Management of Malignancy Related Pain

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Objectives

- Describe malignancy related pain
- Identify treatments for malignancy related pain
- Discuss how to choose a treatment plan
- Understand the management of patients with malignancy related pain

Malignancy Related Pain

- Disease Process Related
  - Tumors: i.e. bone mets
  - Lymphadenopathy
  - Neuropathy: i.e. radiculopathies/sciatica
- Treatment Related Side Effect
  - Arthralgia
  - Myalgia
  - Peripheral neuropathy
  - Mucositis

Assessing the Pain

- Where is the pain?
  - Does this reflect in the patient's imaging?
  - Is this an expected treatment side effect?
- What type of pain is it?
  - Visceral pain vs. somatic pain vs. neuropathic pain vs. emotional pain
- Aggravating factors?
  - Incidental vs. constant
- Alleviating factors?
- Pain severity before meds?
- Pain severity after meds?

Factors to Consider

- Allergies
- Previous Reactions to Opioids
- Renal Impairment
- Hepatic Impairment
- Medication Reconciliation
- Risk of Opioid Misuse
- Insurance Formulary
- Cost
- Patient Preference

Opioid Risk Tool

Mark each box that applies	Female	Male
Family history of substance abuse		
Alcohol	1	3
Illegal drugs	2	3
Rx drugs	4	4
Personal history of substance abuse		
Alcohol	3	3
Illegal drugs	4	4
Rx drugs	5	5
Age between 16—45 years	1	1
History of preadolescent sexual abuse	3	0
Psychological disease		
ADD, OCD, bipolar, schizophrenia	2	2
Depression	1	1
Scoring totals		

0 -3 low risk
4 – 7 moderate risk
8 + high risk

Webster LR, Webster RM. Predicting aberrant behaviors in opioid-treated patients: preliminary validation of the Opioid Risk Tool. Pain Med 2005; 6:432

Prescription Drug Monitoring Programs

- Allows practitioners to view dispensed controlled substance prescriptions
  - Opioids
  - Sedatives
  - Stimulants
- Report Shows:
  - Prescriber
  - Date of RX
  - Date RX was filled
  - Drug Name
  - Dose
  - Quantity

  - New York: https://commerce.health.state.ny.us.
  - Florida: https://florida.pmpaware.net/login

Treatments for Malignancy Related Pain

- Chemotherapy
- Radiation Therapy
- Adjuvants
  - OTC: ibuprofen/acetaminophen
  - Antiepileptics
  - Analgesic Antidepressants
  - Duloxetine
  - Muscle Relaxants
  - Steroids
- Opioids
- Physical Therapy
  - Application of heat/cold
  - TENS unit
- Acupuncture
- Massage Therapy
- Interventional Pain Management

Mild Pain

Pain 0-3/10, described as occasional or incidental

- Non-opioid treatments:
  - Acetaminophen
  - NSAIDs
- Adjuvants

Case # 1

- 45 y/o M patient with lymphoma presenting with chemotherapy induced peripheral neuropathy

Assessment:
Pins and needles in the fingertips. Of note, the patient is a mechanic. Pain is rated 3/10 and is not affecting fine motor skills.

Medications:
Gabapentin
Pregabalin
Opioids
Interventions:
Occupational/Physical Therapy
Acupuncture

Plan:
- Initiate gabapentin and provide titration schedule based on renal function and patient tolerability
- Refer patient to occupational therapy +/- acupuncture
- Follow up in 1 month

Choosing a Medication

Starting Medications for Neuropathic Pain

Drug Name	Oral Dose	Frequency
Gabapentin	100 mg or 300 mg	BID, TID, QHS
Pregabalin	25 mg or 50 mg	BID, TID, QHS
Duloxetine	20 mg or 30 mg	Daily, BID

Moderate Pain

Pain 4-6/10, continuous pain unrelieved by non-opioids

- Non-opioids: acetaminophen, NSAIDs
- Adjuvants: antiepileptics, antidepressants, steroids
- Start an opioid
  - Short acting opioids should be prescribed every 4 hours **as needed**

Choosing a Medication

Medications for Somatic Pain/Severe Neuropathy

Short Acting Opioids:

- Codeine
- Hydrocodone
- Tramadol
- **Morphine**
- **Oxycodone**
- **Hydromorphone**

Staring Doses of Opioids	
Morphine	7.5 mg (15 mg cut in half)
Oxycodone	2.5 mg (5 mg cut in half)
Hydromorphone	1 mg (2 mg cut in half)

Case # 2

- 77 y/o F with metastatic pancreatic adenocarcinoma to liver and bones

Assessment:
Middle abdominal pain rated 6/10 radiating to the back and interfering with sleep. Currently on oxycodone 10 mg, 1 tab every 4 hours as needed (taking 2 tablets in 24 hours) with minimal relief.

Medications:
Short-acting opioids
Long-acting opioids
Antiepileptics
Steroids

Interventions:
Celiac Plexus Block

Plan:
- Provide counseling on the proper use of short acting opioids.
- Refer to GI for eval, possible block

Severe Pain

Pain 7-10/10, continuous debilitating pain, unrelieved by short-acting opioids

- Short and long-acting opioids
- Non-opioids: acetaminophen, NSAIDs
- Adjuvants: antiepileptics, antidepressants, steroids

Indications for Long-Acting Opioids

- Patients with constant, severe pain not otherwise alleviated by short acting opioids

- Patients with an MEDD of 60 or greater
  - MEDD = Morphine Equivalent Daily Dose
  - The unit of measure used to convert the dose of an opioid to the morphine equivalent

- Long-acting opioids should be prescribed every 8 to 12 hours scheduled
  - Long-acting opioids should not be taken as needed

Conversion Ratios

Equianalgesic Conversion Table

Drug Name	Equianalgesic Dose		Oral to Parenteral Ratio
	Oral (mg)	Parenteral (mg)	
Morphine	25	10	5:2
Hydromorphone	5	2	5:2
Oxycodone	20	n/a	n/a
Hydrocodone	25	n/a	n/a
Oxymorphone	10	1	10:1

Potency ratios:

→ oral morphine: oral hydromorphone is 5:1
→ oral morphine: oral oxycodone is 1.25:1
→ oral morphine: IV hydromorphone is 12.5:1
→ transdermal fentanyl 25mcg/hr: oral morphine 50mg/24hr

Oral hydromorphone is 5 times as potent (mg per mg) **as oral morphine**

This conversion table is adapted from: McPherson ML. Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing, 2nd ed. American Society of Health-System Pharmacists, Bethesda, Maryland, 2018.

For example:

Oral morphine: oral oxycodone

1.25: 1

75 mg morphine: 60 mg of oxycodone

Long-Acting Opioids

- Extended-release morphine
- Extended-release oxycodone
- Extended-release hydromorphone
- Fentanyl
- Methadone

Case # 3

66 y/o male undergoing chemoradiation for the treatment of squamous cell carcinoma of the base of the tongue.

Assessment:
Patient presents after 4 weeks of daily radiation/weekly chemo with oral mucositis and odynophagia. Unable to eat/hydrate due to pain. Sleep is also affected. Current medications: oxycodone 5mg/5mL, 10 mL every 4 hours around the clock and salt/baking soda oral rinses multiple times per day. Rates his pain 9/10.

Medications:
Short-acting opioids
Long-acting opioids
Antiepileptics
Steroids

Interventions:
Speech Therapy

Plan:
- Initiate long-acting opioid
- Continue short-acting opioid as needed
- Initiate gabapentin liquid and provide titration schedule based on renal function
- Initiate medicated mouthwash
  - Benadryl, Maalox, Lidocaine
  - Dexamethasone, Nystatin, Lidocaine
- Referral to speech therapy

Management of Patients on Opioids

Patients are followed at regular intervals based on their level of analgesia and the opioids they are using.

- 2 to 3 days for oral formulations
- 3 to 6 days for transdermal patch
- 5 doses for methadone

- Mild to moderate pain ↑ dose by 25-50%
- Moderate to severe pain ↑ dose by 50-100%

Clinical Points

- Follow a step wise approach
- Prescribe short-acting opioids every 4 hours as needed
- Do not start long-acting opioids on opioid naïve patients (MEDD < 60)
- Always start a bowel regimen alongside opioid therapy
- Initiate – Titrate – Rotate

References

- Webster LR, Webster RM. Predicting aberrant behaviors in opioid-treated patients: preliminary validation of the Opioid Risk Tool. Pain Med 2005; 6:432

- Pain Management Curriculum available online.central.capc.org (Accessed on October 29, 2022)