



Chronic Pain Management

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Objectives

- Illustrate the cost of chronic pain in today's healthcare
- Demonstrate how to assess, diagnose, and treat a patient who presents with a chronic pain condition
- Discuss the differences between nociceptive pain and neuropathic pain



The Problem of Chronic Pain

- For the practitioner, the patient with chronic pain can be very time consuming
- They can require more frequent follow-up
- They can make more calls to the office
- If opioids are being used, prescriptions need closer monitoring and reassessment



CDC Effect

- Opioids continue to be prescribed for chronic pain
- 20% of patients leaving a primary care office after a noncancer, acute or chronic pain complaint receive an opioid prescription
- In 2012 there were 259 million opioid prescriptions-enough for a bottle of pills for every adult in the US
- (Dowell,Haegerich, Chou,2016)



CDC 2016 OPioid Guidelines for Chronic Pain

- Start treatment for chronic pain with non-opioids and nonpharm measures
- If a trial of opioid merited, benefits outweigh risks, start with short acting meds
- Screen all patients starting on opioids for risk
- Use Patient /Prescriber Agreement
- Taper or discontinue opioids if no longer beneficial



CDC Continued

- Establish realistic goals and continue therapy if there is progress towards goals and improvement in pain and function
- Avoid combining opioids and benzodiazepines
- Provide three days of opioids for post-op pain with 7 days the maximum
- Limit prescription to 50 MME, 90 maximum
- Refer high risk patients for treatment with methadone or buprenorphine
- (<http://www.cdc.gov>)



The cost of chronic pain in the healthcare system

- Chronic pain accounts for 40 million patient visits annually
- It is the most common reason patients seek help from healthcare providers
- It affects patients at any age and it can start for absolutely no identifiable cause

Monetary costs

Estimates for the cost of chronic pain are said to be \$100 billion per year related to:

- Healthcare costs
- Welfare and disability
- Losses in tax revenue
- Lost productivity through presenteeism said to cost \$61.2 billion per year



Stewart, Ricci et al, 2003



The average patient with chronic pain

- Has had pain for 7 years
- Has had three major surgeries
- Incurred medical bills of \$50,000 to \$100,000
- Has high levels of pain daily that they have learned to live with

(Research America)



Most common types of chronic pain

- Back pain (28%)
- Arthritis and joint pain (19%)
- Headaches/migraines (17%)
- Knee pain (17%)
- Shoulder pain (7%)

Research America



Personal costs to the patient

- Depression is common
- Loss of productivity and self esteem
- Rates of suicide are twice the national average
- Chronic sleep disturbance-55% reported disturbed/light sleep after the onset of pain
- Daytime fatigue
- Loss of quality of life

Marin et al,2006;Bruckenthal & D'Arcy,2007



How prepared are NPs to assess and treat chronic pain ?

- In a 2009 survey of 400 NPs, 62 % felt that they had been prepared to assess patients with acute pain
- When asked how prepared they felt to treat chronic pain, 44% felt they were prepared while 56% felt they had not been prepared

(D'Arcy, 2009)



Identified barriers to prescribing opioids for chronic pain

- Cost
- Fear of regulatory oversight
- Addiction
- Not knowledgeable enough about the medications
- Don't want to be seen as different from other members of the practice



Differences in pain types

Acute pain

- rapid onset
- indicates trauma or tissue injury
- expected to last only a short period of time

Serves to warn the body that has been injured

Chronic pain

- serves no real purpose
- may occur with or without detectable tissue injury
- lasts beyond the normal healing period
- depression is common



Neuropathic pain

- Neuropathic pain is caused by damage to nerves either in the periphery or the central nervous system
- Patients describe this pain as burning, painful numbness, pins and needles, like walking on broken glass, strange sensations, shooting, electric



Patients with neuropathic pain may have

- **Allodynia**: Perception of pain caused by a stimulus that is not normally painful-light touch
- **Hyperalgesia**: Increased sensation of pain caused by a stimulus that is normally painful
- **Opioid Hyperalgesia**- painful feelings “all over” can be caused by chronic opioid use (Chu et al,2006)



Types of neuropathic pain

- Diabetic neuropathy
- Post-herpetic neuralgia
- Post-thoracotomy and post mastectomy pain syndrome
- Phantom limb
- Complex Regional Pain Syndrome
- Radiculopathy
- Carpal tunnel syndrome



Effects of untreated pain

- Untreated or undertreated pain can limit functionality
- Can allow a chronic pain condition such as CRPS that is extremely difficult to treat
- Decrease the quality of the patient's life, anxiety, fear, depression and uncertainty (Berry et al,2006)



Assessing chronic pain

- Can be difficult because the patient uses self-report
- Healthcare providers have difficulty trusting the patient's report of pain
- The 0-10 scale is objective and the pain is a subjective experience
- Healthcare providers and patients can be biased



Basic elements of pain assessment

- Location
- Duration
- Intensity-ask for best/worst score on average day
- Quality/description
- Alleviating/aggravating factors
- Pain Management Goal
- Function goal



Numeric Pain Intensity Scale

The Numeric Pain Intensity Scale (NPI)

0 1 2 3 4 5 6 7 8 9 10 |__|__|
__|__|__|__|__|__|__|__|

**No
Pain**

Mild Pain

Moderate Pain

**Worst
Possible
Pain**

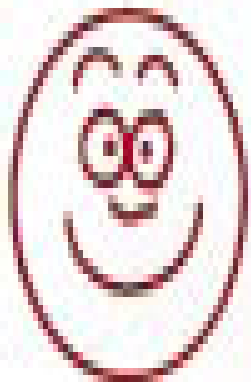
A systematic review of 164 journal articles on pain found that single item ratings of pain intensity are valid and reliable measures of pain intensity (Jensen, 2003)

Thermometer Scale

PAIN DISTRESS/ INTENSITY SCALE

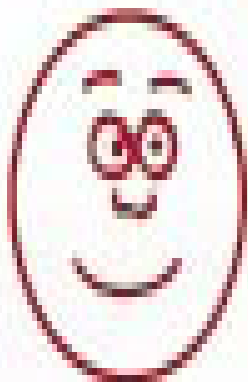


FACES



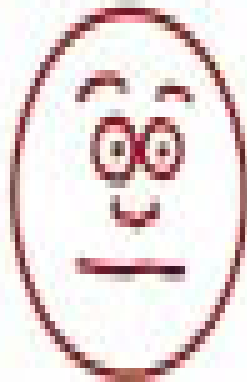
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No Hurt



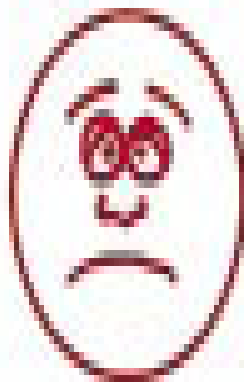
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Hurts
Little Bit



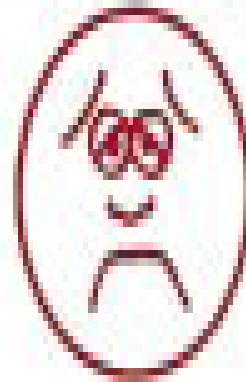
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Hurts
Little More



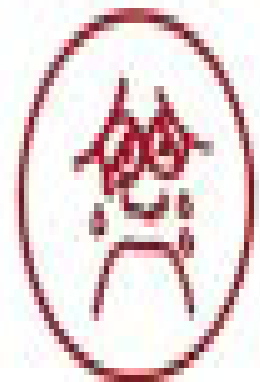
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Hurts
Even More



4

Hurts
Whole Lot



5

Hurts
Worst



Multidimensional pain scales for chronic pain

- Brief Pain Inventory-BPI
- McGill Pain Questionnaire- MPQ
- McGill SF-MPQ-2 discriminates between chronic pain conditions and neuropathic pain



Multidimensional Pain Scales

- Use a combination of indexes
- Pain intensity
- A body diagram to locate pain
- Verbal descriptors
- Mood
- Medication efficacy questions



Brief Pain Inventory (BPI)

- Reliable and valid
- Can be used as an interview or self-report
- Originally developed for cancer pain but use has been widened to chronic pain in general



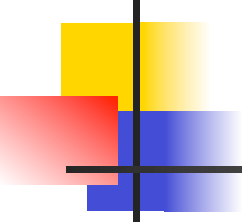
BPI

- Consists of
 - A body diagram
 - Pain intensity scale
 - A functional assessment
 - Questions about the efficacy of pain medications



McGill Pain Questionnaire (MPQ)

- Reliable and valid for assessing chronic pain
- Uses a VAS scale for pain intensity, Present pain intensity (PPI) rating and a group of verbal descriptors



Screening for Opioid use in patients with a history of opioid use

- SOAPP (Screener for Opioid Assessment for Pain Patients) available at www.painEDU.org
- Not a lie detector and not intended for use with all patients
- Determines likelihood that aberrant behaviors will develop
- Can help determine how much oversight a patient with a history of substance abuse may need if opioids are prescribed



Aberrant Behaviors

- Up to 40% of all pain clinic patients will develop aberrant behaviors
- Include hoarding, asking for a specific medication or dose, self escalating medication once or twice
- Behaviors more predictive of addiction, injecting oral formulations, stealing or selling drugs, obtaining medications from non-standard sources (Portnoy & Fine, 2004)



Opioid Risk Tool (ORT)

- Simple easy to score tool
- Used to determine the likelihood that patient will have difficulty if opioids are prescribed long-term
- The lower the score the better

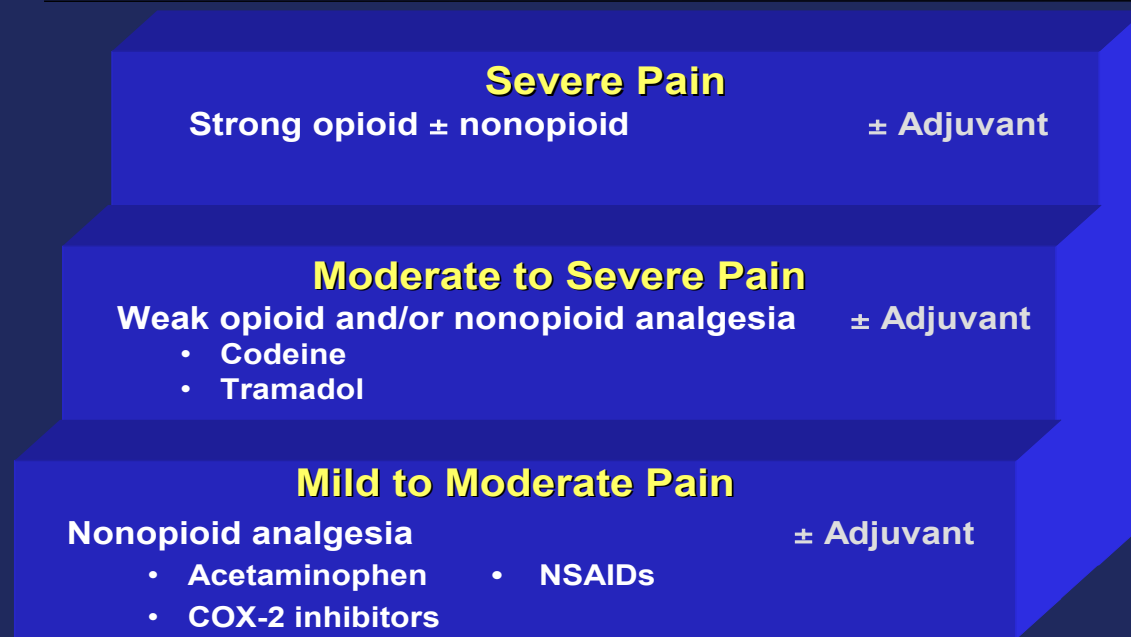
Medication Management





WHO Analgesic Ladder

WHO Step Approach to Cancer Pain



COX=cyclooxygenase; NSAIDs=nonsteroidal anti-inflammatory drugs.

Berry PH, et al, eds. *Pain: Current Understanding of Assessment, Management, and Treatments*. Reston, Va: National Pharmaceutical Council, Inc; 2001. 11



Mild level pain 1-3

- Acetaminophen- maximum daily dose 4000 mg-patients with liver impairment less, Check for ETOH
- NSAIDS- limited for history of cardiac disease, GI Bleeding
- COX2 medications offer a better profile for GI Bleeding



Moderate level pain-4-6

- Codeine containing products-Tylenol #3
- Hydrocodone containing products-
Vicodin, Lortab, **Zohydro, Hysingla**
- Oxycodone containing products-
Percocet, Oxycontin
- Oxymorphone products-Opana
- Tramadol-Ultram, Ultram ER
- Tapentadol- Nucynta, Nucynta ER



Severe level pain 7-10

- Morphine-Roxanol, MS Contin, Avinza, Kadian
- Hydromorphone- Dilaudid- Exalgo
- Methadone-Dolophine
- Fentanyl-patches, oralets * not recommended for acute pain



Topical analgesics

- Lidoderm
- Capsaicin
- Analgesic balms
- Heat wraps
- NSAID patch
- Butrans patch



Co-analgesics

- Tricyclic antidepressants- Elavil-not recommended for elderly
- SSRIs- Effexor
- SNRIs- Duloxetine-Cymbalta
- Antiseizure medications-Neurontin, Pregabalin(Lyrica)



Issues with opioids

- More focus/time needed for opioid dependent patients
- Need for safe prescribing
- Use of opioid agreements
- Universal precautions
- REMS



What is a safe prescription?

- A risk benefit ratio analysis before a medication is prescribed for the patient
- Screening tools and diagnostics used to determine if the medication is a safe choice
- A clear readable prescription that cannot be altered
- Right drug and dose for the right patient



Universal precautions

- Consist of standardized prescribing guidelines using the minimum level of precaution for all patients
- Include: diagnosis, psychological assessment, informed consent, treatment agreement, pain assessment and reassessment, 4 A's, review diagnosis, **DOCUMENTATION**



Treatment Agreement

- Risks and benefits of treatment
- Goals of treatment
- Side effects of medications
- Definitions of addiction, dependence, and tolerance
- Rationale for changing or discontinuing medication
- Expected patient behaviors
- www.painedu.com



REMS

- Instituted for LA and rapid release opioids
Compliance for prescribers of these drugs
- Includes education
- Has both an up and down side to the concept



Addiction

- True addiction is a chronic neurobiological disease based on the 4 C's
- Craving for the substance
- Loss of control over the substance
- Continued use despite harm
- Compulsive use



Opioid dependency and tolerance

- Patients with chronic pain who take opioids daily to control pain are considered to be opioid dependent not addicted
- If patients need higher doses they may be demonstrating tolerance, an adjustment to a reduced effect of the opioid such as sedation, nausea, pain relief
- Tolerance does not mean the patient is addicted



Drug Seekers or Relief Seekers

- All patients on chronic long-term opioids are not addicts
- They are dependent on the medications and are opioid tolerant
- The true incidence of addiction in primary care for patients on chronic opioids therapy is about 4-5%

Flemming et al,2007;Fishbain et al,2008



Addiction

- Addiction is a chronic neurobiologic disease where there is
- craving for the favored substance,
- compulsive use,
- lack of control over the drug
- continued use despite harm
- Tolerance is not addiction



Signs of addiction

- Injecting oral medication
- Appearing more and more unkempt
- Stealing/forging prescriptions
- Performing sex for drugs
- Stealing drugs from others
- Trying to get opioids from multiple sources
- Buying medications from a street dealer



Less indicative of addiction

- Hoarding medications
- Taking someone else's pain medication
- Requesting a specific drug or medication
- Independent dose escalations
- Drinking more when in pain
- Asking for a second opinion
- Using opioids to treat other symptoms



Complementary techniques

- Exercise-of any type
- Acupuncture
- Meditation, imagery, relaxation
- Music
- Distraction- crafts and hobbies
- Care with vitamin and nutritional supplements

Complementary Techniques





Issues to consider with opioids

- Screening tools such as SOAPP-R, ORT SISAP can tell who might develop problems with opioid use
- Of a total pain clinic population 40% will demonstrate aberrant behaviors, 20% will misuse/abuse medications, and 2-5% will become addicted
- Patient agreements are recommended for all patients being started on long-term opioids



Safe Prescribing

- Do a thorough H & P and document fully
- Use a medication/opioid agreement-available at www.painedu.com
- Screen urines on a random basis
- If the patient violates the agreement you can discontinue opioid prescribing but continue other care.

Questions





CDC and FDA Recommendations

- Using alternative options first and opioids if these fail-consider all treatment options
- Starting patients on the lowest effective dose
- Implementing pain treatment agreements
- Monitoring and documenting progress
- Using data monitoring systems
- Urine drug screens (CDC,2015)
- **Currently about 20% of patients with a pain complaint are given opioids**