





#### **CHAPTER 1**

#### **Pain**



## **Answer Key**

- 1. Ans: 2 Inadequate pain management for postsurgical clients can affect quality of life, function, recovery, and postsurgical complication; thus, all the manifestations are examples of negative results. However, venous thromboembolism can lead to pulmonary embolism, and this is an immediate life-threatening concern. The nurse also needs to implement interventions to resolve unsatisfied needs, fear of pain, and hopelessness related to pain and function. Focus: Prioritization; QSEN: PCC, S; Concept: Pain; Cognitive Level: Analyzing; Test Taking Tip: Use Maslow's hierarchy to identify priorities in caring for clients. Physiologic needs are the first concern. In this case, venous thromboembolism is the most serious physiologic outcome secondary to inadequate pain management.
- 2. Ans: 4 The charge nurse must assess the performance and attitude of the staff in relation to this client. After data are gathered from the nurses, additional information can be obtained from the records and the client as necessary. The educator may be of assistance if a knowledge deficit or need for performance improvement is the problem. Focus: Supervision, Prioritization; QSEN: PCC, TC, QI; Concept: Pain; Cognitive Level: Applying; Test Taking Tip: The first step of the nursing process is assessment. In this case, the charge nurse applies the nursing process to assess the nursing staff's performance and attitudes.
- 3. Ans: 1, 2, 3, 4 The American Pain Society in collaboration with the American Society of Anesthesiologists recommendations for postoperative clients include: acetaminophen and/or NSAIDs if there are no contraindications; surgical site-specific peripheral regional anesthetic for procedures; neuraxial analgesia (also known as epidural) for major thoracic and abdominal procedures, if client has risk for cardiac complications or prolonged ileus; and multimodal therapy, which includes use of different types of medications and other therapies. Long-acting oral opioids are not recommended in the postoperative period. Neuraxial administration of magnesium, benzodiazepines,

- neostigmine, tramadol, and ketamine is not recommended. Focus: Prioritization; QSEN: EBP; Concept: Pain; Cognitive Level: Understanding; Test Taking Tip: Passing a test and working as a competent nurse requires keeping up to date with current practice guidelines. Select all that apply questions are particularly challenging. Read each option carefully and try to exclude incorrect options.
- 4. Ans: 4 One of the common features of rheumatoid arthritis is joint pain and stiffness when first rising. This usually resolves over the course of the day. A nonpharmaceutical measure is to take a warm shower (or apply warm packs to joints if pain is limited to one or two joints). If pain worsens, then the nurse may elect to contact other members of the health care team for additional interventions. Focus: Delegation; QSEN: TC; Concept: Pain; Cognitive Level: Applying; IPEC: R/R.
- 5. Ans: 3 Beliefs, attitudes, and familial influence are part of the sociocultural dimension of pain. Location and radiation of pain address the sensory dimension. Describing pain and its effects addresses the affective dimension. Activity level and function address the behavioral dimension. Asking about knowledge addresses the cognitive dimension. Focus: Prioritization; QSEN: PCC; Concept: Pain; Cognitive Level: Analyzing.
- **6. Ans: 1** Gabapentin is an antiepileptic drug, but it is also used to treat diabetic neuropathy. Corticosteroids are for pain associated with inflammation. Hydromorphone is a stronger opioid, and it is not the first choice for chronic pain that can be managed with other drugs. Lorazepam is an anxiolytic that may be prescribed as an adjuvant medication. **Focus:** Prioritization; **QSEN:** EBP; **Concept:** Pain; **Cognitive Level:** Applying.
- **7. Ans:** 3 Cancer pain generally worsens with disease progression, and the use of opioids is more generous. Fibromyalgia is more likely to be treated with non-opioid and adjuvant medications. Trigeminal neuralgia is treated with antiseizure medications such as

- carbamazepine. Phantom limb pain usually subsides after ambulation begins. Focus: Prioritization; QSEN: EBP; Concept: Pain; Cognitive Level: Applying.
- 8. Ans: 1 Multimodal therapies for postoperative clients include opioids and nonopioid therapies, regional anesthetic techniques, and nonpharmacologic therapies. This approach is thought to be the most important strategy for pain management for most postoperative clients. Standing orders are less optimal because there is no consideration of individual needs or characteristics. PCA is one important element, but not all clients can manage PCA devices. Assessment tools are an important part of overall management, but basing opioid dose on a numerical scale does not consider individual client circumstances. Focus: Prioritization; QSEN: EBP; Concept: Pain; Cognitive Level: Understanding.
- 9. Ans: 4 In supervision of the new RN, good performance should be reinforced first and then areas of improvement can be addressed. Asking the nurse about knowledge of pain management is also an option; however, it would be a more indirect and time-consuming approach. Making a note and watching do not help the nurse to correct the immediate problem. In-service training might be considered if the problem persists. Focus: Supervision; QSEN: TC, QI; Concept: Leadership; Cognitive Level: Applying.
- **10**. **Ans: 1, 3, 5, 6** These clients should be assigned to an experienced RN because all have acute conditions that require close monitoring for any developing complications. Abdominal cramps secondary to food poisoning is an acute condition; however, the cramping, vomiting, and diarrhea are usually self-limiting. The client with chronic back pain would be considered physically stable. Although all clients will benefit from care provided by an experienced RN, the client with abdominal cramps and the client with back pain could be assigned to a new RN, an LPN/LVN, or a float nurse. Focus: Assignment; QSEN: TC; Concept: Clinical Judgment; Cognitive Level: Analyzing; IPEC: T/T; Test **Taking Tip:** To determine acuity of clients, use nursing concepts, such as gas exchange and perfusion. Clients 1, 3, 5, and 6 could have potential problems related to perfusion. The client with the chest tube could also have a potential problem related to gas exchange.
- 11. Ans: 3 The client must be believed, and his or her experience of pain must be acknowledged as valid. The data gathered via client reports can then be applied to the other options in developing the treatment plan. Focus: Prioritization; QSEN: PCC; Concept: Pain; Cognitive Level: Applying.
- 12. Ans: 1 The nurse would consider questioning all of the medication prescriptions, but the opioid-naïve adult has the greatest immediate risk, because use of a basal dose has been associated with an increased incidence of respiratory depression in opioid-naïve clients. Older adults are frequently prescribed NSAIDS;

- however, they are used with caution, and the client's history should be reviewed for potential problems, such as a history of gastrointestinal bleeding, cardiac disease, or renal dysfunction. Many medications such as anticoagulants, oral hypoglycemics, diuretics, and antihypertensives can also cause adverse drug-drug interactions with NSAIDs. IM injections cause pain, absorption is unreliable, and there are no advantages over other routes of administration routes. If a client is able to tolerate oral foods and fluids, oral medications are preferred because the efficacy of the oral route is equal to the IV route. Focus: Prioritization; QSEN: EBP, S; Concept: Pain; Cognitive Level: Synthesizing; Test Taking Tip: It is worthwhile to study the purposes, pharmacologic actions, and side effects of commonly used medications. Morphine is considered the prototype of the opioid medications. For opioidnaïve clients, the priority concern is respiratory depression. For clients who need opioids for long-term pain management, the primary side effect is constipation.
- 13. Ans: 3 The client with an acute myocardial infarction has the greatest need for IV access and is likely to receive morphine, which will relieve pain and increase venous capacitance. The other clients may also need IV access for delivery of pain medication, other drugs, or IV fluids, but the need is less urgent. Focus: Prioritization; QSEN: EBP; Concept: Clinical Judgment; Cognitive Level: Analyzing.
- 14. Ans: 1 The goal is to control pain while minimizing side effects. For severe pain, the medication can be titrated upward until the pain is controlled. Downward titration occurs when the pain begins to subside. Focus: Prioritization; QSEN: EBP; Concept: Pain; Cognitive Level: Applying.
- 15. Ans: 3 The student has made an error and the syringe, as shown, contains 70 mg. The syringe contains 7 mL of medication. The student should have obtained a tuberculin syringe and drawn up 0.7 mL. First, the nursing instructor would assess the student's knowledge and understanding of the calculations and method of preparing the medication. The instructor would use this approach to help the student self-identify errors, which might include misinterpreting the original prescription, misreading the label, or misreading the syringe markings. Focus: Prioritization, Supervision; QSEN: S; Concept: Clinical Judgment; Cognitive Level: Applying; IPEC: IC.
- **16. Ans: 2** The UAP has correctly reported findings, but the nurse is ultimately responsible to assess first and then determine the correct action. Based on assessment findings, the other options may also be appropriate. **Focus:** Prioritization; **QSEN:** EBP; **Concept:** Clinical Judgment; **Cognitive Level:** Applying.
- 17. Ans: 2 The American Headache Society developed recent guidelines for treatment of acute migraines. Intravenous metoclopramide and prochlorperazine and subcutaneous sumatriptan are recommended for

- adults who present with first-time onset of acute migraines. Sumatriptan should not be used if ergotamine, dihydroergotamine, or other triptan medication has been used in the past 24 hours because of the additive effect of narrowing of the blood vessels that could result in damage to major organs (e.g., stroke or myocardial infarction). Dexamethasone may cause increased glucose levels. Prochlorperazine can cause drowsiness. Focus: Prioritization; QSEN: EBP, TC, S; Concept: Pain; Cognitive Level: Analyzing; IPEC: IC.
- **18. Ans: 4** At greatest risk are older adult clients, opiatenaïve clients, and those with underlying pulmonary disease. The adolescent has two of the three risk factors. **Focus:** Prioritization; **QSEN:** S; **Concept:** Clinical Judgment; **Cognitive Level:** Analyzing.
- 19. Ans: 1 This client has strong beliefs and emotions related to the issue of the brother's addiction. First, encourage expression. This indicates to the client that the feelings are real and valid. It is also an opportunity to assess beliefs and fears. Giving facts and information is appropriate at the right time. Family involvement is important, and their beliefs about drug addiction may be similar to those of the client. Focus: Prioritization; QSEN: PCC; Concept: Pain; Cognitive Level: Analyzing.
- 20. Ans: 3 Diaphoresis is one of the early signs that occurs between 6 and 12 hours after withdrawal. Fever, nausea, and abdominal cramps are late signs that occur between 48 and 72 hours after withdrawal. Focus: Prioritization; QSEN: EBP; Concept: Clinical Judgment; Cognitive Level: Applying; Test Taking Tip: In studying for the NCLEX®, pay attention to early signs of disease processes. Early detection is considered a safety measure; therefore, the NCLEX® tests to determine if you can perform early identification of potential problems.
- 21. Ans: 1 The UAP can assist the client with hygiene issues and knows the principles of safety and comfort for this procedure. Monitoring the client, teaching techniques, and evaluating outcomes are nursing responsibilities. Focus: Delegation; QSEN: TC; Concept: Clinical Judgment; Cognitive Level: Applying; IPEC: R/R.
- 22. Ans: 4 Administering placebos is generally considered unethical. (There are circumstances, such as clinical drug research where placebos are used, but clients are aware of that possibility.) The charge nurse is a resource person who can help clarify the situation and locate and review the hospital policy. If the HCP is insistent, suggest that he or she could give the placebo. (Note: Use "could," not "should," when talking to the HCP. This provides a small opportunity to rethink the decision. "Should" elicits a more defensive response.) Although following a personal ethical code is correct, the nurse must ensure that the client is not abandoned and that care continues. Focus:

- Prioritization; **QSEN:** PCC, QI, TC; **Concept:** Ethics; **Cognitive Level:** Analyzing; **IPEC:** V/E.
- 23. Ans: 2 Complete information should be obtained from the family during the initial comprehensive history taking and assessment. If this information is not obtained, the nursing staff must rely on observation of nonverbal behavior and careful documentation to determine pain and relief patterns. Focus: Prioritization; QSEN: PCC; Concept: Pain; Cognitive Level: Applying.
- 24. Ans: 5, 3, 1, 2, 4 All of the clients are in relatively stable condition. The client with the pneumothorax has priority because chest tubes can leak or become dislodged or blocked. Lung sounds and respiratory effort should be evaluated before and after removal of the chest tube. The woman who will be leaving the unit for diagnostic testing should be assessed and prepared, as needed, before she leaves for the procedure. In a client with meningitis, a headache is not unexpected, but neurologic status and pain should be assessed. The report of postoperative pain is expected, but this client is getting reasonable relief most of the time. Caring for and assessing the client with Alzheimer disease is likely to be very time consuming; caring for her last prevents delaying care for all the others. In addition, elderly clients with dementia benefit if the caregiver does not act rushed or hurried. Focus: Prioritization; QSEN: S; Concept: Clinical Judgment; Cognitive Level: Analyzing.
- 25. Ans: 4 Assess the pain for changes in location, quality, and intensity, as well as changes in response to medication. This assessment will guide the next steps. Focus: Prioritization; QSEN: EBP; Concept: Pain; Cognitive Level: Applying; Test Taking Tip: During clinical rotations, you may observe nurses giving pain medication without performing an adequate pain assessment. This is an error in clinical performance. In postoperative clients, pain could signal complications, such hemorrhage, infection, or decreased perfusion related to tissue swelling. Always assess pain first; then make a decision about giving medication, using non-pharmacologic methods, or contacting the HCP.
- 26. Ans: 4 The LPN/LVN is well trained to administer oxygen per nasal cannula. This client is considered unstable; therefore, the RN should take responsibility for administering drugs and monitoring the response to therapy, which includes the effects on the respiratory system. The RN should also take responsibility to communicate with the HCP for ongoing treatment and therapy. Focus: Assignment; QSEN: TC; Concept: Clinical Judgment; Cognitive Level: Analyzing; IPEC: R/R.
- **27. Ans: 4** If the pain is constant, the best schedule is around-the-clock to provide steady analgesia and pain control. The other options may require higher dosages to achieve control. **Focus:** Prioritization; **QSEN:** EBP; **Concept:** Pain; **Cognitive Level:** Applying.

- 28. Ans: 2, 3, 6 The clients with the cast, toe amputation, and arthritis are in stable condition and need ongoing assessment and pain management that are within the scope of practice of an LPN/LVN under the supervision of an RN. The RN should take responsibility for preoperative teaching, and the client with terminal cancer needs a comprehensive assessment to determine the reason for refusal of medication. The client with trauma needs serial assessments to detect occult trauma. Focus: Assignment; QSEN: TC; Concept: Clinical Judgment; Cognitive Level: Analyzing; IPEC: T/T.
- **29. Ans: 5, 2, 1, 3, 4** Using the SBAR format, the nurse first identifies himself or herself, gives the client's name, and describes the current situation. Next, relevant background information, such as the client's diagnosis, medications, and laboratory data, is stated. The assessment includes both client assessment data that are of concern and the nurse's analysis of the situation. Finally, the nurse makes a recommendation indicating what action he or she thinks is needed. Focus: Prioritization; QSEN: TC, QI; Concept: Communication; Cognitive Level: Applying.
- **30.** Ans: 2, 5, 6 The client who is second day postoperative, the client who has pain at the IV site, and the client with the kidney stone have predictable needs and require routine care that a new nurse can manage. The anxious client with chronic pain needs an in-depth assessment of the psychological and emotional components of pain and expert intervention. The client with acquired immune deficiency syndrome has complex issues that require expert assessment skills. The client pending discharge will need special and detailed instructions. Focus: Assignment; QSEN: TC; Concept: Clinical Judgment; Cognitive Level: Applying; IPEC: T/T.
- **31. Ans: 3** Responding to the client and family in a timely fashion is important. Next, directly ask the client about the pain and perform a complete pain assessment. This information will determine which action to take next. Focus: Prioritization; QSEN: PCC; Concept: Pain; Cognitive Level: Applying.
- **32. Ans: 2** This statement is a veiled suicide threat, and clients with pain disorder and depression have a high risk for suicide. New injuries must be evaluated, but this type of pain report is not uncommon for clients with pain disorder. Risk for substance abuse is very high and should eventually be addressed. The client can always threaten to sue, but the nurse must remain calm and continue to provide care with professional courtesy. Focus: Prioritization; QSEN: S; Concept: Mood & Affect; Cognitive Level: Analyzing.
- 33. Ans: 4 Measuring output and obtaining a specimen are within the scope of practice of the UAP. Insertion of the indwelling catheter in this client should be done by an experienced RN because clients with obstruction and retention are usually very difficult to catheterize,

- and the nurse must evaluate the pain response during the procedure. The UAP's knowledge of sterile technique or catheter insertion is not the issue. Focus: Delegation; QSEN: TC; Concept: Clinical Judgment; Cognitive Level: Applying; IPEC: R/R.
- **34. Ans: 3** Assessing the pain is the priority in this acute care setting because there is a risk of infection or hemorrhage. The other options might be appropriate based on the assessment findings. Focus: Prioritization; QSEN: S, PCC; Concept: Pain; Cognitive Level:
- **35. Ans: 2** Explain that insulin is a priority because lifethreatening ketoacidosis may already be in progress. If she is already aware of the dangers of an elevated blood glucose (BG) level, then her refusal suggests ongoing suicidal intent and the provider should be notified so that steps can be taken to override her refusal (potentially a court order). A BG level of over 600 mg/dL (33.3 mmol/L) is typically a criterion for transfer to intensive care, but making arrangements for transfer is time consuming, and treatment of the elevated BG should begin as soon as possible. Withholding pain medication is unethical, and merely documenting refusal of insulin is inappropriate because of elevated BG and possible ongoing suicidal intent. Focus: Prioritization; QSEN: S; Concept: Glucose Regulation; **Cognitive Level:** Synthesizing.
- **36. Ans: 1** According to the American Society for Pain Management Nursing, prescribing opioid medication based solely on pain intensity should be prohibited because there are many other factors to consider (e.g., age, health conditions, medication history, respiratory status). Age, small body mass, and underlying respiratory disease put the 73-year-old client at greatest risk for overmedication and respiratory depression. Clients with history of opioid addiction will have a different response to medication and may need higher doses to achieve relief. IV morphine may actually worsen migraine headaches, and other first-line drugs (metoclopramide and prochlorperazine and subcutaneous sumatriptan) are more effective. Hydromorphone is not typically prescribed for the pain associated with chronic of rheumatoid arthritis. Focus: Prioritization; QSEN: EBP, S; Concept: Pain; Cognitive Level: Synthesizing.
- **37. Ans: 1** Nonmaleficence is to prevent harm. If the client is excessively sedated, the nurse knows that giving additional opioid medication could do more harm than good, so the nurse would conduct further assessments and seek alternative options for pain relief. The client's report of pain should be believed, so based on the principle of justice, the nurse advocates for pain medication even though an organic cause of disease is not identified. By encouraging the client to have a voice in her or his own pain management goals, the nurse is applying the principle of autonomy. By explaining the benefits of pain medication, the nurse is applying the principle

- of beneficence to help the client recognize the balance between pain control and safety. **Focus:** Prioritization; **QSEN:** S; **Concept:** Ethics; **Cognitive Level:** Synthesizing.
- **38. Ans: 2** Most adverse opioid events are preceded by an increased level of sedation. **Focus:** Prioritization; **QSEN:** EBP, S; **Concept:** Clinical Judgment; **Cognitive Level:** Understanding.
- 39. Ans: 3 Pain assessment is very complex, but the consistent use of the same assessment tool is the best method. The nurse should use all tools in conjunction with observation, clients' self-report, and other assessment skills. When a client is engaged in an activity, behavior may not accurately reflect pain. Asking a client to point to the pain is only one part of the total pain assessment. Relatives of confused clients can assist the nurse to recognize the meaning of behaviors, but they are not able to describe pain sensations for the client. Focus: Supervision; QSEN: TC, QI; Concept: Pain; Cognitive Level: Analyzing.
- 40. Ans: 3 The client with cancer needs morphine for symptom relief. For obstetric clients, morphine can suppress fetal respiration and uterine contractions, so regional or epidural methods are preferred. For head injuries, morphine could make evaluation of mental status more difficult. In addition, if respirations are depressed, intracranial pressure could increase. Opioids are usually not the first-line choice for chronic pain, and opioids must be used with caution in older adult clients because of changes related to aging, such as renal clearance. In addition, use of opioids increases risk for falls and contributes to constipation. Focus: Prioritization; QSEN: EBP, S; Concept: Pain; Cognitive Level: Synthesizing.
- **41. Ans: 1** All of these behaviors require correction; however, heat can increase the release of medication from the

- patch and result in a sudden overdose. The client should be urged to rotate sites to prevent irritation of the skin. Reusing old patches and delaying the patch changes are likely to give less than optimal pain relief. Based on assessment of behaviors, the nurse would reeducate about use of the patch, help the client seek financial resources, or develop a reminder system for patch change intervals. Focus: Prioritization; QSEN: EBP, S; Concept: Pain; Cognitive Level: Applying.
- **42. Ans: 3** If the social worker can assist the family to find affordable alternatives, then the father is more likely to stop giving his medication to the daughter. **Focus:** Prioritization; **QSEN:** TC; **Concept:** Clinical Judgment; **Cognitive Level:** Analyzing; **IPEC:** R/R.
- 43. Ans: 3 The nurse is weighing benefit against harm. If client is a drug abuser, the medication given in the hospital is not harming him. If the client is not a drug abuser, then withholding the medication causes him to suffer pain because of unconfirmed suspicions. The nurse must also remember that medical use of opioids does not cause addiction and for clients who are addicted, withholding medication in the hospital setting does not resolve the addictive behavior. Focus: Prioritization; QSEN: PCC; Concept: Ethics; Cognitive Level: Synthesizing.
- 44. Ans: 4 The nurse has taken the first correct step and compared the MAR to the HCP's original prescription. Because the nurse is new, the charge nurse would be the best resource. In fact, larger PCA doses are given at night to increase the interval between doses. This helps the client to rest and sleep. The nurse can contact the other members of the health care team at any time if the charge nurse is unable to help. Focus: Prioritization; QSEN: TC; Concept: Clinical Judgment; Cognitive Level: Synthesizing; IPEC: IC.







#### **CASE STUDY 1**

## Chest Pressure, Indigestion, and Nausea



### **Answer Key**

- 1. Ans: 1, 2, 4, 5, 6 Risk factors for cardiac problems include hypertension, family history, obesity, and high-fat diets (which may cause elevation of cholesterol). Gallbladder surgery would not be a risk factor. Quitting smoking would be a risk factor, and the years that the client smoked would be a strong risk factor. Focus: Prioritization; Concept: Perfusion; QSEN: PCC; Cognitive Level: Applying.
- 2. Ans: 4 Monitoring and recording intake and output are within the scope of practice for UAPs. Initiating telemetry, performing venipuncture, and obtaining ECGs require additional education and training and would not be delegated to a new UAP. Attaching ECG leads may be done by UAPs in some facilities, as may venipuncture and ECG recording. However, the UAPs performing these tasks would require additional specialized training. These actions are generally considered to be within the scope of practice of licensed nurses. Focus: Delegation; Concept: Collaboration; QSEN: TC; Cognitive Level: Applying; IPEC: IC.
- 3. Ans: 3 Cardiac monitoring is the highest priority because the client's heart rate is rapid and irregular, and the client is experiencing chest pressure. The client is at risk for life-threatening dysrhythmias such as frequent premature ventricular contractions. Measuring vital signs every 2 hours, checking levels of cardiac markers, and recording a 12-lead ECG every 6 hours are important to accomplish, but cardiac monitoring takes first precedence. Focus: Prioritization; Concept: Clinical Judgment; QSEN: PCC, S; Cognitive Level: Applying.
- 4. Ans: 1 With frequent PVCs, the client is at risk for life-threatening dysrhythmias such as ventricular tachycardia or ventricular fibrillation. Amiodarone is an antidysrhythmic drug used to control ventricular dysrhythmias. Nitroglycerin and morphine can be given for chest pain relief. Atenolol is a beta-blocker, which can be used to control heart rate and decrease blood pressure. Focus: Prioritization; Concept:

- Safety; **QSEN:** PCC, S; **Cognitive Level:** Analyzing; **Test Taking Tip:** When a question asks for what to do first or what takes priority, the nurse should consider what is the most serious danger for the client. In this case, that danger is related to life-threatening dysrhythmias.
- 5. Ans: 2 A troponin T level of more than 0.20 ng/mL (0.2 μg/L) is an elevated level and indicates myocardial injury or infarction (heart attack). Although the other laboratory values are all abnormal except the potassium, which is low normal, none of them is life-threatening. The low normal potassium level would be the second highest concern and might require supplementation to keep it within normal limits. Remember that hypokalemia can also be a risk for dysrhythmias. Focus: Prioritization; Concept: Safety; QSEN: PCC, S; Cognitive Level: Applying.
- 6. Ans: 1 Morphine sulfate has been ordered to relieve the chest discomfort that is common when a client has an acute myocardial infarction. Relief from the chest pain is the highest priority at this time. Ranitidine is a histamine<sub>2</sub> blocker used to prevent gastric ulcers. Scheduling an ECG or drawing blood for coagulation studies, although important, will not help relieve chest discomfort. Focus: Prioritization; Concept: Clinical Judgment; QSEN: PCC, S; Cognitive Level: Applying.
- 7. Ans: 1, 2, 6 Measuring vital signs, recording intake and output, and assisting clients with activities of daily living are all within the scope of practice of the UAP. Administration of IV drugs, venipuncture for laboratory tests, and assessments are beyond the scope of practice of UAPs and are applicable to the practice scope of the professional nurse. In some facilities, UAPs may receive additional training to perform venipuncture, but the RN would need to assess the UAP's ability to safely perform this skill before delegation. Focus: Delegation, Supervision; Concept: Collaboration; QSEN: TC; Cognitive Level: Applying; IPEC: IC.

- 8. Ans: 2 The nurse's best response should be attentive to and answer the client's question. For the cardiac catheterization, the client is taken to a special lab where the cardiologist uses an invasive catheter with injectable dye to locate and diagnose narrowed sections of coronary arteries. For percutaneous coronary intervention, a catheter is placed with a balloon, which can be inflated to open the narrowed section, and a stent (an expandable metal mesh device) can be left in place to keep the artery opened. Options 1, 3, and 4 do not accurately answer the client's question about the procedure. Focus: Prioritization; Concept: Patient Teaching; QSEN: PCC; Cognitive Level: Applying.
- 9. Ans: 1, 3, 4, 5, 6 All of these interventions are within the scope of practice of an experienced LPN/LVN. The LPN/LVN would be instructed when to notify the RN or the health care provider of any abnormal findings. Preparing a teaching plan requires additional education and is more suited to the RN's scope of practice. Taking vital signs and reminding the client about bed rest could also be delegated to the UAP. Focus: Assignment, Supervision; Concept: Collaboration; QSEN: TC, S; Cognitive Level: Applying; IPEC: IC.
- 10. Ans: 2 Without stent placement, the artery often reoccludes due to the artery's normal elasticity and memory. Clients who undergo percutaneous coronary intervention are required to take dual antiplatelet therapy consisting of aspirin and a platelet inhibitor to prevent recurrence of artery blockage, chest pain, and MI. Clients are not kept on bedrest for 24 hours; rather, they are instructed to do no heavy lifting for several days after this procedure, and they are often prescribed a beta-blocker to slow heart rate and lower blood pressure. Focus: Prioritization; Concept: Perfusion; QSEN: S; Cognitive Level: Applying.
- 11. Ans: 1 Thrombolytic therapy using fibrinolytics dissolves thrombi in the coronary arteries and restores myocardial blood flow. Intracoronary fibrinolytics may be delivered during cardiac catheterization. Thrombolytic agents are most effective when administered within the first 6 hours of a coronary event. They are used in men and women, young and old. Focus: Prioritization; Concept: Perfusion; QSEN: PCC, S; Cognitive Level: Analyzing.
- 12. Ans: 2 Chest pain can be an indicator of additional myocardial muscle damage. Additional episodes of chest pain significantly affect the client's plan of care. Small increases in heart rate and blood pressure after activity are to be expected. The client's temperature, only 0.2°F (0.1°C) higher than at admission, is not a priority at this time. Focus: Prioritization, Delegation, Supervision; Concept: Perfusion; QSEN: PCC, S; Cognitive Level: Analyzing; IPEC: IC.
- **13**. **Ans: 4** Measuring and recording vital sign values are within the scope of practice of the UAP. When the

- UAP makes a mistake, it is best to communicate specifically, stressing the importance of recording vital sign values after they have been obtained. Supervision should be done in a supportive rather than confrontational manner. Notifying the nurse manager is not appropriate at this time. Reprimanding the UAP in front of others also is not appropriate. Focus: Delegation, Supervision; Concept: Leadership; QSEN: TC; Cognitive Level: Applying; IPEC: IC.
- 14. Ans: 1 HCTZ is a thiazide diuretic used to correct edema and lower blood pressure, and it should be taken in the morning so that its diuretic effects do not keep the client up during the night. A side effect of HCTZ is loss of potassium, and clients may require potassium supplementation. Captopril is an angiotensin-converting enzyme inhibitor that lowers blood pressure. It is never appropriate to take twice the dose of this drug. Focus: Prioritization; Concept: Patient Education; QSEN: PCC, S; Cognitive Level: Applying.
- 15. Ans: 4 DAT is suggested for all clients with acute coronary syndrome, incorporating aspirin and either clopidogrel or ticagrelor. The major side effect for each of these agents is bleeding. Observe for bleeding tendencies, such as nosebleeds or blood in the stool. Medications will need to be discontinued if evidence of bleeding occurs. Focus: Prioritization; Concept: Clotting; QSEN: PCC, S; Cognitive Level: Analyzing; Test Taking Tip: With DAT, the client is prescribed two drugs that increase the risk for bleeding, so bleeding is the priority assessment when a client is prescribed this therapy.
- 16. Ans: 3 Atenolol is a beta-blocker drug. Do not give beta-blockers if the pulse is below 55 or the systolic blood pressure is below 100 mm Hg without first checking with the HCP. The beta-blocking agent may lead to persistent bradycardia or further reduction of systolic blood pressure, leading to poor peripheral and coronary perfusion. Focus: Assignment, Supervision; Concept: Perfusion; QSEN: PCC, S; Cognitive Level: Analyzing; IPEC: IC.
- 17. Ans: 1, 3, 5 Cardiac rehabilitation is the process of actively assisting the client with cardiac disease in achieving and maintaining a vital and productive life while remaining within the limits of the heart's ability to respond to increases in activity and stress. It can be divided into three phases. Phase 1 begins with the acute illness and ends with discharge from the hospital. Activities during this phase that could be delegated to a UAP include assisting with morning care such as a bath, assisting a client to the bathroom, and assisting with progressive ambulation in the hall. The nurse would be sure to instruct to UAP to stop any activity that caused chest pain or pressure and report this at once. Referrals, administering drugs, and assessing clients requires additional educational preparation and is suitable for professional nurses.

- Focus: Delegation, Supervision; Concept: Patient Care; QSEN: PCC, S; Cognitive Level: Applying; IPEC: IC.
- **18. Ans: 4** Normal sinus rhythm with a rate of 88 beats/ min is a normal finding. There is no need to delay the
- client's discharge, give early medications, or draw additional cardiac markers. Focus: Prioritization; Concept: Clinical Judgment; QSEN: N/A; Cognitive Level: Applying.

# Case Study

Acute Kidney Injury

- A 60-year-old who has had vomiting and diarrhea for the last 2 days arrives in the emergency department. Vital signs are: Temperature: 100.1°F (37.8°C); Pulse: 112; Respirations: 24; Blood Pressure (BP): 88/60. Which action prescribed by the health care provider (HCP) will the nurse implement first?
  - A. Give metoclopramide10 mg IV.
  - B. Infuse 1 L of normal saline over 60 minutes.
  - C. Administer acetaminophen 650 mg rectal suppository.
  - D. Draw blood for complete blood count (CBC), blood chemistries, and lactate level.

## Initial laboratory results are available in the chart below:

CBC	Blood chemistry	Lactate level
White blood cells (WBCs): $9500/\mu$ L (9.5 x $10^9/$ L)	Glucose: 136 mg/dL (7.6 mmol/L) Albumin 3.4 mg/dL (34 g/L)	20 mcg/dL (2.2 mmol/L)
Hemoglobin: 15 g/dL (150 g/L)	Blood urea nitrogen (BUN): 44 mg/dL (15.7 mmol/L)	
Hematocrit: 48% (0.48)	Creatinine: 1.9 mg/dL (168 µmol/L)	
	Sodium 149 mEq/L (149 mmol/L)	
	Potassium 5 mEq/L (5 mmol/L)	
	Chloride 112 mEq/L (112 mmol/L)	

- Which laboratory results are most important for the nurse to communicate to the HCP?
  - A. Electrolyte levels
  - B. BUN and creatinine level
  - C. Lactate and glucose levels
  - D. WBC count and hematocrit

- The HCP prescribes these diagnostic tests. Which test will be most important for the nurse to question?
  - A. Bladder scan
  - B. Bilateral renal ultrasonography
  - C. Abdominal computed tomography (CT) with and without contrast
  - D. X-ray of the kidneys, ureters, and bladder (KUB)

- The patient is admitted with diagnoses of dehydration and possible acute kidney injury, and with instructions from the HCP to "continue patient's usual home medications." Which medications will the nurse need to discuss with the HCP prior to administering? (Select all that apply.)
  - A. Lisinopril 10 mg/day
  - B. Citalopram 10 mg/day
  - C. Gabapentin 800 mg TID
  - D. Hydrochlorothiazide 25 mg/day
  - E. Acetaminophen 650 mg every 8 hours
  - F. Ibuprofen 200 mg every 6 hours PRN

- Two days later, the nurse reviews the results of the day's diagnostic testing. Which result is most important to report to the HCP?
  - A. BUN 76 mg/dL (27 mmol/L)
  - B. Hematocrit 33% (0.33)
  - C. Serum potassium 7.2 mEq/L (7.2 mmol/L)
  - D. Glomerular filtration rate (GFR) 25 mL/minute

- Which assessment finding for this patient is most important to report to the HCP?
  - A. Heart rate 46 and prolonged QRS duration
  - B. Crackles at lung bases and peripheral edema
  - C. Confusion and 1+ deep tendon reflexes
  - D. Nausea and abdominal distention

- The HCP prescribes these actions. Which will the nurse implement first?
  - A. Decrease IV fluids to 50 mL/hour.
  - B. Administer calcium chloride 1000 mg IV.
  - C. Give sodium polystyrene sulfonate 15 g.
  - D. Notify the dialysis department to prepare for continuous renal replacement therapy (CCRT).

- The patient is treated for hyperkalemia and CCRT is initiated. Which actions will the nurse delegate to the unlicensed assistive personnel (UAP) who are helping with the care for this patient? (Select all that apply.)
  - A. Replace the electrocardiogram (ECG) electrodes.
  - B. Check the dialysis tubing for clot formation.
  - C. Monitor for changes in orientation.
  - D. Inspect the oral mucosa for dryness or cracking.
  - E. Obtain a BP and urine output hourly.

## 2-Minute Buzz Question

• The next week, the patient's urine output increases to 3500 mL over 24 hours. The BUN and creatinine remain elevated and the GFR is now 48 mL/minute. Which collaborative and nursing actions will the nurse plan to implement during the diuretic phase of acute kidney injury?