

PALLIATIVE CARE KNOWLEDGE EXAMINATION

A 72 y/o man with lung cancer and bone metastases has increasingly severe pain over the Left hip. The pain began 6-8 weeks ago and was initially controlled with acetaminophen/oxycodone tablets (Percocet), using 4-6 tablets/day. Over the past two weeks the pain has worsened; he now takes 12 tablets per day with only partial pain relief. The pain is constant, aching and well localized; there is no referred pain. (questions 1-6)

1. Increasing pain in this patient most likely represents:

- 1) new onset depression
- 2) opioid addiction
- 3) opioid tolerance
- 4) worsening metastatic cancer

2. This man's pain is best described as:

- 1) neuropathic pain
- 2) somatic pain
- 3) vascular pain
- 4) visceral pain

3. When would you expect a patient to report the maximal analgesic effect after taking a dose of acetaminophen/oxycodone (Percocet):

1. 30--45 minutes
2. 60--90 minutes
3. 120-150 minutes
4. 180-210 minutes

4. The most appropriate next step in drug therapy for this patient would be to discontinue Percocet, and start:

- 1.oral hydrocodone (e.g. Vicodin, Lortab)
- 2.oral hydromorphone (Dilaudid)
- 3.oral long-acting morphine (e.g. MS Contin, Oramorph SR)
- 4.oral meperidine (Demerol)

5. The single most appropriate adjuvant analgesic for this patient is:

- 1) amitriptyline (Elavil)
- 2) neurontin (Gabapentin)
- 3) ibuprofen (Motrin)
- 4) lorazepam (Ativan)

6. For this patient, choose the single most appropriate first drug to prescribe to prevent constipation:

- 1.docusate (Colace)
- 2.bisacodyl (Ducolax)
- 3.lactulose (Chronulac)
- 4.senna concentrate (Senokot) with/or without docusate (Colace)

A 27 y/o woman with AIDS notes burning pain along the bottom of both feet. The pain has been present for 4 months and is getting worse. There is often a numbing sensation; the pain limits her ability to walk. She recently began taking acetaminophen with codeine, 2 tabs q4H. She says the medicine provides no relief and it makes her feel sleepy. (questions 7-8)

7. This woman's pain is best described as:

1. neuropathic pain
2. somatic pain
3. vascular pain
4. visceral pain

8. The most appropriate next step in drug therapy for this patient would be to prescribe:

1. amitriptyline (Elavil)
2. ibuprofen (e.g. Motrin)
3. long-acting opioid (e.g. MS Contin, or fentanyl patch (Duragesic))
4. lorazepam (Ativan)

A 54 y/o woman is hospitalized for an exacerbation of rheumatoid arthritis. She has chronic mid and low back pain from corticosteroid-induced compression fractures of the spine. You prescribe a long-acting oral morphine preparation (e.g. MS Contin) and short-acting oral morphine (e.g. MSIR) for breakthrough pain. (questions 9-13)

9. The patient asks you how often she can take the short-acting oral morphine for pain. Your best response would be to say, "as often as:

1. every 2 hours"
2. every 4 hours"
3. every 6 hours"
4. every 8 hours"

10. Following the first dose of morphine the patient develops nausea. Which one of the following statements concerning nausea while taking opioids is true:

1. nausea to opioids is due to bowel distention and stimulation of the vagus nerve
2. nausea to opioids is usually accompanied with itching
3. nausea to opioids represents a drug allergy
4. nausea to opioids resolves in most patients within 7 days

11. The first night after this patient starts morphine the nurse calls you to report that her respiratory rate has dropped to 6-8 breaths/min. Your advice is to:

1. administer 0.2 mg naloxone (1/2 amp of Narcan)
2. administer 0.4 mg naloxone (1 amp of Narcan)
3. assess level of consciousness
4. assess level of pupillary response

12. On the third hospital day a decision is made to discontinue the long-acting morphine and begin using a fentanyl (Duragesic) patch. Therapeutic analgesic levels should not be expected after the first application of a fentanyl patch until:

- 1) 2-6 hours
- 2) 7-12 hours
- 3) 13-24 hours
- 4) 25-36 hours

13. Compared to morphine, which one of the following opioids more frequently results in clinically significant respiratory depression:

1. hydrocodone (e.g. Vicodin or Lortab)
2. hydromorphone (Dilaudid)
3. methadone (Dolophine)
4. oxycodone (e.g. Percocet)

A 63 y/o woman is hospitalized with advanced peripheral vascular disease and gangrene of several toes. She has had chronic pain in her feet, maintained with good pain control on an outpatient regimen of long-acting oral morphine 180 mg q 12 and rare use of oral hydromorphone for breakthrough pain. The patient needs to be NPO for a surgical procedure. (questions 14-16)

14. When converting from **oral** morphine to **intravenous** morphine, at an equianalgesic dose, the most appropriate dose conversion is:

1. 3 mg oral = 9 mg intravenous
2. 3 mg oral = 3 mg intravenous
3. 3 mg oral = 1 mg intravenous
4. 3 mg oral = 0.3 mg intravenous

15. In converting **IV** morphine to an equianalgesic dose of **IV** hydromorphone (Dilaudid), the most appropriate dose conversion would be:

1. 1 mg morphine = 4 mg hydromorphone
2. 1 mg morphine = 1 mg hydromorphone
3. 1 mg morphine = 0.50 mg hydromorphone
4. 1 mg morphine = 0.25 mg hydromorphone

16. On the second post-op day, the patient is using the same morphine infusion rate as in Question 14. but the IV line has clotted. The patient's nurse suggests changing the **IV** infusion to a **subcutaneous (SQ)** morphine infusion. The most appropriate dose conversion would be:

- 1) 1.0 mg IV = 0.5 mg SQ
- 2) 1.0 mg IV = 1.0 mg SQ
- 3) 1.0 mg IV = 2.0 mg SQ
- 4) 1.0 mg IV = 4.0 mg SQ

A 24 y/o man is hospitalized for sickle cell crisis. At home he uses prn ibuprofen and hydrocodone/acetaminophen (e.g. Vicodin) for episodic pain. Current analgesic orders are: meperidine (Demerol) 75 mg and hydroxyzine (Vistaril) 25 mg IV q 3 h prn severe pain. On the third hospital day he continues to note severe pain and is requesting pain medications every two hours. The nurses feel that he increases his appearance of pain (moaning) whenever they enter the room. (questions 17-18)

17. Which one of the following interventions is **not** appropriate

- 1) change meperidine to intravenous morphine
- 2) decrease the meperidine dosing interval to q2h
- 3) prescribe heating pad to areas of severe pain
- 4) teach relaxation and guided imagery

18. What single feature of this patient's current and past history would be most indicative of drug addiction (psychological dependence):

- 1) an increasing need for the drug over time
- 2) complaint of pain exceeding that expected for a given medical problem
- 3) development of a withdrawal syndrome when the drug is stopped
- 4) evidence of adverse life consequences from drug use

A 67 y/o woman with pancreatic cancer metastatic to liver comes to your clinic together with her husband. Over the past four weeks she has lost her appetite and experienced steady weight loss. She spends >75% of the day in bed or lying on a couch because of fatigue. Her oncologist has indicated that there is no role for further chemotherapy. (questions 19-24)

19. Outside the examination room the patient's husband stops you and says, "if you have more bad news, please do not tell my wife—she will fall to pieces". How should you manage the husband's request to limit "bad news"?

- 1) ask the husband if family/friends/clergy might be better at transmitting bad news
- 2) ask the husband if he understands the principle of 'patient autonomy'
- 3) ask the husband to define the type of information he feels you can present
- 4) ask the husband to tell you more about his concerns

20. The single best predictive factor in determining prognosis in patients with metastatic cancer is:

- 1) functional ability
- 2) number of metastatic lesions
- 3) serum albumin
- 4) severity of pain

21. The patient asks you: "so how much time do you think I have?" After further discussion with the patient and her husband you confirm that they want to talk about her prognosis. The best approach is to tell them that:

- 1) on average patients with her condition live for about six-nine months
- 2) only God can determine how long someone has to live
- 3) you believe her time is short, only a few weeks to a few months
- 4) you really can't tell how much time she has left

22. The patient asks you, “Is there anything I can take to improve my appetite?” Which of the following drugs has been shown to improve appetite in advanced cancer patients:

- 1) conjugated estrogen (e.g. Premarin)
- 2) haloperidol (Haldol)
- 3) lorazepam (Ativan)
- 4) megestrol acetate (Megace)

23. As you talk to the patient, you decide this would be a good time to discuss referral for home hospice care. Under the Medicare Hospice Benefit, which one of the following admission criteria is **not** required:

1. a physician-of-record is identified
2. DNR (no code) status
3. expected prognosis of 6 months or less
4. the approach is limited to a palliative, symptom-oriented approach

24. The husband asks about hospice support services. As part of the Medicare Hospice Benefit which of the following is **not** provided:

- 1) bereavement program for surviving families
- 2) night-time custodial care
- 3) payment for all medications related to the terminal illness
- 4) skilled nursing visits

A 74 y/o anuric, end-stage renal failure patient has been receiving hemodialysis three-times per week for seven years. She is considering stopping dialysis as it is increasingly a burden due to infections, vascular access problems and fatigue. (questions 25-27)

25. The patient wants to know how long she would likely survive if she stops dialysis. The best response would be to say:

- 1) “about 2-3 days”
- 2) “about one week”
- 3) “only God can determine how long someone has to live”
- 4) “there is no way to tell for sure”

26. The patient tells you she would like to be at home when she dies. Her son asks about intravenous fluids—“will we need intravenous fluids at home?” Which one of the following statements about intravenous (IV) hydration in the last week of life is **true**:

- 1) maintaining IV hydration will improve pain management
- 2) maintaining IV hydration will prevent dry mouth
- 3) stopping IV hydration will lead to painful muscle cramps
- 4) stopping IV hydration will lessen dyspnea associated with renal failure

27. Four days after going home a visiting nurse calls you and says the patient was awake most the night, is very fidgety, and keeps trying to get out of bed. Her speech is garbled, she is only oriented to person. She is afebrile and has no focal neurologic signs. Which one of the following statements about treating this symptom complex (terminal delirium) is **true**:

- 1) family members should leave the room to help decrease the agitation
- 2) paradoxical worsening of this condition may occur after administration of a minor tranquilizer (e.g. Ativan or Valium)
- 3) placing the patient in a dark room will help decrease sensory input and reduce the agitation
- 4) the drug treatment of choice is an anti-cholinergic medication

A 40 y/o man is in the outpatient clinic with increasing dyspnea. He was diagnosed HIV positive 12 years ago and now has skin and pulmonary Kaposi sarcoma (KS). The patient stopped taking anti-retroviral medications 9 months ago because of intolerable side effects. On exam he has a respiratory rate of 20-24; chest x-ray shows multiple pulmonary metastases. Following the exam, the patient says "lets just get this over with, put me to sleep and let me die". (questions 28-30)

28. Which one of the following statements about depression at end-of-life is **true**:

- 1) Clinical depression is a normal stage of the dying process
- 2) Depression associated with HIV is more difficult to treat than in cancer patients
- 3) Feelings of hopelessness/worthlessness are indicators of a clinical depression
- 4) The degree of appetite and sleep disturbance is predictive of response to anti-depressant medication

29. Which one of the following statements, that concern patients with a terminally illness, is closest to the definition of "physician assisted suicide":

- 1) discontinuing intravenous fluid administration in a patient who can no longer take oral medication
- 2) writing a prescription for a lethal dose of a medication that the patient can use at the time of their choice
- 3) raising the dose of intravenous morphine with the intent of depressing respiration to the point of death
- 4) removing a respirator at the request of a decisional patient

30. The best drug choice to treat dyspnea in this patient is an:

1. anti-cholinergic/anti-muscarinic (e.g. scopolamine)
2. anti-depressant (e.g. amitriptyline (Elavil))
3. anti-histamine (e.g. diphenhydramine (Benadryl))
4. opioid analgesic (e.g. morphine)

A 75y/o man is transferred to your inpatient ward from a nursing home because of cough, fever and headache. Chest x-ray shows a large pulmonary infiltrate and moderate sized pleural effusion. The patient has the capacity to make decisions for himself. Your initial management plan includes starting IV antibiotics, performing a lumbar puncture and a thoracentesis.

31. Which of the following should be discussed with the patient prior to initiation of therapy to ensure patient consent?

1. None, consent is implied when patients are transferred from a nursing home
2. Only the lumbar puncture
3. Only the lumbar puncture and the thoracentesis
4. Pleurocentesis, lumbar puncture and IV antibiotics

32. All of the following must be present to establish that this patient has decision-making capacity **except**:

- 1) able to reason, to weigh treatment options
- 2) can express a choice among treatment options
- 3) is oriented to person, place and time
- 4) understands the significance of information relative to personal circumstances

A 60 y/o woman has metastatic breast cancer with bone and pleural metastases. Her husband brings her to clinic stating that over the past week she has noted fatigue, thirst and frequent need to urinate. On examination she is dehydrated and lethargic but arousable, there are no focal neurological findings. (questions 33-36)

33. The most likely diagnosis of this new problem is:

- 1) brain metastases
- 2) hypercalcemia
- 3) hyperglycemia
- 4) sepsis

34. Over the next week she deteriorates and becomes unconscious, the family decides that no further aggressive care is warranted. The family notices that the patient has very loud, raspy breathing and asks you if there is any treatment. You determine the cause is retained oropharyngeal secretions ("the death rattle"). The best class of drugs to treat "death rattle" is a(n):

- 1) anti-cholinergic/anti-muscarinic (e.g. scopolamine)
- 2) benzodiazepine (e.g. lorazepam (Ativan))
- 3) butyrophenone (e.g. haloperidol (Haldol))
- 4) opioid analgesic (e.g. morphine)

35. Two days later the patient dies; you are called to "pronounce the patient". As you enter the room there are four family members standing around the bed, each holding or touching the woman. Which of the following is **not** appropriate during this encounter:

- 1) ask the family to leave the room while you perform your examination.
- 2) offer to remove medical paraphernalia (e.g. oxygen mask, IV line).
- 3) stand quietly for a moment and offer consolation to the family
- 4) volunteer to contact family members not present.

36. Three months after the patient's death her husband comes to your office. He says that he sometimes thinks that his wife is in the house talking with him, that he imagines he hears her voice, he has gained 10 pounds since her death, but otherwise feels well. He is concerned that he is "going crazy". These symptoms are most consistent with a:

- 1) complicated grief reaction
- 2) major depression
- 3) normal grief reaction
- 4) psychotic disorder

ANSWER KEY

1.4
2.2
3.2
4.3
5.3
6.4
7.1
8.1
9.1
10.4
11.3
12.3
13.3
14.3
15.4
16.2
17.2
18.4
19.4
20.1
21.3
22.4
23.2
24.2
25.2
26.4
27.2
28.3
29.2
30.4
31.4
32.3
33.2
34.1
35.1
36. 3