Cancer Pain Management:
Opioids, Adjuvants and Non-Pharmacological Modalities

Kelley Blake RN, MSN, OCN, AOCNS
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Objectives

• Discuss care of the person with cancer who is experiencing pain
• Case-based
  – Pain assessment
  – Barriers to adequate pain relief
  – Pharmacologic interventions
  – Non-Pharmacologic interventions
  – Role of the oncology nurse

How do we treat cancer pain?

• Primary aim is to treat the underlying cause of the pain, the cancer

  • In addition, always treat the pain itself
  • Marilyn Birchman 2012

Understanding Total Pain

PHYSICAL  EMOTIONAL  SOCIAL  SPIRITUAL
CAREGIVER DISTRESS
What is pain?

- Subjective sensation
  - Pain is whatever the person says it is when they experience it
  - Unpleasant
  - Both a sensory & emotional experience

Dimensions of Pain

- Cognitive
  - What meaning and consequences the patient places on the pain, its impact and how it affects quality of life
- Sensory
  - Intensity, location, and temporal aspects of pain
- Affective
  - Emotional and aversive aspects of pain

Types of Pain

<table>
<thead>
<tr>
<th>Nociceptive</th>
<th>Neuropathic</th>
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</thead>
<tbody>
<tr>
<td>Sources: organs, bone, joint, muscle, skin, connective tissue</td>
<td>Source: peripheral nerve or CNS pathology</td>
</tr>
<tr>
<td>Examples: arthritis, tumors, gall stones, muscle strain</td>
<td>Examples: postherpetic neuralgia, diabetic neuropathy, spinal stenosis</td>
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<tr>
<td>Character: dull, aching, pressure, tender</td>
<td>Character: shooting, burning, electric shock, tingling</td>
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<tr>
<td>Responds to traditional pain medicines &amp; therapies</td>
<td>Requires different types of medications than nociceptive pain</td>
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Assessment for Pain

- Comprehensive
- Precise location(s) & pattern of radiation
- Intensity
- Quality of pain (characteristic)
- Effect of treatment
- Impact on function
- Seek out symptoms clusters (insomnia, fatigue, anxiety, depression)

Verbal report of pain is the single most accurate tool in identifying pain
Case Study: Mr. B

Objective
• 44 year old Filipino male
• Abdominal sarcoma with liver mets
• Married, no children
• Formerly employed in Alaska fishing industry
• Recent move r/t discovery of mass

Subjective
• Poor prognosis: two weeks
• Pain interfering with
  – Oral intake
  – Mobility
  – Communicating
  – Sleeping
• Younger brother’s wedding in three weeks

Barriers to Pain Management

Barriers
• Lack of knowledge
• Fear of addiction
• Misconceptions regarding side effects
• Underreporting
• Regulatory concerns
• Cost

Vocabulary
• Allodynia
  – Pain with non-painful stimulus
• Hyperpathia
  – Hyper response to mild painful stimulus
• Addiction
  – Psychological dependence
• Tolerance
  – Need to increase dose to achieve relief
• Dependence
  – Symptoms of withdrawal

Case Study Cont.

Analgesic History
• Mr. B takes
  – Vicodin 1 tab every 6 hours
• 2 weeks later increasing pain
  – Switched to Oxycodeone
• Adequate pain control
  – Except after eating

Analgesic History

• Previous experience with pain medication
• What medications?
• What doses?
• Efficacy?
• Side effects?
• Attitudes?
Pharmacological Therapies: using WHO stepladder approach

Step 1: Non-opioids +/- Adjuvant
Step 2: Opioids for mild to moderate pain
        +/- Non-opioids +/- Adjuvants
Step 3: Opioids for moderate to severe pain
        +/- Non-opioids +/- Adjuvants

Acetaminophen (APAP)

- For mild to moderate pain
- Best for nociceptive pain
- Dosing
- Scheduled dose for continuous pain
- Watch out for APAP in combination products

NSAIDs

- Inflammation (Bone pain)
- Effective for mild to moderate pain
- Caution in renal, hepatic, gastric, cardiovascular problems
- Risk of adverse events (GI bleeding) increases with age

Opioids

- Effective for pain regardless of pathophysiology
- Safe for older adults when carefully initiated & titrated; start low, go slow
- Many routes; oral route best for most effective pain relief
Side Effects of Opioids

**Side Effects**
- Sedation
- Nausea and vomiting
- Constipation
- Urinary retention
- Confusion
- Dysphoria, hallucinations
- Myoclonus (rare, on low doses)
- Respiratory depression (rare)

**Treatment of SE**
- Methylphenidate
- donepezil
- Antiemetics
- Laxatives

Case Study Cont.
- Mr. B is now taking Oxycontin bid with Oxycodone p.r.n. for breakthrough pain
- Poor oral intake of both fluid and food
- Poor mobility
- What side effect of opioid use would we be concerned about?

Constipation

- Does not go away with time
- Nearly universal side effect of opioids & other analgesics
- Prevention is essential
- Laxative needs to be scheduled

Case Study Cont.
- Mr. B admitted through ED for SBO
- Laporoscopic surgery required
- Prescribed Percocet for post surgical pain
- Still on Oxycontin bid
Equianalgesic Dosing

• Methods for switching from one opioid to another or administration routes (po to IV)
• Use of equianalgesic tables is necessary
• Double check calculation with PharmD or RN
• Keep in mind the issue of “incomplete cross-tolerance”
• Reduce dose by 30-50% when changing drugs

Long Acting Medications

• Sustained release medications
  – Immediate release for breakthrough pain
  – Distinguish types of breakthrough pain

Adjuvants

• Medications developed and marketed for another medical condition (e.g., depression) but found also to be effective for pain
• Target neuropathic pain
  • Anticonvulsants
  • Antidepressants
  • Local anesthetics
  • Corticosteroids

Local Anesthetics

• Minimal systemic side effects
• Indicated for neuropathic pain but can be effective in musculoskeletal pain as well
• Lidocaine gel, EMLA® & Lidoderm©
Interventional Therapies

- Intra-articular steroid injections
- Epidural steroid injections
- Neurolytic blocks
- Neuroablative procedures

Case Study Cont.: Mr. B’s Treatment Plan

Outpatient Infusion Center:
- Doxorubicin
- Vincristine
- Cyclophosphamide
- Mesna
- Cycles 1, 3, 5, 7, 9, 11

Inpatient Oncology Unit:
- Ifosfamide
- Etoposide
- Mesna
- Day 1-6
- Cycles 2, 4, 6, 8, 10, 12

Cancer Therapies to Relieve Pain

- Radiation therapy
- Palliative surgery
- Chemotherapy

Non-Pharmacological Modalities

- Physical treatments
  - (heat, cold, exercise, TENS)
- Integrative treatments
  - Massage therapy
  - Music
  - Acupuncture

- Cognitive/psychological interventions
  - Hypnosis
  - Imagery
  - Support groups
  - Redirecting thinking/distraction
A Word on Medical Marijuana

• Cannabis has been used medically for thousands of years
  – China, India, Egypt, Assyria, Greece, and Rome
• U.S. research is limited by existing laws
• Marinol and Cesamet
  – FDA approved for nausea/anorexia
• Sativex
  – Canada, Great Britain, Spain, and Germany
  – Approved for neuropathic pain, cancer pain, and MS

Summary

• Pain relief is contingent on adequate assessment & use of both drug & nondrug therapies
• Pain extends beyond physical causes to other causes of suffering & existential distress
• Interdisciplinary team crucial in chronic and/or refractory pain

Case Study Cont.

• Through course of cancer treatment, Mr. B increased pain medications several times
• Was hospitalized twice for SBO, the first with surgical interventions
• Lifetime dose limit of Doxorubicin reached
  – Disease progression off therapy
• Second line therapy of Gemcitabine/Docetaxel
  – Disease progression on therapy
• Hospice a year and a half after start of therapy

Advocacy Role of Oncology Nurses

• 7 tips for managing cancer pain
  – Control pain before it becomes severe
  – Patients should seek out the best pain relief
  – Quantify your pain
  – Call your nurse or doctor about pain
  – Remember that you have many treatment options
  – Do not let fear of addiction prevent you from taking medication to manage pain
  – Follow directions when taking pain medications
Resources


References Cont.

- Pain Resource Center (prc.coh.org)