PAIN MANAGEMENT:

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Specific Learning Objectives

Knowledge

Consider pathophysiology in the etiology of pain
Describe nociceptive versus neuropathic pain syndromes
Understand WHO analgesic ladder for use of opioid therapy
Use adjuvant (non-opiate) therapy when indicated
Manage or prevent complications of pain medications

Skills

Perform a history and physical directed at manifestations of pain
Utilize pain assessment tools
Calculate equianalgesic doses of opiates

Psychosocial

Use of empathy and compassion in dialogue with patient in pain
Understand impact of pain on patient as a whole

Case 1:

A 55 year old female is admitted directly to the hospital from her primary care physician's office with a history of progressive onset of pain. The chart review indicates a history of invasive ductal cancer of the right breast 3 years earlier. A lumpectomy was performed. She had received adjuvant chemotherapy for 16 weeks after the diagnosis. She then received chest irradiation. She had no other active medical problems.

What would be essential information you would need to elicit in the history?

1) Characterize pain by asking about onset, intensity, quality, location, duration, temporal nature, exacerbating and remitting features
2) Apply visual analog scale or numerical ratings scale

What would be essential information you would need to elicit on physical examination?

1) Baseline BP and pulse
2) Eliciting tenderness
3) Palpable masses or organomegaly
4) Abnormalities of central or peripheral nervous system

Your MS III has accompanied you at the bedside. You initiate a parenteral short acting analgesic, and the patient appears at least transiently more comfortable and can elaborate further. She had noted discomfort in her back and hips that began 5-6 weeks earlier. She initially thought that she may have been overactive with her exercise regimen. She took non-steroidal anti-inflammatory medication with initial relief, but the pain became progressively worse. On this day, she describes it as 9 on a 0-10 scale. It is present in the mid-back and both hips, the right greater than the left. She describes it as a deep, boring ache that is worse with activity and alleviated somewhat by rest. It is continuous. You would like your student to ask further questions to assess the psychosocial implications of this pain. What features would you expect her to cover?

1) Interpretation of meaning of pain
2) Effect of pain on mood
3) Loss/grief issues
4) Cultural impact
5) Current support mechanisms at home
6) Ease of access to health care system and medications

Your student asks you about the clinical manifestations of nociceptive pain versus neuropathic pain. How would you contrast these two syndromes?

Nociceptive pain includes both somatic and visceral pain. The former is characterized as an aching or throbbing sensation typically associated with skin, muscle or bony involvement of the disease process. The latter presents classically as a continuous sharp stabbing or cramping sensation associated with visceral organs
Neuropathic pain involves destruction of a nerve peripherally or centrally and is either paroxysmal and described as a lancinating pain which feels like a sharp or stabbing sensation, or continuous dysesthesias which are burning or electric like in character.

What would be the most likely etiology of her pain syndrome?

1) Somatic pain from bone metastases

Given the above information, how would you approach this patient pharmacologically?

Initiate short-acting opiate such as:

1) Morphine Sulfate immediate release
2) Hydromorphone
3) Oxycodone immediate release
4) Oral transmucosal fentanyl

You initiate therapy with Morphine Sulfate at 10 mg IV q 3 hours as needed. Your patient has requested this 6 times over the next 24 hours. What would be an appropriate oral dose to convert this patient to?

With use of equianalgesic dosing, you would convert this patient to 180 mg per day.

She is discharged on the above dose. An outpatient PET/CT scan was highly suggestive of bone metastases. One week later, when you happen to be on an ambulatory block in this physician's office, she states that while she was doing well, in the last few days, she was requiring the medication at an increased frequency, now averaging 30mg MSIR q 3 hours. What would be pharmacologic opiate options in this setting?

1) Controlled release morphine preparation
2) Controlled release oxycodone preparation
3) Fentanyl patch
4) Methadone
5) Addition of short-acting agent for breakthrough pain at 5-15% of long acting opiate dose

What additional non-opiate strategies might you employ?

1) Bisphosphonates
2) NSAIDs
3) Corticosteroids
4) Radiation therapy
5) Systemic anti-neoplastic therapy
6) Daily bowel regimen

What additional psychosocial support might be useful?

1) Grief counseling
2) Pastoral care
3) Peer and family support groups
4) Socioeconomic support