Pain Management

Almut Winterstein, PhD
Thomas Johns, PharmD

Recap – CAH Pain Issues

- No or insufficient pain assessment
- No use of pain scores
- Lack of regular reassessment
- Use of Darvocet
- Use of meperidine or fentanyl patches for acute pain
- Duplicate PRN orders without explicit instruction
- Any PRN order without explicit instruction
- Lack of explicit pain titration based on scores
- Lack of RTC treatment for continuous pain conditions

Pain – Key Concepts

- Two categories of pain
  - Nociceptive Pain
    - Two Types
      - Somatic (arising from skin, bone, joint, muscle)
        - Presents as throbbing and well localized
      - Visceral (arising from internal organs)
        - Referred pain from other structures
    - Sensation of pain results from stimulation of free nerve endings known as nociceptors (eg. mechanical, thermal, chemical)
  - Neuropathic/Functional Pain
    - Neuropathic (eg. diabetic neuropathy, postherpetic neuralgia) - results from nerve damage
    - Functional (eg. fibromyalgia) – abnormal operation of the nervous system

Pain – Key Concepts

- Classification of pain
  - Acute pain
    - Mild to severe
    - Usually nociceptive but can be neuropathic
    - Causes include surgery, trauma, etc.
    - Subsides quickly as healing takes place
    - Easily controlled by conventional analgesic therapy
  - Chronic pain
    - Acute pain persisting for months to years
    - Can be nociceptive, neuropathic, or both
    - Pain related to chronic disease (eg. osteoarthritis)
    - Not easily controlled by conventional analgesic therapy
  - Cancer pain
    - Includes chronic and acute components
    - Pain can be caused by disease itself (tumor invasion), treatment (radiation) or diagnostic procedures (biopsy)

Pain – Key Concepts

- Clinical presentation
  - Best addressed by proper pain assessment
    - Intensity, relief, medication side effects
  - Complete history and physical
  - Attempt to identify source of pain
  - Assess emotional factors
    - Anxiety, depression, fatigue, anger all lower the pain threshold
    - Rest, mood elevation, sympathy, diversion all raise the pain threshold
  - Pain is always subjective and we must always accept the patient's report of pain – "Pain is what the patient says it is."

Describing your pain

Keeping pain under control

If you want more information on any medical topic, please contact the Park Nicollet Health Library. A medical librarian can help you find out what you need to know.

Web site: parknicollet.com/healthlibrary
E mail: library@parknicollet.com
Phone: 952-993-5011

Side effects of opioids

Constipation

Nausea and vomiting

Sleepiness

Slowed breathing

This brochure is based on guidelines developed by a team of health care experts at the Institute for Clinical Systems Improvement (ICSI), of which Park Nicollet Health Services is an active member. It will be reviewed and updated on a regular basis as scientific evidence changes. This material is for informational purposes only and is not intended to be a substitute for professional medical advice, diagnosis or treatment.

Communicating About Your Pain

patient education

Talking About Your Pain

Your health-care provider regularly will ask you about your pain. Accurately describing your pain will help your health-care provider learn about the pattern of your pain, make a diagnosis and form a plan for treatment. You can help by answering these questions:

- Where is the pain located?
- How long have you had the pain?
- Does the pain come and go or is it continuous?
- How long does the pain last?
- What makes the pain better?
- What makes the pain worse?
- What is the intensity of the pain?
- What is quality of the pain?
- Has the pain changed since your last visit with your health-care provider?
- What medications or interventions have you tried for the pain? How effective were they?

Your health-care provider has different ways to measure pain. One way is simply to ask you to describe your pain. Use words such as stinging, penetrating, dull, throbbing, achy, nagging or gnawing to describe how your pain feels.

Pain Assessment

Pain scales

- Numeric or visual-analog rating scales (self-reported)
- FLACC (Face, Legs, Activity, Cry, Consolability)
  - Broadly used but originally designed for pediatrics
- Behavioral Pain Assessment Scale
  - Improved FLACC, fits for all kind of patients

can be used for acute and chronic pain!

PainAssessment

Numeric Rating Scales

- patient is supposed to indicate number on scale between 0 and 10
- Most common
- Easy to understand
- Can also be verbal descriptive
- Sometimes with facial expressions

- Can not be used for sedated, sleeping, intubated, non-English speaking patients and pediatrics

PainAssessment

FLACC Scale

The FLACC scale

	Scoring		
Categories	*0*	*1*	*2*
Face	No particular expression or smile	Occasional grimace or frown, withdrawn, disinterested	Frequent to constant frown, clenched jaw, quivering chin
Legs	Normal position or relaxed	Uneasy, restless, tense	Kicking, or legs drawn up
Activity	Lying quietly, normal position, moves easily	Squirming, shifting back and forth, tense	Arched, rigid, or jerking
Cry	No cry (awake or asleep)	Moans or whimpers, occasional complaint	Crying steadily, screams or sobs, frequent complaints
Consolability	Content, relaxed	Reassured by occasional touching, hugging, or being talked to, distractable	Difficult to console or comfort

Each of the five categories (F) Face, (L) Legs, (A) Activity, (C) Cry, (C) Consolability is scored from 0 to 2, which results in a total score between 0 and 10. Printed with permission © 2002, The Regents of the University of Michigan.

PainAssessment

Behavioral pain assessment scale

Behavioral pain assessment scale
(For Patients Unable to Provide a Self Report of Pain: Scored 0–10 Clinical Observation)

Face	0 Face muscles relaxed	1 Facial muscle tension, frown, grimace	2 Frequent to constant frown, clenched jaw	Face Score:
Restlessness	0 Quiet, relaxed appearance, normal movement	1 Occasional restless movement, shifting position	2 Frequent restless movement may include extremities or head	Restlessness Score:
Muscle Tone*	0 Normal muscle tone, relaxed	1 Increased tone, flexion of fingers and toes	2 Rigid tone	Muscle Tone Score:
Vocalization**	0 No abnormal sounds	1 Occasional moans, cries, whimpers or grunts	2 Frequent or continuous moans, cries, whimpers or grunts	Vocalization Score:
Consolability	0 Content, relaxed	1 Reassured by touch or talk. Distractible	2 Difficult to comfort by touch or talk	Consolability Score:
Behavioral Pain Assessment Scale Total (0 to 10)				**/10**

*Assess muscle tone in patients with spinal cord lesion or injury at a level above the lesion or injury. Assess patients with hemiplegia on the unaffected side. **This item cannot be measured in patients with artificial airways.

PainAssessment

- Advantage of quantitative scores:
  - Cantrackchangeover time
  - Canbeused to forexplicittitrationprotocols
- 1-3 mild pain
- 4-6 moderate pain
- 7-10 severepain

How often should pain be assessed?

- This slide intentionally left blank…

Pain – Key Concepts

- Pharmacologic treatment
  - Non-opioid agents (acetaminophen, NSAIDs)
    - Initiate with most effective agent and fewest side effects
    - Preferred over opiates for mild-to-moderate pain
    - NSAIDs particularly useful for cancer related bone pain
    - Rational therapy to switch to another agent of this class if desired response is not achieved
    - Avoid NSAID (consider opioids) in patients greater than 75 y/o (American Geriatrics Society 2009)

Pain – Key Concepts

- Pharmacologic treatment
  - Opioid agents
    - Next logical step in the treatment of acute pain or cancer-related chronic pain
    - Patients with severe pain may receive high doses with no side effects, then as pain subsides, they may not tolerate even low doses
    - Pain may not be fully eliminated but unpleasantness is decreased
    - Constipation, sedation, and N/V most common, respiratory depression is less common
    - Tolerance to side effects (except constipation) develops within the first week of therapy

Pain – Key Concepts

- Pharmacologic treatment
  - Opioid agents
    - Allergy
      - True allergy (immunologic) is rare
      - Adverse reactions that include itching or rash are due to histamine release are common
        - Morphine>oxycodone=fentanyl
      - Decrease in potential cross-reactivity exists when moving from one opioid structural class to another (eg. morphine and fentanyl are in different classes)

Pain – Key Concepts

- Pharmacologic treatment
  - Use around-the-clock (ATC) dosing for continuous acute pain and/or chronic pain
  - PRN schedules produce wide swings in pain and sedation – used for pain that is intermittent in nature (e.g. headache)
  - Initiate starting dose and titrate up or down depending on response and side effects
  - Provide appropriate “rescue dose” when patient experiences breakthrough pain (BTP)
  - Use IV route if patient needs immediate relief and will likely need doses titrated
  - Patient-controlled analgesia (PCA) useful for postoperative pain
    - Compared to PRN methods, PCA results in better pain control and patient satisfaction

Pain – Key Concepts

- Pharmacologic treatment
  - Morphine is prototype opiate analgesic agent
    - First line for treating moderate-to-severe pain
    - Stimulates chemoreceptor trigger zone – nausea and vomiting
    - Side effects more prominent in patients with less pain
    - Respiratory depression manifests as decrease in respiratory rate
  - Hydromorphone (Dilaudid)
    - Overall pharmacologic profile parallels morphine
    - May have fewer side effects, especially pruritis

Pain – Key Concepts

- Pharmacologic treatment
  - Codeine
    - Mild-to-moderate pain
    - More nausea and constipation compared to morphine
  - Hydrocodone
    - Combined most often with acetaminophen and ibuprofen
    - Brands: Lorcet®, Lortab®, Norco®, Vicodin®, Vicoprofen®
  - Oxycodone
    - Oral analgesia for moderate-to-severe pain
    - Available as single ingredient or in combination with nonopioids
    - Brands: Roxicet®, Tylox®, Percocet®, Percodan®
    - Immediate and controlled release (OxyContin) dosage forms

Pain – Key Concepts

- Pharmacologic treatment
  - Meperidine
    - Less potent and shorter duration compared to morphine
    - Metabolized to toxic metabolite (normeperidine)
      - Renally cleared with toxicity developing in patient with renal dysfunction and elderly
      - Repeated dosing results in accumulation of normeperidine
      - CNS toxicity = tremor, muscle twitching, and seizures (not reversed by naloxone)
      - Should be limited in use to rigors and/or procedural pain
      - Avoid use for treatment of chronic pain
  - Methadone
    - Unpredictable half-life, excessive sedation, and difficult titration
    - Methadone-related deaths have increased substantially
    - Reserve for chronic pain only or narcotic detoxification

Methadone Awareness Campaign

Follow Directions

How to Use Methadone Safely

Methadone is safe and effective in relieving pain and treating individuals who suffer from addiction and dependence on heroin and narcotic pain medicines. Still, all medicines have risks. Here's how to safely reduce the risks when taking methadone.

- Share your complete health history with health professionals, listing other medications you may be taking and any medical conditions you may have.
- Take only the amount prescribed, at the times prescribed.
- Don't consume alcohol, and take care when driving or operating machinery.
- Keep methadone away from children and never give it to anyone else. It may cause heart problems or an overdose.
- Contact a medical professional if you have difficulty breathing; feel faint; develop hives or a rash; have swelling in the face, lips, tongue, or throat; experience chest pain or pounding heartbeat; develop hallucinations; or become confused.

Need More Information?
Here's Help. Call **1-800-662-HELP** or visit
Center for Substance Abuse Treatment's Division of Pharmacologic Therapies
www.dpt.samhsa.gov/methadonesafety

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
Food and Drug Administration
www.samhsa.gov
www.fda.gov

SMA-06-4411

Pain – Key Concepts

- Pharmacologic treatment
  - Propoxyphene (Darvon/Darvocet)
    - No better than acetaminophen alone
    - Metabolized to potentially toxic metabolite (caution with elderly and renal dysfunction)
    - Risk of overdose and death
    - Many groups advocating withdrawal from the US market

News & Events

FDA NEWS RELEASE

For Immediate Release: July 7, 2009

Media Inquiries: Karen Riley, 301-796-4674; karen.riley@fda.hhs.gov
Consumer Inquiries: 888-INFO-FDA

FDA Takes Actions on Darvon, Other Pain Medications Containing Propoxyphene

The U.S. Food and Drug Administration is taking several actions to reduce the risk of overdose in patients using pain medications such as Darvon and Darvocet that contain propoxyphene. The actions were taken because of data linking propoxyphene and fatal overdoses.

The agency is requiring manufacturers of propoxyphene-containing products to strengthen the label, including the boxed warning, emphasizing the potential for overdose when using these products. These manufacturers will also be required to provide a medication guide to patients stressing the importance of using the drugs