly
- Know pharmacologic and nonpharmacologic options
- Dose to reduce pain by at least 50%
- Reassess frequently

WHO 3-Step Ladder

**Step 1 - Mild**
- Aspirin
- Acetaminophen
- NSAIDs

**Step 2 - Moderate**
- Codeine/
- Hydrocodone/
- Oxycodone/
- Tramadol

**Step 3 - Severe**
- Morphine
- Hydromorphone
- Methadone
- Oxycodone
- Fentanyl

Always consider adding an adjuvant Rx

OPIOIDS KNOW THE RISKS
"Adjuvant Analgesic"

- Drug which has a primary indication other than pain management
- Acts as analgesic in certain painful conditions
  - Antidepressants
  - Corticosteroids
  - Anticonvulsants
  - Local anesthetics
  - Osteoclast inhibitors
  - Radiopharmaceuticals
  - Muscle relaxants
  - Benzodiazepines
Opioids for Patients with Life-Limiting Illness

- Routes of administration
  - Oral, Intravenous
    - subcutaneous, transdermal, transmucosal, rectal, spinal
- Oral Opioid formulations
  - Immediate Release
  - Extended release

Immediate Release Oral Opioids

- Administered as
  - single agents
  - combination products
- Peak analgesic effect occurs in 60-90 minutes
- Expected total duration of analgesia of 3-4 hours
- Single agent
  - Generally q 4 hour dosing
    - "as needed" for episodic pain
      - May be at intermittent q 2 hour intervals
    - "scheduled" for continuous pain
Combination opioid/nonopioid

>50 different combination products
  • Contain either acetaminophen, aspirin or ibuprofen, with an opioid
  • Range of tablet strengths and liquids
  • Typically used for moderate pain that is episodic
    • Generally Q 4 hours PRN dosing
    • For continuous pain administered on around-the-clock basis

The dose limiting property of all the combination products is:
  – aspirin, acetaminophen or NSAID

Extended-release opiate preparations

• Morphine
  – Morphine ER, MS Contin, Kadian, Avinza
• Oxycodone
  – Oxycodone ER, Oxycontin
• Fentanyl
  – Transderm patch (Duragesic)
• Hydrocodone, Hydromorphone

Extended-release opioid preparations

• Dose q 8, 12, or 24 h (product specific)
• Adjust dose q 2–4 days (once steady state reached)
• Fentanyl transderm q 72 hours
  – Adjust dose at 6 days (once steady state achieved)

  – Recommend immediate release opioid for “Breakthrough Pain”
### Important Tool – Equianalgesic Table

#### Equianalgesic Dose

<table>
<thead>
<tr>
<th>Drug Name</th>
<th>Oral (mg)</th>
<th>Parenteral (mg)</th>
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</thead>
<tbody>
<tr>
<td>Morphine</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>7.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>20</td>
<td>N/A</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>30</td>
<td>N/A</td>
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</tbody>
</table>

### Opioid Side Effects

- Constipation
  - He/She who writes the opioid prescription writes the bowel regimen
- Nausea, vomiting
- Urinary Retention
- Pruritus
- Lethargy, mental clouding
- Somnolence
- Respiratory Depression
- Hypogonadism
- Secondary adrenal insufficiency

### Key points:

- Treating pain is an ethical imperative
- Prescribing opioids responsibly is an ethical imperative
- Balance of benefits vs side effects
- If using opioids
  - Benefits of opioids outweigh potential risks
  - Control uncontrolled pain with short acting opioids
  - Long-Acting Opioids
    - For chronic, around the clock pain
    - Begin once pain is controlled with short acting agents
  - Need short acting opioid for breakthrough pain
- Use of adjuvants when appropriate
Case
A 62-year old woman with a history of breast cancer presented with 10/10 back pain.

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Case
A 62-year old woman with a history of breast cancer presented with 10/10 back pain and was diagnosed with new multiple level vertebral metastases. She has a history of bleeding duodenal ulcer and diabetic nephropathy with CKD stage 2. She is taking 2 tablets of oxycodone/acetaminophen 5/325mg nearly every 4 hours for the past two weeks. Her pain is a constant ache throughout her spine, worse in her mid-back. Occasionally the pain feels like it is shooting down her right leg. She rates her pain ~3-4/10 after her “pain medicine kicks in” and then increases back up to 9-10/10. When it is this severe she cannot do “anything” but hope the pain gets better. She is being assessed for radiation therapy. Which of the following is the best next step in her pain management?

a. Increase the oxycodone/acetaminophen 5/325 to 3 tablets every 4 hours
b. Change to 2 tablets hydrocodone/acetaminophen 5/325 every 4 hours
c. Change to sustained release oxycodone 30mg capsules every 12 hours
d. Change to oxycodone extended release 30mg capsules every 12 hours with oxycodone 7.5 for breakthrough pain every 2 hours as needed
e. Change to hydromorphone 4mg tabs every 4 hours
f. Begin Ibuprofen 600mg every 6 hours
g. Begin gabapentin 100mg tid
• Pain Management Practice.....

• LUMEN – End of Life Vertical Integrated Curriculum

Questions?