

# *Chronic Pain Management Program*



Group Curriculum Part VII

Pharmacy

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# *Discussion Overview*

- I. Introductory remarks concerning pain management
- II. Nondrug treatments for chronic pain
- III. Pharmaceutical options & concerns in the treatment of chronic pain
- IV. Closing remarks on pain management
- V. Question/Answer session & completion of program



# *Introduction to Pain Management*

- ◆ 50 million Americans suffer from chronic pain (1 out of 5)
- ◆ \$65 billion lost each year in productivity
- ◆ Pain: an unpleasant sensory and emotional experience associated with actual or potential tissue damage.
- ◆ Chronic pain: pain that has not subsided after a reasonable time of healing following a tissue injury.



# *Introduction to Pain Management*

- ◆ Types of pain: nociceptive vs. neuropathic
- ◆ Nociceptive pain is primarily due to injury or inflammation occurring in skin, organ, muscle or bone tissues.
- ◆ The pain can be a dull, constant ache with occasional sharp sensations which is well localized (somatic) OR can resemble cramping which comes and goes and is poorly localized (visceral).



# *Introduction to Pain Management*

- ◆ Neuropathic pain is caused by changes in the nervous system following disease or trauma where there is heightened response to stimuli and/or pain may be felt w/o stimuli.
- ◆ The pain usually presents as hot, burning, tingling sensations that sometimes radiate along nerve tracts.



# *Intro to Pain Management - Possible Barriers to Therapy*

- ◆ Fear of addiction (psychological dependence)
- ◆ Fear of physical dependency & withdrawal
- ◆ Fear of developing tolerance
- ◆ Fear of taking too much medicine
- ◆ Fear of respiratory depression, constipation, and other side effects of medications
- ◆ Social and/or cultural factors



# *Introduction to Pain Management - Opioid Myths*

- ◆ Opioids include drugs like morphine, oxycodone, codeine, hydrocodone, fentanyl, methadone, and demerol.
- ◆ These drugs DO NOT cause organ damage (caution combination products).
- ◆ These drugs do not have a “ceiling effect” or maximum dose (limited by side effects).
- ◆ Patients in pain rarely develop drug addictive behaviors when on opioids.



# *Introduction to Pain Management - Opioid Myths*

- ◆ BE HONEST with yourself and provider concerning addiction issues.
- ◆ Physical dependence will develop over time and withdrawal symptoms can be avoided if the medication is weaned slowly.
- ◆ Tolerance IS NOT addiction and WILL develop with long-term use of opioids (except to the side effect of constipation).



# *Intro to Pain Management - Goals of Therapy*

- ◆ The goals of pain management include reconditioning the nervous system, reducing pain, and improving function, sleep, and mood.
- ◆ General health management such as weight, sleep disturbances, cardiopulmonary risk reduction, and avoidance of harmful habits such as nicotine, alcohol, and illegal drugs are very important to successful therapy.



# *Non-Pharmaceutical Treatments for Chronic Pain*

- ◆ Acupuncture
- ◆ Massage/vibration
- ◆ Hypnosis
- ◆ Meditation
- ◆ Relaxation/distraction techniques
- ◆ Music
- ◆ Ice/Heat
- ◆ TENS/PENS
- ◆ Physical Therapy
- ◆ Surgery
- ◆ Support Groups
- ◆ Prayer
- ◆ Deep Breathing
- ◆ Exercise
- ◆ Motivation



# *Drug Therapies & Concerns:* *Categories of Medications*

- ◆ Centrally and peripherally acting non-opioids (tylenol, NSAIDs, tramadol)
- ◆ Centrally acting Opioids (short & long acting)
- ◆ Adjunct analgesics (antidepressants, anticonvulsants, and antiarrhythmics)
- ◆ Miscellaneous medication



# *Drug Therapies & Concerns:* *WHO Ladder*

- ◆ The World Health Organization developed a three step hierarchy for analgesic pain management.
- ◆ Step 1: Non-opioid meds +/- adjunctive agents
- ◆ Step 2: Low potency opioids +/- non-opioids +/- adjunctive agents
- ◆ Step 3: High potency opioids +/- non-opioids +/- adjunctive agents



# *Drug Therapies & Concerns: Treatment Strategies*

- ◆ Nociceptive pain (somatic and visceral types) responds very well to NSAIDs and opioids.
- ◆ Neuropathic pain usually does not respond to NSAIDs and modestly responds to opioids. Drugs of choice are antidepressants, anticonvulsants, and antiarrhythmics.



# *Drug Therapies & Concerns:* *Tylenol*

- ◆ Centrally acting analgesic useful for mild to moderate pain.
- ◆ With chronic high-dose ingestion, can lead to liver and kidney dysfunction.
- ◆ Alcohol should be avoided or limited.
- ◆ Often found in combination with opioids (tylenol w/codeine, percocet, lorcet, vicodin)



# *Drug Therapies & Concerns:* *NSAIDs*

- ◆ Aspirin, Motrin, Naprosyn, Indocin, Feldene, Lodine, Celebrex, Vioxx, others.
- ◆ There are several different chemical classes of NSAIDs, if one class fails, another class should be tried.
- ◆ Best results with high dosing. Watch for stomach bleeds or ulcerations (less with Celebrex & Vioxx) and liver/kidney failure.



# *Drug Therapies & Concerns:* *NSAIDs (con't)*

- ◆ NSAIDs affect clotting (aspirin > others > Celebrex/Vioxx) and can interact with anticoagulants like Coumadin.
- ◆ NSAIDs can reduce the effectiveness of some antihypertensive meds (beta-blockers, ACE inhibitors, diuretics) and increase the effect of sulfonylureas (glyburide, glipizide) used in diabetes.



# *Drug Therapies & Concerns:* *NSAIDs (con't)*

- ◆ NSAIDs should be taken with food to minimize stomach irritation.
- ◆ Alcohol should be avoided or limited.
- ◆ Often found in combination with opioids (aspirin w/codeine, Percodan, Alor 5/500)



# *Drug Therapies & Concerns:* *Ultram (Tramadol)*

- ◆ Centrally-acting, opioid-like medication that alters the perception/response to pain stimuli.
- ◆ Most common side effects include dizziness, GI effects, and restlessness. Respiratory depression is possible.
- ◆ Drug interactions: TCA's, MAOI's, Tagamet, and Tegretol. Caution alcohol.
- ◆ Thought to be as effective as codeine.



# *Drug Therapies & Concerns:* *Opioids*

- ◆ Low-potency opioids include codeine, hydrocodone, and propoxyphene.
- ◆ High-potency opioids include morphine, oxycodone, fentanyl, methadone, demerol.
- ◆ Short-acting opioids and long-acting (sustained release) opioids are available.
- ◆ All long-acting opioids are taken at set times, short-acting opioids are usually as needed.
- ◆ Available dosage forms: tablets, patches, injections, suppositories, lollipops



# *Drug Therapies & Concerns:* *Opioids – Side Effects*

- ◆ Constipation (laxatives, stool softeners, high-fiber diet, exercise, water)
- ◆ Nausea/vomiting (10-40% pts until tolerance develops, may need antiemetic/opioid rotation)
- ◆ Sedation/mental clouding (more common with short-acting opioids and elderly patients)
- ◆ Respiratory depression (opioid naive, need for titration, rare in opioid-tolerant patients)
- ◆ Others: hypotension, itching, dry mouth, sleep disturbances, urinary retention and restlessness.



# *Drug Therapies & Concerns:* *Opioids*

- ◆ Drug interactions primarily involve additive sedation, drowsiness, or dizziness with other medications or alcohol.
- ◆ Alcohol should be limited or avoided.
- ◆ Impaired judgement and coordination can occur, especially during titration.
- ◆ Do not crush or chew sustained release products



# *Drug Therapies & Concerns:* *Adjunctive Agents - Antidepressants*

- ◆ TCA's (amitriptyline, imipramine, nortriptyline and desipramine and SSRI's (Prozac, Zoloft, Paxil, and Effexor) are most common.
- ◆ TCA's are generally more effective than SSRI's
- ◆ They work for neuropathic pain by delaying or inhibiting pain transmission, decreasing burning sensations, improving sleep disturbances and elevating mood in often co-existing depressive states.
- ◆ Common side effects include sedation, urinary retention, dry mouth, drowsiness, dizziness, constipation, weight gain, sexual dysfunction.



# *Drug Therapies & Concerns:* *Adjunctive Agents - Anticonvulsants*

- ◆ Often referred to as antiepileptics; these drugs include Tegretol, Dilantin, and Neurontin.
- ◆ These drugs act to stabilize nerve membranes which decreases the rate and speed of pain transmissions
- ◆ Side effects include drowsiness, fatigue, dizziness, and double vision which necessitates slow titration. These drugs must be slowly weaned.
- ◆ Many drug interactions and careful blood monitoring required. Make sure your physician and pharmacist have complete med list.



# *Drug Therapies & Concerns:*

## *Adjunctive Agents: Antiarrhythmics*

- ◆ Not as commonly used as other adjunctive meds but includes Mexiletine and soon to be available in the U.S. transdermal lidocaine.
- ◆ This category of medications decreases the rate at which nerves can fire impulses thereby decreasing pain transmission.
- ◆ Side effects include GI distress/nausea/vomiting (40%), dizziness, nervousness, incoordination, headache, and blurred vision. Slow titration.



# *Drug Therapies & Concerns:*

## *Miscellaneous Medications*

- ◆ Antianxiety agents (Benzodiazepines, BuSpar)
- ◆ Non-benzodiazepine hypnotics (Ambien, Sonata)
- ◆ Corticosteroids (Prednisone)
- ◆ Skeletal muscle relaxants (Flexeril, Robaxin)
- ◆ Capsiacin Cream (Zostrix cream)
- ◆ NMDA receptor antagonists (Dextromethorphan)
- ◆ Glucosamine/Chondroitin (Cosamin DS)
- ◆ Herbal Review (refer to handout)
- ◆ Web Site Handout



# *Closing Remarks on Chronic Pain Management*

- ◆ Pain is becoming the fifth vital sign.
- ◆ The goals of pain management include reconditioning the nervous system, reducing pain, and improving function, sleep, and mood. “comfort level vs. pain level”
- ◆ Patients and physicians work together to overcome barriers to therapy.
- ◆ Medication is only a part of the overall treatment plan.



# *Q&A - Completion*

- ◆ Questions?
- ◆ Completion of Program

