PAIN MANAGEMENT COMPETENCY

What is pain?
“Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.”
Pain is always subjective.”

Principles of Adequate Pain Management
- Person with pain is the expert
- Systematic and ongoing assessment is key
- Combine medications with nondrug interventions in an order that manages pain effectively
- Adjust medication to individual response
- Perform ongoing evaluation of the effect of the plan on pain
- Communicate the plan to others
- Identify and deal with barriers

Critical Terminology
- **Tolerance**—is a pharmacologic property of opioid drugs defined by the need for increasing doses to maintain effects
- **Addiction**—is a psychological and behavioral syndrome in which there is a drug craving for an opioid and the need to use the opioid for effects other than pain relief. **Less than 1% chance of addiction.**
- **Physical dependence**—a pharmacologic property causing the occurrence of withdrawal symptoms with abrupt discontinuation or administration of an antagonist
- **Pseudo-addiction**—occurs in patients who are under medicated for pain. Such patients “act out” their pain, or become “clock watchers” in an attempt to receive adequate analgesia. This behavior can be altered by assuring the patient of doses that are adequate to relieve pain and allow an increase in activity.

Classification of pain
Two types of Pain—Acute vs Chronic

Acute Pain
- Distinct onset
- Obvious pathology
- Proportionate to injury
- Autonomic symptomatology (tachycardia, hypertension, diaphoresis, mydriasis & pallor
- Short duration. Acute pain follows an injury to the body, and generally disappears when the injury heals

Chronic pain
- Remote onset. The patient may have difficulty in remembering the exact onset of pain. The pain may be insidious, often being blamed for benign conditions.
- Long duration
- Disproportionate to injury. A small lesion pressing on a nerve can cause a great deal of pain.
- Psychological impairments. Anxiety is most commonly associated with acute pain whereas depression is most often associated with chronic pain.
- Functional impairments may include loss of mobility in a limb secondary to surgery, chemotherapy or radiation therapy.
Nursing Orientation Pain Management

**Process Of Pain Assessment And Reassessment**

The pain history should include:

- Previous experiences with pain and beliefs about and preferences for pain assessment and management
- Previously used methods for pain control
- The patient’s attitude toward use of opioid, or other medication
- Coping response for stress or pain
- Family expectations and beliefs concerning pain
- Ways the patient describes or shows pain
- Give the patient & families information about pain management therapies on admission and at discharge
- Develop with the patient a plan for pain assessment
- Select a pain assessment tool. Determine the level of pain above which adjustment of analgesia will be considered
- Provide education and information about nonpharmacologic options for pain control
- Inform patients that communication of unrelieved pain is essential

**Physical Examination- Recommended Clinical Approach To Pain Assessment**

AHCPR’S ABC’S Of Assessment And Treatment

- **A**sk about pain regularly
- **A**ssess pain systematically
- **B**elieve the patient and family in their reports of pain and what relieves it
- **C**hoose pain control options appropriate for the patient, family, and setting
- **D**eliver interventions in a timely, logical, coordinated fashion
- **E**mpower patients and their families
- **E**nable patients to control their course to the greatest extent possible.

**Pain Assessment: Assess and document pain intensity, characteristic, and satisfaction with relief regularly**

- On admission
- At least every twelve hours for inpatients and with each visit for outpatients
- Upon a change in the patient’s condition
- With each new report of pain
- A change in the level of care, patient’s medical diagnosis and post invasive procedures
- Immediate postoperative period pain should be assessed every 2 hours while awake during the first postoperative day
- At suitable interval after each analgesic intervention (I.E. 30 minutes after parenteral drug therapy and 1 hour after oral analgesics

**Determine Existence Of Pain Intensity**

- Pain rating scales: numerical scales (0-10),
- Wong-baker faces pain rating scale

**Nonverbal/noncognitive signs of pain; observe vocalization, facial expression, body movements, and behavior**

- Grimacing
- Moaning
Nursing Orientation Pain Management

- Crying
- Thrashing
- Tearing
- Irritability
- Yelling out
- Moving about constantly
- Support of a limb/limping while ambulating

**Characteristics of pain**  O L D C A R T

Onset
Location
Duration
Character- Neurpathic or nerve (sharp, shooting, burning)
  Somatic –bone pain (dull, aching)
  Visceral (cramping, squeezing)
Aggravating factors- what makes the pain worse
Relieving factors—what makes the pain better
Treatment

**Documentation**
- Initial assessment on patient data base
- Interdisciplinary plan of care
- Daily patient care record
- Patient graphic chart (fifth vital sign)
- Unit specific flowsheets
- Patient/family education record

*Remember* The Single Most Reliable Indicator Of Pain Is *Patient Report*

**Psychosocial assessment**
- Anxiety (fear of death, uncertainty concerning the future)
- Depression

**Perception and meaning of pain**
- **Culture**- some cultures are more vocal in expressing their pain, while others are more stoic and generally will try to hide their pain
- **Religion**- some people may consider pain as necessary to be considered worthy for heaven or in retribution for sins committed in the past
- **Age**- some people mistakenly think that pain is a part of growing older or that there is little you can do to relieve the pain

**Special Populations**

Older adults
- Often have chronic and acute pain at the same time
- Feel pain just as intensely as younger adults

Infants/Children
- All children including neonates have the ability to feel pain
- Priority is given to the child’s report of pain
Non-communicative patient/confused adult
♦ Identify pathology or procedure know to cause pain
♦ Observe; vocalization, facial expression, body movements, behavior/activity

Patient’s who are know or suspected substance abusers
♦ Should not be denied medication if truly needed for pain relief
♦ Require careful assessment and reassessment of pain to ensure request for medication are truly for pain management

Pharmacologic management
General Principles
World health organization (WHO)analgesic ladder (Steps I, II, III)
♦ **Step I** mild/moderate pain: nonopioid (nsaids, acetaminophen) +/- adjuvant (Pain Level 1-5)
  
  Pain persisting or increasing -then

♦ **Step II** moderate pain: opioid for mild to moderate pain + non-opioid, +/- adjuvant (Pain Level 5)
  
  Pain persisting or increasing - then

♦ **Step III** moderate/severe pain: opioid for moderate to severe pain +/- non-opioid, +/- adjuvant (Pain Level 5-10)

  Freedom from pain

Non-opioids
Acetaminophen and nsaids
♦ Acetaminophen is included with aspirin and other nsaids because it has similar analgesic potency
♦ Lacks peripheral anti-inflammatory activity
♦ Nsaids are effective for relief of mild pain,
♦ Have an opioid dose-sparing effect that helps reduce side effects when given with opioids
♦ Use patient response to determine the effective dosing
♦ If pain relief is not attained with maximum dosage of one nsaid, try other drugs within this category
♦ Do not use nsaids in patients with thrombocytopenia
♦ Elderly patients should be followed carefully

Opioid analgesics
♦ Cornerstone for management of moderate to severe pain
♦ Opioids produce analgesia by binding to opioid receptors both within & outside the CNS
♦ Opioid analgesics are classified as:
  ♦ full agonist (maximal response),
  ♦ partial agonists (lesser response regardless of concentration),
  ♦ mixed agonist-antagonists (activate 1 type of opioid receptor while blocking another type).
♦ The most important receptor type is named “mu” because of its affinity for morphine
♦ **Morphine** is the standard agent for opioid therapy (hydromorphone, codeine, oxycodone, hydrocondone, methadone, levorphanol, fentanyl)
♦ All “mu” opioid agonists can cause:
  ♦ constipation,
♦ urinary retention,
♦ sedation,
♦ respiratory depression,
♦ nausea,
♦ confusion
♦ Demerol; a “mu opioid analgesic should be reserved for very brief courses
♦ Commonly underdosed & administered too infrequently
♦ Normeperidine is a toxic metabolite of meperidine it is excreted through the kidney, half-life of 15-20 hrs; increased in elderly & impaired renal function
♦ Normeperidine is a cerebral irritant, accumulation can cause dysphoria, irritable mood to seizures

**Routes of administration**
1. Oral administration is preferred
   Convenient & cost effective
2. IV is the parenteral route of choice after major surgery
   IV administration provides the most rapid onset
3. Rectal safe, inexpensive, effective route when patients have nausea or vomiting
4. Transdermal (fentanyl) note suitable for rapid dose titration; use this route for relatively stable pain
5. Patient-controlled analgesia (PCA).
   Helps the patient maintain independence and control
6. Intraspinal consider this invasive route for patients who develop intractable pain or intolerable side effects

**Dosage of opioid analgesics**
♦ Titrate to effect
♦ Patients vary greatly in their analgesic dose
♦ The appropriate dose is the amount of an opioid that controls pain with the fewest side effects.
♦ Titration: increase or decrease the next dose by one-quarter to one-half of the previous dose
♦ Route conversion; when changing from the oral to the rectal route, begin with the oral dose then titrate upward frequently and carefully until the patient is comfortable
♦ The appropriate dose is the one that works
♦ Lower doses are required for parenteral routes
♦ When a patient becomes pain free, gradually decrease the opioid to avoid the withdrawal

♦ Assume that patients actively abusing heroin or prescription opioids have some pharmacologic tolerance that will require higher starting doses and shorter dosing intervals

**Schedule: prevent recurring pain**
♦ Give analgesics on a regular schedule, instead of waiting until the pain has returned
♦ The next dose is given before the effect of the previous one has worn off
♦ Rescue doses are ordered for intermittent or for breakthrough pain.
  These doses are taken in addition to the regular schedule
  Usually at a dose of 50-100% of the regular 4 hourly dose

**Equianalgesic chart**
Equianalgesia, means “equal analgesia” (refer to chart)
The chart enables the clinician to compare the pain relief likely to be achieved by opioids at different doses and via different routes
Lack of this knowledge has been linked with the undertreatment of pain

Management of side effects
Sedation is commonly present the first three to five days
♦ Caffeine such as in tea, coffee, coke will help to counteract this
♦ If the sedation is not improved within a week the dose of the opioid may have to be decreased
♦ Patients receiving long-term opioid therapy generally develop tolerance to the respiratory depressant effects of these agents
♦ Monitor the patient carefully
♦ When indicated for reversal of opioid-induced respiratory depression, administer naloxone, titrated in small increments (need to obtain an order)

Constipation occurs with chronic use of all opioids
♦ Treat prophylactically with dietary fiber, stool softeners or mild laxatives

Nausea & vomiting is usually present in the first 3-5 days
♦ Treat with anti-emetics

Other side effects:
♦ Dry mouth
♦ Urinary retention
♦ Pruritis
♦ Myoclonus
♦ Altered cognitive function
♦ Dysphoria
♦ Euphoria
♦ Sleep disturbances
♦ Sexual dysfunction
♦ Physiologic dependence
♦ Tolerance

Adjuvant therapy
♦ Antidepressants are useful in pharmacologic management, (tricyclic antidepressants) which have been used successfully to manage dull, aching neuropathic pain (such as peripheral neuropathy as well as to treat painful states associated with sleep disorders (fibromyalgia).
♦ Anti-convulsants, which are sometimes helpful for lancinating neuropathic pain (such as trigeminal neuralgia or phantom pain), (phenytoin, clonazepam)
♦ Corticosteroids have been used to help manage pain associated with spinal cord compression, bony metastasis, or tumor infiltration of neural structures

Nonpharmacologic management
Physical modalities
♦ Heat/cold
♦ Massage
♦ Exercise
♦ Repositioning
♦ Immobilization
♦ Transcutaneous electrical nerve stimulation (tens)
♦ Acupuncture

Cognitive-behavioral interventions
♦ Relaxation and imagery
♦ Cognitive distraction and reframing
Nursing Orientation Pain Management

- Patient education
- Psychotherapy and structured support
- Support groups
- Pastoral counseling

**Discharge instructions**
Discharge process provides for continuing care based on individualized needs- include the following:
- Written pain management plan
- Specific drugs to be taken
- Frequency of drug administration
- Potential side effects of the medication
- Potential drug interaction
- Specific precautions to follow (activity limitations, dietary restriction)
- Symptom management, e.g. nausea, dyspnea, constipation
- Name of person to notify about pain problems

**Check Your Knowledge**

1. Pain exists whenever the patient says it does.
   - True
   - False

2. The nurse, not the patient, is the expert on a patient’s pain
   - True
   - False

3. When establishing goals for effective pain management, the **most** significant factor is
   a. The patient’s support system
   b. What is important to the patient
   c. The learning environment
   d. Elimination of side effects

4. A patient may not report pain for several reasons
   a. May not want to alarm family
   b. May prefer to be stoic and hide the pain
   c. May think of the pain as a metaphor for death
   
   A & B, B & C, or all the above

5. The **most** accurate method of assessing the presence of pain is to
   a. Observe the patient’s behavior
   b. Measure the patients’ vital signs
   c. Ask family members to rate the pain
d. Use a pain scale and ask the patient

6. While assessing your patient for barriers to effective pain management, which of the following statements would you find significant?

   a. “I will take all medications as prescribed.”
   b. “I am very fearful of pain.”
   c. “I am strong enough to withstand any pain.”
   d. “I have never experienced much pain in the past.”

7. Mrs. Jones is not taking her pain medication as prescribed, because “when the pain gets really bad, nothing will be left.” You explain to her that

   a. Pure opioids can be titrated until they become effective in relieving pain
   b. She will be transferred to a hospice if the pain gets really bad.
   c. It’s unlikely that the pain will increase in the future.
   d. It’s better if she takes the medication and maintains a positive outlook.

8. The likelihood of addiction occurring in patients experiencing pain after prolonged use of pain medications is

   a. 50/50
   b. Less than 1%
   c. 5-10%
   d. 25%

9. Your patient’s wife tells you that she is concerned that her husband will become addicted to pain pills if they are given regularly. You should explain that the benefit of ATC (around-the-clock) dosing is

   a. More frequent dosing is available
   b. Decreased need for staff monitoring
   c. More consistent blood level of the medication
   d. Lowered pain threshold

10. A nurse should question an order for which of the following analgesics if prescribed for a patient with chronic cancer pain

    a. Meperidine
    b. Methadone
    c. Morphine sulfate
    d. Hydromorphone