

Pain Management

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Pain is an unpleasant sensory
and emotional experience
arising from actual or potential
tissue damage or described in
terms of such damage

IASP, 1979

Types of Pain

- **Acute**

- Pin prick, strains, sprains, fractures, strep throat, postoperative pain, headache

- **Chronic**

- Recurrent acute – migraines, sickle cell pain

- Cancer

- Non-cancer pain – rheumatoid and osteoarthritis, peripheral neuropathies, low back pain, phantom limb pain

Types of Pain

- **Nociceptive**
 - Dull, aching, well localized OR referred to distant sites
- **Neuropathic**
 - Sharp, shooting, stabbing, burning, numbness or tingling

Pain is often inadequately treated

- **Acute pain**
- **Cancer pain**
- **Chronic non-cancer**

Impediments to effective pain control

- **Deficits in knowledge**
- **Inappropriate attitudes**
- **Problems in the health care and regulatory systems**
- **Lack of access, inadequate reimbursement**

Pain Management

- **Pharmacologic therapies**
- **Behavior methods**
- **Physical methods**
- **Expert treatment of psychological problems**
- **Interventional techniques**

Drugs for Pain

- **Non-opioids (non-narcotics)**
 - Aspirin, ibuprofen, celecoxib
 - Acetaminophen
- **Opioids**
 - Morphine is the “prototype”
- **Drugs for special pain problems**
 - Antidepressants, anticonvulsants, local anesthetics for neuropathic pain
 - Steroids and others

NSAIDs

- **Analgesic, antiinflammatory and antipyretic**
- **Two classes**
 - Older non-selective drugs
 - **Many adverse effects, especially on stomach**
 - COX-2 inhibitors –Celebrex
 - **Less effect on the stomach unless take in combination with low-dose aspirin**
 - **Recent concerns about increased risk of heart attack and stroke**

Acetaminophen

- **Analgesic, antipyretic**
- **Doesn't affect the stomach, kidneys, platelets as do NSAIDs**
- **Toxic to the liver at high dose**
- **Don't take more than 4 g in 24 hours**
- **Often found in combination drugs with opioids**

Opioids

- **Most are excellent pain relievers**
- **Don't damage organs even with long term use**
- **Many possible side effects**
 - Constipation, sedation, dizziness, itching, respiratory depression in overdose
- **Lots of myths about these drugs**
 - Tolerance and addiction

Opioids with Limitations

- **Codeine**
- **Hydrocodone because of acetaminophen**
- **Propoxyphene (Darvocet)**
- **Meperidine (Demerol)**
- **Mixed agonist-antagonist drugs**
 - Talwin, Nubain, Stadol

Neuropathic Pain

- **First-line treatments have been identified**
- **Current practice: trial and error**
- **There may be advantages to combining two first-line drugs**
- **May take “awhile” to get a response**
- **Relief may only be partial**

First-Line Drugs for Neuropathic Pain

Not in order of preference

- **Systemic analgesics**
 - Opioids and tramadol
- **Topical analgesics – 5% lidocaine patch**
- **Antidepressants**
 - Tricyclics
 - Venlafaxine (Effexor) and duloxetine (Cymbalta)
- **Certain anticonvulsants**
 - Gabapentin (Neurontin) and pregabalin (Lyrica)

Many Other Agents

- **Steroids-many routes of administration**
- **Muscle Relaxants**
 - Limited usefulness
- **Topical Agents**
 - Menthol based: Tiger Balm, Deep Heat
 - Capsaicin - from chili peppers – don't get in your eyes

Use of Pain Medicines

- **A thorough understanding of your pain is essential to any decision about treatment**
- **The severity and type of pain will guide the choice of treatment**
- **The doses of a medication and the interval between doses is based on the properties of the medication**
- **You may need to have more than one type of pain medicine**
- **Some medicines take time to work so you may need to have considerable patience**

Use of Pain Medicines

- **If you are in pain more than half of the time, you need to be taking your medicine regularly**
- **Addition of non-drug therapies may result in better pain relief and fewer side effects**
- **Purpose of treatment is to relieve pain and improve function.**