

## Cancer Pain Management: Review Questions

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### QUESTIONS

Choose the single best answer for each question.

1. A 66-year-old man with prostate cancer and widespread bone metastasis has failed hormonal therapy and is being considered for chemotherapy. He is currently taking controlled-release oxycodone, 80 mg every 12 hours; ibuprofen, 600 mg 3 times daily; and oxycodone, 15 to 20 mg up to twice daily with no side effects. He reports pain of 1/10 to 2/10. He wants to decrease the dose of pain medication because he is concerned that the pain will worsen in the future and he will already be taking maximum doses. Which of the following is the most appropriate advice at this time?

- A) Explain that opioids have no ceiling dose
- B) Explain that tolerance limits the amount of opioid that can be taken over time
- C) Agree that he should begin to taper the controlled-release oxycodone
- D) Explain that after oral medications are no longer effective, he can be switched to intravenous medications

Questions 2 and 3 refer to the following case study.

A 46-year-old man with pancreatic cancer has diffuse, gnawing upper-abdominal pain with a severity of 7/10 that is now well controlled by transdermal fentanyl 50 µg/h, hydromorphone 4 mg 2 to 3 times daily for breakthrough pain, and ibuprofen 400 mg twice daily. He presents with a 3-week history of waxing and waning nausea, anorexia, diffuse abdominal pain, and abdominal distention. He denies the use of any other medications. On examination, his abdomen is mildly distended with slight diffuse tenderness and no rebound, rigidity, or guarding.

2. Which of the following is the most likely cause of these findings and the most appropriate next step?

- A) Worsening disease; increase transdermal fentanyl to 75 µg/h

- B) Biliary obstruction; order an abdominal ultrasound
- C) Opioid-induced constipation; institute daily bowel regimen
- D) Nonsteroidal anti-inflammatory drug-induced ulcer; order an endoscopy

3. Four weeks later, the patient's pain is well controlled on the current analgesics, but he says that the opioids sometimes make him feel "foggy and sleepy." Which of the following options should be considered for pain control with fewer side effects?

- A) Increase dose of transdermal fentanyl to 100 µg/h every 48 hours
- B) Change breakthrough medication to transmucosal fentanyl, 800 µg every 6 hours
- C) Add nalbuphine, 10 mg every 6 hours
- D) Refer patient for consideration of celiac plexus block

4. A 34-year-old woman with metastatic ovarian cancer reports pain severity of 7/10 in her lower abdomen. She describes the pain as constant, dull, pressure. A recent computed tomography scan demonstrated widespread peritoneal implants and a 3 × 4-cm soft-tissue mass in the right lower quadrant. She has been taking oxycodone (5mg)/acetaminophen (325 mg) every 3 hours, with partial relief of pain. She has no known drug allergies. Which of the following changes is most appropriate for better pain control?

- A) Add transdermal fentanyl, 150 µg/h every 72 hours

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- B) Add naproxen, 500 mg twice daily, plus controlled-release oxycodone, 20 mg every 12 hours  
C) Refer patient for spinal analgesia  
D) Refer patient for celiac plexus block
5. **A 58-year-old woman with non–small-cell lung cancer was initially treated with right lung resection and radiation therapy that she completed 3 months ago. She feels well except for persistent aching in the right side of her chest with occasional burning pain that has increased over the past several weeks. The pain increases if clothing touches the healed incision, but areas proximal to the scar are numb to light touch. She is taking hydrocodone and ibuprofen, which provide partial relief; however, she requests stronger pain relief. Which of the following is the most appropriate change to this patient’s pain management plan?**
- A) Add nabumetone  
B) Add oxycodone (5mg)/acetaminophen (325 mg) every 4 hours, as needed  
C) Add gabapentin, 100 mg 3 times daily  
D) Add meperidine, 50 to 100 mg every 4 to 6 hours as needed

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#### EXPLANATION OF ANSWERS

1. **(A) Explain that opioids have no ceiling dose.** Fear of tolerance to the analgesic effect of opioids is a common concern for patients and health care providers but is not a factor that limits opioid effectiveness. Tolerance to opioid analgesic effect is overcome by increasing the dose or changing the opioid. Changing the route of administration of systemic opioids does not change tolerance or side effects.
2. **(C) Opioid-induced constipation; institute daily bowel regimen.** Constipation is the most common opioid side effect. Because tolerance to the opioid-induced constipation does not develop, prevention with stool softeners and laxatives is necessary. Opioid-induced peristaltic slowing can mimic or worsen symptoms of intestinal obstruction and other pathologies. A plain abdominal radiograph may be needed to make the differential diagnosis.
3. **(D) Refer patient for consideration of celiac plexus block.** A celiac plexus block may control pain in up to 75% of patients with pancreatic cancer and allow reduction of opioid doses and their side effects. The patient’s pain is well controlled on his current regimen, so increasing analgesics is not necessary. Opioid rotation is sometimes helpful, but the suggested starting dose of transmucosal fentanyl is 200 µg. The addition of nalbuphine is contraindicated in patients using full µ-receptor agonists. Finding a means to continue analgesia with fewer side effects is a goal of rational pain management.
4. **(B) Add naproxen, 500 mg twice daily, plus controlled-release oxycodone, 20 mg every 12 hours.** The World Health Organization (WHO) analgesic ladder suggests that, if pain persists after a trial with step 2 medications (eg, oxycodone/acetaminophen), then step 3 medications (long-acting opioid agonists) plus nonopioids and adjuvants as appropriate should be tried. Adding a long-acting opioid alone may not be as effective as combining agents; opioids are more effective when combined with nonsteroidal anti-inflammatory drugs. Interventional procedures are indicated in patients who experience inadequate pain control or unacceptable side effects with optimal pharmacologic management.
5. **(C) Add gabapentin, 100 mg 3 times daily.** Numbness and allodynia usually indicate nerve damage. Intercostal nerve damage during thoracic resection may produce post-thoracotomy pain syndrome. Gabapentin is an anticonvulsant medication commonly used for neuropathic pain. Because the patient is already using an opioid and a nonopioid, adding an adjuvant is the missing step of the WHO ladder. Nonsteroidal anti-inflammatory drugs are not usually effective for neuropathic pain.

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