

Palliative Care Approach to Pain Management

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Learning Objectives

- Describe the key elements of a comprehensive pain assessment
- Identify four myths about pain
- Describe the basic principles of opioid pharmacotherapy
- Explain the differences between dependence, tolerance, and addiction
- Perform simple opioid dose conversions
- Describe the key elements of pain management at the end of life.

Comprehensive Pain Assessment

- “Pain is whatever the experiencing person says it is, existing whenever he/she says it does.” (McCaffery, 1968)
 - Pain is a symptom, not a diagnosis
 - Believe the patient
- Onset
- Provocative or Palliative Features
- Quality
- Radiation or Related Symptoms
- Severity – intensity and effect on function
- Temporal Pattern



Total Pain Components

- P: physical symptoms or conditions
 - Arthritis, constipation, bladder spasms, decubiti, headache, thrush, as well as cancer pain
- A: anxiety, anger, depression, hopelessness, loneliness
- I: interpersonal issues – family tensions, financial issues
- N: nonacceptance of approaching death, spiritual or existential pain





Pain Assessment

- History and physical
- Numerical or visual analog scales
- Patient's description of pain and experience of pain
- Use of appropriate lab and radiologic studies
- Thorough assessment interview



Psychosocial-Spiritual Assessment

- Meaning of the pain to patient and family
- Previous experiences with pain and coping mechanisms
- Psychological symptoms with pain
 - Fear of disease worsening
 - Depression or anxiety
 - Hopelessness
 - Negative physician or nurse perceptions
 - Adjustments in leisure activities



Psychosocial-Spiritual Assessment

- Spiritual Angst or Despair
 - Meaning of pain and suffering
 - Retribution
 - Punishment
 - Spiritual cleansing
- Social and Relational Issues
 - Family roles
 - Physical appearance changes
 - Sexual relationship issues
 - Burden on family



Cultural Issues

- Know your own attitudes and beliefs
 - Admire stoics or encourage sharing of pain issues?
 - What are your thoughts or beliefs about pain meds?
 - What are your thoughts about those who abuse pain meds?
- Develop relationship with patient and family
- Build trust with patient and family
- Assess patient's cultural beliefs and practices regarding illness and treatment of pain



Cultural Issues

- Cultural approaches to pain management
 - Folk remedies
 - Other techniques or approaches for pain relief
- Ask – “Are you comfortable?” vs. “Are you in pain?”
- Family approach to understanding illness and pain
- Appropriate use of medical interpreters – verbal and written translation
- Ask how this patient may want to incorporate cultural approaches to pain management



Additional Considerations

- Patient may have multiple foci of pain
- Sometimes, patients have common ailments and concerns along with cancer
 - Headache, back pain, allergy symptoms
- Patient diary of pain and effects of tx.
- Use of appropriate pain scales and reassessments



Myths About Pain

- Dying is always painful.
- Some kinds of pain can't be relieved.
- Pain meds always cause heavy sedation.
- I should “save” my use of strong pain relievers until real close to the end.
- I can get immune to the effects of pain meds.
- Once on pain meds, you always have to increase the dose.



Myths About Pain

- Only injections give you good pain relief.
- Pain med use always leads to addiction.
- Withdrawal is always a problem with pain meds.
- Enduring pain and suffering can enhance one's character.
- Once they start giving you morphine, the end is near.
- People have to be in a hospital to receive effective pain management with morphine.





Pain Scales

- Simple descriptive pain intensity scale
- 0-10 scale
- Visual Analog Scale
- Faces Scale



Types of Pain: Nociceptive

- Direct stimulation of intact nociceptors
- Transmission along normal nerves
- Somatic
 - Activation of primary afferent neurons in bone, skin, or soft tissue
 - Described as sharp and localized
- Visceral
 - Activation of visceral afferent nerves
 - Stretching or distention of organs or tissues within a body cavity
 - Difficult to describe or localize



Types of Pain: Nociceptive

- Initiates with peripheral physical insult that activates peripheral nociceptors
 - Sends a neurologic impulse to dorsal spinal cord and then to the brain
 - Feel pain
- Peripherally acting agents: NSAIDS
- Centrally acting agents: Opioids (dorsal horn)



Types of Pain: Neuropathic

- Direct injury to peripheral or central nerves
 - Tumor entrapment or compression
 - Ischemia
 - Transection
 - Infiltration
 - Metabolic, chemical, or infectious mechanisms
- Varied Types
 - Peripheral, deafferentation, complex regional syndromes
 - Causes ectopic, spontaneous nerve discharges – produces allodynia (exaggerated response to a non-noxious stimulus)



Causes of Neuropathic Pain

- Disease-related
 - Spinal cord compression
 - Nerve entrapment
- HIV Neuropathy
- CMV
- Acute herpes zoster
- Post-herpetic neuralgia
- Treatment related
 - Phantom limb pain
 - Chemotx
 - Rad tx
- Drug-induced neuropathy
- Surgery induced nerve damage





Neuropathic Pain

- Pain may exceed observable injury
- Described as burning, tingling, shooting, stabbing, electrical
- Management
 - Tricyclic antidepressants: inhibit reuptake of serotonin and norepinephrine
 - Both are needed for normal nerve transmission
 - Dose once/day, 25 mg at HS
 - Anticholinergic SE's



Neuropathic Pain

- Antiepileptic Drugs
 - “calm” spontaneous ectopic firing of damaged afferent sensory axons
- Carbamazepine (Tegretol): trigeminal neuralgia
- Gabapentin (Neurontin): post-herpetic neuralgia, neuropathic pain
- Pregabalin (Lyrica): neuropathic pain
- Lidoderm Patches: local anesthetic for neuropathic pain



Palliative First Line Therapies

Etiology

- Bone
- Neuropathic
- Infectious damage
- GI Spasm
- Constipation
- Lymphedema

Therapies

- NSAID, Opioids
- TCA's, Anti-epil, Lidocaine
- ABX, I&D
- Anticholinergics
- Stimulating laxatives
- Physical Therapy/Massage



Basic Opioid Pharmacology

- Opioid Receptors
 - Kappa
 - Dose ceiling
 - More side effects and no additional analgesia
 - Buprenex
 - Mu
 - Increasing analgesia with increasing dose
 - Morphine, hydromorphone, oxycodone, fentanyl



Some News On Fentanyl

- FDA Warning in 2005
 - Overdoses and deaths related to fentanyl patches
 - Opioid naïve patients
 - Patients had acute or post-op pain
 - Should be on 60 mg/day of morphine (or equivalent) for at least one week
 - Be careful in prescribing other opioids with fentanyl
 - Heat increases absorption
 - Recent deaths with patch or buccal form (Fentora)



Can you identify addiction?



Misconceptions About Opioids

- Opioid use \neq respiratory depression
 - Optimal dosing
 - Careful titration
 - Effective for treatment of dyspnea
- Dying patients have RR of 6-12/min
- Clinically significant resp depression
 - LOC and RR < 6/minute
 - Patient is arousable and/or RR > 6/min \rightarrow don't give naloxone.



Opioid Myths

- Common symptoms of dying:
 - Decreased and/or erratic RR
 - Extreme weakness
 - Decreased alertness, confusion, restlessness
 - Decreased or no U.O.
 - Cool extremities
 - Terminal fevers
- Patients who have above symptoms and are on narcotics, like morphine, do not need naloxone.



Opioid Myths

- Physical dependence \neq addiction
 - Dependence is an expected result of LT opioid use
 - Adaptation manifested by development of a withdrawal syndrome following rapid dose reduction, abrupt cessation, administration of an antagonist (naloxone), or decreasing blood levels (underdose or miss doses).
 - Need to safely taper drug
 - No more than 50% of dose/day



Opioid Myths

- Opioid Addiction
 - Primary, chronic, neurobiologic disease, with genetic, psychosocial and environmental factors
 - Exhibit following behaviors:
 - Impaired control over drug use
 - Compulsive use of drug
 - Continued use despite harm
 - Crave drug
 - Risk of iatrogenic addiction is rare in patients with no past history of substance abuse
- Pseudoaddiction
 - Behaviors are driven by inadequate treatment of pain
 - Behaviors disappear when pain is adequately treated



Tolerance

- Tolerance
 - State of adaptation in which exposure to drug induces changes that result in decrease in the drug's effects over time
 - So, patient requires higher doses to maintain same benefit
 - Therapeutic range of opioids is very wide
- Analgesic tolerance is very rare
 - Opioid doses remain stable if disease remains stable
 - Increased opioid requirement → worsening disease progression



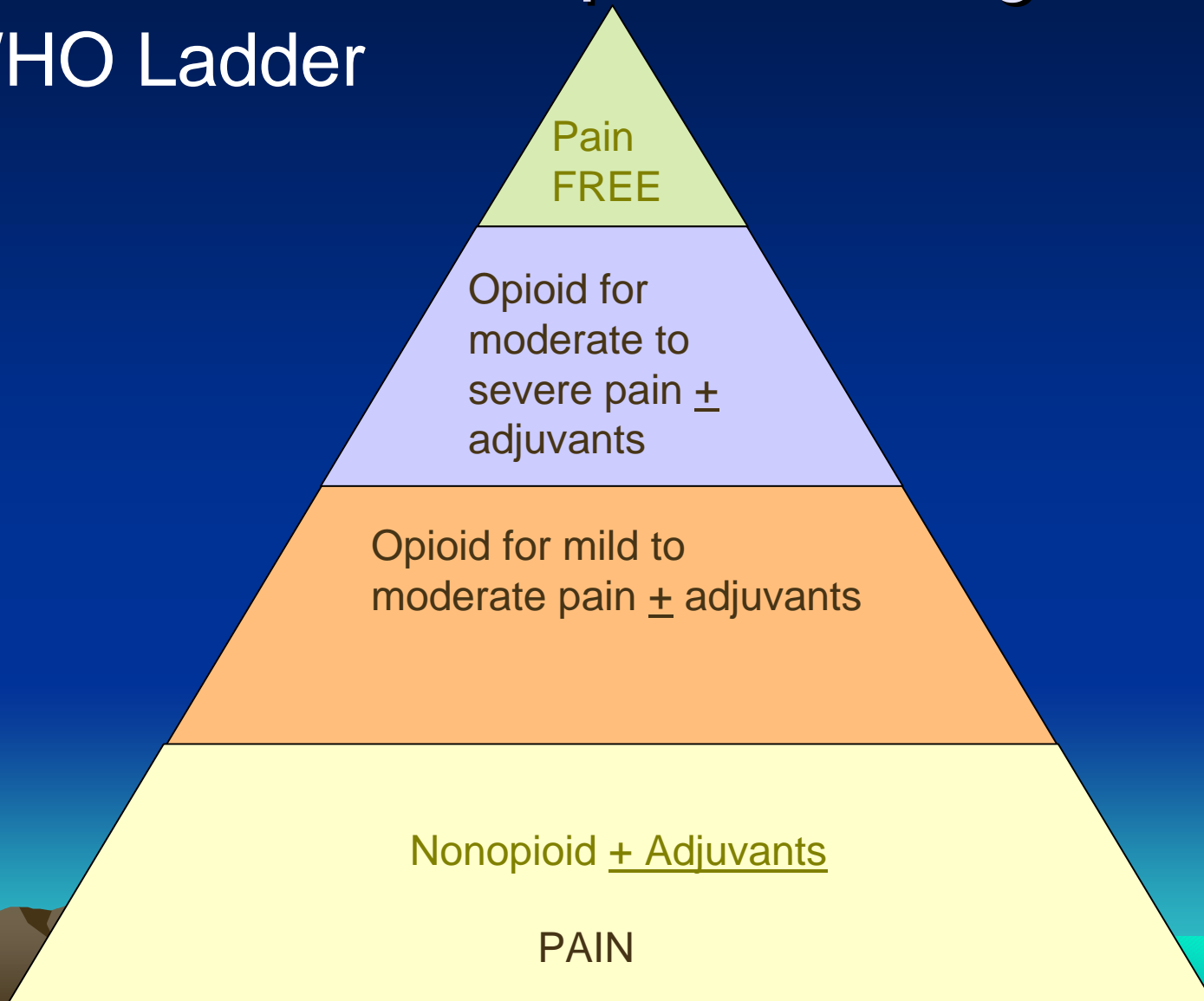
Opioid Myths

- Nausea is experienced by ~ 30 % of opiate naïve patients.
- Oral opioids are very effective for patients who can safely swallow.
- Opioids do not cause euphoria at EOL, but pt's mood may improve due to improved pain control.
- Wide effective dose range for different patients.
- Don't cause imminent death
 - Unrelieved pain is physically and psychologically destructive



Effective Opioid Dosing

- WHO Ladder



5 Basic Concepts

- By the mouth
- By the clock
- By the WHO Ladder
- For the individual
- With attention to detail



Morphine Equivalents

Examples:

- Morphine 30 mg p.o. (divide by 3) = 10 mg IV or SC
- Morphine 20 mg p.o. (divide by 20) = 1 mg IV hydromorphone
- Morphine 20 mg p.o. = 5 mg p.o. hydromorphone
 - 4:1
- Hydromorphone p.o. to IV dose is 5:1
 - 5mg p.o. = 1 mg IV

Initiate Opioid Therapy

- For opioid naïve patients - - Morphine examples
 - For oral dosing, start with 5-10 mg p.o. every 4 hrs
 - Titrate with half of the 4 hr dose
 - If patient requires more than 3-4 breakthrough doses in 24hr period, increase baseline dose or use an adjuvant
- Individualize dose by gradual escalation until pain is relieved or patient has unmanageable SE's
 - no therapeutic ceiling effect
- ATC Dosing – recurring or frequent pain
- PRN Dosing – “rescue” doses



Opioid Dosing

- Switching form another opioid: Calculate the equianalgesic dose from a standard table
 - if pain control is good, reduce equianalgesic dose by 25-50% to account for incomplete cross tolerance
 - if pain control is poor, and SE's not severe, reduce equianalgesic dose by $\leq 25\%$
 - if new drug is methadone, reduce the equianalgesic dose by 90%



Rescue Doses

- Used for breakthrough pain
- Dose
 - approximately 10% of daily dose equivalent
- Frequency
 - oral: every 1-2 hours
 - parenteral: every 15 – 30 minutes



Palliative Care IV Morphine

- Morphine IV Continuous Drip Example
 - Morphine 2mg/hr
 - Titrate by 1 mg/hr every 15 minutes (severe pain or dyspnea) or every 30 minutes (moderate pain or dyspnea) until symptoms of pain, dyspnea, moaning, restlessness are relieved or patient reports sx are more tolerable.



Palliative Care Considerations

- Prevent Constipation
 - start med like Sennokot at time of starting morphine
 - encourage appropriate dietary fiber and water
- Manage unwanted persistent sedation
 - d/c non-essential meds
 - evaluate and treat other potential causes
 - may decrease dose by 25%
 - trial of Ritalin (5 mg p.o. daily)
 - trial of Seroquel or Haldol for delirium
 - switch to another opioid
 - try adjuvant therapies



Adjuvant Therapies

- Opioid – sparing strategies
 - analgesic adjuvants – acetaminophen, NSAIDS
 - other med adjuvants – carbamazepine, prednisone, amitriptyline, gabapentin, etc
 - alternate route
 - neurolytic procedures
 - anesthesia procedures (intrathecal pumps)
 - PM&R
 - Cognitive therapy
 - Complementary therapies
 - Prayer, meditation, music, massage, acupuncture, etc



Adjuvant Therapies

- Bone Pain
 - radiation therapy, steroids, NSAIDs, Calcitonin, bisphosphonates
- Neuropathic Pain
 - anticonvulsants, antidepressants



EOL Pain Management Summary

- Pain may present as agitation, withdrawal from social activities, or moaning and restlessness when patient is actively dying.
- Assess pain in a timely and thorough manner.
- Treat pain based on patient description and assessments.
- Treat pain per the WHO Ladder protocol.
- At the EOL, treat with morphine dose that achieves goal of symptom relief and patient comfort.



EOL Pain Management Summary

- Treat nonphysical causes of pain
- Emotional, spiritual and social pain causes:
 - anxiety, depression
 - isolation and loneliness
 - fear
 - financial concerns
 - loss of faith
 - loss of meaning



Palliative Care - Healing

- Physician – Nurse as Healer
 - lend strength to patients who are suffering from changes and losses in life
 - loss of relationships
 - loss of unrealized hopes and dreams
 - reinforce new definitions of hope as patients try to come to terms with the resolution of their lives
 - help patient transcend their current physical state with the search for a broader context of meaning.



