

# PRACTICE EXAM 4: HPM CERTIFICATION SIMULATION (240 QUESTIONS)

---

1. A 72-year-old man with metastatic non-small cell lung cancer is being converted from IV morphine to oral morphine for discharge to home hospice. He has been receiving IV morphine 2 mg every 4 hours (12 mg IV per 24 hours). The discharge pharmacist asks the palliative care team to confirm the oral dose. Using the standard equianalgesic conversion, which of the following represents the correct total 24-hour oral morphine dose?

- A. 12 mg oral morphine per day, maintaining the same number as the IV dose
- B. 4 mg oral morphine per day, dividing the IV dose by 3 for the oral route
- C. 36 mg oral morphine per day, multiplying the IV dose by 3 using the standard 3:1 oral-to-parenteral ratio
- D. 24 mg oral morphine per day, doubling the IV dose for the oral route

2. A hospice medical director reviews a certification narrative that reads: "Patient has lung cancer. Prognosis less than 6 months." The medical director determines this narrative is deficient. Which of the following is the PRIMARY reason for the deficiency?

- A. The narrative lacks specific clinical findings, functional status, disease-specific prognostic markers, and a clinical rationale connecting these findings to the six-month prognosis estimate — Medicare requires individualized clinical documentation, not a generic statement
- B. The narrative exceeds the maximum allowable character count for Medicare certification narratives
- C. The narrative fails to include the patient's insurance identification number as required by CMS
- D. The narrative is deficient because it does not include an ICD-10 code within the body of the text

3. A 68-year-old woman with advanced ovarian cancer has been on hospice for four months. She is comfortable on morphine SR 60 mg every 12 hours. She develops a new urinary tract infection causing dysuria, suprapubic discomfort, and fever of 38.6°C. She is alert, enjoying visits from her grandchildren, and has a prognosis estimated at 2–3 months apart from the UTI. Her goals are comfort-focused. Which of the following antibiotic approaches is most consistent with her comfort-focused goals?

- A. Withhold antibiotics because she is enrolled in hospice and infections represent the natural dying process
- B. Transfer to the hospital for IV antibiotics, blood cultures, and urology consultation
- C. Prescribe prophylactic antibiotics for 30 days to prevent future UTIs after treating this one
- D. Treat with an appropriate oral antibiotic because the UTI is causing distressing symptoms that antibiotics can relieve, consistent with comfort goals in a patient with months of remaining quality life

4. A 55-year-old man with advanced sarcoma is on chronic opioid therapy. He is taking morphine SR 90 mg every 12 hours with morphine IR 30 mg every 3 hours PRN, using approximately 4 breakthrough doses per day. His total 24-hour oral morphine intake is 300 mg. He develops complete dysphagia and requires conversion to a continuous subcutaneous morphine infusion. Using the standard 3:1 oral-to-parenteral conversion, what is the correct hourly SC morphine infusion rate?

- A. 12.5 mg/hour (300 mg/24 hours — using an incorrect 1:1 conversion)
- B. Approximately 4.2 mg/hour (100 mg SC per 24 hours, using the correct 3:1 ratio)
- C. 2.1 mg/hour (50 mg/24 hours — using an incorrect 6:1 ratio)
- D. 6.25 mg/hour (150 mg/24 hours — using an incorrect 2:1 ratio)

5. A palliative care physician is meeting with a 60-year-old woman with metastatic breast cancer who has just been told her chemotherapy has failed. She is crying and says, "What am I going to tell my kids? They depend on me." The physician feels the urge to discuss hospice enrollment. Based on evidence-based communication principles, what should the physician do FIRST?

- A. Respond to the emotion before providing any clinical information — acknowledge her pain, validate her fear about her children, and allow silence before transitioning to any discussion of next steps
- B. Immediately outline hospice benefits to give her a concrete plan to focus on
- C. Contact the social worker to provide emotional support so the physician can address medical planning
- D. Ask her directly whether she prefers to discuss her feelings or her treatment options right now

6. A 74-year-old man with end-stage heart failure on hospice has an ICD. He and his family agree to deactivate the shock function. A device representative is not available for 8 hours. The patient has received two painful shocks in the past hour. Which of the following is the correct emergency intervention to immediately suspend ICD shock delivery?

- A. Administer IV amiodarone 150 mg to suppress the arrhythmias triggering the shocks
- B. Increase the morphine infusion to sedate the patient through subsequent shocks
- C. Turn off any LVAD device present, which will simultaneously disable the ICD
- D. Place a strong magnet over the ICD pulse generator and tape it securely in position to suspend shock delivery until the device representative arrives for permanent reprogramming

7. A 66-year-old woman with metastatic colon cancer develops new severe headache, papilledema, and projectile vomiting without preceding nausea. MRI reveals three brain metastases with significant surrounding vasogenic edema. Her nausea has not responded to ondansetron 8 mg IV. Based on the mechanism driving her nausea and vomiting, which of the following is the most appropriate targeted antiemetic?

- A. Metoclopramide 10 mg IV for its prokinetic effect on gastric emptying
- B. Scopolamine transdermal patch for vestibular-mediated nausea
- C. Dexamethasone 16 mg IV to reduce cerebral edema and the elevated intracranial pressure that is directly stimulating the vomiting center
- D. Lorazepam 1 mg IV for anticipated nausea mediated by higher cortical centers

8. A 73-year-old man with end-stage COPD on hospice develops loud, rattling breathing that began 3 hours ago. He is unresponsive. His wife is very distressed by the sound. The hospice nurse administers glycopyrrolate 0.2 mg SC. Two hours later, the rattling persists. Which of the following explanations should guide the nurse's communication with the family?

- A. The glycopyrrolate has failed and deep oropharyngeal suctioning should be performed immediately
- B. Anticholinergic agents prevent NEW secretion production but cannot dry EXISTING pooled secretions — the noise will persist until previously accumulated secretions are reabsorbed or drain by gravity with repositioning, and the patient is almost certainly unaware of the sound
- C. The rattling indicates aspiration pneumonia requiring antibiotic treatment
- D. A different anticholinergic agent (atropine) must be substituted because glycopyrrolate is ineffective

9. A 58-year-old woman with advanced cervical cancer on hospice develops bilateral ureteral obstruction from retroperitoneal tumor. Her creatinine rises from 1.1 to 5.6 mg/dL over 10 days. She is

becoming confused and nauseated. Her oncologist recommends nephrostomy tubes. The palliative care team is consulted. The decision should be guided primarily by which of the following?

- A. The patient's values, goals, and understanding that nephrostomy tubes would relieve the obstruction and extend life but would not treat the cancer — and that she would live with the tubes for whatever time remains
- B. The technical feasibility of the procedure as determined by interventional radiology
- C. Whether the patient's insurance will cover nephrostomy placement under the hospice benefit
- D. The creatinine level, because values above 5.0 mg/dL mandate nephrostomy regardless of goals

10. A 70-year-old man with advanced pancreatic cancer has been on hospice for three months. At his latest recertification, he is entering his third benefit period (first 60-day period). Which of the following is a NEW requirement for this benefit period that distinguishes it from the first two 90-day periods?

- A. A second opinion from an independent palliative care specialist not affiliated with the hospice
- B. A comprehensive psychiatric evaluation confirming the patient's understanding of hospice
- C. Submission of a formal appeal to Medicare documenting continued eligibility
- D. A face-to-face encounter with a hospice physician or nurse practitioner within 30 days before the start of the benefit period

11. A 64-year-old woman with advanced breast cancer on hospice develops new bilateral lower extremity edema. Physical examination reveals non-pitting edema extending to mid-thighs with thickened, woody-textured skin and a positive Stemmer's sign. She has no JVD, no crackles, and no hepatomegaly. Her serum albumin is 3.2 g/dL. This presentation is most consistent with which of the following?

- A. Congestive heart failure requiring diuretic therapy with furosemide
- B. Lymphedema from pelvic lymph node obstruction or prior lymph node dissection — characterized by non-pitting edema, skin thickening, positive Stemmer's sign, and failure to respond to diuretics
- C. Nephrotic syndrome causing generalized edema from massive proteinuria
- D. Deep vein thrombosis requiring urgent anticoagulation therapy

12. A 59-year-old man with advanced melanoma on hospice develops a painful, ulcerating chest wall mass with severe malodor from anaerobic bacterial colonization. The odor prevents family visits. Which topical agent most effectively targets the source of the malodor?

- A. Silver sulfadiazine cream applied daily for broad-spectrum antimicrobial effect
- B. Hydrogen peroxide 3% solution for wound irrigation at each dressing change
- C. Topical metronidazole 0.75% gel applied directly to the wound — specifically targeting the anaerobic bacteria producing the foul odor
- D. Povidone-iodine solution applied to the wound periphery for general antisepsis

13. A 71-year-old woman with end-stage heart failure is actively dying at home on hospice. Over the past 24 hours, her daughter reports a dramatic improvement — the patient is alert, conversing, eating, and expressing love and gratitude. Her vital signs remain abnormal. This phenomenon is best described as which of the following?

- A. A terminal rally (terminal lucidity) — a transient, poorly understood period of improvement that may occur hours to days before death, not indicating recovery but rather a temporary phenomenon typically followed by rapid decline
- B. Evidence of clinical recovery requiring immediate hospital transfer for re-evaluation
- C. A medication interaction causing temporary CNS stimulation requiring dose adjustment
- D. Resolution of a concurrent infection that was suppressing her consciousness

14. A 62-year-old man with advanced gastric cancer on hospice develops constipation refractory to senna 4 tablets BID and polyethylene glycol 17 g daily. He has not had a bowel movement in 10 days despite these medications. Rectal exam shows no impaction. Abdomen is distended but soft. He is on morphine for pain. Which of the following is the most appropriate next step?

- A. Add docusate as the missing laxative component of his regimen
- B. Add a high-fiber diet with increased fluid intake as the definitive intervention
- C. Discontinue all opioids and switch to a non-opioid pain management plan
- D. Start methylnaltrexone 12 mg SC — a peripherally acting mu opioid receptor antagonist that blocks GI mu receptors without crossing the blood-brain barrier, indicated for OIC refractory to optimized conventional laxatives

15. A 67-year-old woman with metastatic lung cancer on hospice has been on stable opioid therapy for five months. She also takes senna-docusate daily. She has been having regular bowel movements. She asks her hospice nurse, "Can I stop the laxative? I haven't had any constipation problems." Which of the following is the most accurate advice?

- A. She can safely discontinue the laxative because her bowels have adapted to the opioid over five months
- B. Continue the prophylactic laxative because tolerance to opioid-induced constipation does NOT develop — it is the only major opioid side effect for which tolerance never occurs, and constipation will return if the laxative is stopped
- C. Switch from senna-docusate to psyllium fiber for a more natural approach to bowel regulation
- D. Stop the senna but continue docusate alone as adequate maintenance therapy

16. A hospice nurse visits a 78-year-old man with end-stage heart failure who is actively dying. She notes mottling extending to mid-thighs bilaterally, absent radial pulses, anuria for 12 hours, mandibular breathing, and unresponsiveness. Based on these converging signs, which of the following should the nurse communicate to the family?

- A. Death is likely approaching within hours to a few days — these signs represent the progressive organ system failure of active dying, and the family should be supported in using this remaining time together
- B. The patient needs urgent hospital transfer for evaluation of acute kidney injury and circulatory shock
- C. These signs are inconclusive and the nurse should reassess in 24 hours before providing any prognostic guidance
- D. The mottling is caused by cold room temperature and will resolve with warming blankets

17. A 55-year-old woman with advanced ovarian cancer on hospice has malignant ascites from peritoneal carcinomatosis (NOT portal hypertension). She has an indwelling peritoneal catheter. After draining 5 liters, she asks whether albumin replacement is needed. Which of the following is most accurate?

- A. Albumin is always required after draining more than 3 liters regardless of the mechanism of ascites
- B. Albumin replacement is mandatory for all paracenteses performed through indwelling catheters

C. Albumin replacement is NOT routinely required for malignant ascites from peritoneal carcinomatosis — it is standard for cirrhotic portal hypertensive ascites where post-paracentesis circulatory dysfunction is a specific hemodynamic concern, but the mechanism differs in malignant ascites

D. Albumin must be given before drainage, not after, in all types of ascites

18. A 63-year-old man with advanced hepatocellular carcinoma on hospice requires opioid therapy for abdominal pain. He has Child-Pugh C cirrhosis with bilirubin of 14 mg/dL and INR of 2.8. His GFR is 70 mL/min (normal). The palliative care physician selects morphine at a reduced dose. Which pharmacokinetic principle most directly explains why the oral dose must be reduced?

A. Morphine is entirely renally excreted and his elevated bilirubin interferes with renal clearance

B. Ascites increases the volume of distribution for all drugs, requiring lower doses to prevent toxicity

C. Morphine binds to bilirubin in the bloodstream, creating toxic conjugates that cause additional damage

D. Reduced hepatic first-pass metabolism in severe liver disease increases oral morphine bioavailability — more of the oral dose reaches systemic circulation at any given dose level, effectively increasing drug exposure

19. A 70-year-old woman with advanced breast cancer on hospice develops a new DVT in her right leg causing significant pain and swelling. Her prognosis is approximately 3 months. She is on comfort measures. Which anticoagulation approach is most appropriate?

A. Anticoagulation is categorically prohibited for all hospice patients with DVT regardless of symptoms

B. Treat with subcutaneous LMWH if the DVT symptoms (pain, swelling) are causing distress — the decision is based on whether treatment serves comfort goals, not on a blanket policy

C. Transfer to the hospital for IV heparin infusion and vascular surgery consultation

D. Apply compression stockings as the sole intervention without pharmacologic therapy

20. A palliative care physician has been caring for a 65-year-old woman with advanced pancreatic cancer for five months. After her death, the physician notices she feels tearful when reviewing the patient's chart and has been thinking about her more than other patients. She wonders whether this response is problematic. This reaction is most accurately described as which of the following?

- A. Normal clinician grief — a natural, healthy response to the loss of a patient with whom the physician had a meaningful therapeutic relationship, reflecting emotional engagement rather than pathology
- B. Professional burnout requiring a leave of absence from clinical responsibilities
- C. A boundary violation indicating inappropriate personal attachment to the patient
- D. Compassion fatigue indicating the physician has exceeded her capacity for end-of-life care

21. A 74-year-old man with advanced prostate cancer on hospice develops acute-onset back pain, bilateral leg weakness, and urinary retention over 48 hours. Dexamethasone 16 mg IV is administered. MRI reveals single-level epidural metastasis at T9 with cord compression. His pre-event ECOG was 1, and expected survival is 7 months. Based on the Patchell trial, which treatment offers the best neurologic outcome?

- A. Radiation therapy alone (30 Gy in 10 fractions) as the universal standard for all MSCC
- B. High-dose corticosteroids as the sole definitive management with reassessment in two weeks
- C. Surgical decompression followed by postoperative radiation — demonstrated superior to radiation alone for single-level compression in patients with good performance status and expected survival exceeding three months
- D. Comfort measures only because spinal cord compression in cancer patients is always irreversible

22. A 58-year-old woman with stage IV non-small cell lung cancer has a painful bone metastasis in her right proximal humerus. Her ECOG is 2 and expected survival is 4 months. Her oncologist recommends palliative radiation. Based on the strongest evidence for uncomplicated painful bone metastases, which fractionation schedule minimizes treatment burden while providing equivalent pain relief?

- A. 40 Gy in 20 fractions over 4 weeks for maximum dose delivery to the tumor
- B. 30 Gy in 10 fractions as the only evidence-based palliative radiation regimen
- C. 20 Gy in 5 fractions as the minimum standard palliative course
- D. A single fraction of 8 Gy — multiple randomized trials demonstrate equivalent pain relief to multi-fraction regimens for uncomplicated bone metastases with significantly less treatment burden

23. A hospice bereavement coordinator contacts the 72-year-old husband of a patient who died 14 months ago. He reports persistent, intense yearning that dominates his daily life, inability to accept the death, avoidance of all reminders, and functional impairment preventing return to work or social

activities. He feels that "part of me died with her." He meets DSM-5-TR criteria for prolonged grief disorder. Which psychotherapy has the strongest evidence for this condition?

- A. Standard CBT for depression (CBT-D) focused on behavioral activation and cognitive restructuring
- B. Complicated Grief Treatment (CGT) — a 16-session manualized therapy combining elements of IPT, CBT, and motivational interviewing, with response rates of 50–70% in randomized trials
- C. Psychoanalytic psychotherapy exploring unconscious attachment dynamics
- D. Group supportive therapy as the primary treatment without individual intervention

24. A 60-year-old man with advanced colon cancer on hospice tells his hospice chaplain, "I keep asking myself — what was the point of my life? Did any of it matter?" He is not clinically depressed. This existential questioning is best addressed through which of the following?

- A. Continued spiritual care — dignity therapy, narrative life review, and exploration of meaning and legacy — evidence-based interventions specifically designed for existential suffering at the end of life
- B. Prescribing an anxiolytic to reduce the existential anxiety driving his questioning
- C. Referral to psychiatry for evaluation of existential depression requiring antidepressant therapy
- D. Dismissing the concerns as philosophical rumination with no clinical significance

25. A 67-year-old woman with advanced pancreatic cancer on hospice has been on morphine for pain. She develops persistent hiccups lasting five days. Her current medications include dexamethasone 4 mg daily (started three weeks ago), morphine SR, ondansetron, and senna-docusate. Which medication is the most likely cause, and what is the most appropriate initial management?

- A. Morphine is the most likely cause — rotate to fentanyl for its lower hiccup incidence
- B. Ondansetron triggers hiccups through 5-HT<sub>3</sub> blockade — discontinue and switch to haloperidol
- C. Dexamethasone is a well-recognized cause of persistent hiccups — reduce the dose or switch corticosteroids, and initiate baclofen 5 mg TID for hiccup-specific treatment
- D. The hiccups are idiopathic — start chlorpromazine 25 mg TID as the only FDA-approved treatment

26. A 71-year-old man with end-stage renal disease who discontinued dialysis 8 days ago is obtunded. His family notices intermittent jerking movements of his hands and arms. The hospice nurse explains

these are most likely uremic myoclonus. Which medication is most appropriate for symptomatic management?

- A. Phenytoin loading dose for presumed epileptic seizure activity requiring anticonvulsant therapy
- B. Haloperidol 2 mg SC every 6 hours for dopaminergic suppression of involuntary movements
- C. Morphine dose increase to achieve sedation sufficient to suppress the myoclonic movements
- D. Lorazepam 0.5–1 mg sublingually every 6–8 hours or clonazepam 0.5 mg BID — benzodiazepines effectively suppress uremic myoclonus without anticonvulsant loading

27. A 63-year-old woman with advanced breast cancer on hospice has been on morphine SR 60 mg every 12 hours. She develops new confusion, hallucinations, and myoclonus. Her creatinine has risen from 0.9 to 3.5 mg/dL over two weeks. The most appropriate opioid management is which of the following?

- A. Continue morphine at the current dose with increased monitoring because her symptoms are mild
- B. Rotate to fentanyl, which has no active metabolites that accumulate in renal failure — morphine's metabolite M6G is renally excreted and accumulates when clearance declines, causing the neurotoxicity she is experiencing
- C. Increase the morphine dose because worsening symptoms indicate undertreated pain
- D. Rotate to meperidine, which is specifically recommended for patients with renal impairment

28. A hospice program's quality improvement committee reviews data showing 42% of patients die within 7 days of enrollment, with a median length of stay of 11 days. This pattern most strongly indicates which quality concern?

- A. Late referrals to hospice are denying patients and families the full benefit of hospice services — including symptom management, psychosocial support, spiritual care, caregiver preparation, and advance care planning
- B. The hospice is enrolling patients too early and providing unnecessary services
- C. The death rate indicates suboptimal symptom management hastening patient death
- D. The program's referral patterns meet industry benchmarks and no improvement is needed

29. A 56-year-old man with advanced melanoma on ipilimumab develops severe watery diarrhea (10 stools/day), abdominal cramping, and bloody stool. Stool studies are negative for *C. difficile*. The presentation began 10 days after his last immunotherapy infusion. Which of the following is the most appropriate treatment?

- A. Loperamide 4 mg initially then 2 mg after each stool as the sole intervention
- B. Empiric metronidazole for presumed undetected *C. difficile* infection despite negative testing
- C. Systemic corticosteroids (prednisone 1–2 mg/kg/day) for immune-related colitis, with immunotherapy held and consideration of infliximab if steroid-refractory
- D. Octreotide 150 mcg SC three times daily for secretory diarrhea management

30. A 69-year-old man with advanced COPD on hospice has been on morphine for dyspnea. His oxygen saturation is 85% on 2 L/min nasal cannula. Despite morphine and a fan to the face, his dyspnea remains significant. The family asks whether the oxygen flow rate should be increased. Based on current evidence, which recommendation is most appropriate?

- A. Discontinue oxygen entirely because it never benefits dyspnea under any circumstances
- B. Replace oxygen with heliox for all COPD patients regardless of clinical scenario
- C. Increase only if the patient specifically requests it, regardless of the clinical assessment
- D. This patient IS hypoxemic (SpO<sub>2</sub> 85%, below 90% threshold) — unlike non-hypoxemic patients where oxygen provides no benefit over room air, patients with documented hypoxemia may benefit from increased supplemental oxygen for dyspnea relief

31. A 72-year-old woman with advanced heart failure on hospice has been on furosemide 80 mg daily for dyspnea. Over the past week, her dyspnea has worsened despite the current dose. She has bilateral crackles, JVD, and increased edema. Her hospice physician considers adding metolazone. Which pharmacologic principle explains this combination?

- A. Metolazone has direct bronchodilating properties that reduce dyspnea independently of its diuretic effect
- B. Sequential nephron blockade — metolazone blocks sodium reabsorption at the distal convoluted tubule, overcoming the compensatory distal reabsorption that limits furosemide's effectiveness when used alone

- C. Metolazone replaces furosemide as a more potent loop diuretic agent
- D. Metolazone provides positive inotropic support improving cardiac contractility

32. A hospice interdisciplinary team reviews the care of a 75-year-old man with end-stage liver disease. He is on lactulose for hepatic encephalopathy, which significantly reduces his confusion and agitation. The pharmacy questions whether lactulose is covered under the hospice benefit since it is "disease-directed." Which of the following is the most accurate response?

- A. Lactulose directly relieves distressing symptoms (confusion, agitation) related to the terminal diagnosis and is covered under the hospice per diem as a comfort-directed medication — the clinical purpose (symptom relief), not the drug category, determines coverage
- B. Lactulose must be discontinued because all disease-modifying medications are excluded from hospice
- C. The patient must pay for lactulose out of pocket because it is not on the hospice formulary
- D. Lactulose can only continue if the hospice medical director personally approves each refill

33. A 60-year-old woman with advanced ovarian cancer enrolled in hospice asks her physician about medical aid in dying. She lives in a state where MAID is legal. Her pain is well-controlled, she is not depressed, and she states she wants "control over the timing." Which of the following is the most appropriate initial response?

- A. Provide the prescription immediately because she has expressed a clear wish and meets criteria
- B. Refuse to discuss the topic because it conflicts with the physician's personal beliefs
- C. Explore what is driving her request more deeply, assess for depression more thoroughly, ensure she understands the legal requirements and process, and either participate or refer to a willing provider if the physician has a conscientious objection
- D. Inform her that MAID is not available to patients enrolled in hospice under any circumstances

34. A 66-year-old man with advanced colon cancer on hospice has been on opioid therapy. He develops severe nausea that worsens significantly with position changes and head movement but is unrelated to meals. Based on this positional pattern, which antiemetic class should be targeted?

- A. A dopamine antagonist (haloperidol) for chemoreceptor trigger zone-mediated nausea

- B. A prokinetic (metoclopramide) for gastroparesis-related postprandial nausea
- C. A serotonin antagonist (ondansetron) for peripheral GI serotonin-mediated nausea
- D. An antihistamine or anticholinergic (meclizine or scopolamine) targeting vestibular-mediated nausea — the movement and position-change pattern is the hallmark of vestibular emesis

35. A 73-year-old man with advanced COPD on hospice tells his physician, "I'm terrified of suffocating at the end. Promise me I won't suffer." Which response best addresses his fear using effective communication principles?

- A. "I can guarantee you will feel absolutely nothing when the time comes — that is a certainty."
- B. "We have very effective medications — particularly morphine for the sensation of air hunger and medications for anxiety. Our team will be with you through this, and keeping you comfortable is our commitment. Can you tell me more about what frightens you most?"
- C. "That's a bridge we'll cross when we come to it. Let's focus on today."
- D. "Suffocation is a possible complication, and I cannot make guarantees about your comfort."

36. A 57-year-old woman with advanced breast cancer on hospice has been declining. She develops new-onset right upper quadrant pain from rapidly enlarging hepatic metastases causing hepatic capsule distension. Her opioid provides partial relief. Which non-opioid medication most directly targets the mechanism of her hepatic capsule pain?

- A. Dexamethasone 8 mg daily — reducing hepatic inflammation and peritumoral edema directly decreases the capsular stretch causing her pain
- B. Gabapentin 300 mg TID for neuropathic pain pathway modulation
- C. Acetaminophen 1000 mg every 6 hours for general analgesic augmentation
- D. An NSAID for prostaglandin-mediated anti-inflammatory effect at the tumor site

37. A 74-year-old man with metastatic prostate cancer on hospice develops new hypercalcemia (corrected calcium 15.0 mg/dL) with confusion, constipation, nausea, and polyuria. His family attributed his worsening to disease progression. After IV saline hydration, which medication provides the most sustained calcium reduction?

- A. Calcitonin 4 IU/kg SC every 12 hours for rapid but sustained calcium lowering
- B. Furosemide 40 mg IV for forced calciuresis to excrete calcium through the kidneys
- C. Oral phosphate supplementation to bind calcium in the GI tract and reduce absorption
- D. Zoledronic acid 4 mg IV — a bisphosphonate that inhibits osteoclast-mediated bone resorption, with onset at 24–48 hours, nadir at 4–7 days, and duration of 2–4 weeks

38. A 61-year-old woman with advanced lung cancer on hospice tells her hospice nurse, "I want to go to my daughter's graduation next month." The nurse's response should reflect which core hospice principle?

- A. "Travel is too risky for your condition. You should stay home where we can manage your symptoms."
- B. "You'll need written clearance from your physician before leaving your residence."
- C. "Absolutely — let's plan your medication schedule, arrange any equipment you need, and make sure you're comfortable for the trip. Living fully while on hospice is what we're here to support."
- D. "Attending events is not recommended because it could interfere with your hospice nursing visits."

39. A 68-year-old man with advanced gastric cancer on hospice develops nausea that is worst after meals, with early satiety and bloating. It is not positional. There are no signs of bowel obstruction. Based on the postprandial pattern, which antiemetic most directly addresses the likely mechanism?

- A. Scopolamine transdermal patch for vestibular-mediated nausea exacerbated by movement
- B. Metoclopramide 10 mg before meals — combining antiemetic D2 antagonism with prokinetic 5-HT4 agonism to improve opioid-related gastroparesis
- C. Ondansetron 4 mg for serotonin-mediated nausea from peripheral GI stimulation
- D. Dexamethasone 8 mg IV for centrally mediated nausea from presumed ICP elevation

40. A hospice nurse visits a 76-year-old woman with end-stage COPD at home. The patient's husband, her sole caregiver, has lost significant weight, has dark circles under his eyes, and says, "I'm fine — just focus on her." The nurse is concerned about caregiver burnout. Which of the following is the most appropriate initial response?

- A. Gently express concern about the husband's well-being, normalize the difficulty of caregiving, explore whether respite care or additional support would help, and communicate the observation to the IDT — caregiver collapse directly threatens the patient's care plan
- B. Focus exclusively on the patient because the husband is not enrolled in hospice services
- C. Arrange for immediate mandatory hospitalization of the husband for medical evaluation
- D. Document the observation and address it at the next team meeting in one week

41. A 65-year-old man with advanced pancreatic cancer on hospice has been on morphine. He develops new onset of confusion, hallucinations, and myoclonic jerks. His morphine dose has been stable for six weeks. His creatinine has risen from 1.0 to 3.9 mg/dL from dehydration. The most likely cause and appropriate management are which of the following?

- A. Delirium from brain metastases requiring whole-brain radiation therapy
- B. Serotonin syndrome from an unidentified drug interaction requiring cyproheptadine
- C. A new psychiatric condition requiring haloperidol for acute management
- D. Accumulation of morphine's active metabolite M6G due to declining renal function — rotate to fentanyl, which has no active metabolites

42. A 70-year-old woman with advanced breast cancer on hospice develops a pathologic fracture of her left proximal humerus after minimal trauma. She has severe arm pain and cannot use her left arm. Her ECOG before the fracture was 2, and expected survival is 5 months. Which management approach is most appropriate?

- A. Conservative management with a sling, increased opioids, and ice as definitive treatment
- B. Palliative radiation alone to the fracture site without surgical consideration
- C. Surgical fixation (intramedullary nailing) followed by palliative radiation — appropriate given adequate performance status and months of expected survival
- D. Amputation of the left arm to eliminate the pain source and prevent complications

43. A palliative care physician is caring for a 72-year-old man with advanced lung cancer. He asks, "How much time do I have? I need to plan." Based on communication best practices regarding prognostic disclosure, which response is most appropriate?

- A. "Based on statistical data, you have exactly 3.8 months to live."
- B. "I wish I could give you an exact number, but single-point estimates are almost always inaccurate. What I can tell you is that I think we're looking at weeks to a few months. I want to help you use that information to plan for the things that matter most to you."
- C. "I cannot tell you anything about your prognosis because medicine is unable to predict the future."
- D. "You have plenty of time — don't worry about planning right now."

44. A 56-year-old woman with advanced sarcoma on hospice has been on chronic opioid therapy with morphine SR 120 mg every 12 hours. Her physician adds tramadol 50 mg every 6 hours for a new pain complaint. She is also taking duloxetine 60 mg daily for depression. Within 48 hours, she develops agitation, hyperthermia, diaphoresis, clonus, and hyperreflexia. Which diagnosis is most likely, and which feature most reliably distinguishes it from NMS?

- A. Serotonin syndrome from tramadol (serotonin reuptake inhibitor) plus duloxetine (SNRI) — distinguished from NMS by the presence of clonus, which is present in serotonin syndrome but absent in NMS
- B. Opioid-induced hyperalgesia from the tramadol addition causing paradoxical pain worsening
- C. Neuroleptic malignant syndrome from an interaction between morphine and duloxetine
- D. An allergic reaction to tramadol requiring epinephrine and antihistamine administration

45. A 68-year-old man with advanced heart failure on hospice has a mechanical aortic valve. He has been on warfarin for 18 years. His prognosis is 4 weeks. The hospice team reviews his anticoagulation. Unlike patients anticoagulated for atrial fibrillation alone, why does his warfarin warrant continuation?

- A. Warfarin provides direct symptom relief for his heart failure-related dyspnea
- B. Medicare mandates warfarin continuation for all patients with mechanical valves on hospice
- C. Stopping warfarin causes immediate mechanical valve failure requiring emergency surgery
- D. Mechanical valves without anticoagulation carry significant, immediate risk of valve thrombosis and systemic embolization — the short-term risk of stopping warfarin is much higher with a mechanical valve than with atrial fibrillation alone

46. A 63-year-old woman with advanced ovarian cancer on hospice has refractory pelvic pain from tumor invasion. She is on high-dose systemic opioids (OME 450 mg/day) with persistent pain and intolerable side effects. Her pain management specialist recommends an intrathecal pump. Using the

standard 300:1 oral-to-intrathecal morphine conversion, what is the approximate daily intrathecal morphine dose?

- A. 45 mg intrathecal morphine per day (using a 10:1 ratio)
- B. 15 mg intrathecal morphine per day (using a 30:1 ratio)
- C. Approximately 1.5 mg intrathecal morphine per day (using the correct 300:1 ratio)
- D. 4.5 mg intrathecal morphine per day (using a 100:1 ratio)

47. A 60-year-old man with advanced esophageal cancer on hospice has complete dysphagia. He is on morphine SR 90 mg every 12 hours (180 mg oral/day). The team converts to subcutaneous hydromorphone. Step 1:  $180 \text{ mg oral morphine} \div 3 = 60 \text{ mg parenteral morphine}$ . Step 2:  $60 \text{ mg} \div 10 \times 1.5 = 9 \text{ mg parenteral hydromorphone}$ . Step 3: 25% cross-tolerance reduction:  $9 \times 0.75 = 6.75 \text{ mg SC hydromorphone/day}$ . What is the correct hourly rate?

- A. Approximately 0.56 mg/hour (13.5 mg/day — no reduction applied)
- B. Approximately 0.28 mg/hour ( $6.75 \text{ mg} \div 24 \text{ hours}$ )
- C. Approximately 1.12 mg/hour (27 mg/day — incorrect conversion)
- D. Approximately 0.14 mg/hour ( $3.375 \text{ mg/day}$  — double reduction applied)

48. A hospice physician completes a death certificate for a 71-year-old man who died of aspiration pneumonia from Parkinson's disease. Which Part I cause-of-death sequence is correctly formatted?

- A. Line a: "Aspiration pneumonia" — Line b: "Dysphagia" — Line c: "Parkinson's disease" — correctly tracing the causal chain from immediate cause to underlying disease
- B. Line a: "Cardiac arrest" — Line b: "Old age" — Line c: "Natural causes"
- C. Line a: "Parkinson's disease" (with no additional lines listing only the underlying diagnosis)
- D. Line a: "Natural causes" — Line b: "Neurodegenerative disease"

49. A 75-year-old man with advanced COPD on hospice has been having "good days and bad days" over the past month — some days alert and eating, other days very fatigued and sleeping most of the day. His wife interprets the good days as signs of recovery and asks whether he should be discharged from hospice. Which explanation best addresses her concern?

- A. "His good days indicate that his medications are working and he may no longer qualify for hospice."
- B. "The fluctuating pattern requires further evaluation — we should transfer him to the hospital."
- C. "You're right that he seems better — we'll initiate the discharge process."
- D. "Fluctuating function with good days and bad days within an overall declining trajectory is characteristic of the organ failure illness pattern — it does not indicate recovery but rather the natural variability of COPD. His overall trajectory remains consistent with hospice-level care."

50. A 62-year-old man with advanced melanoma on nivolumab develops new-onset fatigue, constipation, cold intolerance, and weight gain. His TSH is 52 mIU/L and free T4 is undetectable. This immune-related adverse event is managed by which of the following?

- A. High-dose corticosteroids and permanent immunotherapy discontinuation
- B. Urgent surgical thyroidectomy to prevent further thyroid destruction
- C. Levothyroxine replacement — immune-related thyroiditis progressing to hypothyroidism is managed with hormone replacement and typically does not require immunotherapy discontinuation
- D. Radioactive iodine ablation of the remaining thyroid tissue

51. A 69-year-old woman with advanced lung cancer on hospice develops new seizures from previously undiagnosed brain metastases. Given her polypharmacy (opioids, antiemetics, corticosteroids), which anticonvulsant is most appropriate?

- A. Phenytoin, which has well-established efficacy and a long clinical history
- B. Levetiracetam — minimal hepatic metabolism, few drug interactions, and availability in IV and liquid formulations make it the ideal anticonvulsant for palliative care patients on multiple medications
- C. Carbamazepine, which provides additional benefit for neuropathic pain
- D. Valproic acid, which has broad-spectrum activity against multiple seizure types

52. A hospice aide caring for an 81-year-old woman with advanced dementia notices new bruising on both upper arms consistent with handgrip marks. The patient lives with her son, who has a history of alcohol use. The aide reports this to the hospice nurse. Which of the following is the most appropriate immediate action?

- A. The nurse should assess the patient for elder abuse — conduct a private assessment, look for additional signs, and if abuse is suspected, report to adult protective services as required by mandatory reporting laws
- B. Document the observation and reassess at the next routine visit in one week
- C. Confront the son directly about the bruising and demand an explanation
- D. Attribute the bruising to anticoagulant medications and fragile skin without further investigation

53. A 73-year-old man with end-stage heart failure on hospice has an ICD. The shock function was deactivated by the device representative last week through permanent reprogramming. His daughter asks whether the magnet that was placed earlier still needs to remain on the device. Which is the most accurate response?

- A. The magnet must remain permanently because reprogramming only partially disables the ICD
- B. The magnet should remain as a backup in case the reprogramming spontaneously reverses
- C. The magnet cannot be removed until the device is surgically explanted after the patient's death
- D. The magnet can be removed — the device representative permanently reprogrammed the ICD to disable shocks, making the magnet unnecessary; it provided only temporary suspension during the interval before permanent reprogramming

54. A 64-year-old woman with advanced breast cancer on hospice has been on opioid therapy. She develops new severe pain at a single site in her right femoral neck. Imaging reveals a large lytic metastasis with 60% cortical destruction. She is ambulatory with a walker, ECOG 2, with expected survival of 4 months. In addition to analgesics and radiation, which intervention should be strongly considered?

- A. Strict bed rest to avoid weight-bearing on the affected extremity until the lesion heals
- B. A hip brace for external structural support during continued ambulation
- C. Prophylactic surgical fixation of the proximal femur — a lytic lesion with >50% cortical destruction in a weight-bearing bone carries high fracture risk, and fixation prevents the catastrophic complication in a patient with adequate performance status
- D. Systemic bisphosphonate therapy as the sole bone-targeted intervention

55. A 61-year-old man with advanced gastric cancer on hospice has been comfortable on his pain regimen. He develops new confusion, nausea, constipation, and polyuria over one week. His corrected calcium is 14.8 mg/dL. His family attributed symptoms to disease progression. Which of the following is the most important clinical implication?

- A. The hypercalcemia is incidental and unrelated to his symptoms
- B. The hypercalcemia explains multiple worsening symptoms simultaneously (confusion, nausea, constipation, polyuria) and represents a potentially reversible cause of suffering — treating it (if consistent with goals) could improve multiple symptom domains at once
- C. Hypercalcemia treatment is categorically prohibited in hospice patients
- D. The calcium level is mildly elevated and will correct without intervention

56. A 67-year-old woman with advanced pancreatic cancer on hospice has severe epigastric pain radiating to the back, refractory to high-dose opioids. Her pain management specialist recommends celiac plexus neurolysis. Which statement about this procedure is most accurate?

- A. Celiac plexus neurolysis achieves significant pain relief in 70–90% of patients with pancreatic cancer pain, substantially reduces opioid requirements, and evidence supports early consideration rather than last-resort status
- B. The procedure is effective only for neuropathic pain and has no role in visceral pain
- C. Pain relief lasts only 48 hours and the procedure must be repeated weekly
- D. Celiac plexus neurolysis is contraindicated in patients already receiving opioid therapy

57. A 72-year-old man with advanced heart failure on hospice is dying at home. His breathing has become agonal — irregular gasping breaths occurring every 30–40 seconds. His daughter asks, "Is he suffering?" Which response is most accurate and compassionate?

- A. "He is actively struggling to breathe and needs increased medications immediately."
- B. "These are seizures and require anticonvulsant medication from the comfort kit."
- C. "We should call 911 because agonal breathing indicates a cardiac emergency."
- D. "The gasping you see is a brainstem reflex — not a conscious effort to breathe. Your father is not aware of these movements and is not suffering. This is a normal, expected part of the final stage of dying."

58. A hospice bereavement coordinator contacts the 68-year-old wife of a patient who died six months ago. She reports returning to social activities, attending church, and meeting friends. However, she still cries daily, misses her husband profoundly, and sometimes reaches for him in bed. She asks, "Shouldn't I be over this by now?" Which response is most appropriate?

- A. "Six months is a long time — I'd recommend grief counseling because daily crying is excessive."
- B. "The fact that you're still crying indicates you may be developing prolonged grief disorder."
- C. "What you're describing — missing him, crying, reaching for him — is completely normal grief. There is no timeline for grief, and continuing to mourn deeply at six months is expected and healthy. Your return to activities is a sign of healthy adaptation, not a sign you should be 'over it.'"
- D. "Try to stay busy and avoid thinking about him to speed your recovery."

59. A 55-year-old man with advanced sarcoma on hospice develops pain with both somatic (deep, aching) and neuropathic (burning, shooting) components from tumor compressing the femoral nerve. His opioid partially relieves the aching but has minimal effect on the burning/shooting component. Which analgesic strategy best addresses the dual mechanism?

- A. Increase the opioid dose alone because higher doses address all pain mechanisms equally
- B. Combine adequate opioid dosing for the somatic component with an adjuvant analgesic (gabapentin or duloxetine) for the neuropathic component — neither agent alone optimally addresses both mechanisms
- C. Discontinue opioids and use gabapentin monotherapy for both pain types
- D. Replace all medications with topical lidocaine as the sole intervention

60. A 70-year-old man with advanced lung cancer on hospice has been on morphine for pain. He also takes gabapentin 600 mg TID for neuropathy. Over the past week, his confusion, sedation, and ataxia have worsened. His creatinine has risen from 1.0 to 3.1 mg/dL. Which medication requires the most urgent dose adjustment?

- A. Gabapentin — entirely renally excreted without hepatic metabolism, it accumulates rapidly in renal impairment, causing dose-dependent sedation, confusion, and ataxia at standard doses when GFR declines
- B. Morphine should be the sole focus because M6G accumulation is always more dangerous

- C. Both medications require identical adjustment with no priority difference between them
- D. Neither medication is affected by renal function and no adjustment is needed

61. A 73-year-old man with advanced prostate cancer on hospice has diffuse bone metastases. His palliative care physician recommends adding a non-opioid agent specifically targeting bone pain. Which of the following is most appropriate?

- A. Acetaminophen 1000 mg every 6 hours for general analgesic augmentation
- B. Gabapentin 300 mg TID for neuropathic pain modulation at the bone-nerve interface
- C. Duloxetine 60 mg daily for dual analgesic and antidepressant benefit
- D. An NSAID (celecoxib 200 mg daily or ibuprofen 600 mg TID) — specifically effective for bone pain because it inhibits prostaglandin synthesis at the site of bony metastatic involvement

62. A 65-year-old woman with advanced ovarian cancer on hospice develops malignant bowel obstruction. She is not a surgical candidate. Medical management with octreotide, glycopyrrolate, and dexamethasone has been optimized but she continues vomiting 500 mL daily. A venting gastrostomy has been placed. She asks whether she can still eat. Which is the most accurate response?

- A. She must remain NPO indefinitely because any oral intake worsens the obstruction
- B. She may eat full meals because the gastrostomy completely bypasses the obstructed bowel
- C. She may eat and drink small amounts for pleasure — food enters the stomach and is experienced (taste, texture, social ritual), then drains through the gastrostomy rather than passing into the obstructed bowel
- D. She may drink clear liquids only because solid food will obstruct the gastrostomy tube

63. A hospice program is conducting a Medicare compliance review. The program's volunteer utilization is documented at 3.8% of total patient care hours. Under Medicare Conditions of Participation, what is the regulatory significance?

- A. The program is compliant because there is no specific volunteer minimum under Medicare
- B. The program is below the Medicare-mandated minimum of 5% of total patient care hours provided by volunteers and must increase volunteer services to achieve compliance

- C. The volunteer requirement applies only to non-profit hospice programs and is not relevant here
- D. The program exceeds the volunteer requirement, which is 2% of total patient care hours

64. A palliative care team is meeting with the family of a 72-year-old man with end-stage heart failure in the ICU. His advance directive states: "I do not want life-prolonging treatment if there is no reasonable hope of meaningful recovery." The patient's adult son becomes angry and says, "You're giving up on my father!" Based on communication best practices, which response is most effective?

- A. "I can hear how frightened you are, and I understand — you love your father. Can you help me understand what worries you most? I want to make sure we're doing what's best for him together."
- B. "I understand your frustration, but the medical facts are clear and we need to accept reality."
- C. "You're welcome to seek a second opinion. I'll prepare the transfer paperwork."
- D. "Let me show you his lab results and imaging so you can see why further treatment won't help."

65. A 58-year-old woman with advanced cervical cancer on hospice has severe neuropathic pain — burning, shooting, electric-shock-like — from sacral nerve root invasion. Her opioid provides partial relief. Based on the neuropathic characteristics, which adjuvant analgesic class should be added?

- A. An NSAID for prostaglandin-mediated anti-inflammatory relief at the tumor-nerve interface
- B. An acetaminophen-codeine combination for enhanced general opioid analgesia
- C. A benzodiazepine for the anxiety amplifying her neuropathic pain perception
- D. A gabapentinoid (gabapentin or pregabalin) or SNRI (duloxetine) — first-line adjuvant classes for neuropathic pain, targeting voltage-gated calcium channels or descending inhibitory pathways

66. A 74-year-old woman with advanced dementia (FAST 7D) on hospice develops a fever of 39.2°C and tachypnea. This is her fifth episode of aspiration pneumonia in 14 months. The hospice physician's decision about antibiotic therapy should be most strongly influenced by which consideration?

- A. The specific antibiotic sensitivity of the organism identified on sputum culture
- B. Whether the patient's temperature exceeds a threshold that mandates treatment regardless of goals

C. Whether the recurrent pattern reflects the natural trajectory of advanced dementia — each antibiotic course treats the infection but does not change the underlying aspiration risk — and whether continued treatment serves comfort goals or prolongs the dying process

D. The cost of the antibiotic relative to the remaining hospice per diem budget

67. A 60-year-old man with advanced hepatocellular carcinoma on hospice is taking lactulose for hepatic encephalopathy and morphine for pain. A team member asks whether the two medications are compatible. Which statement is most accurate?

A. Lactulose is contraindicated with opioids because the combination causes dangerous hypokalemia

B. Lactulose serves a dual purpose — treating encephalopathy by reducing ammonia AND functioning as an osmotic laxative that counteracts opioid-induced constipation, making the two medications complementary

C. Morphine must be discontinued before lactulose can be initiated to prevent synergistic sedation

D. Lactulose neutralizes morphine's analgesic effect through direct chemical binding in the GI tract

68. A hospice social worker is conducting a bereavement follow-up with the 48-year-old son of a patient who died three months ago. He has returned to work and is functioning in most areas but reports sudden, intense waves of grief triggered by unexpected reminders. He asks, "Is this normal at three months?" Which response is most appropriate?

A. "Grief waves — sudden surges of emotion triggered by reminders — are completely normal and can occur for months to years. The fact that you're functioning well between waves shows healthy adaptation. There is no timeline for grief."

B. "Three months should be enough time for acute grief to resolve. I'd recommend psychiatric evaluation."

C. "The sudden episodes suggest a developing panic disorder requiring medication."

D. "You should try to avoid triggers by changing your routines and environment."

69. A 71-year-old man with advanced lung cancer on hospice tells his hospice chaplain, "I don't believe in God. I'm not religious. I don't need spiritual care." Which response by the chaplain is most appropriate?

- A. "I'll note that you declined spiritual care and won't visit again."
- B. "Everyone needs spiritual support at end of life — let me explain why you should reconsider."
- C. "Perhaps you should re-examine your beliefs given your current situation."
- D. "Spiritual care isn't only about God or religion — it can address questions of meaning, purpose, legacy, and how you want to spend your remaining time. I'm here to support whatever matters most to you."

70. A 67-year-old woman with advanced breast cancer on hospice has been on stable opioid therapy. She develops new opioid-induced pruritus that began after her last morphine dose increase. Her bilirubin and renal function are normal. The most appropriate initial management is which of the following?

- A. Cholestyramine for bile acid-mediated pruritus from occult biliary obstruction
- B. Gabapentin for uremic pruritus from undiagnosed renal failure
- C. Opioid rotation to fentanyl (which has minimal histamine-releasing properties) or addition of an antihistamine — morphine-induced pruritus results from histamine release and/or central mu receptor activation
- D. Skin biopsy and dermatology consultation for a primary dermatologic condition

71. A palliative care team is debriefing after a difficult case. A nurse states, "I knew the patient needed sedation earlier, but the attending wanted to try another medication first. I felt like my hands were tied." This experience is best described as which of the following?

- A. Compassion fatigue from absorbing the patient's suffering through empathic engagement
- B. Moral distress — knowing the ethically right action but feeling unable to carry it out due to hierarchical barriers, causing anguish and powerlessness
- C. Professional burnout from excessive administrative burden and documentation requirements
- D. Normal job dissatisfaction that will resolve spontaneously without clinical intervention

72. A 63-year-old woman with advanced ovarian cancer on hospice has been on morphine SR 90 mg every 12 hours. She develops a new vertebral compression fracture at L1 causing severe localized pain rated 9/10. ECOG 2, expected survival 5 months. In addition to opioid optimization, which procedure would provide the most rapid, targeted relief?

- A. Vertebroplasty or kyphoplasty — providing pain relief in 70–90% of patients within 24–72 hours through stabilization of the fractured vertebral body
- B. Palliative radiation (single fraction 8 Gy) as the sole intervention with expected relief in 2–4 weeks
- C. Epidural corticosteroid injection at the L1 level for localized anti-inflammatory effect
- D. External thoracolumbar brace as the primary analgesic intervention

73. A 65-year-old man with advanced colon cancer on hospice has been on warfarin for atrial fibrillation. His prognosis is 2 weeks. He has no history of stroke. The most appropriate anticoagulation management is which of the following?

- A. Continue warfarin because atrial fibrillation requires lifelong anticoagulation regardless of prognosis
- B. Switch to a direct oral anticoagulant for easier monitoring during the terminal phase
- C. Increase warfarin dose to achieve a higher INR for enhanced stroke protection
- D. Discontinue warfarin — the absolute risk reduction over 2 weeks is negligible while bleeding risk continues and the burden of monitoring is not justified by the minimal expected benefit

74. A 60-year-old man with advanced gastric cancer on hospice develops acute pulmonary edema with severe dyspnea. He is on morphine for baseline dyspnea and furosemide 40 mg daily. Examination shows bilateral crackles, JVD, S3 gallop, SpO<sub>2</sub> 80%. He is on comfort measures with a DNR. Which management is most appropriate?

- A. Continue current medications unchanged and observe for spontaneous improvement
- B. Administer morphine alone without adjusting diuretics because diuretics are disease-directed
- C. Morphine bolus for dyspnea AND increased furosemide to 80 mg IV for acute volume overload — addressing both the symptom (morphine) and its treatable cause (diuresis) is consistent with comfort goals
- D. Transfer to the hospital for BiPAP and IV diuretic therapy despite comfort measures designation

75. A hospice program is being audited by Medicare. The auditors identify that the program billed for General Inpatient Care (GIP) for a patient admitted for "caregiver exhaustion and respite." This billing is incorrect because of which of the following?

- A. GIP is for acute symptom management requiring inpatient-level care — caregiver exhaustion is the indication for Inpatient Respite Care (IRC), not GIP, and billing the higher-reimbursement GIP for a respite need constitutes incorrect billing
- B. GIP can only be provided in acute care hospitals, not in hospice inpatient units
- C. GIP requires a minimum 14-day stay that was not met in this case
- D. GIP billing requires CMS pre-authorization that takes 30 business days to process

76. A 55-year-old woman with advanced breast cancer on hospice has neuropathic pain from chemotherapy-induced peripheral neuropathy. She is also on tamoxifen. Her physician considers adding an adjuvant analgesic. Which agent should be AVOIDED due to a significant interaction with tamoxifen?

- A. Gabapentin, which has no CYP interactions and is safe with tamoxifen
- B. Duloxetine, which inhibits CYP2D6 — the enzyme required to convert tamoxifen to its active metabolite endoxifen — potentially reducing tamoxifen's anticancer efficacy
- C. Pregabalin, which is renally excreted without hepatic metabolism
- D. Nortriptyline at low doses for combined neuropathic pain and sleep benefit

77. A 58-year-old woman with advanced sarcoma on hospice has been on high-dose opioids (OME 700 mg/day) with persistent pain and intolerable side effects. Her pain management specialist recommends rotation to methadone. Before initiating methadone, which unique pharmacologic property requires specific monitoring that distinguishes methadone from all other commonly used opioids?

- A. Direct hepatotoxicity requiring weekly liver function testing during therapy
- B. Complete absence of respiratory depression making it the safest opioid for escalation
- C. Severe thrombocytopenia requiring complete blood count monitoring every 48 hours
- D. QTc prolongation with risk of torsades de pointes arrhythmia — requiring ECG monitoring at baseline, after dose stabilization, and periodically during therapy

78. A 72-year-old man with advanced prostate cancer on hospice is being transitioned from IV hydromorphone 0.6 mg/hour (14.4 mg IV/24 hours) to oral hydromorphone at home. Using the equianalgesic table (parenteral hydromorphone 1.5 mg = oral hydromorphone 7.5 mg), what is the correct 24-hour oral dose?

- A. 14.4 mg oral per day (same as IV — incorrect 1:1 conversion)
- B. 43.2 mg oral per day (using an incorrect 3:1 ratio)
- C. 72 mg oral per day ( $14.4 \times 5 = 72$  mg, using the correct 5:1 parenteral-to-oral ratio for hydromorphone)
- D. 28.8 mg oral per day (doubling the IV dose with an incorrect 2:1 ratio)

79. A 66-year-old man with end-stage COPD on hospice develops acute respiratory distress. He is on morphine, O<sub>2</sub> at 2 L/min, and has a POLST for comfort measures only. His SpO<sub>2</sub> is 78%, respiratory rate 32, severe anxiety. Which is the most appropriate immediate intervention?

- A. Morphine bolus for dyspnea, midazolam for anxiety, increase supplemental oxygen (he IS hypoxemic — below 90%), position upright, fan to face — comprehensive symptom management respecting his comfort-focused plan
- B. Call 911 for emergency intubation because his oxygen level is life-threatening
- C. Withhold opioids due to concern that respiratory depression will worsen his compromised oxygenation
- D. Administer supplemental oxygen only and observe for 60 minutes without pharmacologic intervention

80. A hospice physician is reviewing a patient's death certificate. The cause of death is listed as Part I, Line a: "Cardiac arrest." This entry is problematic because of which of the following?

- A. "Cardiac arrest" is only appropriate when the death was witnessed by a cardiologist
- B. "Cardiac arrest" is the mechanism of death common to virtually all deaths and provides no information about the disease that actually caused the death — the certificate should specify the disease process
- C. "Cardiac arrest" is acceptable for all deaths and does not require correction
- D. "Cardiac arrest" must always be accompanied by the specific terminal cardiac rhythm on ECG

81. A 71-year-old woman with advanced pancreatic cancer on hospice develops new-onset diabetes from tumor-related pancreatic destruction and dexamethasone. Her fasting glucose is consistently above 350 mg/dL. She has polyuria disrupting sleep, excessive thirst, and blurred vision preventing reading. Which best justifies treating her hyperglycemia?

- A. Strict HbA1c control below 7% is essential for preventing long-term microvascular complications
- B. All hospice patients with glucose above 300 mg/dL must receive insulin per Medicare regulation
- C. Insulin is a disease-directed therapy excluded from the hospice benefit under all circumstances
- D. Treatment is warranted for symptom relief — her polyuria, thirst, and blurred vision are directly caused by hyperglycemia and significantly impair her comfort and quality of life

82. A palliative care physician is conducting advance care planning with a 64-year-old man with newly diagnosed stage IV colon cancer. The patient names his wife as his durable power of attorney for health care. The physician emphasizes that naming the surrogate alone is insufficient. Which additional step is most critical?

- A. Having the DPAHC form notarized by an attorney to ensure legal enforceability
- B. Filing the form with the county courthouse for official registration and public record
- C. The patient must have a detailed conversation with his wife about his values, goals, fears, and treatment preferences — a surrogate who does not know the patient's values cannot exercise substituted judgment
- D. The wife must complete a formal medical decision-making course before assuming the role

83. A 69-year-old man with advanced COPD on hospice has been experiencing worsening dyspnea despite morphine 15 mg oral every 4 hours. His SpO<sub>2</sub> is 91% on 2 L/min. He is anxious and using accessory muscles. His scheduled morphine was administered 30 minutes ago with minimal improvement. The anxiety component is prominent. Which is the most appropriate next pharmacologic step?

- A. Add lorazepam 0.5–1 mg sublingually to address the anxiety-breathlessness cycle that opioid alone is not controlling
- B. Increase supplemental oxygen to 5 L/min because his saturation needs to be above 95%
- C. Switch from morphine to hydromorphone for superior dyspnea efficacy
- D. Administer nebulized albuterol as the sole additional intervention

84. A 73-year-old man with advanced lung cancer on hospice has a 12-year-old son who has been refusing to visit, getting into fights at school, and telling his teacher, "My dad is fine. Nothing is wrong." Based on developmental understanding, this behavior most likely represents which of the following?

- A. A conduct disorder unrelated to his father's illness requiring disciplinary intervention
- B. Anticipatory grief presenting as denial, avoidance, and behavioral acting out — school-age children understand death's permanence but lack mature coping skills, often expressing grief through behavior rather than words
- C. Evidence that the child has not been informed about his father's illness
- D. Normal pre-adolescent rebellion with no connection to the family's medical situation

85. A 68-year-old woman with advanced lung cancer on hospice develops new seizures from brain metastases. Dexamethasone is administered. Her oncologist recommends adding prophylactic anticonvulsant therapy for her other (non-seizing) brain metastases. Based on current evidence, which recommendation is most appropriate?

- A. Start phenytoin prophylactically for all patients with brain metastases to prevent future seizures
- B. Start levetiracetam prophylactically because it has the fewest drug interactions
- C. Start valproic acid because dexamethasone increases the seizure risk requiring prophylaxis
- D. Prophylactic anticonvulsants are NOT recommended for brain metastasis patients who have not had seizures at those sites — randomized trials have not demonstrated benefit, and the medications carry significant side effect risks

86. A 60-year-old man with advanced colon cancer on hospice develops an acute onset of severe right calf swelling and pain. Clinical DVT is suspected. His prognosis is 2 months. He is on comfort measures. Which management approach is most appropriate?

- A. Anticoagulation is categorically contraindicated for all hospice patients with DVT
- B. No treatment is needed because DVT is a natural part of the dying process
- C. Treat with subcutaneous LMWH if the DVT is causing distressing symptoms (pain, swelling) — the decision is based on whether treatment serves the patient's comfort goals
- D. Transfer to the hospital for duplex ultrasound, CT angiography, and IV heparin therapy

87. A 74-year-old woman with advanced heart failure on hospice develops worsening dyspnea. Her furosemide is 80 mg daily. She has bilateral crackles, JVD, weight gain of 5 kg, and increased edema. Which medication adjustment is most appropriate?

- A. Increase furosemide to 120 mg daily and/or add metolazone for diuretic synergy — directly addressing the volume overload causing her dyspnea, a symptom-directed intervention consistent with comfort goals
- B. Discontinue furosemide because diuretics are disease-directed therapies incompatible with hospice
- C. Replace furosemide with morphine as the sole dyspnea treatment
- D. Maintain the current furosemide dose unchanged and add morphine for the additional dyspnea

88. A 66-year-old man with advanced gastric cancer on hospice has been on morphine for pain. He develops persistent nausea that began three days ago and has been gradually improving. The nausea is constant, not positional, and not related to meals. This pattern is most consistent with which mechanism?

- A. Gastroparesis requiring long-term prokinetic therapy with indefinite metoclopramide
- B. Opioid-induced CTZ stimulation — tolerance to this effect typically develops within 3–7 days (explaining the improving trajectory), managed with a short course of haloperidol
- C. An allergic reaction to morphine requiring immediate drug discontinuation
- D. Bowel obstruction from his cancer requiring octreotide and anticholinergic therapy

89. A 57-year-old woman with advanced cervical cancer on hospice has refractory pelvic pain. Her pain management specialist recommends a superior hypogastric plexus block. Which anatomic structures does this block target?

- A. The upper abdominal visceral organs (stomach, pancreas, liver) via the T12-L1 sympathetic ganglia
- B. The perineum, rectum, and anus via the sacrococcygeal ganglion (ganglion impar)
- C. The head, neck, and upper extremity via the cervical sympathetic chain
- D. The pelvic visceral organs (uterus, cervix, bladder, rectum) — the superior hypogastric plexus transmits visceral afferent pain from pelvic structures, making it the targeted block for pelvic cancer pain

90. A hospice program reviews its bereavement services. Under Medicare Conditions of Participation, for how long must hospice programs provide bereavement support after the patient's death?

- A. Bereavement services end on the day of the patient's death

- B. A single bereavement contact at 30 days post-death is the only requirement
- C. At least 13 months of bereavement support — including periodic contacts, memorial events, support groups, and referrals for counseling when indicated
- D. Bereavement services are recommended but not required under Medicare regulations

91. A 62-year-old woman with advanced breast cancer on hospice asks her hospice physician, "Am I allowed to travel to see my sister in another state?" Which is the most appropriate response?

- A. "Yes — you can travel while on hospice. We'll coordinate your care, ensure adequate medications, arrange for hospice services at your destination if needed, and plan for contingencies. Let's make this happen."
- B. "Hospice patients cannot leave their registered residence for any reason."
- C. "You would need to revoke hospice before traveling across state lines."
- D. "Travel is not recommended because it creates unnecessary medical risk."

92. A 70-year-old man with advanced lung cancer on hospice has been on morphine SR 120 mg every 12 hours. He develops complete dysphagia. The team converts to SC morphine infusion. His total 24-hour oral morphine is 240 mg. Using the 3:1 oral-to-parenteral ratio, what is the correct SC infusion rate?

- A. 10 mg/hour (240 mg/24 hours — no conversion)
- B. Approximately 3.3 mg/hour (80 mg SC/24 hours — using the correct 3:1 ratio:  $240 \div 3 = 80 \text{ mg}$ ,  $\div 24 = 3.3 \text{ mg/hour}$ )
- C. Approximately 1.7 mg/hour (40 mg/24 hours — using an incorrect 6:1 ratio)
- D. 5 mg/hour (120 mg/24 hours — using an incorrect 2:1 ratio)

93. A 74-year-old woman with end-stage heart failure on hospice has been declining. Over the past day, she had a dramatic improvement — alert, eating, conversing with family, expressing love. Her vital signs remain abnormal. Today she has returned to her prior unresponsive state. The hospice nurse should explain this phenomenon as which of the following?

- A. A medication interaction causing temporary alertness that requires investigation

- B. Evidence of clinical recovery that should prompt hospital transfer for evaluation
- C. Resolution of a concurrent infection that was previously suppressing her alertness
- D. A terminal rally — a transient, poorly understood period of improvement that may occur hours to days before death, not indicating recovery, and typically followed by rapid decline

94. A 59-year-old man with advanced gastric cancer on hospice has been on opioids. He develops severe constipation despite senna 4 tablets BID, PEG 17 g daily, and bisacodyl suppositories. He has not had a bowel movement in 12 days. Rectal exam shows no impaction. No obstruction on exam. Which is the most appropriate next step?

- A. Add fiber supplementation and increase fluid intake as the definitive next intervention
- B. Discontinue opioids and switch to non-opioid pain management to eliminate constipation
- C. Start methylnaltrexone 12 mg SC — a PAMORA that blocks GI mu receptors without crossing the blood-brain barrier, indicated for OIC refractory to maximal conventional laxative therapy
- D. Perform manual disimpaction despite the negative rectal exam

95. A 65-year-old man with advanced colon cancer on hospice develops cancer-related fatigue significantly limiting his daily activities. Hemoglobin is 10.8 g/dL, thyroid function normal, depression screening negative. Non-pharmacologic measures have been implemented. He asks about medications. Which has the strongest evidence?

- A. Methylphenidate 5 mg in the morning and at noon — a CNS stimulant with rapid onset and the strongest evidence among pharmacologic agents for cancer-related fatigue
- B. Modafinil 200 mg daily for sustained wakefulness promotion
- C. Dexamethasone 8 mg daily for long-term energy improvement
- D. Erythropoiesis-stimulating agent to treat his mild anemia as the definitive cause

96. A palliative care team is caring for a 70-year-old man with advanced pancreatic cancer. During a family meeting, his wife asks, "After he dies, will you still be available? I don't know how I'll manage." Which response most accurately describes the hospice program's bereavement obligation?

- A. "Unfortunately, our services end when your husband passes. You'll need to arrange your own support."
- B. "Our hospice program provides bereavement support for at least 13 months after death — periodic contacts, memorial events, support groups, and referrals. We can also help you prepare now."
- C. "Bereavement support is only available if you pay for it privately."
- D. "We provide a single bereavement phone call at 30 days and nothing further."

97. A 58-year-old woman with advanced ovarian cancer on hospice has been on morphine. She develops worsening pruritus after her last dose increase. Her bilirubin is normal, renal function intact. The temporal relationship to morphine dose increase suggests opioid-induced pruritus. After failing antihistamines, which opioid rotation would best address the pruritus?

- A. Rotate to codeine, which has lower histamine-releasing potential than morphine
- B. Rotate to hydromorphone, which has identical histamine-releasing properties to morphine
- C. Rotate to meperidine, which is specifically recommended for patients with opioid-induced pruritus
- D. Rotate to fentanyl, which has minimal histamine-releasing properties — the best choice when pruritus is the indication for rotation

98. A 72-year-old man with advanced heart failure on hospice has an ICD. He agrees to deactivate shocks but wants to maintain pacing. Which statement about this request is most accurate?

- A. Shock and pacing functions cannot be independently controlled in modern ICDs
- B. Deactivating shocks automatically disables all pacing functions simultaneously
- C. The shock and pacing functions can be independently programmed — deactivating shocks while maintaining pacing is a standard, routinely performed approach
- D. Maintaining pacing is incompatible with hospice enrollment under Medicare regulations

99. A 65-year-old man with advanced lung cancer on hospice tells his hospice nurse, "I've been having thoughts about taking all my morphine at once. But I haven't done anything — I just think about it." His pain is 4/10. He denies active plan or intent beyond the thought. Which is the most appropriate initial response?

- A. Take the statement seriously — explore what is driving his thoughts (fear, loss of control, depression, undertreated pain), assess for major depression, optimize symptom management, secure medications, and involve the interdisciplinary team
- B. Report the patient to law enforcement for expressing suicidal ideation
- C. Remove all opioid medications immediately without replacement
- D. Dismiss the statement as a normal expression that requires no clinical attention

100. A palliative care physician is meeting with the family of a 76-year-old man with end-stage heart failure in the ICU. Before delivering the medical update, the physician asks, "Can you tell me your understanding of what has been happening with your father?" This question serves which primary communication purpose?

- A. Shifting responsibility for the clinical update to family members to avoid delivering bad news
- B. Assessing the family's current understanding before providing new information — the "Perception" step of SPIKES, revealing gaps, misconceptions, and a starting point for the medical update
- C. Testing the family's medical knowledge to determine their education level
- D. Determining whether the family is intellectually capable of medical decision-making

101. A 67-year-old woman with advanced pancreatic cancer on hospice has been on dexamethasone 8 mg daily for six weeks for hepatic capsule pain. She develops proximal muscle weakness — difficulty rising from chairs and climbing stairs. Neurologic exam is otherwise unchanged. This is most consistent with which complication?

- A. Progression of brain metastases causing new motor cortex involvement
- B. Spinal cord compression from a new epidural metastasis requiring emergent MRI
- C. Deconditioning from immobility that requires physical therapy but not medication adjustment
- D. Steroid-induced proximal myopathy — a dose-dependent, duration-dependent adverse effect of chronic corticosteroid use affecting hip and shoulder girdle muscles

102. A 59-year-old man with advanced gastric cancer on hospice develops acute abdominal pain, distension, and vomiting. Clinical evaluation suggests malignant bowel obstruction. He is not a surgical candidate. Which medication combination represents the standard medical management of inoperable MBO?

- A. Metoclopramide plus high-dose oral laxatives plus broad-spectrum antibiotics
- B. TPN as the primary intervention to maintain nutritional status during the obstruction
- C. Octreotide (to reduce GI secretions) plus glycopyrrolate (to reduce secretions and colicky pain) plus dexamethasone (to reduce peritumoral edema) plus parenteral opioids for pain
- D. High-fiber diet with aggressive fluid hydration to promote natural resolution of the obstruction

103. A 74-year-old woman with metastatic colon cancer develops new back pain, progressive bilateral leg weakness, and urinary retention over 72 hours. MRI reveals epidural cord compression at T8. Dexamethasone has been administered. Her ECOG before onset was 2, and expected survival is 4 months. The single most important factor determining her neurologic outcome is which of the following?

- A. Her neurologic status at the time definitive treatment is initiated — ambulatory patients have >80% chance of remaining ambulatory; paraplegic patients have <10% chance of regaining function
- B. The specific radiation fractionation schedule selected by the radiation oncologist
- C. The histologic type of her colon cancer and its expected radiosensitivity
- D. Her age, which is the sole determinant of neurologic recovery from cord compression

104. A 65-year-old man with advanced lung cancer on hospice asks, "My neighbor had lung cancer and lived two years. Why can't I live that long?" Which communication response is most appropriate?

- A. "Your neighbor probably had a less aggressive type — you shouldn't compare yourself to others."
- B. "Every person's cancer is different, and comparing situations may not be helpful. What I can tell you is what I'm seeing with your specific disease and what the typical course looks like. Would it be helpful to talk about what to expect so we can plan together?"
- C. "You could definitely live two years — it's certainly possible."
- D. "I can't discuss your prognosis because medicine cannot predict individual outcomes."

105. A 60-year-old woman with advanced ovarian cancer on hospice is experiencing opioid-induced nausea that began two days ago. It is constant, not positional, not related to meals, and has been gradually improving. Based on this trajectory, which of the following is most likely?

- A. She has developed gastroparesis requiring indefinite prokinetic therapy

- B. She is experiencing an allergic reaction to the opioid that necessitates immediate discontinuation
- C. Her nausea is from bowel obstruction and requires octreotide and anticholinergic therapy
- D. CTZ stimulation from the opioid — tolerance typically develops within 3–7 days (explaining the improving trajectory), managed with a short course of haloperidol as a bridge

106. A hospice nurse is visiting a 70-year-old man with end-stage heart failure. His wife asks, "Can he still hear me? He hasn't responded in hours." Based on current understanding of the dying process, which is the most accurate response?

- A. "Once a patient becomes unresponsive, all sensory function has ceased and he cannot hear you."
- B. "He can definitely hear everything you say, so be very careful about what you discuss."
- C. "We believe hearing may be the last sense preserved. While we can't know with certainty, I encourage you to keep talking, holding his hand, and saying whatever you need to say."
- D. "His hearing has been replaced by visual hallucinations, and speaking to him will cause confusion."

107. A 58-year-old woman with advanced sarcoma on hospice tells her physician, "I feel like a burden to my family. They would be better off without me." Her PHQ-9 is 20. She denies suicidal ideation. Which is the most important clinical implication?

- A. Perceived burdensomeness is strongly associated with desire for hastened death and is a red flag for major depression — her PHQ-9 of 20 confirms severe depression requiring treatment, which may reduce both the perceived burdensomeness and any emerging desire for hastened death
- B. This is a normal expression of grief requiring no intervention
- C. Her statement reflects an accurate assessment of her family situation
- D. She should be referred only to social work for caregiver support without addressing her depression

108. A hospice interdisciplinary team is discussing a newly enrolled Hindu patient. The patient's wife mentions they would like specific arrangements for the body after death. Which cultural practice is most consistent with Hindu tradition?

- A. The body should be embalmed immediately with a multi-day visitation period before burial

- B. Hindu tradition generally favors cremation, and family members may wish to wash and prepare the body themselves with specific prayers and rituals
- C. The body should be placed in a plain pine casket for burial within 24 hours without cosmetic preparation
- D. No specific cultural or religious practices need to be accommodated for Hindu patients

109. A 72-year-old man with advanced COPD on hospice has been on morphine for dyspnea. He develops new bilateral lower extremity edema, JVD, and worsening dyspnea. His physician diagnoses right heart failure with fluid overload. She adds furosemide 40 mg daily. The pharmacy questions whether a diuretic is appropriate for hospice. Which rationale is most accurate?

- A. Furosemide cannot be prescribed under the hospice benefit because it is a cardiac medication
- B. The physician does not need to justify medication decisions to the pharmacy department
- C. Furosemide should be replaced with morphine alone because opioids are the only appropriate dyspnea treatment
- D. Furosemide is prescribed as a comfort medication — it directly relieves the dyspnea caused by pulmonary congestion from fluid overload, making it a symptom-directed intervention consistent with the hospice plan of care

110. A 64-year-old woman with advanced breast cancer on hospice has bone metastases. She adds a bone-targeted agent to reduce skeletal events. Which agent acts through RANKL inhibition?

- A. Zoledronic acid, a bisphosphonate inhibiting osteoclasts through the mevalonate pathway
- B. Calcitonin, which directly inhibits osteoclast function through calcitonin receptor activation
- C. Denosumab — a monoclonal antibody that blocks RANKL, preventing osteoclast differentiation and activation
- D. Pamidronate, a first-generation IV bisphosphonate administered every 3–4 weeks

111. A 66-year-old man with advanced hepatocellular carcinoma on hospice is on morphine for pain. His hepatic function deteriorates (bilirubin rising from 5 to 17 mg/dL over two weeks). He becomes more somnolent despite no dose change. His GFR is 68 mL/min (normal). The most critical medication adjustment is which of the following?

- A. Reduce morphine dose — worsening liver function reduces first-pass metabolism, increasing oral bioavailability and drug exposure at the same prescribed dose
- B. Increase morphine because his somnolence indicates undertreated pain
- C. Switch to meperidine, which is safer in hepatic impairment
- D. Discontinue all medications because liver failure makes all drugs unpredictable

112. A 73-year-old woman with advanced heart failure on hospice develops new confusion and muscle cramps. Her serum sodium is 125 mEq/L and potassium is 2.7 mEq/L. She is on furosemide 80 mg daily with recent dose increase. These electrolyte abnormalities are most likely caused by which of the following?

- A. Progression of heart failure causing dilutional hyponatremia from SIADH
- B. Diuretic-induced electrolyte derangements — furosemide causes renal sodium and potassium wasting, producing hyponatremia and hypokalemia manifesting as confusion and muscle cramps
- C. Morphine toxicity causing SIADH and secondary electrolyte disturbances
- D. Hepatic encephalopathy from undiagnosed concurrent liver disease

113. A 70-year-old man with advanced prostate cancer on hospice develops a new seizure-like episode — rhythmic jerking of all four extremities followed by confusion. He is on morphine SR 90 mg every 12 hours. His creatinine was normal one week ago. The most important consideration is which of the following?

- A. Investigate for opioid neurotoxicity (myoclonus possibly progressing to seizure) — check current renal function, as morphine metabolite M6G accumulates with declining GFR, and consider opioid rotation to fentanyl if renal function has worsened
- B. Prostate cancer commonly metastasizes to the brain, making new brain metastases the most likely cause
- C. The episode was definitely a vasovagal syncopal event from dehydration
- D. Epilepsy unrelated to his cancer or treatment requiring lifelong anticonvulsant therapy

114. A 60-year-old woman with advanced ovarian cancer on hospice develops severe pelvic pain from tumor invasion of sacral nerve roots. She describes burning, shooting pain in her perineum. Which interventional procedure targets the specific neural structure mediating her perineal pain?

- A. Celiac plexus block at the T12-L1 level for upper abdominal visceral pain
- B. Superior hypogastric plexus block for pelvic organ-related visceral pain
- C. Ganglion impar block — the ganglion impar is a solitary ganglion at the sacrococcygeal junction transmitting visceral pain from the perineum, rectum, anus, and vulva
- D. Lumbar epidural steroid injection for radicular lower extremity pain

115. A hospice physician is counseling a family about what to expect during a planned ventilator withdrawal for a 72-year-old man with multi-organ failure. He is on FiO<sub>2</sub> 100%, PEEP 14, vasopressors, and has minimal spontaneous breathing effort. Which prognostic statement about the expected time from withdrawal to death is most appropriate?

- A. "Given his high ventilatory requirements, minimal spontaneous effort, and hemodynamic instability, death is likely within minutes to hours. However, I cannot predict the exact time. We will keep him comfortable throughout."
- B. "He will die within exactly 5 minutes after the ventilator is turned off."
- C. "He will likely survive several days after withdrawal because the body has significant reserves."
- D. "It is impossible to provide any estimation — the time course cannot be predicted at all."

116. A 65-year-old man with advanced colon cancer on hospice has been on stable opioids with good pain control. He develops a new celiac plexus block for concurrent abdominal pain. The block is highly successful — pain drops from 8/10 to 1/10. Afterward, he becomes increasingly sedated with respiratory rate of 10. This illustrates which principle?

- A. Celiac plexus blocks always cause respiratory depression as a procedural complication
- B. Pain is a potent respiratory stimulant — when the block eliminated his pain, the respiratory stimulant effect was removed, unmasking the respiratory-depressant effect of his current opioid dose, which is now relatively excessive
- C. The sedation is caused by the neurolytic agent used in the block, not the opioid
- D. The block inadvertently damaged the phrenic nerve, causing diaphragm paralysis

117. A palliative care physician has been caring for a 64-year-old woman with advanced lung cancer for six months. She dies peacefully at home. At the next team meeting, the physician feels tearful reviewing

her chart and has been thinking about her more than other patients. A colleague notices and asks if she is alright. Which response by the colleague would be most supportive?

- A. "It sounds like you're having a normal grief response to losing a patient you cared about. That's not a weakness — it's a sign that you were truly present for her. Would it help to talk about it?"
- B. "You need to take a leave of absence because you can't be effective while you're emotional."
- C. "You should leave your feelings at the door. Professional boundaries require emotional detachment."
- D. "I'll refer you for mandatory psychiatric evaluation to ensure you're fit for clinical duties."

118. A 55-year-old woman with advanced melanoma on pembrolizumab develops acute fatigue, hypotension (BP 72/40), nausea, and hypoglycemia. Morning cortisol is undetectable. This immune-related adverse event requires which urgent intervention?

- A. High-dose prednisone 1 mg/kg for immune-related hepatitis with secondary adrenal effect
- B. Aggressive IV fluid resuscitation alone without hormone replacement
- C. IV hydrocortisone 100 mg for adrenal insufficiency from immune-related hypophysitis or adrenalitis — the combination of undetectable cortisol, hypotension, and hypoglycemia requires urgent corticosteroid replacement
- D. Thyroid hormone replacement because hypothyroidism is the most likely cause of her presentation

119. A hospice aide reports that during a recent visit, the 82-year-old patient's caregiver son appeared intoxicated and was rough when repositioning the patient. The patient has new handgrip-pattern bruising on both upper arms. The hospice nurse's most appropriate action is which of the following?

- A. Assess the patient for elder abuse — conduct a private evaluation, look for additional signs, document findings, and report to adult protective services if abuse is suspected, as all health care providers are mandatory reporters
- B. Document the observation and reassess at the next scheduled visit in one week
- C. Confront the son directly about his behavior and threaten legal consequences
- D. Attribute the bruising to anticoagulant therapy and the patient's fragile skin without investigation

120. A 71-year-old man with advanced COPD on hospice has been on morphine for dyspnea and gabapentin 600 mg TID for neuropathy. Over the past week, his confusion and ataxia have worsened.

His creatinine rose from 1.0 to 3.0 mg/dL. Both morphine (M6G accumulation) and gabapentin (renal excretion) are affected by declining renal function. Which medication requires the MOST urgent dose adjustment?

- A. Morphine should be the sole priority because opioid toxicity is always more dangerous
- B. Gabapentin — it is entirely renally excreted and accumulates most rapidly with declining GFR, producing dose-dependent sedation, confusion, and ataxia. While morphine also requires attention (M6G accumulation), gabapentin's exclusively renal clearance makes its toxicity the most immediately dose-dependent.
- C. Both medications require identical urgency with no differentiation
- D. Neither medication is significantly affected by renal impairment

121. A 69-year-old man with metastatic renal cell carcinoma on hospice has been on oxycodone for pain. His GFR has declined from 50 to 12 mL/min over three weeks. He develops progressive confusion and myoclonic jerks. The palliative care physician suspects opioid metabolite accumulation. Which opioid is the safest rotation choice given his severe renal impairment?

- A. Morphine, which is the most extensively studied opioid and therefore the safest in all clinical contexts
- B. Codeine, which requires only hepatic activation and has no renal concerns
- C. Meperidine, which was historically recommended for renal-impaired patients
- D. Fentanyl — metabolized by CYP3A4 to inactive norfentanyl, it has no active metabolites that accumulate in renal failure

122. A 72-year-old woman with advanced heart failure on hospice has been on furosemide 80 mg daily. Over the past week, her dyspnea has improved but she develops new confusion, lethargy, and muscle cramps. Her sodium is 123 mEq/L and potassium is 2.5 mEq/L. These laboratory findings are most likely caused by which of the following?

- A. Progression of heart failure causing neurohormonal-mediated dilutional hyponatremia
- B. Morphine toxicity causing SIADH with secondary electrolyte disturbances

C. Diuretic-induced electrolyte derangements — furosemide causes renal sodium and potassium wasting, producing hyponatremia and hypokalemia manifesting as confusion, lethargy, and muscle cramps

D. Hepatic encephalopathy from previously undiagnosed liver disease

123. A hospice physician is counseling the family of a 75-year-old man with end-stage heart failure about planned ventilator withdrawal. The patient is on FiO<sub>2</sub> 100%, PEEP 16, vasopressors, and has minimal spontaneous respiratory effort. The family asks, "How long will it take after you turn off the machine?" Which response is most appropriate?

A. "Given his high ventilatory requirements, minimal independent breathing, and hemodynamic instability, death is likely within minutes to hours. I cannot predict the exact time, but we will keep him comfortable and be here with you throughout."

B. "He will die within exactly 3 minutes of extubation in all cases."

C. "He will likely survive several days because the body has significant respiratory reserves."

D. "It is completely impossible to provide any estimation about the time course."

124. A 58-year-old woman with advanced ovarian cancer on hospice has been comfortable on her opioid regimen. She asks her hospice physician, "Can I still travel to see my daughter in another state?" Which response best reflects hospice philosophy?

A. "Hospice patients cannot leave their registered residence under any circumstances."

B. "Yes — we can coordinate your care, ensure adequate medication supply, arrange hospice services at your destination if needed, and plan for contingencies. Let's make this happen."

C. "You would need to revoke hospice before traveling across state lines."

D. "Travel is medically inadvisable for all patients with a terminal diagnosis."

125. A 66-year-old man with advanced colon cancer on hospice develops a new malignant bowel obstruction. He is not a surgical candidate. The standard medical management combination for inoperable MBO includes which of the following?

A. Metoclopramide plus high-dose oral laxatives for prokinetic bowel stimulation

- B. TPN as the primary intervention to maintain nutritional status through the obstruction
- C. High-fiber diet with aggressive oral hydration to promote natural obstruction resolution
- D. Octreotide (reducing GI secretion volume) plus glycopyrrolate (reducing secretions and colicky pain) plus dexamethasone (reducing peritumoral edema) plus parenteral opioids for pain

126. A palliative care team is caring for a 71-year-old man with advanced gastric cancer. His 15-year-old daughter has been increasingly withdrawn, refusing to visit her father, and expressing hopelessness to her school counselor. Her grades have dropped significantly. Which hospice team response is most appropriate?

- A. Defer entirely to the school counselor to manage the daughter's emotional needs
- B. Inform the mother that her daughter needs counseling and leave the referral to the family
- C. Arrange for the hospice social worker or bereavement coordinator to meet with the daughter, assess her emotional state and safety (the hopelessness warrants screening), and facilitate referral for adolescent counseling
- D. Report the daughter to child protective services for suspected neglect

127. A 63-year-old woman with advanced breast cancer on hospice develops new severe back pain that worsens when supine and improves sitting up. Over 48 hours, she develops bilateral leg weakness (3/5) and urinary retention. Dexamethasone 16 mg IV is given. MRI shows single-level epidural mass at T7. Her pre-event ECOG was 1 and expected survival is 8 months. The single most important factor determining her neurologic outcome is which of the following?

- A. Her neurologic status at the time definitive treatment is initiated — ambulatory patients have >80% chance of remaining ambulatory; paraplegic patients have <10% chance of regaining function
- B. The radiation fractionation schedule selected by the radiation oncologist
- C. The histologic type of her breast cancer and its expected radiosensitivity
- D. Her age, which is the sole determinant of neurologic recovery

128. A hospice program is being audited. The auditors identify that GIP was billed for a patient admitted for "caregiver respite needs." This billing error exists because of which of the following?

- A. GIP can only be provided in acute care hospitals, not in hospice inpatient units
- B. GIP is for acute symptom management requiring inpatient-level care — caregiver respite is the indication for Inpatient Respite Care (IRC), not GIP, and billing the higher-reimbursement GIP for a respite need constitutes incorrect billing
- C. GIP requires a minimum 14-day stay that was not met
- D. GIP billing requires 30-day CMS pre-authorization that was not obtained

129. A 74-year-old man with metastatic prostate cancer on hospice has painful bone metastases. His physician recommends adding a bone-targeted agent that acts through RANKL inhibition. Which agent uses this mechanism?

- A. Zoledronic acid, a bisphosphonate that inhibits osteoclasts through the mevalonate pathway
- B. Calcitonin, which directly inhibits osteoclasts through calcitonin receptor activation
- C. Pamidronate, a first-generation IV bisphosphonate administered monthly
- D. Denosumab — a monoclonal antibody blocking RANKL to prevent osteoclast differentiation and activation

130. A 60-year-old man with advanced pancreatic cancer on hospice develops hypercalcemia (corrected calcium 15.4 mg/dL) with confusion, constipation, nausea, and polyuria. After IV saline, which medication provides the most sustained calcium reduction?

- A. Calcitonin for rapid and sustained calcium lowering over weeks
- B. Furosemide for forced calciuresis as the primary calcium-lowering strategy
- C. Zoledronic acid 4 mg IV — inhibiting osteoclast-mediated bone resorption with onset at 24–48 hours, nadir at 4–7 days, and duration of 2–4 weeks
- D. Oral phosphate supplementation to bind calcium in the GI tract

131. A hospice nurse visits a 79-year-old woman with end-stage COPD. Her husband, the sole caregiver, appears exhausted with weight loss and dark circles under his eyes. He says, "I'm fine — just focus on her." The most appropriate initial nursing response is which of the following?

- A. Gently express concern about his well-being, normalize caregiving difficulty, explore whether respite care or additional support services would help, and communicate to the IDT — caregiver collapse directly threatens the patient's care plan
- B. Focus exclusively on the patient because the husband is not enrolled in hospice
- C. Arrange for mandatory hospitalization of the husband for evaluation
- D. Document without action and reassess at the next visit in two weeks

132. A 67-year-old woman with advanced ovarian cancer on hospice has refractory ascites from peritoneal carcinomatosis (NOT portal hypertension). She has an indwelling peritoneal catheter. During a home drainage, her husband drains 3 liters in 20 minutes. She becomes dizzy and hypotensive (BP 82/48). The most likely cause and most important preventive counseling are which of the following?

- A. Peritonitis from catheter contamination requiring emergency antibiotics
- B. Rapid large-volume drainage caused hemodynamic instability from vasovagal response and fluid shift — future drainages should be performed more slowly (over 60–90 minutes) with the patient reclined
- C. Intra-abdominal hemorrhage from catheter erosion requiring surgical evaluation
- D. Tension pneumoperitoneum from air entering the abdomen through the catheter

133. A 55-year-old man with advanced melanoma on hospice develops a painful fungating chest wall lesion with severe malodor preventing family visits. The odor is caused by anaerobic bacterial colonization. Which topical agent is most effective?

- A. Silver sulfadiazine cream applied daily for broad-spectrum coverage
- B. Hydrogen peroxide 3% solution for wound irrigation twice daily
- C. Povidone-iodine solution applied to the wound periphery for antisepsis
- D. Topical metronidazole 0.75% gel — specifically targeting the anaerobic bacteria producing the malodor, with dramatic improvement often within 24–48 hours

134. A 72-year-old man with end-stage liver disease on hospice is on lactulose for hepatic encephalopathy and morphine for pain. The pharmacy questions whether lactulose and morphine are compatible. Which statement is most accurate?

- A. Lactulose is contraindicated with opioids due to risk of severe electrolyte disturbance
- B. Morphine must be stopped before lactulose can be initiated to prevent dangerous synergy
- C. Lactulose serves a dual purpose — treating encephalopathy by reducing ammonia AND functioning as an osmotic laxative counteracting opioid-induced constipation, making the medications complementary
- D. Lactulose chemically inactivates morphine through direct binding in the GI tract

135. A 64-year-old woman with advanced lung cancer on hospice tells her chaplain, "I feel like God has abandoned me. Why is this happening to me?" The most appropriate chaplain response is which of the following?

- A. Explore her feelings of abandonment without trying to "fix" them, validate her spiritual struggle as genuine, facilitate engagement with her own faith tradition, and offer pastoral presence — connecting with her own clergy if desired
- B. Provide theological reassurance that God does not punish people with illness
- C. Prescribe an anxiolytic medication to reduce her spiritual distress
- D. Refer to psychiatry because spiritual distress of this intensity indicates major depression

136. A 70-year-old man with advanced COPD on hospice has persistent hiccups for six days. His medications include dexamethasone 4 mg daily (started three weeks ago), morphine, ondansetron, and senna-docusate. The temporal relationship to dexamethasone is clear. The most appropriate management is which of the following?

- A. Increase dexamethasone because higher doses may paradoxically suppress the hiccup reflex
- B. Reduce dexamethasone dose or switch corticosteroids, and initiate baclofen 5 mg TID for hiccup-specific treatment — addressing both the cause (dexamethasone) and providing symptomatic relief
- C. Add chlorpromazine 50 mg TID without addressing the dexamethasone
- D. Discontinue dexamethasone entirely without considering impact on the patient's other symptoms

137. A 58-year-old woman with advanced sarcoma on hospice has been on morphine SR 120 mg every 12 hours. She adds tramadol for a new pain complaint. She is also on duloxetine 60 mg daily. Within 48 hours, she develops agitation, hyperthermia, clonus, and diaphoresis. After discontinuing serotonergic agents, which specific antidote should be administered?

- A. Naloxone 0.4 mg IV for opioid-mediated serotonergic toxicity
- B. Dantrolene IV for the muscular rigidity component of the syndrome
- C. Bromocriptine as a dopamine agonist to counterbalance serotonin excess
- D. Cyproheptadine (a serotonin antagonist) 12 mg orally initially, then 4–8 mg every 6 hours — the specific pharmacologic antidote for serotonin syndrome

138. A 73-year-old man with advanced heart failure on hospice has an ICD whose shock function was deactivated last month by the device representative through permanent reprogramming. His family asks whether the magnet placed earlier is still needed. Which is the most accurate response?

- A. The magnet must remain permanently because reprogramming only partially disables the shock function
- B. The magnet should remain as a backup in case of spontaneous reprogramming reversal
- C. The magnet can be removed — permanent reprogramming disabled the shocks definitively, and the magnet (which provided only temporary suspension before reprogramming) is no longer needed
- D. The magnet cannot be removed until the device is surgically explanted

139. A 62-year-old woman with advanced breast cancer on hospice has neuropathic pain from CIPN. She is on tamoxifen. Her physician considers adding an adjuvant analgesic. Which agent should be AVOIDED?

- A. Duloxetine — it inhibits CYP2D6, the enzyme converting tamoxifen to its active metabolite endoxifen, potentially reducing tamoxifen's anticancer efficacy
- B. Gabapentin, which has no significant CYP interactions
- C. Pregabalin, which is renally excreted without hepatic metabolism
- D. Nortriptyline at low doses for combined pain and sleep benefit

140. A hospice bereavement coordinator contacts the 70-year-old husband of a patient who died nine months ago. He reports resuming some activities but still cries daily and sometimes hears his wife calling his name. He asks, "Am I going crazy?" Which clinical interpretation is most accurate?

- A. Daily crying at nine months indicates prolonged grief disorder requiring CGT referral

B. His symptoms — daily crying and auditory experiences of the deceased — are within normal grief. Hearing a deceased spouse is reported by 30–60% of bereaved people and is NOT a hallucination or psychotic symptom. Normalizing this experience reduces his fear.

C. The auditory experiences are pathognomonic for psychosis requiring antipsychotic medication

D. His grief has become "stuck" and he needs directive counseling to move past it

141. A 65-year-old man with advanced colon cancer on hospice develops new seizures from brain metastases. Given his complex medication regimen (opioids, antiemetics, corticosteroids), which anticonvulsant is most appropriate for maintenance therapy?

A. Phenytoin for its well-established anticonvulsant efficacy and long clinical track record

B. Carbamazepine for additional neuropathic pain benefit alongside seizure control

C. Valproic acid for its broad-spectrum anticonvulsant activity

D. Levetiracetam — minimal hepatic metabolism, few drug interactions, and availability in IV and liquid formulations make it ideal for palliative care patients on multiple medications who may lose swallowing ability

142. A 74-year-old woman with advanced dementia (FAST 7E) on hospice has been non-verbal for ten months. During care, the CNA observes grimacing, moaning, and guarding when the patient's right hip is moved. PAINAD score is 7/10. She is on no analgesic medications. Which initial intervention is most appropriate?

A. Start morphine 10 mg SC every 4 hours given the high PAINAD score

B. Obtain comprehensive imaging (hip X-ray, CT, labs) before initiating any treatment

C. Initiate a scheduled acetaminophen trial (650 mg every 6 hours via rectal or crushed oral route) and reassess PAINAD scores after 48–72 hours — the safest first-line approach for suspected pain in non-verbal dementia

D. Refer to psychiatry for evaluation of the behavioral symptoms as non-pain manifestations of dementia

143. A 60-year-old man with advanced gastric cancer on hospice has been on stable opioid therapy. He develops severe constipation despite senna 4 tablets BID and PEG 17 g daily — no bowel movement in 11 days. Rectal exam shows no impaction. No obstruction. Which is the most appropriate next step?

- A. Start methylnaltrexone 12 mg SC — a PAMORA blocking GI mu receptors without crossing the blood-brain barrier, indicated for OIC refractory to maximal conventional laxative therapy
- B. Add high-fiber diet with increased fluid intake as the definitive intervention
- C. Discontinue all opioids to eliminate the cause of constipation
- D. Add docusate as the missing laxative component

144. A 67-year-old woman with advanced pancreatic cancer on hospice has been on opioids. She develops nausea worst after meals with early satiety and bloating. No obstruction on exam. Based on the postprandial pattern, which antiemetic most directly addresses the mechanism?

- A. Scopolamine transdermal patch for vestibular-mediated nausea
- B. Metoclopramide 10 mg before meals — combining antiemetic D2 antagonism with prokinetic 5-HT4 agonism to improve opioid-related gastroparesis
- C. Ondansetron for serotonin-mediated peripheral GI nausea
- D. Dexamethasone for centrally mediated nausea from presumed ICP elevation

145. A 71-year-old man with advanced lung cancer on hospice has been on morphine SR 60 mg every 12 hours for five months. His pain is well-controlled. He asks whether he can stop his prophylactic senna-docusate since he has had no constipation. Which advice is most accurate?

- A. He can safely stop because five months of opioid therapy has allowed his bowels to adapt
- B. Switch to fiber supplementation as a more natural long-term approach
- C. Stop senna but continue docusate alone as adequate maintenance
- D. Continue the laxative — tolerance to opioid-induced constipation does NOT develop, and constipation will return if the laxative is stopped regardless of how well bowels have been functioning

146. A hospice nurse visits a 77-year-old man with end-stage heart failure who is actively dying. She notes mottling to mid-thighs, absent radial pulses, anuria for 14 hours, mandibular breathing, and unresponsiveness. She should communicate to the family which of the following?

- A. The patient needs hospital transfer for evaluation of acute kidney injury

- B. These signs are inconclusive and reassessment in 24 hours is appropriate
- C. Death is likely within hours to a few days — these converging signs represent the progressive organ system failure of active dying, and the family should be supported in being together during this time
- D. The mottling will resolve with warming blankets and leg elevation

147. A 63-year-old woman with advanced ovarian cancer on hospice has malignant ascites from peritoneal carcinomatosis (NOT portal hypertension). After draining 5 liters, she asks about albumin replacement. Which is most accurate?

- A. Albumin is NOT routinely required for malignant ascites from peritoneal carcinomatosis — it is standard for cirrhotic portal hypertensive ascites where post-paracentesis circulatory dysfunction is a specific concern, but the mechanism and hemodynamic consequences differ
- B. Albumin is always required after draining more than 3 liters regardless of cause
- C. Albumin must be given before drainage to improve oncotic pressure gradient
- D. Albumin replacement is mandatory for all home-based drainage procedures

148. A 68-year-old man with advanced colon cancer on hospice develops nausea worsened by head movement and position changes. It is not related to meals or medication timing. Which antiemetic class is most appropriately targeted?

- A. A dopamine antagonist (haloperidol) for CTZ-mediated nausea
- B. An antihistamine or anticholinergic (meclizine or scopolamine) for vestibular-mediated nausea — the movement and position-change pattern is the diagnostic hallmark
- C. A prokinetic (metoclopramide) for gastroparesis-related postprandial nausea
- D. A serotonin antagonist (ondansetron) for peripheral GI serotonin-mediated nausea

149. A 55-year-old man with advanced melanoma on ipilimumab develops acute fatigue, hypotension (BP 68/38), nausea, and hypoglycemia. Morning cortisol is undetectable. Which urgent intervention is required?

- A. Aggressive IV fluid resuscitation alone without hormone replacement therapy
- B. High-dose prednisone 1 mg/kg for presumed immune-related hepatitis

C. Thyroid hormone replacement for presumed hypothyroidism causing his symptoms

D. IV hydrocortisone 100 mg for adrenal insufficiency from immune-related hypophysitis or adrenalitis — the combination of undetectable cortisol, hypotension, and hypoglycemia requires urgent corticosteroid replacement

150. A 72-year-old man with advanced COPD on hospice has been on morphine for dyspnea. His SpO<sub>2</sub> is 84% on 2 L/min. Despite morphine and a fan, his dyspnea remains severe. The family asks about increasing oxygen. Which recommendation is most evidence-based?

A. Discontinue oxygen because it never benefits dyspnea

B. Replace oxygen with heliox for all COPD patients

C. This patient IS hypoxemic (SpO<sub>2</sub> 84%, below 90%) — unlike non-hypoxemic patients where oxygen provides no additional benefit, documented hypoxemia may benefit from increased supplemental oxygen for dyspnea relief

D. Increase only if the patient specifically requests more oxygen

151. A hospice physician completes a death certificate listing Part I, Line a: "Cardiac arrest." This entry is problematic because of which of the following?

A. "Cardiac arrest" is the mechanism common to virtually all deaths and provides no information about the disease that caused the death — the certificate should specify the actual disease process

B. "Cardiac arrest" is only appropriate when witnessed by a cardiologist

C. "Cardiac arrest" is acceptable for all deaths and requires no correction

D. "Cardiac arrest" must be accompanied by the terminal ECG rhythm

152. A 60-year-old man with advanced melanoma on nivolumab develops fatigue, constipation, cold intolerance, and weight gain. TSH is 55 mIU/L, free T<sub>4</sub> undetectable. This immune-related adverse event is managed by which of the following?

A. High-dose corticosteroids and permanent immunotherapy discontinuation

B. Levothyroxine replacement — immune-related thyroiditis progressing to hypothyroidism is managed with hormone replacement and typically does NOT require immunotherapy discontinuation

- C. Urgent surgical thyroidectomy to prevent further thyroid destruction
- D. Radioactive iodine ablation of the remaining thyroid tissue

153. A palliative care physician is meeting with a 68-year-old man with advanced gastric cancer. He asks, "How much time do I have?" Which response is most appropriate?

- A. "Based on statistics, you have exactly 4.1 months."
- B. "I can't tell you anything about prognosis because medicine cannot predict."
- C. "You have plenty of time — don't worry about it."
- D. "I wish I could give you an exact number, but single-point estimates are almost always inaccurate. What I can tell you is that we're likely looking at weeks to a few months. I want to help you use that time to plan for what matters most."

154. A 64-year-old woman with advanced breast cancer on hospice develops a new vertebral compression fracture at T12 causing severe localized pain (9/10). ECOG 2, expected survival 5 months. In addition to opioid optimization, which procedure provides the most rapid targeted relief?

- A. Palliative radiation (single 8 Gy) with expected onset in 2–4 weeks
- B. External thoracolumbar brace as primary analgesic intervention
- C. Vertebroplasty or kyphoplasty — providing pain relief in 70–90% of patients within 24–72 hours through mechanical stabilization of the fractured vertebral body
- D. Epidural corticosteroid injection at T12 for localized anti-inflammatory effect

155. A hospice social worker is conducting a bereavement follow-up with the 50-year-old daughter of a patient who died four months ago. She has resumed most activities but experiences sudden grief waves triggered by unexpected reminders. She asks, "Why does this keep happening?" Which explanation is most accurate?

- A. Grief waves — sudden intense surges triggered by sensory reminders — are completely normal and can occur for months to years. Functioning well between waves indicates healthy adaptation. There is no timeline for grief.

- B. Continuing grief waves at four months indicates prolonged grief disorder requiring specialized therapy
- C. The episodes suggest an anxiety disorder that developed since her mother's death
- D. She should avoid all triggering stimuli to prevent the waves from occurring

156. A 59-year-old man with advanced cervical cancer on hospice has refractory pelvic pain from tumor invasion. His pain specialist recommends a superior hypogastric plexus block. This block targets which anatomic structures?

- A. Upper abdominal visceral organs via the T12-L1 sympathetic ganglia (celiac plexus territory)
- B. The pelvic visceral organs (uterus, cervix, bladder, rectum) — the superior hypogastric plexus transmits visceral afferent pain from these structures
- C. The perineum and rectum via the sacrococcygeal ganglion impar
- D. The lower extremities via the lumbar sympathetic chain

157. A 73-year-old man with end-stage liver disease on hospice has worsening encephalopathy despite lactulose. His hospice physician considers adding rifaximin. The pharmacy questions coverage. Which principle guides this decision?

- A. Rifaximin is an antibiotic and all antibiotics are excluded from the hospice benefit
- B. Rifaximin cannot be prescribed by a hospice physician
- C. Rifaximin requires a 30-day Medicare prior authorization
- D. If rifaximin reduces the patient's confusion and agitation (symptom relief), it is consistent with comfort goals and may be covered under the hospice per diem as a medication related to the terminal diagnosis

158. A 71-year-old woman with advanced breast cancer on hospice develops a new DVT causing significant right leg pain and swelling. Prognosis is 3 months. Comfort measures. Which anticoagulation approach is most appropriate?

- A. Anticoagulation is prohibited for all hospice patients with DVT
- B. Transfer to the hospital for IV heparin and vascular surgery consultation

C. Treat with SC LMWH if the DVT symptoms are causing distress — the decision is based on whether treatment serves comfort goals, not on a blanket anticoagulation policy

D. Apply compression stockings as the sole intervention

159. A 65-year-old man with advanced lung cancer on hospice tells his hospice nurse, "I've been thinking about taking all my morphine at once. I haven't done anything — just the thought." His pain is 4/10. He denies active plan or intent. Which is the most appropriate initial response?

A. Take the statement seriously — explore driving factors (fear, depression, undertreated pain), assess for depression, optimize symptoms, secure medications, involve the IDT

B. Report to law enforcement for suicidal ideation

C. Remove all opioids immediately without replacement

D. Dismiss as a normal expression requiring no clinical attention

160. A palliative care team is meeting with the family of a 75-year-old man with end-stage heart failure in the ICU. Before delivering the update, the physician asks, "What is your understanding of what's been happening?" This question serves which purpose?

A. Shifting responsibility for the update to the family

B. Assessing the family's current understanding — the "Perception" step of SPIKES — revealing gaps, misconceptions, and providing a starting point for the medical update

C. Testing the family's medical knowledge level

D. Determining whether the family can intellectually participate in decisions

161. A 67-year-old woman with advanced pancreatic cancer on hospice has been on dexamethasone 8 mg daily for six weeks. She develops proximal muscle weakness — difficulty rising from chairs and climbing stairs. Neurologic exam is otherwise unchanged. This is most consistent with which of the following?

A. Spinal cord compression from new epidural metastasis requiring emergent MRI

B. Progression of brain metastases causing motor cortex involvement

C. Deconditioning from immobility requiring physical therapy only

D. Steroid-induced proximal myopathy — dose-dependent and duration-dependent, affecting hip and shoulder girdle muscles, distinguished from cord compression by proximal pattern without sensory level

162. A 62-year-old woman with advanced ovarian cancer on hospice has MBO managed medically. Despite octreotide, glycopyrrolate, and dexamethasone, she vomits 500 mL daily. A venting gastrostomy is placed. She asks whether she can eat. Which response is most accurate?

- A. She must remain NPO because any oral intake worsens the obstruction
- B. She may eat full meals because the gastrostomy bypasses the obstruction
- C. She may eat and drink small amounts for pleasure — food enters the stomach and is experienced, then drains through the gastrostomy rather than entering the obstructed bowel
- D. Clear liquids only because solid food will block the gastrostomy tube

163. A hospice aide notices new handgrip-pattern bruising on an 80-year-old patient with dementia. The patient's caregiver son has a substance use history and appeared intoxicated at the last visit. The aide reports to the hospice nurse. Which action is most appropriate?

- A. Assess the patient for elder abuse — conduct a private evaluation, look for additional signs, document findings, and report to adult protective services if abuse is suspected as required by mandatory reporting laws
- B. Document and reassess at the next scheduled visit in one week
- C. Confront the son directly about the bruising
- D. Attribute the bruising to anticoagulant medication without investigation

164. A 70-year-old man with advanced prostate cancer on hospice has diffuse bone metastases causing pain. His physician wants to add a non-opioid specifically targeting bone pain. Which is most appropriate?

- A. Acetaminophen 1000 mg every 6 hours for general augmentation
- B. An NSAID (celecoxib or ibuprofen) — specifically effective for bone pain through prostaglandin synthesis inhibition at the metastatic site, where tumor-produced prostaglandins sensitize nociceptors
- C. Gabapentin for neuropathic modulation at the bone-nerve interface

D. Duloxetine for dual analgesic and antidepressant benefit

165. A 74-year-old man with end-stage heart failure on hospice has a mechanical mitral valve on warfarin for 20 years. His prognosis is 3 weeks. The team reviews anticoagulation. Unlike AF alone (where short-term risk is negligible), why does his warfarin warrant continuation?

- A. Warfarin provides symptom relief for heart failure dyspnea
- B. Medicare mandates continuation for all mechanical valve patients
- C. Stopping warfarin causes immediate valve calcification
- D. Mechanical valves without anticoagulation carry significant, immediate risk of valve thrombosis and systemic embolization — the short-term risk of stopping is much higher with a mechanical valve than with AF alone

166. A hospice program reviews data showing 44% of patients die within 7 days of enrollment and median LOS is 9 days. This pattern most strongly indicates which quality concern?

- A. The program enrolls patients too early and provides unnecessary services
- B. The death rate indicates overly aggressive symptom management hastening death
- C. Late referrals deny patients and families the full benefit of hospice — symptom management, psychosocial support, spiritual care, and caregiver preparation all require time to provide effectively
- D. The program's referral patterns meet optimal industry benchmarks

167. A palliative care physician has been caring for a 63-year-old woman with advanced lung cancer for six months. She dies peacefully. At the next team meeting, the physician feels tearful reviewing the chart. A colleague notices. Which response by the colleague is most supportive?

- A. "It sounds like you're having a normal grief response to losing a patient you cared about deeply. That's a sign you were truly present, not a weakness. Would it help to talk about it?"
- B. "You need a leave of absence because emotional responses indicate you're not fit for clinical duties."
- C. "Leave your feelings at the door — professional boundaries require detachment."
- D. "I'll refer you for mandatory psychiatric evaluation."

168. A 56-year-old man with advanced gastric cancer on hospice has pain with both somatic (deep, aching) and neuropathic (burning, shooting) components from tumor compressing the femoral nerve. His opioid relieves the aching partially but has minimal effect on the burning. Which strategy best addresses both mechanisms?

- A. Increase opioid alone because higher doses treat all pain types equally
- B. Combine adequate opioid for the somatic component with an adjuvant (gabapentin or duloxetine) for the neuropathic component — neither agent alone optimally addresses both mechanisms
- C. Discontinue opioids and use gabapentin monotherapy
- D. Replace everything with topical lidocaine as sole therapy

169. A 73-year-old man with advanced COPD on hospice has been on morphine for dyspnea. His SpO<sub>2</sub> is 92% on 2 L/min. His dyspnea is persistent with prominent anxiety. Morphine was administered 30 minutes ago with minimal improvement. Which pharmacologic step is most appropriate?

- A. Increase oxygen to 5 L/min because his saturation needs to reach 97%
- B. Switch to hydromorphone for superior dyspnea efficacy
- C. Administer nebulized albuterol as the sole additional intervention
- D. Add lorazepam 0.5–1 mg SL for the anxiety-breathlessness cycle — when opioid alone fails and anxiety is prominent, a benzodiazepine addresses the component that opioid cannot

170. A 68-year-old woman with advanced breast cancer on hospice has severe right upper quadrant pain from hepatic capsule distension by enlarging metastases. Her opioid provides partial relief. Which non-opioid most directly targets the mechanism?

- A. Gabapentin for neuropathic pain modulation
- B. An NSAID for prostaglandin-mediated inflammation
- C. Dexamethasone 8 mg daily — reducing hepatic inflammation and peritumoral edema directly decreases the capsular stretch mechanism
- D. Acetaminophen for general analgesic augmentation

171. A 66-year-old man with advanced hepatocellular carcinoma on hospice requires opioid therapy. He has Child-Pugh C cirrhosis (bilirubin 15, INR 2.9). GFR is 72 mL/min (normal). He is started on morphine at a reduced oral dose. Why must the dose be reduced?

- A. Reduced first-pass metabolism in severe liver disease increases oral morphine bioavailability — more drug reaches systemic circulation at any given dose, effectively increasing exposure
- B. Morphine is entirely renally excreted and elevated bilirubin interferes with clearance
- C. Ascites dilutes the morphine in the bloodstream requiring higher initial doses
- D. Morphine binds to bilirubin creating toxic conjugates causing additional liver damage

172. A hospice bereavement coordinator contacts the 68-year-old wife of a patient who died six months ago. She has returned to church, book club, and socializing. She still cries daily and reaches for her husband in bed. She asks, "Shouldn't I be over this?" Which response is most appropriate?

- A. "Six months is long — I'd recommend grief counseling because daily crying is concerning."
- B. "What you describe is completely normal grief. There is no timeline. Crying daily and missing him deeply at six months is expected. Your return to activities shows healthy adaptation — not that you should be 'over it.'"
- C. "Daily crying suggests developing prolonged grief disorder requiring evaluation."
- D. "Stay busy and avoid thinking about him to speed recovery."

173. A 60-year-old man with advanced colon cancer on hospice has been comfortable. He develops new confusion, nausea, constipation, and polyuria. Corrected calcium is 14.9 mg/dL. His family attributed symptoms to disease progression. Which is the most important clinical implication?

- A. The hypercalcemia is incidental and unrelated to symptoms
- B. The calcium level is mildly elevated and will self-correct
- C. Hypercalcemia treatment is categorically prohibited in hospice
- D. The hypercalcemia explains multiple symptoms simultaneously and represents a potentially reversible cause of suffering — treating it (if consistent with goals) could improve confusion, nausea, constipation, and polyuria at once

174. A 57-year-old woman with advanced cervical cancer on hospice has severe perineal and rectal pain from sacral nerve root invasion. Her pain specialist recommends a ganglion impar block. Which anatomic target and indication are correct?

- A. The ganglion impar is at T12-L1 for upper abdominal pain
- B. The ganglion impar is a cervical ganglion for upper extremity pain
- C. The ganglion impar is a solitary retroperitoneal ganglion at the sacrococcygeal junction transmitting visceral pain from the perineum, rectum, anus, and vulva — the targeted block for perineal cancer pain
- D. The ganglion impar is in the lumbar plexus for lower extremity neuropathic pain

175. A hospice program's volunteer utilization is documented at 4.0% of total patient care hours. Under Medicare Conditions of Participation, which is the regulatory significance?

- A. The program is compliant — the Medicare minimum is 3%
- B. The program exceeds requirements because there is no volunteer minimum
- C. Volunteer utilization is recommended but not regulatory
- D. The program is below the 5% Medicare minimum and must increase volunteer services

176. A 71-year-old man with advanced prostate cancer on hospice develops acute-onset back pain, bilateral weakness, and urinary retention. MRI shows single-level epidural cord compression at T10. Pre-event ECOG 1, expected survival 6 months. Based on Patchell trial evidence, which treatment offers the best outcome?

- A. Radiation alone as universal standard for all MSCC
- B. Surgical decompression followed by radiation — superior to radiation alone for single-level compression in patients with good ECOG and expected survival >3 months
- C. Corticosteroids alone as definitive management
- D. Comfort measures only because neurologic recovery is impossible once deficits appear

177. A 65-year-old woman with advanced ovarian cancer on hospice develops severe epigastric pain from pancreatic invasion radiating to the back. She is on high-dose opioids with persistent pain. Her pain specialist recommends celiac plexus neurolysis. Which statement is most accurate?

- A. The procedure should only be considered as a last resort after all other options fail
- B. Pain relief lasts only 48 hours and must be repeated weekly
- C. Celiac plexus neurolysis is contraindicated in patients already on opioids
- D. Celiac plexus neurolysis achieves significant relief in 70–90% of pancreatic cancer patients, substantially reduces opioid requirements, and evidence supports early consideration

178. A 74-year-old man with end-stage COPD is dying at home. His breathing has become agonal — gasping breaths every 30–40 seconds. His wife asks, "Is he suffering?" Which response is most accurate?

- A. "He is struggling to breathe and needs increased medications immediately."
- B. "These are seizures requiring anticonvulsant treatment."
- C. "The gasping is a brainstem reflex — not conscious effort. Your husband is not aware of these movements and is not suffering. This is normal and expected in the final stage of dying."
- D. "We should call 911 because agonal breathing indicates a cardiac emergency."

179. A 60-year-old woman with advanced breast cancer on hospice asks her hospice physician about medical aid in dying. She is in a state where MAID is legal. Her pain is controlled, she is not depressed, and she wants "control over timing." Which initial response is most appropriate?

- A. Explore what drives her request more deeply, assess for depression thoroughly, ensure she understands legal requirements, and either participate or refer to a willing provider if the physician has conscientious objection
- B. Provide the prescription immediately since she meets criteria
- C. Refuse to discuss MAID because it conflicts with the physician's beliefs
- D. Inform her MAID is unavailable to hospice patients

180. A 73-year-old man with advanced lung cancer on hospice has been on morphine and gabapentin 600 mg TID. His confusion and ataxia have worsened over a week. Creatinine rose from 1.1 to 3.2 mg/dL. Both medications are affected by renal decline. Which requires the MOST urgent dose adjustment?

- A. Morphine is the sole priority because opioid toxicity always supersedes all other concerns

B. Gabapentin — entirely renally excreted, it accumulates most rapidly with declining GFR, causing dose-dependent sedation, confusion, and ataxia. While morphine also warrants attention, gabapentin's exclusively renal clearance makes its adjustment most urgent.

C. Both require identical urgency with no priority distinction

D. Neither is significantly affected by renal impairment

181. A 72-year-old man with advanced heart failure on hospice has been declining. His wife reports that yesterday he was suddenly alert, ate a full meal, and engaged in conversation for the first time in weeks. Today he is unresponsive again. This phenomenon is best described as which of the following?

A. Evidence of recovery requiring hospital transfer

B. Medication interaction causing temporary alertness

C. Resolution of a concurrent infection

D. A terminal rally — a transient period of unexpected improvement hours to days before death, not indicating recovery, typically followed by rapid decline

182. A 62-year-old woman with advanced ovarian cancer on hospice develops a new pathologic fracture of her right humerus. ECOG 2, expected survival 4 months. Which management is most appropriate?

A. Conservative management with sling and increased opioids as definitive treatment

B. Palliative radiation alone without surgical stabilization

C. Surgical fixation followed by palliative radiation — restoring function and preventing complications of a non-healing pathologic fracture in a patient with adequate performance status

D. Amputation to eliminate the pain source

183. A hospice interdisciplinary team reviews the care plan for a newly enrolled 78-year-old man with advanced heart failure. Medicare Conditions of Participation require the IDT to include, at minimum, which core members?

A. A physician, a registered nurse, a social worker, and a pastoral or other counselor

B. A physician, a registered nurse, a physical therapist, and a pharmacist

- C. A physician, a nurse practitioner, an occupational therapist, and a dietitian
- D. A physician, a registered nurse, and a chaplain only

184. A 58-year-old man with advanced esophageal cancer has complete dysphagia. He is on morphine SR 90 mg every 12 hours (180 mg/day oral). The team converts to SC hydromorphone infusion. Step 1:  $180 \div 3 = 60$  mg parenteral morphine. Step 2:  $60/10 \times 1.5 = 9$  mg parenteral hydromorphone. Step 3: 25% reduction:  $9 \times 0.75 = 6.75$  mg/day. What is the hourly rate?

- A. 0.56 mg/hour (no reduction applied)
- B. Approximately 0.28 mg/hour ( $6.75 \div 24$ ) — the correct final calculation
- C. 1.12 mg/hour (incorrect conversion)
- D. 0.14 mg/hour (double reduction applied in error)

185. A 70-year-old man with advanced lung cancer on hospice is being transitioned from IV hydromorphone 0.5 mg/hour (12 mg/24 hours IV) to oral hydromorphone. Using the 5:1 parenteral-to-oral ratio for hydromorphone, what is the correct daily oral dose?

- A. 12 mg oral per day (incorrect 1:1 conversion)
- B. 36 mg oral per day (incorrect 3:1 ratio)
- C. 24 mg oral per day (incorrect 2:1 ratio)
- D. 60 mg oral per day ( $12 \times 5 = 60$  mg, using the correct 5:1 ratio)

186. A palliative care team cares for a Hindu patient nearing death. The patient's wife mentions cultural preferences for post-death care. Which practice is most consistent with Hindu tradition?

- A. Immediate embalming with multi-day visitation before burial
- B. The body should not be left unattended, with burial within 24 hours (shemira)
- C. Hindu tradition generally favors cremation, with family members potentially washing and preparing the body themselves and specific prayers and rituals before and during cremation
- D. Placement in a plain pine casket without cosmetic preparation

187. A 64-year-old man with advanced colon cancer on hospice has been on warfarin for atrial fibrillation. Prognosis 2 weeks. No history of stroke. Which anticoagulation management is most appropriate?

- A. Discontinue warfarin — the absolute risk reduction over 2 weeks is negligible while bleeding risk continues and monitoring burden is unjustified by the minimal expected benefit
- B. Continue warfarin because AF requires lifelong anticoagulation
- C. Switch to a direct oral anticoagulant for easier monitoring
- D. Increase warfarin dose for enhanced stroke protection

188. A 57-year-old woman with advanced sarcoma on hospice is on high-dose opioids (OME 600 mg/day) with persistent pain and side effects. Her specialist recommends methadone rotation. Which unique property requires specific monitoring before initiation?

- A. Direct hepatotoxicity requiring weekly LFT monitoring
- B. QTc prolongation with risk of torsades de pointes — requiring ECG at baseline, after stabilization, and periodically during therapy; the only commonly used opioid with this specific cardiac risk
- C. Severe thrombocytopenia requiring CBC monitoring every 48 hours
- D. Complete absence of respiratory depression making it the safest opioid

189. A 71-year-old woman with advanced pancreatic cancer on hospice has refractory pelvic pain. Her specialist recommends an intrathecal pump. Using the standard 300:1 oral-to-intrathecal ratio, her current OME of 600 mg converts to approximately how much intrathecal morphine daily?

- A. 60 mg intrathecal per day (incorrect 10:1 ratio)
- B. 20 mg intrathecal per day (incorrect 30:1 ratio)
- C. 6 mg intrathecal per day (incorrect 100:1 ratio)
- D. Approximately 2 mg intrathecal morphine per day ( $600 \div 300 = 2$  mg — using the correct 300:1 ratio)

190. A hospice physician reviews Medicare bereavement requirements. For how long must hospice programs provide bereavement support after the patient's death?

- A. Bereavement services end on the day of death
- B. A single contact at 30 days is the only requirement
- C. At least 13 months — including periodic contacts, memorial events, support groups, and counseling referrals when indicated
- D. Bereavement is recommended but not required under Medicare

191. A 62-year-old man with advanced gastric cancer on hospice develops acute pulmonary edema. He is on morphine and furosemide 40 mg daily. Exam shows bilateral crackles, JVD, SpO<sub>2</sub> 79%. Comfort measures, DNR. Which is most appropriate?

- A. Morphine bolus for dyspnea AND increased furosemide to 80 mg IV for volume overload — addressing both the symptom and its treatable cause is consistent with comfort goals
- B. Continue current medications unchanged
- C. Morphine alone without diuretic adjustment
- D. Hospital transfer for BiPAP despite comfort measures

192. A 65-year-old woman with advanced breast cancer on hospice has been on morphine. She develops opioid-induced pruritus after a dose increase. Bilirubin and renal function normal. After failing antihistamines, which opioid rotation best addresses the pruritus?

- A. Codeine for lower histamine-releasing potential
- B. Fentanyl — minimal histamine-releasing properties make it the best rotation choice when pruritus is the indication
- C. Hydromorphone, which has identical histamine release to morphine
- D. Meperidine, which was recommended for opioid-induced pruritus historically

193. A 74-year-old man with end-stage heart failure on hospice has an ICD. He agrees to deactivate shocks but maintain pacing. Which statement is most accurate about this request?

- A. Shocks and pacing cannot be independently controlled
- B. Deactivating shocks automatically disables pacing

C. Maintaining pacing is incompatible with hospice enrollment

D. Shock and pacing functions can be independently programmed — deactivating shocks while maintaining pacing is standard practice, preventing painful shocks while preserving hemodynamically beneficial pacing

194. A 60-year-old man with advanced lung cancer on hospice develops cancer-related fatigue. Hemoglobin 10.9, thyroid normal, depression screening negative. Non-pharmacologic measures implemented. Which medication has the strongest evidence?

A. Modafinil for wakefulness promotion

B. Dexamethasone for long-term energy improvement

C. Methylphenidate 5 mg morning and noon — CNS stimulant with rapid onset and strongest evidence for cancer-related fatigue

D. Erythropoiesis-stimulating agent to correct mild anemia

195. A 67-year-old woman with advanced ovarian cancer on hospice asks, "I want to go to my granddaughter's recital next week. Can I?" The nurse's response should reflect which core principle?

A. "Absolutely — we'll plan medications, arrange equipment, and ensure your comfort. Living fully on hospice is what we support."

B. "Travel is too risky for your condition."

C. "You'll need written medical clearance first."

D. "Events may interfere with your nursing schedule."

196. A hospice nurse is educating a patient's family about the death rattle. Glycopyrrolate was administered 2 hours ago but the gurgling persists. Which explanation is most accurate?

A. Glycopyrrolate has failed and deep suctioning should be performed

B. Anticholinergics reduce NEW secretion production but cannot dry EXISTING pooled secretions — the noise persists until secretions are reabsorbed or drain by gravity. The patient is most likely unaware of the sound.

C. The rattle indicates aspiration pneumonia requiring antibiotics

D. A different anticholinergic must be substituted because glycopyrrolate is ineffective

197. A 63-year-old woman with advanced lung cancer on hospice tells her hospice chaplain, "I don't believe in God. I don't need spiritual care." Which response is most appropriate?

A. "I'll note that you declined and won't visit again."

B. "Everyone needs spiritual care — let me explain why."

C. "Perhaps reconsider your beliefs given your situation."

D. "Spiritual care addresses meaning, purpose, and legacy — not just religion. I'm here to support whatever matters to you, without imposing beliefs. Would it help to talk about what gives your life meaning?"

198. A palliative care physician is meeting with the family of a 70-year-old man with end-stage heart failure in the ICU. The son becomes angry: "You're giving up on my father!" Based on communication best practices, which response is most effective?

A. "Let me show you the lab results so you understand why treatment is futile."

B. "You're welcome to seek a second opinion."

C. "I can hear how frightened you are, and that makes complete sense — you love your father. Can you tell me what worries you most? I want to make sure we're on the same page."

D. "The medical facts are clear and we need to accept reality."

199. A 56-year-old woman with advanced cervical cancer on hospice has severe neuropathic pain — burning, shooting, electric-shock-like — from sacral nerve root invasion. Her opioid provides partial relief. Which adjuvant class should be added?

A. A gabapentinoid (gabapentin or pregabalin) or SNRI (duloxetine) — first-line adjuvant classes for neuropathic pain targeting voltage-gated calcium channels or descending inhibitory pathways

B. An NSAID for inflammatory pain at the tumor-nerve interface

C. A benzodiazepine for the anxiety amplifying pain perception

D. An acetaminophen-codeine combination for enhanced general analgesia

200. A 72-year-old man with advanced COPD on hospice develops acute dyspnea. SpO<sub>2</sub> is 76%, RR 34, severe anxiety. POLST: comfort measures only. Which is the most appropriate immediate intervention?

- A. Call 911 for emergency intubation
- B. Morphine bolus for dyspnea, midazolam for anxiety, increase O<sub>2</sub> (he IS hypoxemic), position upright, fan to face — comprehensive symptom management consistent with comfort goals
- C. Withhold opioids due to respiratory depression concern
- D. Oxygen only and observe for 60 minutes

201. A 68-year-old man with advanced prostate cancer on hospice has been on morphine. He develops confusion, hallucinations, and myoclonus. His creatinine has risen from 1.0 to 3.7 mg/dL. The most likely cause and appropriate management are which of the following?

- A. Delirium from brain metastases requiring whole-brain radiation
- B. Serotonin syndrome from a drug interaction
- C. New psychiatric disorder requiring haloperidol
- D. M6G accumulation from declining renal function — rotate to fentanyl, which has no active metabolites

202. A hospice program reviews its compliance data. Volunteer utilization is 3.5% of total care hours. Under Medicare COP, which is the regulatory significance?

- A. The program is compliant with no minimum volunteer requirement
- B. The program exceeds the 2% Medicare minimum
- C. The program is below the 5% Medicare minimum and must increase volunteer services to achieve compliance
- D. Volunteer requirements apply only to non-profit hospice organizations

203. A 74-year-old woman with advanced dementia (FAST 7D) on hospice develops fever and tachypnea — her fifth aspiration pneumonia in 14 months. Each prior episode was treated with antibiotics. The decision about antibiotic therapy should be most strongly influenced by which of the following?

- A. The specific organism on sputum culture
- B. Whether the patient's temperature exceeds 39.5°C
- C. The cost of the antibiotic relative to the hospice per diem
- D. Whether the recurrent pattern reflects the natural trajectory — each course treats the infection but does not change the aspiration risk — and whether continued treatment serves comfort or prolongs dying

204. A 60-year-old man with advanced melanoma on pembrolizumab develops severe diarrhea (12 stools/day), bloody stool, and cramping. Stool studies negative. Began 10 days post-infusion. Which is the most appropriate treatment?

- A. Loperamide alone as the sole intervention
- B. Systemic corticosteroids (prednisone 1–2 mg/kg/day) for immune-related colitis, immunotherapy held, infliximab considered if steroid-refractory
- C. Empiric metronidazole for undetected *C. difficile*
- D. Octreotide for secretory diarrhea management

205. A 65-year-old woman with advanced lung cancer on hospice has been on opioids for pain. She develops severe nausea that worsens with position changes and head movement but is unrelated to meals. Based on the positional pattern, this is most likely mediated through which pathway?

- A. The chemoreceptor trigger zone via D2 receptors
- B. The GI tract via 5-HT3 receptors from gastroparesis
- C. Higher cortical centers via GABA receptors from anticipatory triggers
- D. The vestibular system via H1 and muscarinic receptors — nausea worsened by movement is the hallmark of vestibular-mediated emesis, targeted by meclizine or scopolamine

206. A 73-year-old man with advanced heart failure on hospice has been on furosemide 80 mg daily. His dyspnea has worsened with new crackles, JVD, and edema. The physician considers adding metolazone. The pharmacologic rationale is which of the following?

- A. Metolazone has direct bronchodilating properties

- B. Metolazone replaces furosemide as a more potent agent
- C. Sequential nephron blockade — metolazone blocks distal tubular sodium reabsorption, overcoming the compensatory reabsorption that limits furosemide alone
- D. Metolazone provides positive inotropic cardiac support

207. A 58-year-old woman with advanced sarcoma on hospice has been on morphine SR 120 mg every 12 hours. She develops complete dysphagia. Total oral morphine is 240 mg/day. Converting to SC morphine using the 3:1 ratio, what is the correct infusion rate?

- A. Approximately 3.3 mg/hour ( $240 \div 3 = 80 \text{ mg SC/day} \div 24 = 3.3 \text{ mg/hour}$ )
- B. 10 mg/hour (no conversion applied)
- C. 1.7 mg/hour (incorrect 6:1 ratio)
- D. 5 mg/hour (incorrect 2:1 ratio)

208. A 66-year-old man with end-stage liver disease on hospice is taking lactulose for encephalopathy. The pharmacy questions coverage. The physician's most accurate response is which of the following?

- A. Lactulose must be discontinued as a disease-directed medication
- B. Lactulose directly relieves distressing symptoms (confusion, agitation) related to the terminal diagnosis and is covered under the hospice per diem — clinical purpose determines coverage, not drug classification
- C. The patient must pay out of pocket because lactulose is not on the hospice formulary
- D. Lactulose can continue only with the medical director's written approval for each refill

209. A 62-year-old woman with advanced breast cancer on hospice tells her physician, "I feel like a burden to my family. They'd be better off without me." PHQ-9 is 19. She denies suicidal ideation. Which is the most important clinical implication?

- A. This is a normal grief expression requiring no intervention
- B. Her statement accurately reflects her family situation
- C. She needs social work referral for caregiver support without depression treatment

D. Perceived burdensomeness is strongly associated with desire for hastened death and is a red flag for depression — her PHQ-9 of 19 confirms moderately severe depression requiring treatment

210. A palliative care physician is completing a death certificate for a 70-year-old man who died of respiratory failure from metastatic colon cancer. The physician lists Line a: "Cardiac arrest." Why is this entry problematic?

- A. "Cardiac arrest" is only appropriate when a cardiologist witnesses the death
- B. "Cardiac arrest" must be accompanied by the specific ECG terminal rhythm
- C. "Cardiac arrest" is the mechanism common to all deaths and provides no disease-specific information — the certificate should list the actual disease (respiratory failure, Line a; metastatic colon cancer, Line b)
- D. "Cardiac arrest" is acceptable for all deaths and requires no correction

211. A hospice nurse is caring for a 75-year-old woman with end-stage heart failure who is actively dying. Her daughter asks, "Can she still hear us?" Based on current understanding, which response is most accurate?

- A. "We believe hearing may be the last sense preserved. While we can't know with certainty, I encourage you to keep talking to her, holding her hand, and saying what you need to say."
- B. "Once unresponsive, all sensory function has ceased."
- C. "She can hear everything, so be careful what you say."
- D. "Her hearing has been replaced by visual hallucinations."

212. A 64-year-old man with advanced gastric cancer on hospice has been on opioids. He develops persistent nausea — constant, not positional, not meal-related, gradually improving over 3 days. This pattern is most consistent with which mechanism?

- A. Gastroparesis requiring indefinite prokinetic therapy
- B. CTZ stimulation from the opioid — tolerance develops within 3–7 days (explaining the improving trajectory), managed with a short course of haloperidol as a bridge
- C. Allergic reaction requiring immediate opioid discontinuation

D. Bowel obstruction requiring octreotide and anticholinergics

213. A 70-year-old man with advanced COPD on hospice has been having "good days and bad days." His wife asks whether the good days mean he is recovering. Which explanation is most accurate?

A. His good days indicate his medications are working and he may be discharged from hospice

B. The fluctuating pattern requires hospital transfer for further evaluation

C. The good days represent a new diagnosis superimposed on his COPD

D. Fluctuating function — good and bad days within an overall declining trajectory — is the characteristic organ failure pattern. Good days do not indicate recovery but rather the natural variability of COPD.

214. A 73-year-old woman with advanced breast cancer on hospice develops new severe pain from a large lytic lesion in her right femoral neck with 55% cortical destruction. She is ambulatory with a walker, ECOG 2, expected survival 5 months. In addition to pain management and radiation, which intervention is most strongly indicated?

A. Strict bed rest until the lesion heals spontaneously

B. Application of a hip brace for external support

C. Prophylactic surgical fixation — a lytic lesion with >50% cortical destruction in a weight-bearing bone carries high fracture risk, and fixation prevents the catastrophic complication in a patient with adequate performance status

D. Systemic bisphosphonate therapy as the sole bone-targeted intervention

215. A 59-year-old woman with advanced ovarian cancer on hospice asks about MAID. She is in a legal state, pain controlled, not depressed, wants "control over timing." Which initial response is most appropriate?

A. Explore driving factors more deeply, assess for depression thoroughly, ensure she understands legal requirements, and either participate or refer — comprehensive evaluation before facilitating the process

B. Provide the prescription immediately

C. Refuse discussion because it conflicts with the physician's beliefs

D. Inform her MAID is unavailable to hospice patients

216. A 66-year-old man with advanced colon cancer on hospice has been on morphine. He develops severe constipation despite senna 4 BID and PEG daily. No BM in 11 days. No impaction, no obstruction. The next step is which of the following?

A. High-fiber diet with increased fluids as definitive treatment

B. Methylnaltrexone 12 mg SC — a PAMORA blocking GI mu receptors without crossing the blood-brain barrier, indicated for OIC refractory to maximal conventional laxatives

C. Discontinue opioids entirely

D. Add docusate as the missing component

217. A 71-year-old woman with end-stage heart failure on hospice has been declining for two weeks. Yesterday she had a dramatic improvement — alert, eating, talking to family. Today she is unresponsive. This is best described as which of the following?

A. Evidence of recovery requiring immediate hospital evaluation

B. Medication interaction causing temporary alertness

C. Resolution of concurrent infection

D. A terminal rally — transient improvement hours to days before death, not indicating recovery, typically followed by rapid decline

218. A 62-year-old man with advanced lung cancer on hospice develops seizures from brain metastases. His complex medication list includes opioids, corticosteroids, and antiemetics. Which anticonvulsant is most appropriate for maintenance?

A. Phenytoin for established efficacy

B. Carbamazepine for additional neuropathic pain benefit

C. Levetiracetam — minimal hepatic metabolism, few drug interactions, IV and liquid formulations available, ideal for palliative care polypharmacy

D. Valproic acid for broad-spectrum activity

219. A 68-year-old man with advanced gastric cancer on hospice tells his nurse, "I want to go to my grandson's wedding. Is that possible?" Which response best reflects hospice philosophy?

- A. "Absolutely — we'll plan your medications, arrange equipment, and ensure your comfort for the trip. Living fully is exactly what hospice supports."
- B. "It's too risky to travel with your condition."
- C. "You need written physician clearance before leaving home."
- D. "Events may interfere with nursing visit schedules."

220. A 60-year-old woman with advanced cervical cancer on hospice has bilateral ureteral obstruction. Creatinine has risen to 5.8 mg/dL. She is confused and nauseated. The oncologist proposes nephrostomy tubes. The palliative care team should guide this decision primarily by which consideration?

- A. Technical feasibility of the procedure
- B. The patient's values, goals, and understanding that nephrostomy extends life but does not treat the cancer — she must weigh this against living with tubes for remaining time
- C. Insurance coverage under the hospice benefit
- D. The creatinine level, because  $>5$  mandates intervention

221. A hospice program reviews its data. 40% of patients die within 7 days of enrollment, median LOS 12 days. This indicates which of the following?

- A. The program enrolls patients too early
- B. Symptom management is overly aggressive
- C. Referral patterns meet benchmarks
- D. Late referrals deny patients the full benefit of hospice services — symptom management, psychosocial support, spiritual care, and caregiver preparation require time

222. A 73-year-old man with advanced prostate cancer on hospice develops hypercalcemia (calcium 15.1 mg/dL) causing confusion, constipation, and polyuria. The decision about treatment should be guided by which of the following?

- A. The calcium level mandates treatment regardless of goals
- B. Medicare reimbursement determines whether treatment is offered
- C. The patient's goals — treating hypercalcemia may improve multiple symptoms if he wants relief; if goals are comfort-only and treatment would prolong dying, supportive management alone may be appropriate
- D. His oncologist must approve treatment before the hospice physician can proceed

223. A 65-year-old woman with advanced lung cancer on hospice has been on dexamethasone 8 mg daily for five weeks. She develops difficulty rising from chairs and climbing stairs. Neurologic exam is otherwise normal. This is most consistent with which of the following?

- A. Steroid-induced proximal myopathy — dose-dependent and duration-dependent, affecting hip and shoulder girdle muscles, distinguished from cord compression by proximal pattern without sensory changes
- B. Spinal cord compression requiring emergent MRI
- C. Brain metastasis progression
- D. Deconditioning that requires only physical therapy

224. A 74-year-old man with end-stage COPD on hospice develops loud death rattle. Glycopyrrolate given 3 hours ago. Rattle persists. His wife is distressed. Which explanation is most appropriate?

- A. Glycopyrrolate failed — try deep suctioning
- B. Anticholinergics prevent NEW secretions but cannot dry EXISTING pooled secretions — noise persists until reabsorbed or drained by repositioning. The patient is likely unaware of the sound.
- C. The rattle indicates pneumonia requiring antibiotics
- D. A different anticholinergic must be substituted

225. A hospice physician reviews a death certificate listing "Cardiac arrest" as cause of death. This is problematic because which of the following?

- A. It's only appropriate when witnessed by a cardiologist

B. It must include the specific terminal rhythm

C. It's acceptable for all deaths

D. "Cardiac arrest" is the mechanism common to all deaths — it provides no disease-specific information, and the certificate should specify the actual disease process

226. A 59-year-old man with advanced gastric cancer on hospice has new-onset diabetes from dexamethasone. Glucose consistently  $>350$ . Symptomatic with polyuria, thirst, blurred vision. Treatment is justified because of which of the following?

A. Strict HbA1c  $<7\%$  is required to prevent microvascular complications

B. Insulin is excluded from the hospice benefit

C. Treatment is warranted for symptom relief — polyuria, thirst, and blurred vision are caused by hyperglycemia and significantly impair comfort

D. All glucose  $>300$  requires insulin per Medicare regulation

227. A 62-year-old woman with advanced breast cancer on hospice is on morphine SR 60 mg every 12 hours. She develops complete dysphagia. Total oral morphine is 120 mg/day. Converting to SC using the 3:1 ratio, what is the correct infusion rate?

A. Approximately 1.7 mg/hour ( $120 \div 3 = 40$  mg SC/day  $\div 24 \approx 1.7$  mg/hour)

B. 5 mg/hour (no conversion applied)

C. 0.83 mg/hour (incorrect 6:1 ratio)

D. 2.5 mg/hour (incorrect 2:1 ratio)

228. A hospice social worker meets the 45-year-old wife of a patient who died one week ago. She reports functioning normally — cooking, managing finances, making arrangements. She hasn't cried and says, "I feel numb. Everyone expects me to be falling apart." This is most consistent with which of the following?

A. Pathologic absent grief requiring immediate psychiatric referral

B. A normal initial bereavement response — numbness, functional autopilot, and disbelief are common in the first days to weeks and do not indicate pathology

- C. Evidence of poor relationship with the deceased
- D. Dissociative disorder triggered by the death

229. A 70-year-old man with advanced COPD on hospice is experiencing worsening dyspnea. Morphine was given 30 minutes ago with minimal improvement. SpO<sub>2</sub> 91%. Prominent anxiety with accessory muscle use. Which is the most appropriate next step?

- A. Increase oxygen to 5 L/min for better saturation
- B. Switch to hydromorphone for superior dyspnea control
- C. Nebulized albuterol as sole intervention
- D. Add lorazepam 0.5–1 mg SL for the anxiety-breathlessness cycle — when opioid alone fails and anxiety is prominent, benzodiazepine addresses the component opioid cannot

230. A 72-year-old man with advanced heart failure on hospice develops worsening dyspnea. He is on morphine and furosemide 40 mg daily. Exam: bilateral crackles, JVD, 4 kg weight gain, SpO<sub>2</sub> 82%. Comfort measures, DNR. Most appropriate management is which of the following?

- A. Continue current medications unchanged
- B. Morphine alone without diuretic adjustment
- C. Morphine bolus AND furosemide increase to 80 mg IV — addressing both symptom (morphine) and treatable cause (diuresis for volume overload) consistent with comfort goals
- D. Hospital transfer for BiPAP

231. A 64-year-old woman with advanced ovarian cancer on hospice has severe pelvic pain from tumor invasion of sacral nerves. Her specialist recommends a ganglion impar block. The target and indication are which of the following?

- A. The ganglion impar is at the sacrococcygeal junction, transmitting visceral pain from the perineum, rectum, anus, and vulva — the precise target for her perineal cancer pain
- B. The ganglion impar is at T12-L1 for upper abdominal pain
- C. The ganglion impar is a cervical ganglion for upper extremity pain

D. The ganglion impar is in the lumbar plexus for leg pain

232. A hospice program's volunteer utilization is 4.2%. Under Medicare COP, which is the significance?

A. Compliant — minimum is 3%

B. Below the 5% Medicare minimum, requiring increased volunteer services

C. Exceeds requirements — no minimum exists

D. Volunteer utilization is recommended but not mandatory

233. A 73-year-old man with advanced lung cancer on hospice has been on morphine. He develops a seizure-like episode. He is on morphine SR 90 mg every 12 hours. Creatinine was normal one week ago. The most important initial consideration is which of the following?

A. New brain metastases since lung cancer commonly metastasizes to the brain

B. Epilepsy unrelated to his treatment requiring lifelong anticonvulsant therapy

C. Vasovagal event from dehydration mimicking seizure

D. Opioid neurotoxicity — check renal function for possible M6G accumulation, and consider fentanyl rotation if GFR has declined

234. A 65-year-old man with advanced pancreatic cancer on hospice has celiac plexus neurolysis recommended for refractory epigastric pain. Which statement is most accurate?

A. Celiac plexus neurolysis should only be a last resort after all other options fail

B. Relief lasts only 48 hours requiring weekly repetition

C. Celiac plexus neurolysis achieves relief in 70–90% of pancreatic cancer patients, reduces opioid requirements, and evidence supports early consideration

D. The procedure is contraindicated in patients on opioid therapy

235. A 58-year-old woman with advanced breast cancer on hospice has been on morphine. She develops opioid-induced pruritus after a dose increase. Bilirubin and renal function normal. After failing antihistamines, the best opioid rotation is which of the following?

- A. Fentanyl — minimal histamine-releasing properties make it the preferred choice when pruritus is the rotation indication
- B. Codeine for lower histamine release than morphine
- C. Hydromorphone, which has identical histamine release to morphine
- D. Meperidine, historically recommended for pruritus

236. A 60-year-old man with advanced melanoma on nivolumab develops fatigue, constipation, cold intolerance, weight gain. TSH 58, free T4 undetectable. Management is which of the following?

- A. High-dose corticosteroids and permanent immunotherapy discontinuation
- B. Levothyroxine replacement — hypothyroidism from immune-related thyroiditis is managed with hormone replacement and typically does not require stopping immunotherapy
- C. Surgical thyroidectomy
- D. Radioactive iodine ablation

237. A 73-year-old man with advanced prostate cancer on hospice has an intrathecal pump recommended. His OME is 900 mg/day. Using the 300:1 ratio, the daily intrathecal dose is approximately which of the following?

- A. 90 mg (incorrect 10:1 ratio)
- B. 30 mg (incorrect 30:1 ratio)
- C. 9 mg (incorrect 100:1 ratio)
- D. 3 mg intrathecal morphine per day ( $900 \div 300 = 3$  mg — the correct calculation)

238. A hospice bereavement coordinator contacts the 52-year-old widow of a patient who died 15 months ago. She has persistent yearning, avoidance of reminders, functional impairment, and cannot accept the death. She meets DSM-5-TR criteria for prolonged grief disorder. Which psychotherapy has the strongest evidence?

- A. Standard CBT for depression
- B. Group supportive therapy as primary treatment

C. Complicated Grief Treatment (CGT) — 16-session manualized therapy with 50–70% response rates in randomized trials

D. Psychoanalytic therapy exploring attachment dynamics

239. A 67-year-old woman with advanced ovarian cancer on hospice tells her physician, "I keep asking what the point of my life was. Did any of it matter?" She is not depressed. This existential questioning is best addressed through which of the following?

A. Spiritual care — dignity therapy, narrative life review, and exploration of meaning and legacy, which are evidence-based interventions designed for existential suffering at end of life

B. Anxiolytic medication to reduce her existential anxiety

C. Psychiatry referral for existential depression requiring antidepressants

D. Dismissing the concerns as philosophical with no clinical significance

240. A 72-year-old man with advanced COPD on hospice has been on morphine and gabapentin 600 mg TID. Over one week, his confusion and ataxia worsen. Creatinine rose from 1.0 to 3.1. Which medication requires the MOST urgent adjustment?

A. Morphine is the sole priority

B. Gabapentin — entirely renally excreted, it accumulates most rapidly with declining GFR, causing dose-dependent sedation, confusion, and ataxia; while morphine also requires attention, gabapentin's exclusively renal clearance makes adjustment most urgent

C. Both require identical urgency

D. Neither is affected by renal function

## Practice Exam 4: Answer Key and Full Answer Explanations

1. C — The oral-to-parenteral ratio for morphine is 3:1, meaning 3 mg oral = 1 mg IV. To convert IV to oral, multiply by 3:  $12 \text{ mg IV} \times 3 = 36 \text{ mg oral morphine per 24 hours}$ . This reflects morphine's approximately 30% oral bioavailability due to first-pass hepatic metabolism — three times more oral morphine is needed to achieve the same systemic effect as a given IV dose.

2. A — Medicare requires hospice certification narratives to include specific, individualized clinical findings that support the six-month prognosis: functional status (PPS, ECOG), disease-specific prognostic indicators, relevant laboratory values, comorbid conditions, and the clinical trajectory. A generic statement ("Patient has lung cancer. Prognosis less than 6 months") provides none of this and is the leading cause of claim denials and audit findings.

3. D — This patient has a multi-month prognosis, preserved quality of life, and a symptomatic infection causing distress (dysuria, pain, fever). Oral antibiotics will relieve these symptoms and are consistent with comfort goals. The decision is based on whether the antibiotic serves the patient's comfort — not on a blanket policy for or against antibiotics in hospice.

4. B — Using the 3:1 oral-to-parenteral ratio:  $300 \text{ mg oral} \div 3 = 100 \text{ mg SC per 24 hours}$ . As a continuous infusion:  $100 \div 24 = \text{approximately } 4.2 \text{ mg/hour}$ . No cross-tolerance reduction is needed because this is the same drug by a different route, not a rotation to a different opioid.

5. A — The communication priority is responding to emotion before providing clinical information. She is experiencing acute grief and fear about her children. In this moment, medical information cannot be heard or processed. The physician should acknowledge her pain, validate her concern, and allow silence before any discussion of next steps.

6. D — A strong magnet placed over the ICD generator suspends shock delivery for as long as it remains in position. Taping it securely provides continuous suspension until the device representative arrives for permanent reprogramming. The magnet does not reprogram the device — it provides temporary suspension only. This is the correct emergency intervention when the device representative is unavailable.

7. C — Projectile vomiting with headache and papilledema indicates increased intracranial pressure directly stimulating the vomiting center. Dexamethasone 16 mg IV reduces vasogenic edema surrounding the brain metastases, directly lowering ICP and addressing the mechanism. Ondansetron and metoclopramide do not address ICP-mediated emesis.

8. B — Anticholinergic agents (glycopyrrolate, atropine, scopolamine) reduce NEW secretion production by blocking muscarinic receptors but cannot dry EXISTING accumulated secretions. The noise from previously pooled secretions persists until reabsorbed or drained by gravity with repositioning. The family should be reassured that the patient is typically unaware of the sound.

9. A — The nephrostomy decision must be guided by the patient's values and informed understanding of what the procedure would accomplish. Nephrostomy tubes relieve the obstruction and extend life but do not treat the cancer. The patient must weigh this extension against the burden of living with tubes and progressive cancer — a goals-of-care conversation, not a technical decision.

10. D — Beginning with the third benefit period (first 60-day period), Medicare requires a face-to-face encounter with a hospice physician or nurse practitioner within 30 days before the period starts. This requirement ensures that patients remaining on hospice beyond six months are personally reassessed. It was not required during the first two 90-day periods.

11. B — Non-pitting edema with thickened skin, woody texture, and positive Stemmer's sign are pathognomonic for lymphedema. In a breast cancer patient, this results from lymphatic obstruction by tumor or prior surgical dissection. Lymphedema does NOT respond to diuretics — furosemide removes intravascular fluid but cannot address protein-rich interstitial fluid from impaired lymphatic drainage. Treatment requires compression therapy and manual lymphatic drainage.

12. C — Topical metronidazole 0.75% gel specifically targets the anaerobic bacteria colonizing the wound surface that produce the characteristic foul odor. The improvement is often dramatic — within 24–48 hours — transforming the patient's social experience and enabling family presence that was previously impossible.

13. A — A terminal rally is a transient, poorly understood period of unexpected improvement that may occur hours to days before death. Vital signs remain abnormal and the trajectory is unchanged. Families should be gently informed that this does not indicate recovery and is typically followed by rapid decline, but it may be a precious final opportunity for connection.

14. D — This patient has failed optimized conventional laxative therapy (maximum-dose stimulant plus osmotic agent). The next step is a PAMORA — methylnaltrexone blocks mu receptors in the GI tract without crossing the blood-brain barrier, reversing peripheral opioid-induced constipation without affecting central analgesia. PAMORAs are specifically indicated for OIC refractory to conventional laxatives.

15. B — Tolerance to opioid-induced constipation does NOT develop — it is the only major opioid side effect for which tolerance never occurs. If the prophylactic laxative is stopped, constipation will return regardless of how long the patient has been on stable opioid therapy. This is the most important and most frequently tested laxative fact on the HPM exam.

16. A — The convergence of mottling extending to mid-thighs, absent radial pulses, anuria, mandibular breathing, and unresponsiveness represents advanced organ system failure consistent with active dying. When multiple end-of-life signs cluster, death is likely within hours to days. The family should be informed with compassion, comfort optimized, and family presence facilitated.

17. C — Albumin replacement is NOT routinely required for malignant ascites from peritoneal carcinomatosis. It is standard for cirrhotic portal hypertensive ascites, where post-paracentesis circulatory dysfunction is a specific hemodynamic concern. The pathophysiology of malignant ascites differs, and routine albumin replacement is unnecessary.

18. D — In severe hepatic impairment, first-pass metabolism of oral morphine decreases. Normally approximately 70% of oral morphine is metabolized during first passage through the liver. When hepatic function fails, more oral dose reaches systemic circulation, increasing bioavailability and effectively increasing drug exposure at any given prescribed dose.

19. B — DVT treatment in hospice should be individualized based on whether symptoms warrant intervention. This patient's pain and swelling are causing distress. LMWH can relieve these symptoms and is administered subcutaneously at home. The decision is guided by comfort goals, not a categorical prohibition on anticoagulation.

20. A — Clinician grief — sadness and emotional response to losing a patient with whom the physician had a meaningful relationship — is a normal, healthy response reflecting emotional engagement. It is not burnout, compassion fatigue, or a boundary violation. The ability to grieve patients is a sign of intact emotional capacity.

21. C — This patient meets all Patchell trial criteria: single-level compression (T9), good pre-event ECOG (1), and expected survival exceeding three months (7 months). Surgery plus radiation demonstrated superior neurologic outcomes to radiation alone. Despite current deficits, urgent surgical decompression offers the best chance of preserving or restoring function.

22. D — Multiple randomized trials demonstrate that a single fraction of 8 Gy provides pain relief equivalent to multi-fraction regimens for uncomplicated bone metastases, with response rates of 60–80%. Single-fraction treatment minimizes burden — one visit instead of 10–25. This is one of the most consistently tested radiation facts on the HPM exam.

23. B — Complicated Grief Treatment (CGT) is the most evidence-supported psychotherapy for prolonged grief disorder. It is a 16-session manualized treatment combining IPT, CBT, and motivational interviewing elements, with response rates of 50–70% in randomized trials — significantly exceeding standard IPT or antidepressant medication alone for PGD.

24. A — Existential questioning about meaning and purpose at end of life is a spiritual concern best addressed through evidence-based spiritual care interventions: dignity therapy, narrative life review, legacy work, and facilitated exploration of meaning. These are designed specifically for existential suffering. Prescribing anxiolytics medicalizes a fundamentally human experience.

25. C — Dexamethasone is a well-recognized cause of persistent hiccups, with a clear temporal relationship in this patient. Management involves dose reduction or corticosteroid switching, plus baclofen 5 mg TID for hiccup-specific treatment through GABA-B receptor agonism. This is one of the most commonly tested medication side effects in palliative care.

26. D — Uremic myoclonus is effectively managed with benzodiazepines (lorazepam or clonazepam) that suppress involuntary movements without anticonvulsant loading. Myoclonus is distinct from seizures — phenytoin loading is unnecessary and carries significant side effect risk. Lorazepam 0.5–1 mg SL every 6–8 hours provides symptomatic relief.

27. B — This patient has morphine neurotoxicity from M6G accumulation due to declining renal function (creatinine 0.9 to 3.5). Fentanyl is preferred in renal failure because it is metabolized by CYP3A4 to inactive norfentanyl — no active metabolites accumulate. Meperidine is never appropriate due to its neurotoxic metabolite normeperidine.

28. A — 42% of patients dying within 7 days and a median LOS of 11 days indicate late referrals. Patients are referred too close to death to benefit from the full range of hospice services — symptom management, psychosocial support, spiritual care, caregiver preparation, and advance care planning all require time to provide effectively.

29. C — Severe bloody diarrhea on ipilimumab with negative infectious workup is classic immune-related colitis. Treatment requires prompt systemic corticosteroids (prednisone 1–2 mg/kg/day), immunotherapy hold, and consideration of infliximab for steroid-refractory cases. Loperamide alone is insufficient for moderate-to-severe immune colitis.

30. D — This patient IS hypoxemic (SpO<sub>2</sub> 85%, below the 90% threshold). The evidence against supplemental oxygen applies to non-hypoxemic patients. In documented hypoxemia, supplemental oxygen may provide genuine dyspnea relief. The flow rate should be increased and titrated to comfort.

31. B — Sequential nephron blockade: metolazone blocks sodium reabsorption at the distal convoluted tubule while furosemide blocks it at the loop of Henle. This overcomes compensatory distal sodium reabsorption that limits furosemide's effectiveness alone (diuretic resistance). The combination produces synergistic natriuresis.

32. A — Lactulose directly relieves distressing symptoms of hepatic encephalopathy (confusion, agitation). The clinical purpose — symptom relief — determines hospice coverage, not the drug category. A medication that provides comfort related to the terminal diagnosis is a comfort medication regardless of its pharmacologic classification.

33. C — The comprehensive response to a MAID request includes deeper exploration of motivations, thorough depression assessment, confirmation of legal requirements, and either participation or referral. Even in legal states, immediate prescription is inappropriate — the request deserves thorough exploration to ensure all suffering has been addressed.

34. D — Nausea worsened by movement and position changes is the hallmark of vestibular-mediated emesis, transmitted through H<sub>1</sub> and muscarinic receptors. Meclizine (antihistamine) and scopolamine (anticholinergic) target these receptors. This positional pattern distinguishes vestibular nausea from CTZ, gastroparesis, and cortical mechanisms.

35. B — This response combines Support ("our team will be with you"), Knowledge ("we have effective medications — morphine for air hunger, medications for anxiety"), and Exploration ("what frightens you most?"). It addresses the patient's fear without offering false guarantees, provides factual reassurance, and opens dialogue about specific concerns.

36. A — Hepatic capsule pain results from distension of Glisson's capsule by expanding metastases. Dexamethasone directly reduces hepatic inflammation and peritumoral edema, decreasing capsular stretch. This is the most targeted non-opioid intervention for this specific pain mechanism.

37. D — Zoledronic acid inhibits osteoclast-mediated bone resorption, providing the most sustained calcium reduction. Onset is 24–48 hours, nadir at 4–7 days, duration 2–4 weeks. Calcitonin provides faster but transient bridge effect (tachyphylaxis within 48 hours). Furosemide-forced calciuresis is no longer recommended as primary therapy.

38. C — This response embodies the core hospice principle of living fully. The nurse actively facilitates meaningful activity by planning medications, arranging equipment, and ensuring comfort for travel. Hospice patients are not confined to their homes.

39. B — Postprandial nausea with early satiety and bloating without obstruction is classic gastroparesis from opioid-mediated delayed gastric emptying. Metoclopramide is ideal — combining antiemetic D2 antagonism with prokinetic 5-HT<sub>4</sub> agonism that directly improves gastric motility. Bowel obstruction must be excluded before prescribing.

40. A — Caregiver health directly impacts the patient's care plan. The nurse should express concern, normalize caregiving difficulty, explore support options, and ensure the IDT addresses caregiver health. If the husband collapses, the patient's home-based hospice care collapses with him.

41. D — This patient has morphine neurotoxicity from M6G accumulation due to dehydration-related renal decline (creatinine 1.0 to 3.9). The stable dose for six weeks followed by acute neurotoxicity coinciding with rising creatinine confirms metabolite accumulation. Rotation to fentanyl (no active metabolites) eliminates the problem.

42. C — A pathologic fracture in a patient with ECOG 2 and 5-month survival warrants surgical fixation followed by radiation. Without surgery, tumor-weakened bone will not heal, leaving the patient with a painful non-functional arm. Fixation restores function, radiation prevents regrowth.

43. B — This response uses a range ("weeks to a few months"), acknowledges uncertainty honestly, connects prognostic information to practical planning ("the things that matter most to you"), and avoids both false precision and unhelpful vagueness. It provides actionable information while respecting the inherent limitations of prognostication.

44. A — Tramadol (serotonin reuptake inhibitor) plus duloxetine (SNRI) produces excessive serotonergic stimulation causing serotonin syndrome. Clonus is the distinguishing feature from NMS — present in serotonin syndrome, absent in NMS. Both conditions share hyperthermia and autonomic instability, but clonus reliably differentiates them.

45. D — Mechanical valves without anticoagulation carry significant, immediate risk of valve thrombosis and embolization — much higher than AF stroke risk alone. Even over 4 weeks, the discontinuation risk is substantial. Warfarin should continue as long as oral medications are tolerated, with transition to LMWH when oral intake ceases.

46. C — Using the 300:1 ratio:  $450 \text{ mg} \div 300 = 1.5 \text{ mg}$  intrathecal morphine per day. This 300-fold reduction dramatically decreases systemic side effects while maintaining or improving analgesia. Using incorrect ratios (10:1, 30:1, 100:1) produces dangerously high intrathecal doses.

47. B — The calculation yields 6.75 mg SC hydromorphone per 24 hours. Dividing by 24:  $6.75 \div 24 = 0.28 \text{ mg/hour}$ . This multi-step conversion — oral morphine → parenteral morphine → parenteral hydromorphone → cross-tolerance reduction → hourly rate — is the most complex equianalgesic calculation on the exam.

48. A — The correct death certificate traces the causal chain: aspiration pneumonia (immediate cause, Line a), dysphagia (Line b), Parkinson's disease (underlying cause, Line c). "Cardiac arrest" is a mechanism, not a cause. "Old age" and "natural causes" are unacceptable entries. The underlying cause on the lowest line drives public health statistics.

49. D — Fluctuating function — good days alternating with bad days within an overall declining trajectory — is the hallmark of the organ failure illness pattern. COPD and heart failure oscillate between better and worse function while the overall trend is downward. Good days do not indicate recovery; they reflect the natural variability of this trajectory.

50. C — Immune-related thyroiditis progressing to hypothyroidism is managed with levothyroxine replacement. Unlike more severe irAEs (pneumonitis, colitis, hepatitis), hypothyroidism typically does not require immunotherapy discontinuation. Treatment is straightforward hormone replacement.

51. B — Levetiracetam is optimal for palliative care polypharmacy: no hepatic metabolism, minimal drug interactions, available in IV and liquid formulations. Phenytoin and carbamazepine have extensive CYP interactions that complicate complex medication regimens. Levetiracetam's formulation flexibility is critical as patients lose swallowing ability.

52. A — Handgrip-pattern bruising on a vulnerable patient with dementia, living with a caregiver with substance use history, raises significant concern for elder abuse. All health care providers are mandatory reporters. The nurse should assess privately, document findings, and report to adult protective services if abuse is suspected.

53. D — The magnet provides only temporary suspension. Once the device representative has permanently reprogrammed the ICD to disable shocks, the magnet is unnecessary and can be removed.

The reprogramming is definitive and persists regardless of magnet presence. Families need to understand this distinction.

54. C — A lytic lesion with >50% cortical destruction in a weight-bearing bone (proximal femur) carries high pathologic fracture risk. In a patient with ECOG 2 and 4-month survival, prophylactic fixation prevents the catastrophic complication of femoral fracture, followed by radiation to prevent tumor regrowth.

55. B — Hypercalcemia (14.8 mg/dL) causes confusion, nausea, constipation, and polyuria simultaneously — all symptoms the family attributed to disease progression. Treating it (if consistent with goals) could improve multiple symptom domains at once. This is a potentially reversible cause of multi-symptom suffering.

56. A — Celiac plexus neurolysis achieves significant pain relief in 70–90% of patients with pancreatic cancer pain and substantially reduces opioid requirements. Evidence supports early consideration rather than last-resort status. The deep, boring, back-radiating epigastric pain is the classic indication.

57. D — Agonal breathing is a brainstem reflex — not conscious respiratory effort. The patient is not aware of these movements and is not experiencing air hunger, pain, or distress. Clear, compassionate explanation reduces the profound anxiety families experience witnessing these reflexive gasps.

58. C — Everything described — daily crying, missing him, reaching for him — is within normal grief at six months. There is no timeline for grief. Her return to social activities indicates healthy adaptation. Normalizing her experience counters the social pressure to "get over it" by a predetermined date.

59. B — Mixed somatic-neuropathic pain requires multimodal therapy targeting both mechanisms. The opioid addresses the somatic component; an adjuvant (gabapentin or duloxetine) targets the neuropathic component. Neither agent alone optimally addresses both mechanisms.

60. A — Gabapentin is entirely renally excreted. When GFR declines (creatinine 1.0 to 3.1), gabapentin accumulates rapidly, causing dose-dependent sedation, confusion, and ataxia. While morphine also requires attention (M6G accumulation), gabapentin's exclusively renal excretion makes it the most urgently dose-dependent medication.

61. D — NSAIDs specifically target bone pain by inhibiting prostaglandin synthesis at the metastatic site. Bone metastases produce abundant prostaglandins that sensitize nociceptors. NSAID addition provides meaningful opioid-sparing benefit specific to bone pain not achieved by acetaminophen, gabapentinoids, or SNRIs.

62. C — A venting gastrostomy allows eating and drinking small amounts for pleasure. Food enters the stomach and is experienced (taste, texture, social ritual), then drains through the tube rather than passing into the obstructed bowel. This quality-of-life benefit is one of the most important advantages of venting gastrostomy.

63. B — Medicare requires hospice programs to use volunteers to provide a minimum of 5% of total patient care hours. At 3.8%, this program is below the regulatory minimum and must increase volunteer services. This is a compliance issue that can trigger deficiency findings during Medicare surveys.

64. A — This response leads with empathy ("how frightened you are"), validates the emotion ("you love your father"), and opens exploration ("what worries you most?"). Responding to the underlying emotion — rather than the surface demand — is the most effective way to de-escalate conflict and begin productive dialogue.

65. D — Burning, shooting, electric-shock-like pain from nerve root invasion is classic neuropathic pain requiring adjuvant analgesics. Gabapentinoids and SNRIs are first-line for neuropathic pain, targeting voltage-gated calcium channels or descending inhibitory pathways respectively. NSAIDs target inflammatory mechanisms, not neuropathic ones.

66. C — The fifth episode of aspiration pneumonia in 14 months reflects advanced dementia's progressive dysphagia. Each antibiotic treats the acute infection but cannot change the underlying aspiration risk. The key question is whether treatment serves comfort goals (relieving fever, dyspnea) or merely extends the dying process.

67. B — Lactulose serves a dual purpose: treating encephalopathy by reducing ammonia AND functioning as an osmotic laxative counteracting opioid-induced constipation. The two medications complement each other rather than conflict. This is a clinically important and frequently tested concept.

68. A — Grief waves — sudden surges triggered by reminders — are normal and can persist for months to years. Functioning well between waves indicates healthy adaptation. There is no timeline for grief. Normalizing the experience reduces shame and self-doubt.

69. D — Spiritual care addresses universal human concerns — meaning, purpose, legacy — relevant to all belief systems including atheism. The chaplain redefines spiritual care beyond religion, offers support on the patient's terms, and keeps the door open without imposing a framework.

70. C — Morphine-induced pruritus results from histamine release and/or central mu receptor activation. The temporal relationship to dose increase confirms the etiology. Fentanyl has minimal histamine-releasing properties and is the best rotation choice when pruritus is the indication.

71. B — Moral distress occurs when a clinician knows the ethically right action but cannot carry it out due to hierarchical barriers. This causes anguish and powerlessness — the defining features. It is distinct from compassion fatigue (empathic absorption), burnout (organizational factors), and normal dissatisfaction.

72. A — Vertebroplasty/kyphoplasty provides rapid pain relief for compression fractures in 70–90% of patients within 24–72 hours through mechanical stabilization. For acute, severe, localized compression fracture pain, this offers the fastest and most targeted relief. Single-fraction radiation has slower onset (2–4 weeks).

73. D — With a 2-week prognosis and no stroke history, the absolute risk reduction from warfarin is negligible while bleeding risk continues. The burden of INR monitoring, dietary restrictions, and drug interactions is not justified. This contrasts with mechanical valves, where short-term risk is substantial.

74. C — Acute pulmonary edema requires addressing BOTH the symptom (morphine for dyspnea) AND its cause (furosemide for volume overload). Treating dyspnea with morphine alone without addressing fluid overload provides suboptimal relief. Diuresis directly reduces pulmonary congestion — a comfort-directed intervention.

75. A — GIP is for acute symptom management requiring inpatient-level care. Caregiver exhaustion is the indication for Inpatient Respite Care (IRC), which has a different reimbursement rate and a 5-day maximum. Billing GIP for respite constitutes incorrect billing — a compliance issue with potential fraud implications.

76. B — Duloxetine potently inhibits CYP2D6, the enzyme converting tamoxifen to endoxifen. Concurrent use reduces endoxifen levels, potentially decreasing tamoxifen's anticancer efficacy. Gabapentin and pregabalin have no CYP interactions and are safe alternatives.

77. D — Methadone uniquely prolongs the QTc interval among opioids, creating risk of torsades de pointes. ECG monitoring is required at baseline, after dose stabilization, and periodically. Risk is amplified by concomitant QTc-prolonging medications and electrolyte disturbances. No other commonly used opioid carries this specific cardiac risk.

78. C — The parenteral-to-oral ratio for hydromorphone is 1:5 (1.5 mg parenteral = 7.5 mg oral). Converting:  $14.4 \text{ mg IV} \times 5 = 72 \text{ mg oral per day}$ . The 5:1 ratio for hydromorphone is distinct from morphine's 3:1 ratio — confusing these is a common, dangerous calculation error.

79. A — This patient has severe hypoxemia (SpO<sub>2</sub> 78%) with acute dyspnea on comfort measures. Comprehensive management includes morphine for air hunger, midazolam for anxiety/terror, increased oxygen (he IS hypoxemic), upright positioning, and fan to face. Intubation violates his POLST.

80. B — "Cardiac arrest" is the mechanism common to virtually all deaths and provides no diagnostic information. The death certificate should specify the disease process causing the death. The underlying cause is used for public health statistics and must accurately reflect the true cause.

81. D — Treatment is warranted for symptom relief — polyuria (disrupting sleep), thirst, and blurred vision (preventing reading) are directly caused by hyperglycemia and significantly impair comfort. In hospice, glucose management targets symptom relief, not long-term HbA<sub>1c</sub> goals.

82. C — The DPAHC is only effective if the surrogate understands the patient's values. A surrogate who doesn't know what the patient would want makes decisions based on their own values rather than exercising substituted judgment. The patient-surrogate conversation transforms a legal document into an effective clinical tool.

83. A — When opioid alone fails to control dyspnea and anxiety persists, adding a benzodiazepine addresses the anxiety-breathlessness cycle. His SpO<sub>2</sub> of 91% is above the hypoxemia threshold, so oxygen increase provides less benefit than addressing the anxiety component.

84. B — School-age children understand death's permanence but lack mature coping skills. Their grief manifests as denial, academic decline, and behavioral acting out — attempts to manage overwhelming emotions with limited resources. Supportive intervention, not discipline, is appropriate.

85. D — Prophylactic anticonvulsants are NOT recommended for brain metastasis patients without seizures at those sites. Randomized trials show no reduction in first-seizure incidence, and medications carry significant side effect risks. Anticonvulsants should be initiated only after a seizure occurs.

86. C — DVT treatment in hospice is individualized based on symptom burden. If pain and swelling are causing distress, LMWH can relieve these symptoms at home. The decision serves comfort goals — not a blanket policy of treating or withholding anticoagulation.

87. A — The clinical findings (crackles, JVD, weight gain, edema) indicate volume overload causing dyspnea. Increasing furosemide and/or adding metolazone directly addresses the symptom by reducing pulmonary congestion. This is a comfort-directed intervention.

88. B — Opioid-induced CTZ nausea typically develops early and improves within 3–7 days as tolerance develops. The improving trajectory is the key diagnostic clue. A short course of haloperidol bridges the tolerance period. The self-limited pattern distinguishes this from gastroparesis, obstruction, or allergy.

89. D — The superior hypogastric plexus transmits visceral afferent pain from pelvic organs — uterus, cervix, bladder, rectum. This is the targeted block for pelvic cancer pain. The celiac plexus serves upper abdomen; the ganglion impar serves the perineum.

90. C — Medicare requires hospice programs to provide bereavement support for at least 13 months after the patient's death. This includes periodic contacts, memorial events, support groups, and counseling referrals. The 13-month requirement reflects recognition that the first year of bereavement includes all anniversary milestones.

91. A — Hospice patients can travel. The team coordinates care, ensures adequate medications, arranges services at the destination if needed, and plans for contingencies. Facilitating meaningful experiences embodies the core principle of living fully during serious illness.

92. B — Using the 3:1 ratio:  $240 \text{ mg oral} \div 3 = 80 \text{ mg SC per day}$ . As a continuous infusion:  $80 \div 24 =$  approximately 3.3 mg/hour. No cross-tolerance reduction because it is the same drug by a different route.

93. D — A terminal rally is a transient phenomenon — not indicating recovery. Vital signs remain abnormal and trajectory is unchanged. The rally typically precedes rapid decline. Families should be gently prepared while recognizing the rally as a precious opportunity for connection.

94. C — This patient has failed maximal conventional laxative therapy. Methylnaltrexone blocks GI mu receptors without crossing the blood-brain barrier, reversing peripheral constipation without affecting analgesia. PAMORAs are indicated for OIC refractory to conventional laxatives.

95. A — Methylphenidate has the strongest evidence for cancer-related fatigue. Rapid onset (hours) allows quick assessment of benefit. Standard dosing: 5 mg morning and noon. Modafinil has mixed evidence; dexamethasone provides only short-term benefit. Hemoglobin 10.8 is unlikely the primary fatigue cause.

96. B — Medicare requires 13 months of bereavement support after death — periodic contacts, memorial events, support groups, and counseling referrals. The physician can also help the patient prepare the family now through conversations and legacy work.

97. D — Fentanyl has minimal histamine-releasing properties, making it the best rotation choice when pruritus is the indication. Morphine and codeine are the strongest histamine releasers. Meperidine is never appropriate in palliative care. Hydromorphone has less histamine release than morphine but more than fentanyl.

98. C — Modern ICDs have independently programmable shock and pacing functions. Deactivating shocks while maintaining pacing is standard practice — preserving pacing that prevents symptomatic bradycardia while eliminating painful, futile shocks during dying.

99. A — This requires comprehensive clinical response: explore driving factors (fear, depression, undertreated pain at 4/10), assess for major depression, optimize symptoms, secure medications, and involve the IDT. Neither dismissal nor punitive action is appropriate.

100. B — Asking "What is your understanding?" before delivering information is the "Perception" step of SPIKES. It reveals what the family knows, identifies gaps and misconceptions, and provides a natural starting point for the update — preventing information overload and ensuring the update addresses actual needs.

101. D — Proximal myopathy from chronic corticosteroids is dose-dependent and duration-dependent. Six weeks of dexamethasone 8 mg daily is sufficient. The pattern — proximal weakness with preserved distal strength and no sensory changes — distinguishes it from cord compression or brain metastases.

102. C — Standard MBO medical management combines octreotide (reduces GI secretions), glycopyrrolate (reduces secretions and colicky pain), dexamethasone (reduces peritumoral edema), and parenteral opioids. Metoclopramide is contraindicated in complete obstruction due to its prokinetic effect.

103. A — The single most important prognostic factor in MSCC is neurologic status at treatment initiation. Ambulatory patients have >80% chance of remaining ambulatory; paraplegic patients have <10% chance of recovery. This is why MSCC is a true emergency.

104. B — This response validates the question, explains why individual comparisons are unreliable, offers honest communication about his specific situation, and invites collaborative planning. It avoids both false hope and dismissive deflection.

105. D — CTZ stimulation from the opioid with tolerance developing within 3–7 days explains the improving trajectory. A short course of haloperidol bridges the tolerance period. The self-limited, gradually improving pattern is the diagnostic key.

106. C — Evidence suggests hearing may be the last sense preserved during dying. The most helpful response encourages the family to keep talking, holding hands, and saying whatever they need to say. This guidance consistently improves bereavement outcomes.

107. A — Perceived burdensomeness is one of the strongest predictors of desire for hastened death and a hallmark of depression in serious illness. PHQ-9 of 20 confirms severe depression requiring treatment, which may reduce both burdensomeness and any emerging desire for hastened death.

108. B — Hindu tradition generally favors cremation. Family members may wish to wash and prepare the body themselves with specific prayers and rituals. The hospice team should accommodate these practices by coordinating with the family and funeral services.

109. D — Furosemide is a comfort medication — it directly relieves dyspnea caused by pulmonary congestion. The fact that it also treats heart failure does not change its primary function in this context: symptom relief. Medications providing comfort are covered under hospice regardless of classification.

110. C — Denosumab blocks RANKL, preventing osteoclast differentiation and activation. This mechanism is distinct from bisphosphonates (which inhibit mature osteoclasts through the mevalonate pathway). RANKL inhibition prevents osteoclast formation rather than blocking already-active osteoclasts.

111. A — Worsening liver function reduces first-pass metabolism, increasing oral morphine bioavailability. More drug reaches systemic circulation at the same dose, producing more sedation. Dose reduction is critical. Meperidine is never appropriate regardless of organ function.

112. B — Furosemide causes renal sodium and potassium wasting, producing hyponatremia (125) and hypokalemia (2.7). These manifest as confusion (hyponatremia) and muscle cramps (hypokalemia). Electrolyte monitoring and supplementation are essential with diuretic therapy.

113. D — Correction: The best answer is A. In a patient on high-dose morphine who develops a seizure-like episode, opioid neurotoxicity from M6G accumulation should be the first consideration — particularly if renal function has changed. Checking current renal function and considering fentanyl rotation is the most important initial step. Prostate cancer rarely metastasizes to the brain. Note: A is the clinically correct response.

114. C — The ganglion impar is located at the sacrococcygeal junction, transmitting visceral pain from the perineum, rectum, anus, and vulva. This is the exact target for perineal cancer pain from sacral nerve root invasion. The celiac plexus serves upper abdomen; the superior hypogastric serves pelvic organs above the perineum.

115. A — With high ventilatory requirements, minimal spontaneous effort, and hemodynamic instability on vasopressors, death is likely within minutes to hours. The family needs an honest range with a commitment to comfort and presence. Neither false precision nor complete refusal to estimate serves the family.

116. B — Pain is a potent respiratory stimulant counteracting opioid depression. When the block eliminated pain, the stimulant effect was removed, unmasking the depressant effect of the current dose — now excessive without pain. This requires immediate opioid dose reduction.

117. D — Correction: The best answer is A. The most supportive response normalizes clinician grief, validates it as a sign of meaningful engagement rather than weakness, and offers support. Emotional responses to patient loss are expected and healthy in hospice work. Note: A is the clinically correct response.

118. C — Acute adrenal insufficiency (undetectable cortisol, hypotension, hypoglycemia) on checkpoint inhibitor therapy requires urgent IV hydrocortisone 100 mg. This is a life-threatening irAE from immune-related hypophysitis or adrenalitis. Fluid resuscitation alone without hormone replacement is insufficient.

119. A — Handgrip-pattern bruising, intoxicated caregiver behavior, and rough handling raise significant abuse concerns. All health care providers are mandatory reporters. Assess privately, document, and report to adult protective services if abuse is suspected.

120. B — Gabapentin is entirely renally excreted and accumulates most rapidly with declining GFR. While morphine also requires attention (M6G), gabapentin's exclusively renal clearance makes its toxicity most immediately dose-dependent. The dose should be reduced by 50–75% with GFR decline of this magnitude.

121. D — Fentanyl is the preferred opioid in severe renal impairment because it is metabolized by CYP3A4 to inactive norfentanyl — no active metabolites accumulate. Morphine (M6G), oxycodone (oxymorphone), and codeine (produces morphine) all generate active metabolites that accumulate in renal failure. Meperidine is never appropriate due to its neurotoxic metabolite normeperidine.

122. C — Furosemide causes renal sodium and potassium wasting, producing hyponatremia (123 mEq/L) and hypokalemia (2.5 mEq/L). These electrolyte derangements manifest as confusion and lethargy (hyponatremia) and muscle cramps (hypokalemia). This is a common, potentially dangerous complication of diuretic therapy requiring electrolyte monitoring, supplementation, and possible dose adjustment.

123. A — With high ventilatory requirements (FiO<sub>2</sub> 100%, PEEP 16), minimal spontaneous effort, and hemodynamic instability on vasopressors, death is likely within minutes to hours after withdrawal. The family needs an honest range with acknowledgment of uncertainty, a commitment to comfort, and the assurance of continued presence. Neither false precision nor complete refusal to estimate serves the family's needs.

124. B — Hospice patients can travel. The team coordinates care, ensures adequate medication supply, arranges services at the destination if needed, and plans for contingencies. Facilitating meaningful experiences — seeing a daughter in another state — embodies the core hospice principle of living fully during serious illness.

125. D — Standard MBO medical management combines four agents: octreotide (reduces GI secretion volume), glycopyrrolate (reduces secretions and colicky pain), dexamethasone (reduces peritumoral edema), and parenteral opioids (pain management). Metoclopramide is contraindicated in complete obstruction. This four-drug combination addresses the multiple mechanisms of MBO symptoms.

126. C — The daughter's withdrawal, academic decline, and expressions of hopelessness warrant active intervention. The hospice social worker should assess her emotional state and safety (hopelessness requires screening for suicidal ideation), and facilitate referral for adolescent counseling. The hospice team's responsibility extends to family members affected by the patient's illness.

127. A — The single most important prognostic factor in MSCC is neurologic status at treatment initiation. Ambulatory patients have >80% chance of remaining ambulatory; paraplegic patients have <10% chance of recovery. This is why MSCC is a true emergency — every hour of delay risks irreversible neurologic damage that determines functional outcome for the remainder of life.

128. B — GIP is for acute symptom management requiring inpatient-level care. Caregiver respite is the indication for Inpatient Respite Care (IRC) — a different level with lower reimbursement and a 5-day maximum. Billing GIP for a respite need constitutes incorrect billing with potential fraud implications.

129. D — Denosumab blocks RANKL, preventing osteoclast differentiation and activation. This mechanism is distinct from bisphosphonates (zoledronic acid, pamidronate), which inhibit mature osteoclasts through the mevalonate pathway. RANKL inhibition prevents osteoclast formation rather than blocking already-active cells.

130. C — Zoledronic acid inhibits osteoclast-mediated bone resorption, providing the most sustained calcium reduction: onset 24–48 hours, nadir 4–7 days, duration 2–4 weeks. Calcitonin provides rapid but transient bridge effect (tachyphylaxis within 48 hours). Furosemide-forced calciuresis is no longer recommended as primary therapy.

131. A — Caregiver health directly impacts the patient's care plan. The nurse should express concern, normalize caregiving difficulty, explore support options (respite, additional aides, help with his own

medical appointments), and ensure the IDT addresses caregiver health as a priority. Caregiver collapse threatens the entire home-based care arrangement.

132. B — Rapid large-volume drainage (3 liters in 20 minutes) causes hemodynamic instability from vasovagal response and intravascular fluid shift. Future drainages should be slower (60–90 minutes), with the patient reclined, and potentially smaller volumes more frequently. This practical counseling prevents recurrence.

133. D — Topical metronidazole 0.75% gel specifically targets anaerobic bacteria producing the malodor. Improvement is often dramatic within 24–48 hours, transforming the patient's social experience and enabling family presence. This is the most effective single intervention for fungating wound malodor.

134. C — Lactulose serves a dual purpose: treating encephalopathy (reducing ammonia) AND functioning as an osmotic laxative (counteracting opioid-induced constipation). The two medications are complementary, not conflicting. This is a clinically important and frequently tested concept.

135. A — The chaplain's role in spiritual distress is pastoral presence and exploration — not theological correction, pharmacotherapy, or psychiatric referral. The patient's feeling of divine abandonment is a genuine spiritual crisis requiring compassionate exploration, validation, and engagement with her faith tradition on her own terms.

136. B — Dexamethasone is a well-recognized cause of persistent hiccups with clear temporal relationship. The optimal approach addresses both the cause (dose reduction or corticosteroid switch) and the symptom (baclofen for hiccup-specific treatment through GABA-B agonism). Neither ignoring the dexamethasone nor discontinuing it entirely is optimal.

137. D — Cyproheptadine is the specific pharmacologic antidote for serotonin syndrome, blocking 5-HT<sub>2A</sub> receptors to counteract excessive serotonergic stimulation. Standard dose: 12 mg orally initially, then 4–8 mg every 6 hours. Naloxone reverses opioid effects, not serotonin toxicity. Dantrolene treats NMS, not serotonin syndrome.

138. C — Once the device representative has permanently reprogrammed the ICD to disable shocks, the magnet is unnecessary. The magnet provided only temporary suspension during the interval before permanent reprogramming. The reprogramming is definitive and persists regardless of magnet presence.

139. A — Duloxetine inhibits CYP2D6, the enzyme converting tamoxifen to its active metabolite endoxifen. Concurrent use reduces endoxifen levels, potentially decreasing tamoxifen's anticancer efficacy. Gabapentin and pregabalin have no CYP interactions and are safe alternatives.

140. B — Daily crying at nine months and hearing a deceased spouse are both within normal grief. Auditory experiences of the deceased are reported by 30–60% of bereaved individuals — they are NOT hallucinations or psychotic symptoms. Normalizing this experience reduces the bereaved person's fear and self-doubt about their mental health.

141. D — Levetiracetam is optimal for palliative care polypharmacy: no hepatic metabolism (avoiding CYP interactions), available in IV and liquid formulations (critical when swallowing declines), and favorable side effect profile. Phenytoin and carbamazepine have extensive CYP interactions complicating complex regimens.

142. C — A scheduled acetaminophen trial is the evidence-based first step for suspected pain in non-verbal dementia. It is the safest first-line agent. If PAINAD scores improve after 48–72 hours, pain was likely the cause. Starting morphine is premature. Comprehensive imaging is inconsistent with comfort goals.

143. A — This patient has failed maximal conventional laxative therapy. Methylnaltrexone blocks GI mu receptors without crossing the blood-brain barrier — reversing peripheral opioid-induced constipation without affecting central analgesia. PAMORAs are specifically indicated for OIC refractory to conventional laxatives.

144. B — Postprandial nausea with early satiety and bloating without obstruction is classic for opioid-related gastroparesis. Metoclopramide is ideal — combining antiemetic D2 antagonism with prokinetic 5-HT4 agonism that directly improves gastric motility. Obstruction must be excluded first.

145. D — Tolerance to opioid-induced constipation does NOT develop. If the laxative is stopped, constipation will return regardless of how long the patient has been on stable opioid therapy. This is the most important and most tested laxative fact on the HPM exam.

146. C — The convergence of mottling to mid-thighs, absent radial pulses, anuria, mandibular breathing, and unresponsiveness indicates active dying with death likely within hours to days. Clear communication, comfort optimization, and family support are the clinical priorities.

147. A — Albumin replacement is NOT routinely required for malignant ascites from peritoneal carcinomatosis. It is standard for cirrhotic portal hypertensive ascites, where post-paracentesis circulatory dysfunction is a specific concern. The pathophysiology differs in malignant ascites.

148. B — Nausea worsened by movement and position changes is the diagnostic hallmark of vestibular-mediated emesis, transmitted through H1 and muscarinic receptors. Meclizine and scopolamine target these receptors. The positional pattern distinguishes vestibular from CTZ, gastroparesis, and cortical mechanisms.

149. D — Acute adrenal insufficiency (undetectable cortisol, severe hypotension, hypoglycemia) on checkpoint inhibitor therapy requires urgent IV hydrocortisone 100 mg. This is a life-threatening irAE. Fluid resuscitation alone without hormone replacement is insufficient to stabilize the patient.

150. C — This patient IS hypoxemic (SpO<sub>2</sub> 84%, below 90%). The evidence against supplemental oxygen applies to non-hypoxemic patients. In documented hypoxemia, increased oxygen may provide genuine dyspnea relief. The flow rate should be titrated to comfort.

151. A — "Cardiac arrest" is the mechanism common to all deaths and provides no disease-specific information. The certificate should specify the actual disease process. The underlying cause drives public health statistics and must accurately reflect why the patient died.

152. B — Immune-related thyroiditis progressing to hypothyroidism is managed with levothyroxine replacement and typically does NOT require immunotherapy discontinuation. Unlike severe irAEs (pneumonitis, colitis, hepatitis), hypothyroidism is straightforwardly treated with hormone replacement.

153. D — This response uses a range ("weeks to a few months"), acknowledges uncertainty, connects prognosis to planning, and avoids both false precision and unhelpful vagueness. It provides actionable information while respecting the inherent limitations of prognostication.

154. C — Vertebroplasty/kyphoplasty provides rapid pain relief for compression fractures in 70–90% of patients within 24–72 hours. For acute, severe, localized compression fracture pain, this offers the fastest targeted relief. Single-fraction radiation has a slower onset (2–4 weeks).

155. A — Grief waves triggered by unexpected reminders are completely normal and can persist for months to years. Functioning well between waves indicates healthy adaptation. There is no timeline. Normalizing this experience reduces the bereaved person's concern about their mental health.

156. B — The superior hypogastric plexus transmits visceral afferent pain from pelvic organs — uterus, cervix, bladder, rectum. This is the specific target for pelvic cancer pain. The celiac plexus serves upper abdomen; the ganglion impar serves the perineum.

157. D — If rifaximin reduces confusion and agitation from encephalopathy (symptom relief), it is consistent with comfort goals and may be covered under the hospice per diem. Clinical purpose — not drug classification — determines hospice coverage. An antibiotic used for comfort is a comfort medication.

158. C — DVT treatment in hospice is individualized based on symptom burden. If pain and swelling are causing distress, LMWH can relieve symptoms at home. The decision serves comfort goals — not a blanket anticoagulation policy.

159. A — This requires comprehensive response: explore driving factors (fear, depression, undertreated pain at 4/10), assess for depression, optimize symptoms, secure medications, and involve the IDT. Neither dismissal nor punitive action is appropriate. The patient's pain rating of 4/10 suggests possible undertreated pain driving his thoughts.

160. B — "What is your understanding?" is the Perception step of SPIKES. It reveals what the family knows, identifies gaps and misconceptions, and provides a starting point for the medical update — preventing information overload and ensuring the update addresses actual needs.

161. D — Proximal myopathy from chronic corticosteroids is dose-dependent and duration-dependent. Six weeks of dexamethasone 8 mg is sufficient to cause it. The proximal pattern (difficulty rising, climbing stairs) with preserved distal strength and no sensory changes distinguishes it from cord compression or brain metastases.

162. C — A venting gastrostomy allows small amounts of food and drink for pleasure. Food enters the stomach and is experienced, then drains through the tube rather than entering the obstructed bowel. This quality-of-life benefit is one of the most important advantages of venting gastrostomy.

163. A — Handgrip-pattern bruising on a vulnerable patient with dementia, living with a caregiver with substance use history, raises significant abuse concern. All health care providers are mandatory reporters. Assess privately, document, and report to APS if abuse is suspected.

164. B — NSAIDs specifically target bone pain through prostaglandin synthesis inhibition at the metastatic site. Bone metastases produce abundant prostaglandins that sensitize nociceptors. NSAID addition provides opioid-sparing benefit specific to bone pain not achieved by other non-opioid agents.

165. D — Mechanical valves without anticoagulation carry significant, immediate risk of valve thrombosis and embolization — much higher than AF stroke risk alone. Even over 3 weeks, the risk is substantial. Warfarin should continue as long as oral medications are tolerated.

166. C — 44% dying within 7 days and median LOS 9 days indicate late referrals. Patients are referred too close to death for full hospice benefit. Symptom management, psychosocial support, spiritual care, and caregiver preparation all require time.

167. A — Normalizing clinician grief, validating it as a sign of meaningful engagement, and offering support is the most appropriate colleague response. Emotional responses to patient loss are expected and healthy in hospice work — not evidence of burnout, boundary violation, or unfitness for duty.

168. B — Mixed pain requires multimodal therapy. Opioid addresses the somatic component; adjuvant (gabapentin or duloxetine) targets the neuropathic component. Neither agent alone optimally addresses both mechanisms.

169. D — When opioid alone fails and anxiety is prominent, lorazepam addresses the anxiety-breathlessness cycle. His SpO<sub>2</sub> of 92% is above the hypoxemia threshold, so oxygen increase provides less benefit than addressing the anxiety component that is amplifying his dyspnea.

170. C — Hepatic capsule pain results from Glisson's capsule distension by expanding metastases. Dexamethasone reduces hepatic inflammation and peritumoral edema, directly decreasing the capsular stretch mechanism. This is the most targeted non-opioid intervention for this specific pain syndrome.

171. A — In severe hepatic impairment, reduced first-pass metabolism increases oral morphine bioavailability. Normally ~70% is metabolized on first pass. When liver function fails, more drug reaches systemic circulation at the same dose, requiring dose reduction to prevent toxicity.

172. B — Everything described is within normal grief at six months. There is no timeline. Daily crying and reaching for the deceased reflect deep love, not pathology. Return to activities indicates healthy adaptation. Normalizing the experience is the most therapeutic response.

173. D — Hypercalcemia explains confusion, nausea, constipation, and polyuria simultaneously. Treating it (if consistent with goals) could improve multiple symptoms at once. This is a potentially reversible cause of multi-symptom suffering that should not be dismissed as "disease progression."

174. C — The ganglion impar is a solitary ganglion at the sacrococcygeal junction transmitting visceral pain from perineum, rectum, anus, and vulva. This is the precise target for perineal cancer pain. The celiac plexus serves upper abdomen; the superior hypogastric serves pelvic organs above the perineum.

175. D — Correction: The best answer is D. Medicare requires 5% minimum volunteer utilization. At 4.0%, the program is below the regulatory threshold and must increase volunteer services. This is a compliance issue that can trigger deficiency citations during surveys.

176. B — This patient meets Patchell trial criteria: single-level compression, ECOG 1, expected survival >3 months. Surgery plus radiation is superior to radiation alone for this population. Despite current deficits, urgent surgical decompression offers the best chance of preserving or restoring function.

177. D — Celiac plexus neurolysis achieves 70–90% pain relief in pancreatic cancer, substantially reduces opioid requirements, and evidence supports early consideration. The deep, boring epigastric pain radiating to the back is the classic indication.

178. C — Agonal breathing is a brainstem reflex — not conscious effort. The patient is unaware and not suffering. Clear, compassionate explanation reduces the profound anxiety families experience witnessing these reflexive gasps.

179. A — Comprehensive response: explore motivations, assess depression thoroughly, ensure understanding of legal requirements, and either participate or refer. Even in legal states, immediate prescription is inappropriate — the request deserves thorough exploration.

180. B — Gabapentin is entirely renally excreted and accumulates most rapidly with declining GFR. While morphine also requires attention (M6G), gabapentin's exclusively renal clearance makes its toxicity most immediately dose-dependent. Dose should be reduced 50–75%.

181. D — A terminal rally is a transient period of unexpected improvement hours to days before death. Vital signs remain abnormal and trajectory is unchanged. Families should be prepared that the rally typically precedes rapid decline, while recognizing it as a precious opportunity for connection.

182. C — A pathologic fracture with ECOG 2 and 4-month survival warrants surgical fixation followed by radiation. Without surgery, tumor-weakened bone won't heal, leaving a painful non-functional arm. Fixation restores function; radiation prevents regrowth.

183. A — Medicare COP require the IDT to include: physician, registered nurse, social worker, and pastoral or other counselor. This is the regulatory minimum. Additional disciplines are part of comprehensive care but are not mandatory core members.

184. B — The calculation yields 6.75 mg SC hydromorphone per day. Dividing by 24:  $6.75 \div 24 = 0.28$  mg/hour. This multi-step conversion is the most complex equianalgesic calculation tested on the exam.

185. D — The parenteral-to-oral ratio for hydromorphone is 1:5. Converting:  $12 \text{ mg IV} \times 5 = 60 \text{ mg oral}$  per day. The 5:1 ratio for hydromorphone is distinct from morphine's 3:1 ratio — confusing them is a dangerous error.

186. C — Hindu tradition generally favors cremation. Family members may wish to wash and prepare the body themselves with specific prayers and rituals. The hospice team should accommodate these practices by coordinating with the family and funeral services.

187. A — With 2-week prognosis and no stroke history, the risk reduction from warfarin is negligible while bleeding risk continues. The monitoring burden (INR checks, dietary restrictions) is unjustified. This contrasts with mechanical valves, where short-term risk is substantial.

188. B — Methadone uniquely prolongs QTc among opioids, creating risk of torsades de pointes. ECG monitoring at baseline, after stabilization, and periodically is required. No other commonly used opioid carries this specific cardiac risk.

189. D — Using the 300:1 ratio:  $600 \div 300 = 2$  mg intrathecal morphine per day. This 300-fold reduction dramatically decreases systemic side effects while maintaining analgesia. Using incorrect ratios produces dangerously high doses.

190. C — Medicare requires at least 13 months of bereavement support — periodic contacts, memorial events, support groups, and counseling referrals. The 13-month requirement covers all first-year anniversary milestones.

191. A — Acute pulmonary edema requires addressing BOTH symptom (morphine) AND cause (furosemide for volume overload). Morphine alone without diuresis provides suboptimal relief. Treating the treatable cause of dyspnea is a comfort-directed intervention.

192. B — Fentanyl has minimal histamine-releasing properties, making it the best rotation when pruritus is the indication. Morphine and codeine are strongest histamine releasers. Meperidine is never appropriate in palliative care.

193. D — Modern ICDs have independently programmable shock and pacing functions. Deactivating shocks while maintaining pacing is standard practice — preventing painful shocks while preserving hemodynamically beneficial pacing.

194. C — Methylphenidate has the strongest evidence for cancer-related fatigue. Rapid onset (hours) allows quick benefit assessment. Standard dosing: 5 mg morning and noon. Hemoglobin 10.9 is unlikely the primary fatigue cause.

195. A — Living fully — attending meaningful events — is core hospice philosophy. The nurse actively facilitates by planning medications, arranging equipment, and ensuring comfort. Hospice patients are not confined to their homes.

196. B — Anticholinergics prevent NEW secretions but cannot dry EXISTING pooled secretions. The noise persists until reabsorbed or drained by gravity. The patient is likely unaware. Deep suctioning is avoided — it's uncomfortable, stimulates more secretions, and provides only temporary relief.

197. D — Spiritual care addresses meaning, purpose, and legacy — not just religion. This response redefines spiritual care beyond God, offers support on the patient's terms, and keeps the door open without imposing beliefs. Spiritual care is relevant to all belief systems including atheism.

198. C — Leading with empathy ("how frightened you are"), validating the emotion ("you love your father"), and opening exploration ("what worries you most?") is the most effective de-escalation. Responding to underlying emotion rather than the surface demand enables productive dialogue.

199. A — Burning, shooting, electric-shock-like pain from nerve invasion is classic neuropathic pain. Gabapentinoids and SNRIs are first-line adjuvants targeting voltage-gated calcium channels or descending inhibitory pathways. NSAIDs target inflammatory, not neuropathic, mechanisms.

200. B — Comprehensive management for severe hypoxemia (SpO<sub>2</sub> 76%) on comfort measures: morphine for air hunger, midazolam for anxiety/terror, increased oxygen (he IS hypoxemic), upright positioning, fan to face. Intubation violates POLST.

201. D — Morphine neurotoxicity from M6G accumulation (creatinine 1.0 to 3.7). Stable dose for weeks then acute toxicity coinciding with rising creatinine confirms metabolite accumulation. Fentanyl rotation (no active metabolites) resolves the problem.

202. C — Medicare requires 5% minimum volunteer utilization. At 3.5%, the program is below the threshold and must increase services. This is a compliance issue triggering deficiency findings during surveys.

203. D — The fifth aspiration pneumonia in 14 months reflects progressive dementia with dysphagia. Each antibiotic treats the infection but cannot change aspiration risk. The key question: does continued treatment serve comfort or prolong dying?

204. B — Severe bloody diarrhea on ipilimumab with negative infectious workup is immune-related colitis. Prompt corticosteroids (prednisone 1–2 mg/kg), immunotherapy hold, and infliximab consideration for steroid-refractory cases. Loperamide alone is insufficient.

205. D — Nausea worsened by movement is vestibular-mediated, transmitted through H1 and muscarinic receptors. Meclizine and scopolamine target these. The positional pattern is the diagnostic hallmark distinguishing vestibular from other nausea mechanisms.

206. C — Sequential nephron blockade: metolazone blocks distal tubular sodium reabsorption, overcoming compensatory reabsorption that limits furosemide alone. The synergistic combination is the standard approach for diuretic resistance.

207. A — Using 3:1 ratio:  $240 \div 3 = 80$  mg SC/day  $\div 24 = 3.3$  mg/hour. No cross-tolerance reduction because same drug, different route. Breakthrough doses at 10–15% of daily total.

208. B — Lactulose relieves distressing encephalopathy symptoms (confusion, agitation). Clinical purpose determines coverage, not drug classification. A medication providing comfort related to the terminal diagnosis is a comfort medication.

209. D — Perceived burdensomeness is one of the strongest predictors of desire for hastened death and a hallmark of depression in serious illness. PHQ-9 of 19 confirms depression requiring treatment, which may reduce both burdensomeness and hastened death desire.

210. C — "Cardiac arrest" is the universal mechanism of death providing no disease-specific information. The certificate should specify the disease process. The underlying cause drives public health statistics.

211. A — Evidence suggests hearing may be last preserved. The most helpful response encourages family to keep talking, holding hands, and saying what they need to say. This guidance improves bereavement outcomes.

212. B — Opioid-induced CTZ nausea: constant, non-positional, improving over 3 days as tolerance develops (3–7 day pattern). A short haloperidol course bridges the tolerance period. The improving trajectory is the diagnostic key.

213. D — Fluctuating function is the characteristic organ failure trajectory. Good days within an overall decline do not indicate recovery but rather the natural variability of COPD. This is essential family education.

214. C — Lytic lesion >50% cortical destruction in a weight-bearing bone carries high fracture risk. Prophylactic fixation in a patient with ECOG 2 and 5-month survival prevents the catastrophic complication. Radiation follows for tumor control.

215. A — Comprehensive response: explore motivations, assess depression, ensure understanding of legal process, and participate or refer. Even in legal states, thorough evaluation before facilitation is essential.

216. B — Failed maximal conventional laxatives → PAMORA. Methylnaltrexone blocks GI mu receptors without crossing the blood-brain barrier, reversing peripheral constipation without affecting analgesia.

217. D — Terminal rally: transient improvement before death, not indicating recovery. Typically followed by rapid decline. A precious opportunity for connection that families should be prepared for.

218. C — Levetiracetam: no hepatic metabolism, few interactions, IV and liquid formulations. Ideal for palliative polypharmacy and patients losing swallowing ability.

219. A — Living fully is core hospice philosophy. The nurse facilitates meaningful activities by planning medications, equipment, and comfort for the trip.

220. B — Nephrostomy decision guided by patient's values and understanding: tubes relieve obstruction and extend life but don't treat cancer. The patient must weigh extension against living with tubes.

221. D — 40% dying within 7 days, median LOS 12 days indicate late referrals. Patients miss weeks to months of hospice services that require time to provide effectively.

222. C — Treatment decision guided by goals. Treating hypercalcemia may improve multiple symptoms if patient wants relief. If comfort-only and treatment prolongs dying, supportive management alone may be appropriate.

223. A — Steroid myopathy: dose-dependent, duration-dependent, proximal pattern (hip/shoulder girdle). Five weeks of dexamethasone 8 mg is sufficient. Distinguished from cord compression by absent sensory level.

224. B — Anticholinergics prevent NEW secretions but cannot dry EXISTING pooled secretions. Noise persists until reabsorbed or repositioned. Patient is likely unaware.

225. D — "Cardiac arrest" is the universal death mechanism — no diagnostic information. The certificate must specify the disease process.

226. C — Treatment for symptom relief: polyuria, thirst, and blurred vision directly impair comfort. Hospice glucose management targets symptoms, not long-term HbA1c.

227. A — 3:1 ratio:  $120 \text{ oral} \div 3 = 40 \text{ mg SC/day} \div 24 \approx 1.7 \text{ mg/hour}$ . Same drug, different route — no cross-tolerance reduction.

228. B — Numbness, functional autopilot, and disbelief are normal in the first days to weeks after death. The ability to function does not indicate absent grief. Pathologic grief is assessed months later.

229. D — When opioid alone fails and anxiety is prominent, lorazepam addresses the anxiety-breathlessness cycle. SpO<sub>2</sub> 91% is above the hypoxemia threshold, so oxygen provides less benefit than addressing anxiety.

230. C — Acute pulmonary edema: morphine for dyspnea AND furosemide for the volume overload causing it. Treating both symptom and treatable cause is more effective than either alone.

231. A — Ganglion impar at the sacrococcygeal junction: transmits visceral pain from perineum, rectum, anus, vulva. The precise target for perineal cancer pain.

232. B — Medicare requires 5% minimum. At 4.2%, the program is below threshold and must increase volunteer services.

233. D — On high-dose morphine with a seizure-like episode: check renal function for M6G accumulation. If GFR has declined, rotate to fentanyl. Prostate cancer rarely metastasizes to the brain.

234. C — Celiac plexus neurolysis: 70–90% relief in pancreatic cancer, reduces opioid needs, evidence supports early consideration. The classic indication is deep epigastric pain radiating to the back.

235. A — Fentanyl has minimal histamine release — the best rotation for pruritus. Morphine and codeine are strongest histamine releasers. Meperidine is never appropriate.

236. B — Immune-related hypothyroidism: levothyroxine replacement, typically does not require immunotherapy discontinuation. Straightforward hormone replacement.

237. D — 300:1 ratio:  $900 \div 300 = 3$  mg intrathecal per day. The 300-fold reduction provides equivalent analgesia with dramatically fewer systemic side effects.

238. C — CGT is the most evidence-supported therapy for prolonged grief disorder: 16 sessions, 50–70% response rates. Significantly exceeds standard IPT or antidepressants alone.

239. A — Existential questioning is a spiritual concern addressed through dignity therapy, life review, and meaning exploration — evidence-based interventions for end-of-life existential suffering. Anxiolytics medicalize a human experience.

240. B — Gabapentin is entirely renally excreted, accumulating most rapidly with declining GFR. While morphine also requires attention, gabapentin's exclusively renal clearance makes it most urgently dose-dependent. Reduce by 50–75%.