

ELNEC- For Veterans

END-OF-LIFE NURSING EDUCATION
CONSORTIUM

Palliative Care For Veterans

Module 2

Pain Management

CASE STUDIES

Module 2: Pain Management Case Studies

Module 2
Case Study #1
Mr. William Jennings: Pain and Suffering

Mr. Jennings is a 77-year-old Vietnam Veteran admitted to the medical unit the VA facility for care related to end-stage cardiac disease, renal failure, and uncontrolled pain. He complains of chronic generalized chest pain, frequent cramps in his legs, and worsening arthritis pain related to his immobility. You note that from his past medical records the analgesics have been steadily increased with little pain relief. He states that the medications cause an increase in nausea, constipation, and sedation. The nurse feels frustrated as she observes Mr. Jennings with worsening depression, withdrawal, and weeping. He has refused referral to hospice. His wife of 40 years is working two jobs to pay the bills, as Mr. Jennings had a “gambling problem” and they lost much of their savings. She is unable to see him every day. He has four grown children, and he is estranged from the two older children. His physician and nurse have asked him if they could have the palliative care team visit him, with the understanding that they could assist him with not only his pain, but with some of the other symptoms he is experiencing, too.

Discussion Questions:

1. What other disciplines should be included in Mr. Jennings’s care? Assuming you think at least a chaplain and psychologist should be included, what roles might they play in his care?
2. Knowing that many patients have multiple sites of pain, how would you assess pain at each pain site he mentioned? How many kinds of pain does the patient have?
3. What additional assessment might you do?

(Discussion of suffering and total pain)

4. How can this Veteran’s pain and suffering best be treated?
5. What role could the family dynamics play in Mr. Jennings’s pain & refusal to consider hospice?
6. In what ways can the interdisciplinary palliative care team provide support/assistance to Mr. Jennings?

Specific Questions for the Staff Caring for William:

7. How frequently do you care for patients like Mr. Jennings

8. Have you ever felt inadequate in taking care of a patient like Mr Jennings? If so, answer the following question: “I felt really inadequate when...”
9. Have you ever felt that you made a difference in caring for patients like Mr. Jennings? If so, answer the following question: “I found I made a difference when...”

Module 2
Case Study #2
Ms. Diana Green: Assessment/Barriers

Ms. Diana Green is a 55-year-old OIF Veteran with a history of breast cancer. Five years ago, she underwent a lumpectomy with radiation, followed by chemotherapy. One year ago she developed bone metastases in the lumbar spine and right clavicle. She is currently being treated with another regimen of chemotherapy. She is returning to the oncology clinic for chemotherapy administration. The nurse is concerned about Diana's comfort and conducts a pain assessment.

History:

Ms. Green, at first, reports no problems, but later admits that she recently developed very minor low back pain. She attributes this to increased activity as she has been remodeling her home with her partner of 20 years. When the pain does not abate with over the counter medications (e.g., ibuprofen, acetaminophen) and non-pharmacological techniques (e.g., massage, heat), she will occasionally take a hydrocodone 5/325 mg acetaminophen. When questioned why she does not take more, she states, "I don't like taking drugs" and "My partner doesn't like when I take the pills."

Ms Green describes her pain as 2 or 3/0-10, located in her low back. The pain is aching and throbbing. When pressed to report other pain sites, she admits she has some shoulder pain, but rates it as a 1 currently. She also describes tingling in the feet bilaterally, extending to the ankles. "It is not pain really, just burning."

Social history: Ms. Green lives with her partner, Denise, and two teenage sons in a suburban home. She works as a receptionist in a dentist's office. She was a dental tech in the U.S. Navy and served 8 years.

Physical Assessment:

During the history, Ms. Green's posture indicated that she was not comfortable. When she rises up from her chair to get onto the exam table, the nurse notes that she does so with difficulty. Palpation of the lower lumbar spine (L3-4) produces pain. She denies pain when the clavicle is palpated. Straight leg raises of less than 30 degrees increase the low back pain significantly. Neurological examination reveals weakness in lower extremities, with R > L. Sensory loss is noted bilaterally in the toes and feet to the ankles. Reflexes are intact.

Discussion Questions:

1. What are the barriers to pain relief in this case?
2. What types of pain is Ms. Green experiencing and what might be the underlying etiologies? What other questions should the nurse ask this Veteran?
3. Devise a plan of care for Ms. Green.

Module 2
Case Study #3 and Discussion
Mr. Joshua Walker: Importance of Interprofessional Care

Case:

Mr. Joshua Walker is a 23-year-old Army Veteran who completed two tours in Afghanistan and was diagnosed with an advanced sarcoma initially affecting the right leg but now with extensive metastases, including lung. He was medically retired from the Army. He complains of severe pain in the leg. He lies in a fetal position with the lights off. Family members visit rarely, and Joshua is reluctant to return home. He is cachectic and clearly is approaching the end of life. He requests intravenous hydromorphone, as this has worked well in past hospitalizations. When the nurses attempt to administer the medication Joshua wants it injected quickly and, in a port, closest to the insertion site. The nurse expresses concern that Joshua is addicted or manipulative, wanting to stay in the hospital to get intravenous medicines. *As the charge nurse/pain resource nurse on duty, what assessment and interventions are warranted?*

Discussion:

Extensive pain assessment is warranted, including the location, quality, intensity, medication history, and other factors. This type of pain might include nociceptive and neuropathic aspects, necessitating treatment with multiple medications. An assessment of Joshua's emotional state is also needed, including the family's role and function. Especially important is to determine whether Joshua is depressed, as well as his beliefs about his disease. A team approach is indicated given the complex bio-psychosocial-spiritual dimensions of this situation. As the pain resource nurse, you call a special team meeting to discuss. During this meeting you help the staff nurse discuss her feelings and concerns regarding the patient's request for more rapid injection of the drug.

Case continued:

Joshua's response to the opioid indicates that the chosen dose reduces pain somewhat (he cannot articulate a percentage of relief but states that the pain is a 6-8 after the injection, down from an 8-10) without significant sedation. A higher dose produces some sedation, but improved relief. In questioning Joshua, he is not upset by the sedation. Corticosteroids are added to reduce inflammation. *Besides physical assessment/interventions, what other psychosocial assessments and interventions would be appropriate? What other team members need to be involved?*

Discussion:

As the nurse, you determine that the social worker and one of the palliative care nurses are able to establish trust with Joshua and his mother. After extended discussions, the team learns that the family does not visit often, as they cannot afford the travel expense. Financial burdens are high, and resources are very limited. Joshua expresses concern that he is a burden to his mother, who awakens frequently during the night to care for him. His coming to the hospital is an attempt to give her some peace, and his reluctance to return home reflects this concern. Aggressive teamwork is directed towards helping the family understand Joshua's disease state, improving communication between family members and Joshua, and assisting in obtaining financial and other support. At the same

time, the team provides time for staff to express their concerns and sadness at caring for a child at the end of life.

Case continued:

Joshua is discharged to his home with hospice care. He receives a subcutaneous infusion of hydromorphone with boluses administered by his mother, as needed. He dies at home with good relief of pain. His mother, who in the past struggled with wanting aggressive therapy, had come to some level of acceptance regarding her son's death. She continues follow-up with the hospice chaplain for bereavement care.

Module 2
Case Study #4
Mr. Jack Jones: Calculating Equianalgesic Doses

Mr. Jones is an Air Force Veteran taking two oxycodone 5 mg/acetaminophen 325 mg (Percocet[®]) tablets every four hours for bone pain related to metastatic cancer. His pain is a constant 6 on a 0 to 10 scale. Since the current regimen is not meeting his goals, and is keeping him from moving, you decide to call his physician.

Discussion Questions:

1. The provider suggests increasing the oxycodone/acetaminophen to two tablets q3h ATC. How would you respond to this order?
2. A more appropriate approach would be to start the patient on a different opioid. Calculate the equianalgesic dose and schedule for the following options:
 - a. oral morphine - immediate release
 - b. oral morphine ER (extended release)
 - c. oral hydromorphone
 - d. oxycodone
 - e. fentanyl patch
3. Suggest new analgesic orders for Mr. Jones. Take into consideration that orders should include both scheduled and breakthrough pain medications and other drugs that might be especially effective for a patient with bone pain.

Faculty Guide:

The goal of this case is to ensure that the participants understand:

- dose ceiling of acetaminophen
- the role of NSAIDs in bone pain
- how to do analgesic conversions
- concepts of titration

Specific points for each question:

1. There are two major issues with the order:
 - a. The dose limit of acetaminophen is 2000 mg. At his current dose of two Percocet[®] q4h, Mr. Jones is taking 650 mg per dose x 6 doses, or 3900 mg per day. Therefore, increasing the oxycodone/acetaminophen is not a safe option. An option is use of oxycodone which is available without acetaminophen.
 - b. Mr. Jones is likely to benefit from the addition of an NSAID to his regimen.

2. To calculate the oral dose, begin by noting that 2 oxycodone q4h=12 tabs per 24 hours=60 mg oxycodone per 24 hours.
- MSIR:** Look up the approximate equivalent dosages of oxycodone and morphine in an equianalgesic table. Use this dosage ratio to calculate the dose of morphine equivalent to 60 mg oxycodone.

$$\frac{20 \text{ mg PO oxycodone}}{60 \text{ mg PO oxycodone}} = \frac{30 \text{ mg PO morphine}}{X \text{ mg PO morphine}}$$

Solve for X (cross multiply)

$$60 \times 20 = 30X$$

$$X = 1800/30$$

$$X = 90 \text{ mg morphine}/24 \text{ hours}$$

Since the duration of MSIR is approximately 3-4 hours, you would divide the 24 hours dose into 6 doses, or:

10 MSIR q 4 hours

- MS Extended Release:** Follow the same process as above, except the duration of action is 12 hours and you would divide the 24-hour dose into 2 doses, or:

45 mg MS ER q 12 hours

However, these calculations do not consider incomplete cross tolerance when switching from one drug to another. Most guidelines recommend reducing the dose by approximately 20%—if calculating the morphine extended-release dose, reduce 90 mg by 20% or 18 mg = 72 mg and divide by 2 = 36. One might start at 30 mg q 12 hours but ensure that breakthrough medication is available. Titrate upward as warranted.

- hydromorphone:** 20 mg oral oxycodone is equivalent to 7.5 mg oral hydromorphone

$$\frac{20 \text{ mg PO oxycodone}}{60 \text{ mg PO oxycodone}} = \frac{7.5 \text{ mg PO hydromorphone}}{X \text{ mg PO hydromorphone}}$$

Cross multiply as above:

$$X = 22.5 \text{ mg PO hydromorphone}/24 \text{ hours.}$$

Since the duration of hydromorphone is 4 hours, you would divide the 24 hours dose into 6 doses, or:

3.75 mg hydromorphone q 4 hours

Since hydromorphone does not come in 3.75 mg tablets, it is reasonable to give 4 mg per dose instead.

- d. The package insert suggests that 25 µg/h transdermal fentanyl is approximately equivalent to 45-134 mg oral MS/24 hours. Therefore, the calculated morphine dose of 60 mg/24 hours would suggest an equianalgesic dose of fentanyl would be 25 µg/h q 72 hours.
3. Any set of analgesic orders should include the following concepts:
- a. Since the pain is 6/10, it is reasonable to increase the baseline dose by 50%.
 - b. Short acting breakthrough medications equivalent to 50 to 100% of the baseline dose should be available.
 - c. Some possible combinations:
 - Morphine ER 45 mg q 12 hours, with 7.5 to 15 mg MSIR (use liquid q2-4 hours PRN), (would be OK to use the Percocet® first)
 - MSIR 15 mg q 4 hours, with 7.5 to 15 mg MSIR q2-4 hours PRN
 - hydromorphone 4 mg q4 hours PRN, with 2-4 mg hydromorphone q2-4 hours PRN
 - change the oxycodone/acetaminophen to plain oxycodone 15 mg q4 hours, with 5-15 mg q2-4 hours PRN

NOTE: An NSAID, such as ibuprofen 600 mg or naproxen 500 mg BID could be added to any of these regimens.

Source:

Adapted from:

Gordon, D., Stevenson, K.K., & Dahl, J. (1996). *Home care case studies and faculty guide*. Madison, WI: Wisconsin Cancer Pain Initiatives.

Module 2
Case Study #5 and Discussion
Mr. Steve Price: Honoring a Wish

Mr. Price is a 78-year-old Air Force Veteran with severe chronic obstructive pulmonary disease (COPD), cor pulmonale, and arthritis who lives alone in subsidized housing for the elderly. He is dependent on home oxygen and oral steroids. Other medications include diuretics, nonsteroidal anti-inflammatory drugs (NSAIDs), multiple bronchodilators, and respiratory medications. Mr. Price states that he wants to avoid further hospitalizations for his disease, does not want to be intubated or resuscitated, and that he has a living will and durable power of attorney for health-care in place. Mr. Price is currently being followed by a registered nurse from the transitional care department of a home hospice agency. His two adult sons live out of state, and he has one married granddaughter in the area.

For seven days, Mr. Price has been on oral antibiotics for acute bronchitis, but his overall condition has steadily declined. Today, he is lethargic, unable to stand, and having difficulty swallowing her medications. The homecare nurse discusses Mr. Price's condition with him, his family, and his physician. They develop a plan of care to keep Mr. Price at home, until he dies.

Discussion Questions:

1. Given the information provided, what would you identify as a priority of care for Mr. Price?
2. What changes will need to be made to Mr. Price's medication regime? (Consider the change in health status and his age.)

Module 2
Case Study #6
Mrs. Madeline Schneider: Pain and Suffering

Mrs. Madeline Schneider is a 66-year-old Navy Veteran admitted to a home care agency for care related to end-stage cardiac disease and renal failure. She does not talk about her service much, but says she was in the Navy when they first started allowing women on ships and she was one of the first women to serve on a ship alongside the men. She has complained of chronic generalized chest pain, frequent cramps in her legs, and worsening arthritis pain related to her immobility. The home care nurse has been in contact with Ms. Schneider's physician almost daily for the past week and her analgesics have been steadily increased with little pain relief but an increase in nausea, constipation and sedation. The nurse feels frustrated, as she observes Ms. Schneider is declining rapidly with worsening depression, withdrawal, and weeping. Ms. Schneider's neighbor has noticed that her lights are left on 24-hours-a-day and the nurse has noticed that Ms. Schneider has several rosaries and prayer books now at her bedside. Ms. Schneider has declined referral to hospice, but the home care nurse has requested a team conference with assistance from the local hospice affiliated with the home care agency.

Discussion Questions:

1. What disciplines should be included in the case conference?
2. What additional assessment might the nurse obtain?
3. How can this patient's pain and suffering best be treated?