“I can’t give you anything else” should never be the answer

Assessment and Management of Pain

Sherri Heavey, APRN
Bob Parker, RN, MSN, CHPN

Have you heard ....

• It’s too early
• I can’t give you anything else
• You shouldn’t be having that much pain
• I am afraid you will become addicted
What is Pain?

Pain is defined as:

“an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage”

Federation of State Medical Boards of the United States, Inc. Model Guidelines for the use of Controlled Substances for the Treatment of Pain. Euless, TX: 1998

Pain is Subjective

Gold standard for pain is:

• Pain is whatever the patient says it is; whenever the patient says it is

• Pain is the 5th vital sign
Pain Categories

• Acute Pain
• Chronic Pain
• Breakthrough (episodic) pain

Acute Pain

• Recent onset
• Expected to last no longer than days or weeks
• Intensity is variable
• Anxiety and pain behaviors are common

Acute Pain

• Signs of sympathetic hyperactivity (tachycardia, hypertension, sweating)
• Provides an essential warning
• Impels the patient to rest and avoid further harm
  o broken bone
  o surgery


Chronic Pain

• Remote, often ill-defined onset
• Duration unpredictable
• Intensity is variable
• Patient may display irritability or depression

Breakthrough Pain

• Transient increase in pain
• Moderate to severe intensity
• Usually baseline pain well controlled
• Problems
  o dose not high enough
  o dose time interval to long

Classifications

• Nociceptive
  o stimulation of nerve endings
• Somatic
  o bone, joint, muscle constant, well localized, aching, throbbing
• Visceral
  o Internal organs, GI tract - deep, aching, intermittent, poorly localized
Classifications - continued

Neuropathic

- Injury, nervous system dysfunction
- Central or peripheral
- Constant, intermittent
- Burning, shooting
- Often requires use of adjuvant medications

Pain Management

Comprised of:

- Initial and ongoing assessment of pain
- Implementation of appropriate interventions to relieve pain
- Measurement of outcomes
Steps – Assessment

• Pain scale should:
  o be standardized and easy to use
  o correlate to cognitive level
  o be used consistently across disciplines and at each examination

Steps - Assessment

• Descriptors
  o severity, quality, location
  o constant or intermittent
  o helps distinguish between somatic, visceral, and neuropathic pain

• Treat moderate to severe pain as a medical emergency
Steps - Assessment

- Assess every time vital signs are measured
- Document findings to ensure quality and continuity of care
- Recognize a report of unrelieved pain as a “red flag”

Steps – Documentation

- Onset and temporal pattern
- How often does the pain occur
- Location
- Description
- Aggravating and relieving factors
- Previous treatment/Effect
Steps – Untreated pain

• Depression
• Suffering
• Sleep disturbance
• Behavioral disturbance
• Anorexia, weight loss

Barriers to Pain Management
Barriers

- Patient reluctance to report pain
  - use opioid analgesics
  - fear of addiction

- Inadequate assessment by clinicians

- Inadequate physician education, training, and experience

- Availability of physicians off hours

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Barriers

- Physician reluctance to prescribe opioids

- Fear respiratory depression and death

- Under treatment

- Availability of physicians off hours

- Availability of newly prescribed medications
Pharmacologic Treatment of Pain

Goals of Pain Management

- PREVENT pain
- MINIMIZE side effects
- SIMPLIFY for the patient
- RESPECT the patient’s experience
Schedule

• Maintenance medications
  o round the clock dosing - not PRN

• Dose adequately for breakthrough
  o PRN
  o don’t make them get on their knees and beg

• Allow patient to control analgesia

Route

• Use least invasive route first (PO)

• Other routes – for special cases
  o buccal/sublingual
  o transdermal
  o rectal
  o subcutaneous
  o IV
Goal

• Find one drug that optimally manages pain with minimal side effects
• Use the same drug for routine and breakthrough dosing
• Simplify dosing regime

Pharmacologic Management

• Step 1 - Pain rated as 1 to 3
  o NSAIDs and acetaminophen ± adjuvant medication

• Step 2 - Pain rated as 4 to 6
  o Weak Opioids ± adjuvant medication

• Step 3 - Pain rated as 7 to 10
  o Opioids ± adjuvant medication
Mild Pain

• Acetaminophen
• NSAIDs
• Dexamethasone

Acetaminophen

• Not an anti-inflammatory
• Dose limited
  ○ 3 – 4 grams per 24 hours period
• USE CAUTION when administering acetaminophen with combination drugs also containing acetaminophen
• Hepatotoxin
### NSAIDS

- Anti-inflammatory
- Dose limited
- Nephrotoxins
- GI upset
- Contraindicated
  - GI bleed, Coumadin, plavix

### Dexamethasone

- Multi-use drug
  - bone pain
  - blastic metastases
  - increased intracranial pressure
  - bowel obstruction
  - mood/appetite stimulation
Moderate

• Escalate to weak opioids
• Traditionally include:
  o codeine
  o Vicodin, Lorcet (hydrocodone and acetaminophen)
  o Percocet (Oxycodone and acetaminophen)

“Problem”

• Drugs have ceiling effect
• Lends to poly-pharmacy

Solution

• Use strong opioids in lower doses
Severe

- Morphine
- Oxycodone
- Hydromorphone
- Fentanyl
- Methadone

Morphine

- Gold standard
- Dosing available for all routes
- Starting dose at 2.5 - 5 mg q 4 hours
- Escalate dose by 30 - 50%
- No ceiling effect
- Convert from IR to SR at steady state
**Oxycodone**

- 1/3 stronger than morphine
- Side effect profile similar to morphine
- Starting dose at 2.5 - 5 mg q 4 hours
- Escalate by 30%
- No ceiling effect

**Oxycodone**

- Available as pills (Oxycontin)
- Combined with APAP (Percocet)
- Available as IR, ER, and as IR elixir
- Payer coverage issues
**HYDROMORPHONE**

- 4x stronger than morphine
- High tech infusions, smaller volume
- Starting dose at 2.5 - 5 mg q 4 hours
- No ceiling effect
- Dose not usually pushed
- Preferred in patients with renal failure

**Fentanyl**

- Very expensive
- Over used, often inappropriate
- Best reserved for steady state pain
- Slow onset
Fentanyl

- Many variables
  - body fat
  - Temperature
  - hydration

- Caution with conversion

- Save for NPO if other routes are not appropriate

Methadone

- Effective and inexpensive

- Analgesic effect 6 hours

- Starting dose 10 - 20 mg/day in divided doses

- Not used for breakthrough pain
Methadone

- Metabolite half-life 5 – 6 days
- Titrate slowly
- Can accumulate and produce levels that can cause toxicity

Indications for Methadone

- Long acting opioid therapy required
- Intolerable side effects from another opioid
- Inadequate pain control from other opioid
- Need for treatment of neuropathic pain
**Methadone Benefits**

- Slower onset, but more stable steady state
  - very lipophilic, less breakthrough pain
- Excellent cost/benefit ratio

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**Opioid Therapy**

- Around-the-clock scheduled administration for long-acting agents
- Helps patients:
  - achieve a steady level of analgesia throughout the day
  - sleep through the night
  - enhance compliance
Opioid Therapy

- Use least invasive route first
- Set the patient’s goals and expectations at the outset of therapy
- Titrate to achieve maximum desired level of pain relief
- Anticipate and treat opioid-induced side effects
  - senna

Opioid Therapy

- If a patient does not respond well to one opioid, it is important to try another
- Responsiveness of an individual patient to a specific drug varies
- Provide PRN additional doses of 50% of starting dose every 2 hours
Opioid Therapy

- If pain is almost controlled by present regime, but still a discomfort, may increase by 10 - 20%
- If pain partially controlled, increase dose by 25 - 50%
- If pain severe and little or no pain relief with current dose, an increase of 100% may be appropriate

Opioid Therapy - Titration

- Titrate dose over time - critical to successful opioid therapy
- A “correct” dose is one that best controls the pain without unacceptable side effects
- Gradually increase dose until pain relief is adequate or until unacceptable side effects occur
Opioid Therapy - Titration

• Titrate dose up to obtain maximum pain relief
• Titrate dose down if unacceptable side effects persist
• Always prescribe rescue medication for breakthrough pain
• There is no ceiling dose for opioids

Opioid Therapy – Rescue dosing

• Ideal medication for rescue
• Rapid onset, short duration of action, minimal side effects, ease of use, cost effective
• 10 - 15% of 24 hour dose
Opioid Therapy - rescue dosing

• If > 3 - 4 episodes breakthrough pain per day
  o consider increasing the around-the-clock dose and evaluate PRN dosing
  o calculate 24hr total dose – divide into new dose (bid, tid, qid)
  o calculate new PRN dose for breakthrough pain

Opioid Conversions

• Always convert “via” morphine

• Morphine is common link

• Convert on total 24 hour dose, then divide according to schedule

• Dose reduction may be appropriate for cross tolerance
Scenario 1

Patient receiving

- Fentanyl 50 mcg q72
- MS Contin 60 mg bid
- Percocet (2) tid PRN
- Vicodin (2) tid PRN

What do we need to do?

Scenario 1

- Assess patient – what is their pain experience
- Pick a drug
- Simplify for patient
- Converts to MS 295 mg per 24 hours
- MS Contin 150 mg BID
  (consider 1/3 decrease for cross tolerance if pain is well controlled)
- PRN dose for breakthrough
Scenario 2

77-year old female admitted post knee replacement

- Pain medication orders are:
  - Tylenol 650 mg q 4 hours PRN
  - Vicodin 1 - 2 q 4 - 6 hours PRN pain
  - Percocet 1 - 2 q 4 - 6 hours PRN pain

What is wrong?

What’s Wrong?

- What medication should be used first?
  - There is no priority established
- How do you know whether to use 1 or 2 tablets?
  - Not specific
- Potential to exceed daily limit for acetaminophen
- Survey citation (SNF)
How to Fix?

• Assess patients pain level
• Determine how much narcotic is required?
• Start with Tylenol ES 2 tablets QID
• Add dose of narcotic without acetaminophen

PRN Orders

• Specify parameters and indications for which the drug is to be given
  • those without are medication safety issues and subject to interpretation
• IR for breakthrough pain
  • rapid onset, ease of use, short duration, cost effective
Adjuvant Therapy

• Adjuvant therapy may be used at all steps of the WHO ladder to:
  o enhance the analgesic effects of opioids
  o treat concurrent symptoms that may worsen pain.
  o provide independent analgesia for specific types of pain

Ongoing Pain Assessment

• Pain should be assessed and documented
  o at regular intervals after initiation of a treatment plan
  o with each new report of pain
  o at a suitable interval after each pharmacologic or nonpharmacologic intervention (15 - 30 minutes after parenteral drug therapy and one hour after oral administration)
Documentation

• Remember if it is not documented, it has not been done…
  o pre and post intervention
  o vital signs - BP, Pulse, Respirations
  o LOC – Sedation
  o pain scale individualized to meet pt. needs
  o pt. response - efficacy and/or adverse effects

Side Effects

• Anticipate and Educate

• N/V and sedation
  o tolerance usually develops within short time

• Constipation
  • initiate prophylactic bowel regime

• Consider dose reduction or alternative therapy if side effects intolerable
Tolerance

• Physiologic state resulting from regular use of a drug in which an increased dosage is needed to produce the same effect or a reduced effect is observed with a constant dose

• Tolerance does not usually develop to the pain-relieving effects of opioids

Pseudo tolerance

Pseudo tolerance is the need to increase dosage that is not due to tolerance, but due to factors such as:

• Disease progression
• New disease
• Increased physical activity
• Lack of compliance

• Change in medication
• Drug interaction
• Addiction
• Diversion
Fear of Hastening Demise

Healthcare professionals have a primary obligation and moral imperative to relieve pain and provide comfort for patients

Summary

• Identify and assess source of pain
• Individualize analgesic and/or adjuvant treatment according to level of pain
• Start with low dose and slowly titrate to lowest effective dose
Summary

• Adjust route of administration to meet patient needs

• For chronic pain use analgesic around the clock

• For breakthrough pain use fast onset, short acting analgesic

Summary

• Recognize and minimize side effects; avoid over sedation

• Reassess pain and response to treatment regularly

• Clinical endpoints; decreased pain, increased function, improvement in mood and sleep
Questions?