On a scale of 0-10, how would you rate your pain?

Sarah Roy, RN, MSN, NEA-BC
Clinical Nurse Manager
The Medical Center at Bowling Green

Participants will be able to...

✓ Understand common opioid misconceptions and the truths behind them.

✓ Identify multimodal strategies to use in opioid tolerant patient

✓ Differentiate addiction, pseudo-addiction, tolerance, and physical dependence and understand implications in nursing practice.

Pain Pathway
4 processes involved:
1. Transduction
2. Transmission
3. Perception of pain
4. Modulation

*Slide by Melanie Simpson, University of Kansas
### Harmful Effects of Unrelieved Pain

<table>
<thead>
<tr>
<th>Category</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Endocrine</strong></td>
<td>INCREASED: ACTH, cortisol, ADH, norepinephrine, growth hormone, catecholamines, renin, angiotensin, aldosterone, gluagons, interleukins. DECREASED: insulin, testosterone</td>
</tr>
<tr>
<td><strong>Metabolic</strong></td>
<td>Gluconeogenesis, hepatic glycogenolysis, hyperglycemia, glucose intolerance, insulin resistance, muscle protein catabolism, increased lipids.</td>
</tr>
<tr>
<td><strong>Cardiovascular</strong></td>
<td>INCREASED: HR, cardiac workload, PVR, SVR, HTN, coronary vascular resistance, myocardial oxygen consumption. Hypercoagulation, DVT.</td>
</tr>
<tr>
<td><strong>Respiratory</strong></td>
<td>DECREASED: flows &amp; volumes, cough, Atelectasis, shunting, hypoxia, sputum retention, infection.</td>
</tr>
<tr>
<td><strong>Gastrointestinal</strong></td>
<td>DECREASED: gastric and bowel motility.</td>
</tr>
<tr>
<td><strong>Musculoskeletal</strong></td>
<td>Muscle spasm, impaired muscle function, fatigue, immobility.</td>
</tr>
<tr>
<td><strong>Cognitive</strong></td>
<td>Reduction in cognitive function, mental confusion.</td>
</tr>
<tr>
<td><strong>Immune</strong></td>
<td>Depression of immune response.</td>
</tr>
<tr>
<td><strong>Developmental</strong></td>
<td>INCREASED: behavioral and physiologic responses to pain, altered temperaments, higher somatization, infant distress behaviors, increased vulnerability to stress disorders, addictive behavior, and anxiety.</td>
</tr>
<tr>
<td><strong>Future Pain</strong></td>
<td>Debilitating chronic pain syndromes: post mastectomy pain, post thoracotomy pain, phantom pain, post herpetic neuralgia.</td>
</tr>
<tr>
<td><strong>Quality of Life</strong></td>
<td>Sleeplessness, anxiety, fear, hopelessness, increase thoughts of suicide.</td>
</tr>
</tbody>
</table>

### Acute Pain

- ![Acute Pain Image](image1)

### Chronic Pain

- ![Chronic Pain Image](image2)

- **VERSUS**
Molding

VERSUS

Research demonstrates that HCP expect to see certain behaviors in patients with pain.

Misconceptions about Opioids

Opioids can only be prescribed so high then they lose their effectiveness.

There is no ceiling for opioids, there is always room to increase, however the dose may be limited by side effects.
Also, it's very easy to increase opioids, it's much more difficult to decrease opioids.

Misconceptions about Opioids

Visible signs, either physiological or behavioral, must accompany pain and can be used to verify it's existence and severity.

Pts live with pain everyday, body compensates.
Depression is common, so may have flat affect.
Misconceptions about Opioids

IV opioids work better than PO opioids.

IV opioids do not work better, they simply work faster. This is why equi-analgesic dosing is important, IV and PO medications can be equaled in strength.

Misconceptions about Opioids

There is no reason for patients to hurt when no physical cause for pain can be found.

Takotsubo cardiomyopathy
or
“Broken Heart Syndrome”
Stress-induced cardiomyopathy and acute heart failure. Majority of cases are caused by physical or emotional stressful event that preface the start of symptoms!

All Guidelines Agree:

Self Report is the Gold Standard of Pain Assessment!
Seeking drugs? OR Seeking relief?

Important Definitions

Addiction: Chronic neurobiological disease- no single cause has been found.
- Loss of Control
- Compulsive use
- Continued use despite harm
- Craving

Addiction: How to talk about it?
• #1⇒ Be Objective.
• Non-judgmental attitude
• Acknowledge
• Open-ended questions
• Listen with open ears
• Foster open environment with the patient
Important Definitions

**Physical Dependence:** Normal response that occurs with repeated administration of an opioid > 2 weeks.
- Withdrawal will occur if stopped abruptly
- Withdrawal will occur if Naloxone given
- Avoided through gradual reduction

**Tolerance:** Normal response with regular administration, consists of decrease in 1+ effects
- Decrease in sedation
- Decrease in respiratory depression
- Decrease in analgesia
- **Never tolerance to constipation**

**Stable pain usually results in stable doses**

Constipation

- Most common side effect
- **NEVER develop a tolerance**
- Always use bowel regimen with any opioids
TOLERANCE cannot be equated with ADDICTIVE DISEASE

IMPORTANT DEFINITIONS

Pseudo-addiction: Pts with undertreated pain may manifest behaviors similar to those of a typical addictive disease patient.

- Clock watching
- Multiple requests in between doses
- Escalating demands
- Obtaining opioids from others

• Direct consequence of inadequate pain management
• Abnormal behaviors similar to those of addictive patients
• Mistrust between patient and healthcare team
• Distinguishable as behaviors resolve when pain is adequately treated
Nursing assessment

- Determine pain and medication baseline
  - Home medications? (ALWAYS verify before starting!)
  - Illicit drug use? (prescription or street)
  - Alcohol?
  - Coping mechanisms?
- Set realistic goals with the patient
  - 0/10 may not be achievable
  - Daily pain score/activity level at home
  - Pain scores are not always appropriate
- Any addiction issues at home?

- Monitor for signs/symptoms of withdrawal

What does withdrawal from opioids look like?

- Agitation
- Sweating
- Anxiety/Restlessness
- Diarrhea/N&V
- Rhinorrhea
- Dilated pupils
- Chills
- Tachycardia
- Generalized aches and pains
- Abdominal cramping

***Not life-threatening like benzos/alcohol***

Nursing assessment post-operatively

- Expect higher doses to be needed
- Pre-operative dose does not equal post-operative dose
- Extra monitoring may be needed
- Avoid antagonist as much as possible—really sets patient back in pain control
Principles to consider
Post-operatively

- Multi-modal strategies
- Avoid gaps in analgesia – Around the clock dosing, long acting medications, pre-emptive offering
- Pre-medicate before PT/OT, painful activities
- Ideal is to get patient back to baseline medication dose after acute pain period over – Taper down

Multi-Modal Approach

- Opioids
- NSAIDS, COX-2
- Acetaminophen
- Local Anesthetics, Lidoderm Patch
- Muscle Relaxants, Benzodiazepines
- Anticonvulsants
- Antidepressants
- Non-pharm!

Medication Routes
Nursing Interventions

- Ensure appropriate baseline medications are in place (**ALWAYS** verify first!)
- Plan for appropriate timing of administration, don’t get behind
- Ensure multi-modal approach
- Create and implement pain plan with medical team, you, and patient

**INDIVIDUALIZE CARE**

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**Equianalgesic dosing**

<table>
<thead>
<tr>
<th>Opioid</th>
<th>Equianalgesic Approximate Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine</td>
<td>PO: 30mg, IV: 10mg</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>PO: 7.5mg, IV: 1.5mg</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>PO: 30mg</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>TD: 12mcg, IV: 100mcg</td>
</tr>
<tr>
<td>Oxymorphone</td>
<td>PO: 10mg</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>PO: 30mg</td>
</tr>
<tr>
<td>Codeine</td>
<td>PO: 200mg</td>
</tr>
</tbody>
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**Dosing Guidelines**

- ATC (around-the-clock), Continuous dosing for persistent or chronic, immediate post-op pain
- PRN (as needed) dosing episodic pain, rescue/breakthrough

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**Diversion Activities**

- Offer various diversional activities
  - Help with boredom
  - Relaxation, guided imagery
  - Journaling
  - Puzzles, crafts, walk outside, converse
  - Helps the patient “escape” from the redundancy of the hospital setting

**Questions?**
References