CHRONIC PAIN MODEL IN HOME CARE

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Background

Acute Pain

- Immediate
- Serves as a warning
- Easier to treat (generally)
- Has an end (generally)

Background

Chronic Pain

- Lasts longer than 3-6 months
- Serves no purpose
- Cannot identify a cause
- Can lead to pain behaviors
- Very difficult to treat

Pain Conduction

- Injury triggers release of bio-chemicals
- Inflammation takes place
- Stimulation of nerve fibers
- Bio-chemicals causes pain impulses to begin

Pain Perception

- Impulse is sent to the brain via ascending tracts in spinal cord
- Neurotransmitters released by C fibers (substance P)
- Message to the brain (Thalamus)
- Sends message down descending pathway= pain response

Why Pain Control

- Persistent acute postoperative pain:
- Decreases the body's physiologic reserves
- May exacerbate co-morbid conditions (e.g.) increase risk of MI in patients with CAD
- Contributes to pulmonary complications.

- Impairs rehabilitation and functional outcome
- May lead to development of chronic pain syndromes and long-term disability.
- Increases hospital stay and the cost of patient care
- Decreases patient satisfaction.

Metabolic Stress Response

- Surgical insult results in post op pain
- Increased circulating catecholamines
- Resulting in tachycardia and hypertension
- Leading to increased cardiac work
- Resulting in increased myocardial oxygen consumption

Cardiovascular

- ↑ HR, ↑ BP, ↑ SVR, altered regional blood flow, ↑CMO2, ↑ DVT

Respiratory:

•– ↓ VL (atelectasis), ↓ cough (sputum retention)

•– hypoxemia and infection

Gastrointestinal:

•– ↓ gastric and bowel motility, nausea, vomiting

•• **Genitourinary:** urinary retention

•• **Neuroendocrine:** ↑ catabolic hormones

•– ↑ blood glucose, Na + H20 retention

Musculoskeletal: Muscle spasm, immobility (↑ DVT)

Psychological: fear, anxiety, insomnia

•• **Chronic pain**

Pre Op Assessment

- Indication for surgical procedure
- Allergies and intolerances to medications, anesthesia, or other agents
- Known medical problems
- Surgical history
- Trauma (major)
- Current medications (incl.OTC herbal & dietary supplements,and illicit drugs)

Gayatri,P (2005). Post-op pain services. Indian J. Anaesth. 49 (1) : 17-19

- Discuss History of Acute or Chronic Pain
- Identify history of pain control methods
- What has worked
- How long on pain meds
- Do they work
- True allergies, ask what happens

- Differentiate between tolerance and physical dependence
- Discuss pain management problems

(ie) anxiolytic therapy with pain meds

Identify if there is a need to wean from any pain medications prior to surgery

- <u>Do not stop suddenly</u>

- Consider Patients with:
- Multiple back operations
- Abdominal pain patients (ie) Crohn's disease
- Recurrent cancer
- Chronic joint pain, (ie) RA or DJD

- If with a history of chronic opioid use for pain management may require higher doses for pain control
- This will include using PCA and/or meds for break through pain
- May not get adequate relief with “standard” doses of “standard” post op pain orders

- Do a directed pain history
  - Type of pain
  - Location, description, duration, exacerbation and relieving factors
- Directed pain examination
- Discussion of post-op pain control plan

What about the Elderly

- Evaluate each patient individually
- Do not assume that aging is the same in all patients
- Evaluate for side effects of narcotics
- Need complete list of meds to check for interactions

- Dispel myths
  - Concerns about opioids
  - Concerns about addiction
  - Fear of tolerance
  - Age related expectation of pain

Pre Op Teaching

Educate patient/family/staff

- Pain plan
- How & when to evaluate

•Use of alternative methods of pain control

•Patient and/or Family education on use of PCA

- Explain blocks !!!!!!
- Provide pre-anesthetic evaluation, brochures, and videotapes to educate patients about therapeutic options (music and/or guided imagery, other)

Preoperative Preparation of the Patient

- Instruct on bedside postoperative evaluation
- Include instruction in behavioral modalities to control anxiety
  - Distraction, deep breathing, visualization (etc)

Preoperative Preparation of the Patient

- Instruct on pain ranking tools prior to surgery
- Use age appropriate tools, why, when and how to be used.
- Instruct S.O., parents if needed.
- May want to use personalized tool (i.e.Randall)

- Generally there is decreased cardiac and pulmonary reserve with increased age
- Opioids may produce confusion or cause some delirium postoperatively in some patients
- An elderly patient taking six medications is likely to have adverse reactions 14 times more than a younger person taking the same number of medications.

- Consider additive respiratory depressant effect of both opiates and anxiolytics
- Most elderly patients metabolize drugs at a slower rate and may require less-frequent dosing or a reduction in dosage
- Certain medications should be avoided in elderly patients, based on their adverse effects
- (Beers list)

- Sedative effects with an increased risk of falls
- Constipation related to opiates & NSAIDS
- May have reduced gastrointestinal motility
- Stool softener with stimulant
- Start pain meds at a lower dose and increase to pain relief if opioid naive

Special Populations

Pediatrics

- Use pain scales specific to age
    - FLACC (pre-op instruction)
- Observe frequently
- Medication dose wt specific
- Guided Imagery
- Distraction
- Music/video

Special Populations

Pediatrics

- Allergies
- Sensitivities
- Comfort frequently
- If non verbal anticipate painful procedures result in pain
- Be an advocate

Special Populations

Special needs:

- Identify what works for this patient
- Ask the family or caregiver
- Comfort frequently
- If non verbal anticipate painful procedures result in pain
- Again be an advocate

Cultural Considerations

- Be aware of specific needs and beliefs
- Respect the patient/family tradition
- Internalize (how would I feel if)
- Do not pre judge
- Explain need for pain control

Intra Op Consideration

- Therapy selected should reflect the individual needs of the patient.
- Ability to recognize and treat adverse effects during surgery
- Special caution during continuous infusion modalities
- Drug accumulation may contribute to adverse events

- Patients who are pretreated with pain meds, anxiolytics or NSAIDS prior to surgery
- Have a greater decrease in postoperative pain
- Decrease in postoperative anxiety

- Olorunto,W & Galandiuk, S. 2006. Managing the Spectrum of Surgical Pain:
- Acute Management of the Chronic Pain Patient. American College of Surgeons

•Surgeries to upper abdominal and thoracic areas associated with severe pain can lead to:

- Restrictive lung defect
- Depressed diaphragmatic activity

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Study:

•Early and aggressive use of pain medications after surgery results in shorter hospital stays, fewer chronic pain problems later, and use less pain medication overall than people who avoid pain medication.

Taylor, M. (2001).Managing postoperative pain. *Hosp Med*; 62: 560-563.

Intra Op Consideration

- Patient Advocate
- Continue to assess for anxiety/pain
- Provide comfort
  - Positioning
  - Guided imagery
  - Music

Adequately treating Post-surgical Pain

- Increased Comfort =quicker healing
- Increased activity=

  increased strength
- Decreased complication=
  improved post-op period

- The risk of addiction to pain medication is low for patients using such medications for post-surgical pain
- Addictive personality leads to addiction
- Dependency is another issue