



Pain Assessment and Management

University of Illinois at Chicago

Purpose

- Define pain.
- Assessment of pain.
- Identify medications and therapies used for pain management.
- Identify potential side effects of pain medications.



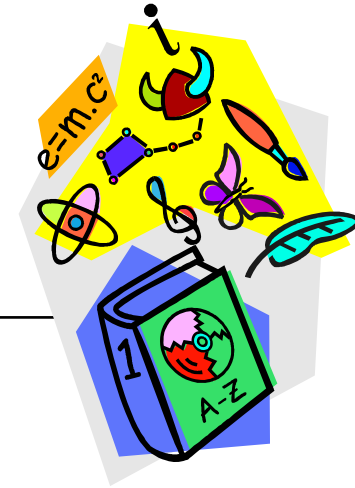


National Institutes of Health: Pain Facts

- Pain affects more Americans than diabetes, cancer and heart disease combined.
- Chronic pain is the most common cause of long-term disability, affecting about 50 million Americans annually.
- Aspirin is the most commonly used pain reliever
- Opiate medication and aspirin were discovered in the early 19th century and are still being used today to treat pain.

<http://www.ninr.nih.gov/NR/rdonlyres/DC0351A6-7029-4FE0-BEEA-7EFC3D1B23AE/0/Pain.pdf>

Define Pain



- *Pain* can be mild, moderate or severe.
- *Pain* is either acute or chronic.
- *Pain* may be real or perceived.
- *Pain* is what a person says it is.

One's perception of pain is influenced by multiple factors.

Definition of Acute Pain

- *Acute pain* has a sudden onset, short course and usually lasts less than 6 months.



- *Acute pain* is usually the result of physical trauma that needs medical attention.
- *Acute pain* usually goes away when the injured area heals.

Definition of Chronic Pain



- *Chronic pain* has a long duration or frequent recurrence, is persistent pain that can be continuous or intermittent (comes and goes).
- *Chronic Pain* persists for at least 6 months or remains after your body has healed.
- *Chronic Pain* may be intense enough to affect a person's well being, functional ability, ADLs, and/or quality of life.
- *Chronic Pain* can cause low self-esteem, depression and anger.

Goals of Pain Management

- *Decrease* pain intensity and frequency.
- *Decrease* psychological or social symptoms such as, depression, anxiety, inability to sleep.
- *Improve* functional ability.
- *Improve* or maintain quality of life.



Assessment of Pain



- Assess pain at every visit with participant.
- Monitor medications, dosages and frequency of use at every visit.
- Monitor for medication side effects: nausea, vomiting, low blood pressure, confusion, drowsiness.

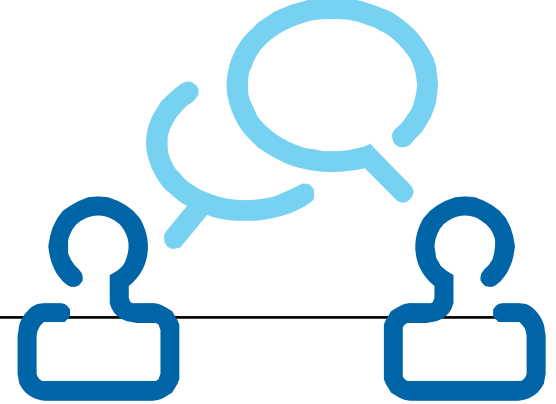
Assessment of Pain



Assessment of pain should include:

- Location
- Type of pain (e.g., sharp, dull, stabbing).
- Intensity: 0-10 pain intensity rating scale:
- What makes pain worse and what makes it better?
- How does the pain impact ADLs?
- Does pain affect psychological or social factors? (depression, substance abuse, past or current physical, sexual or emotional abuse)

Assessment of Pain



Report other signs of pain:

- Vocalizations- moaning, asking for help, groaning
- Facial expressions- grimacing, frowning, wrinkled forehead
- Body movements- bracing, guarding, rocking, fidgeting, pacing, rubbing
- Changes in interaction- restlessness, withdrawn, aggressive, combative
- Changes in pattern- refusing food, increase or decrease in sleep, wandering, incontinence, inability to urinate
- Mental status changes- crying, tearful, increased confusion, irritability, or distress

Pain Assessment Tools

Visual Pain Scale (picture of facial expressions)

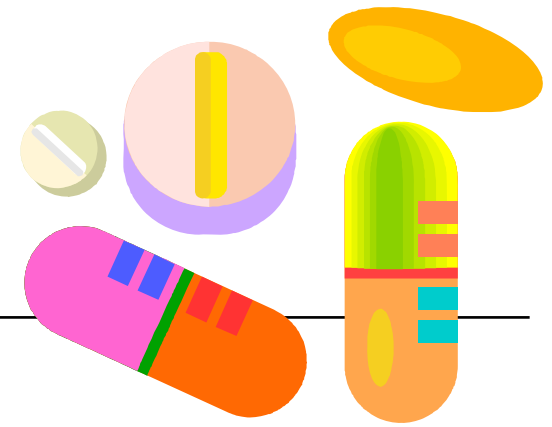


Pain Numeric Rating Scale:

On a scale of 0 to 10, with 0 being no pain at all and 10 being the worst pain imaginable, how would you rate your pain **RIGHT NOW?**

0 1 2 3 4 5 6 7 8 9 10
No Pain Worst Pain Ever

Management of Pain: Medications



Medications:

- Different types of medication are for different types of pain.
- Medications may include narcotics or opioids and adjuvant medications.
- It is not uncommon to see a person on multiple pain medications.

Management of Pain - Medications



- **Long-acting pain medication:**
 - Used for constant pain
 - Typically last 12 hours.
 - Break through pain occurs when people are being treated with long-acting pain medications.
 - Break through pain occurs randomly and peaks right before it is time to take their next dose of long-acting pain medication.
- **Short-acting pain medication:**
 - Used for pain that comes and goes
 - Typically lasts 2-4 hours.
- ❖ A person may be on both long-acting and short-acting pain medications for break through pain.
- ❖ Monitor for overdose of pain medications.

Management of Pain - Medications

- Nonaspirin pain relievers such as Acetaminophen (Tylenol) can relieve headaches and minor pain, but do not reduce swelling.
- Acetaminophen and Propoxyphene (Darvocet N 100) is a short acting pain medication, taken every 4-6 hours for break through pain.
- Tramadol (Ultram) is used for mild to moderate pain.

Management of Pain - Medications

- Anti-inflammatory drugs are used to relieve pain, inflammation (swelling) and fever.
 - Aspirin and Non-steroidal anti-inflammatory drugs (NSAIDs) such as Ibuprofen (Advil, Motrin) and Naproxen (Aleve).
 - There are also prescription steroidal drugs (like prednisone) that are used for more serious inflammatory conditions such as chronic arthritis.

Management of Pain - Medications

NSAID Side Effects

- **Stomach upset:** may need a medication to protect the stomach such as Esomeprazole (Nexium) or Pantoprazole (Protonix) from stomach ulcers.
- **Bleeding:** Monitor for frequent bleeding gums, nose bleeds, cuts that bleed longer than normal.

NSAIDS should be taken with food to minimize/prevent stomach upset.

Management of Pain - Opioids

OPIOIDS: Morphine-like drugs called opioids are prescribed for acute pain or cancer pain. Used for:

Mild pain:

- codeine containing medications (Tylenol # 3)

Moderate pain:

- oxycodone (Oxycontin, , Percocet, Percodan)
- hydrocodone (Hycodan, Vicodin, Vicoprofen, Lortab)

Severe pain:

- fentanyl transdermal (Duragesic)
- hydromorphone (Dilaudid)
- methadone
- Morphine (MS Contin)



Management of Pain-Opioids

Side Effects:

- Nausea and vomiting
- Constipation
- Itching
- Jerky muscular movements:
- Respiratory depression



Management of Pain: Other Medications



Anti-depressants:

- May help relieve neuropathic pain and help to improve sleep.
- Examples: amitriptyline (Elavil), fluoxetine (Prozac), duloxetine (Cymbalta)

Anti-seizure medication:

- Medications used to relieve nerve type pain described as "shooting" pain
- Ex: Gabapentin, Pregabalin, Carbamazepine

Muscle Relaxant:

- Treat muscle spasms, may be sedating.
Examples: Cyclobenzaprine (Flexeril)

Management of Pain: Therapies

- Physical therapy (such as stretching and strengthening activities) and low-impact exercise (such as walking, swimming or biking) can help reduce the pain. Other therapies include heat and massage.



- Occupational therapy teaches how to pace activities and how to do ordinary tasks differently.
- Behavioral therapy can reduce pain through methods (such as meditation, biofeedback and yoga) that help people relax.

Additional Types of Pain Management



- Local injections into the area of pain or around nerve endings.
- Transcutaneous electrical nerve stimulation (TENS) is the most common form of electrical stimulation used in pain management. Small battery operated wearable device that decrease pain by blocking nerve impulse.
- Heat and ice – heat reduces muscles stiffness and spasms; ice decreases inflammation.
- Splints – for acute pain to protect the injured area.

Additional Types of Pain Management



- **Psychological support** - Many patients who are in pain feel the emotional effects along with the physical aspects of pain.
 - These may include-anger, sadness, hopelessness or despair. Pain can alter one's personality, disrupt sleep, interfere with work and relationships and often impacts the family.
 - Help may come from support and counseling from a psychiatrist or psychologist, self-help therapies such as relaxation training or biofeedback to relieve pain, lessen muscle spasms and reduce stress.

Additional Types of Pain Management

○ Surgery –

- Such as carpal tunnel release or hip or knee replacement.
- In rare instances when severe pain has not responded to other strategies, surgery on certain nerves can be done to give the patient some relief and allow him/her to resume near-normal activities.



Complementary and Alternative Medicine (CAM) Pain Management Strategies

- **Chiropractic Manipulations** – Osteopathic physicians use massage and manipulation that may give temporary relief of pain. Covered by Medicaid
- **Biofeedback** – Uses visual or sound cues to help people control their response to pain. They can learn to relax muscles and stay calm. LIMITED Medicaid Coverage
- **Acupuncture** - This ancient Chinese practice uses very thin needles at very specific points on the skin to interfere with nerve impulses. Can be used for both acute and chronic pain. NOT COVERED by Medicaid.



Complementary and Alternative Medicine (CAM) Pain Management Strategies

- **Guided Imagery** – relaxation technique involving imagining your favorite relaxing location and imagining your self there (e.g., beach, etc.).
- **Herbal remedies and supplements** – not regulated by the FDA and should be approved by a healthcare provider.
- **Progressive muscle relaxation** – starts at the feet and moves up the body until the entire body feels relaxed.
- **Relaxation breathing** – helps relax the body and take the mind away from worries, slow, steady relaxing breaths.

Lifestyle Changes for chronic pain management



- Lifestyle changes are an important part of management of chronic pain.
 - Get regular sleep at night and avoid taking naps during the daytime.
 - Mild exercise can increase strength and flexibility.
 - Good nutrition will make a person feel better and help prevent some side effects.
 - Stop smoking. The nicotine in cigarettes can make some medicines less effective. Smokers also tend to have more pain than nonsmokers because of narrowing blood vessels which cause a decrease in blood flow to a painful area.



Addiction and Pain

- Persons with a history of addiction have lost control over the use of a drug. They may still develop acute or chronic pain that needs to be managed.
- Their healthcare provider may ask them to sign an opioid agreement and
 - obtain prescription from only one provider;
 - use only one pharmacy;
 - bring medication to appointment to be counted;
 - have periodic urine drug testing.



Questions to ask Prior to Transition

- Does the participant have pain?
- If yes, complete 'Assessment of Pain' (Slide 9)
- What medications or therapies are being taken for pain?
- Does pain improve with medications or therapy?
- Does the participant know and understand the pain management plan?



What the TC can do

Prior to transition:

- Complete medication chart including 'as needed' (PRN) and 'over the counter' (OTC) medications.
- Schedule appointment with primary care provider.
- Request a referral for physical/occupational therapy in the home, if pain impacts ADL/IADLs.
- Make sure participant has all pain medications at transition.



What the TC can do

Educate

participant/caregiver:

- Ensure that the participant/caregiver understand the treatment plan, medications, and potential side effects
- Identify and educate participant when to call healthcare provider: change in pain symptoms (worsening or improving), having side effect with pain medications.



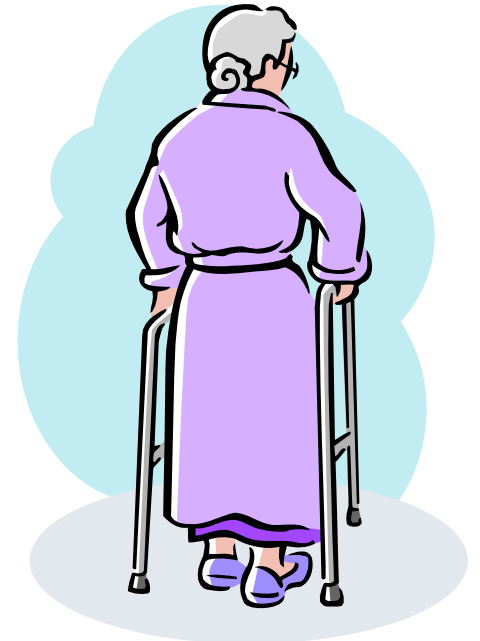
Case Study - Overview

- Claire is a 72-year old female.
- She is a resident at Maple Nut Nursing Home. She was placed in the nursing home for extensive physical therapy after being involved in a motor vehicle accident (MVA).
- Slowly, she has been gaining her strength back and was medically cleared last month to transition home.



Case Study – Past Medical History

- Claire's past medical history includes:
 - Osteoarthritis
 - Chronic back pain related to spine compression fractures
 - Lumbar Laminectomy x 3 (back surgery)
 - Hypothyroidism
 - GERD (acid reflux)
 - Constipation
 - Depression
 - Insomnia
 - MVA with right arm fracture



Case Study Medication List

<u>Prescription</u>	<u>Dosage</u>	<u>Purpose</u>	AM	Noon	PM	Bed	Date	MD	Phar- macy
MS Contin (tablet) (Morphine Sulfate)	15 mg. Every 12 hrs.	Long- acting PAIN	X		X			Dr. Hill	CVS
Darvocet N100 (tab) (Acetaminophen and Propoxyphene) PRN (as needed) PRN Break-through pain	1 tab every 4- 6 hrs PRN Break-through pain	Short acting PAIN						Dr. Hill	CVS
Zantac (tab) (Ranitidine)	150 mg twice day	GERD	X		X			Dr. Hill	CVS
Synthroid (tab) (Levothyroxine)	125 mcg Once day	Hypo- thyroid	X					Dr. Hill	CVS
Lexapro (tab) (Escitalopram)	10 mg Once day	Depres- sion				X		Dr. Hill	CVS
Colace (tabs) (Docusate sodium)	2 tabs Twice day	Consti- pation	X					Dr. Hill	CVS
Milk of Magnesia (liquid)	2 table- spoons bedtime	Consti- pation				X		Dr. Hill	CVS
Ambien (tab) (Zolpidem)	5 mg. bedtime	Insomnia				X		Dr. Hill	CVS

Case Study

- Claire has chronic pain related to compression fractures. She is taking long-acting and short-acting pain medication.

1. How can you assess Claire's pain level?



Answer: Using various pain assessment tools and observing for non-verbal cues. See slides #9, 10, 11.

Case Study



- Common side effects of pain medications are constipation, drowsiness, light-headed, nausea, low blood pressure
- 2. What can Claire do to decrease the severity of constipation and nausea?
 - Take medication with a full glass of water (8 oz.)
 - Take medication with food, preferably with a full stomach.
 - Take a stool softener daily and a laxative as needed. Monitor for diarrhea.
 - Increase fiber intake in her diet (cereal, bread, apples, figs) .

Case Study



- Claire had severe back pain after spending the entire day working in her garden. Claire decided to take 2 tablets of Darvocet instead of 1.
- 3. What precautions should Claire take?
 - Monitor daily intake of Acetaminophen. Claire should not take more than 4,000 mg of Acetaminophen over 24 hours. An overdose can cause severe liver and kidney damage.
 - Do not drive or operate machinery while on pain medication. These medications will alter your perception and reaction time.
 - Avoid drinking alcohol.
 - Claire should contact her primary care physician if her severe pain persists, pain does not respond to pain medication or side effects develop.

Case Study

4. In addition to pain medication, what alternative therapies could Claire use to relieve her pain?

○ See slides # 19-23



Case Study



- Over the past few months, you have noticed changes. You noticed that Claire is running out of her pain medications sooner, she is uninterested in her usual activities and shows very little interest during your visits with her. Claire is irritable, and she reports the pain is becoming more severe.

5. What do you suspect is going on with Claire?

- Claire maybe building a tolerance to her pain medication. This means the pain medication is not as effective as it once was. This may occur when people have been on pain medication for a long time.
- Recommend discussing your concern with Claire's primary care provider. If medication tolerance is recognized early, it can be treated without becoming troublesome.

Questions?

- Contact your UIC Pod Leader



References

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