

20. **Ans: 4** An LPN/LVN who has been trained to auscultate lung sounds can gather data by routine assessment and observation, under supervision of an RN. Independently evaluating patients, assessing for symptoms of respiratory failure, and monitoring and interpreting laboratory values require additional education and skill, appropriate to the scope of practice of the RN. **Focus:** Delegation, supervision
21. **Ans: 1, 3, 3, 5** While a patient is receiving anticoagulation therapy, it is important to avoid trauma to the rectal tissue, which could cause bleeding (e.g., avoid rectal thermometers and enemas). All of the other instructions are appropriate to the care of a patient receiving anticoagulants. **Focus:** Delegation, supervision
22. **Ans: 1** A nonrebreather mask can deliver nearly 100% oxygen. When the patient's oxygenation status does not improve adequately in response to delivery of oxygen at this high concentration, refractory hypoxemia is present. Usually at this stage, the patient is working very hard to breathe and may go into respiratory arrest unless health care providers intervene by providing intubation and mechanical ventilation to decrease the patient's work of breathing. **Focus:** Prioritization
23. **Ans: 3** The endotracheal tube should be marked at the level where it touches the incisor tooth or nares. This mark is used to verify that the tube has not shifted. The other three actions are appropriate after endotracheal tube placement. The priority at this time is to verify that the tube has been correctly placed. **Focus:** Delegation, supervision, prioritization
24. **Ans: 2** The UAP's educational preparation includes measuring vital signs, and an experienced UAP would know how to check oxygen saturation by pulse oximetry. Assessing and observing the patient, as well as checking ventilator settings, require the additional education and skills of the RN. **Focus:** Delegation, supervision
25. **Ans: 4** Infections are always a threat for the patient receiving mechanical ventilation. The endotracheal tube bypasses the body's normal air-filtering mechanisms and provides a direct access route for bacteria or viruses to the lower parts of the respiratory system. **Focus:** Prioritization
26. **Ans: 3** Confusion in a patient this age is unusual and may be an indication of intracerebral bleeding associated with enoxaparin use. The right leg symptoms are consistent with a resolving deep vein thrombosis; the patient may need teaching about keeping the right leg elevated above the heart to reduce swelling and pain. The presence of ecchymoses may point to a need to do more patient teaching about avoiding injury while taking anticoagulants but does not indicate that the physician needs to be called. **Focus:** Prioritization
27. **Ans: 2** Manual ventilation of the patient will allow you to deliver an FiO_2 of 100% to the patient while

you attempt to determine the cause of the high-pressure alarm. The patient may need reassurance, suctioning, and/or insertion of an oral airway, but the first step should be assessing the reason for the high-pressure alarm and resolving the hypoxemia. **Focus:** Prioritization

28. **Ans: 4** The patient's history and symptoms suggest the development of ARDS, which will require intubation and mechanical ventilation. The maximum oxygen delivery with a nasal cannula is an FiO_2 of 44%. This is achieved with the oxygen flow at 6 L/min, so increasing the flow to 10 L/min will not be helpful. Helping the patient to cough and deep breathe will not improve the lung stiffness that is causing his respiratory distress. Morphine sulfate will only decrease the respiratory drive and further contribute to his hypoxemia. **Focus:** Prioritization
29. **Ans: 3** Removal of large quantities of fluid from the pleural space can cause fluid to shift from the circulation into the pleural space, causing hypotension and tachycardia. The patient may need to receive IV fluids to correct this. The other data indicate that the patient needs ongoing monitoring and/or interventions but would not be unusual findings for a patient with this diagnosis or after this procedure. **Focus:** Prioritization
30. **Ans: 3** Research indicates that nursing actions such as maintaining the head of the bed at 30 to 45 degrees decrease the incidence of VAP. These actions are part of the standard of care for patients who require mechanical ventilation. The other actions are also appropriate for this patient but will not decrease the incidence of VAP. **Focus:** Prioritization

CHAPTER 7: Cardiovascular Problems, pages 35-40

1. **Ans: 2** Cardiac troponin levels are elevated 3 hours after the onset of ACS (unstable angina or myocardial infarction [MI]) and are very specific to cardiac muscle injury or infarction. Although levels of creatine kinase MB and myoglobin also increase with MI, the increases occur later and/or are not as specific to myocardial damage as troponin levels. Elevated C-reactive protein levels are a risk factor for coronary artery disease but are not useful in detecting acute injury or infarction. **Focus:** Prioritization
2. **Ans: 4** Chest pain in a client undergoing a stress test indicates myocardial ischemia and is an indication to stop the testing to avoid ongoing ischemia, injury, or infarction. Moderate elevations in blood pressure and heart rate and slight decreases in oxygen saturation are a normal response to exercise and are expected during stress testing. **Focus:** Prioritization
3. **Ans: 1, 4, 6** Attaching cardiac monitor leads, obtaining an ECG, and administering oral medications

- are within the scope of practice for LPN/LVNs. An experienced ED LPN/LVN would be familiar with these activities. Although anticoagulants and narcotics may be administered by LPNs/LVNs to stable clients, these are high-alert medications that should be given by the RN to this unstable client. Obtaining a pertinent medical history requires RN-level education and scope of practice. **Focus:** Delegation
4. **Ans: 4** Research indicates that reducing sodium intake will lower blood pressure. Lifestyle management is appropriate initial therapy for this client with stage 1 hypertension and no cardiovascular disease or risk factors. Antihypertensive medications would not be prescribed unless lifestyle changes were attempted for several months without a decrease in blood pressure. This client's assessment data indicate that she is not overweight and does not drink alcohol excessively, so discussing changes in these risk factors would not be appropriate. **Focus:** Prioritization
 5. **Ans: 3** A persistent and irritating cough (caused by accumulation of bradykinin) is a possible adverse effect of angiotensin-converting enzyme (ACE) inhibitors such as enalapril and is a common reason for changing to another medication category such as the angiotensin II receptor blockers. The other assessment data indicate a need for more client teaching and ongoing monitoring but would not require a change in therapy. **Focus:** Prioritization
 6. **Ans: 1, 2** The client's major modifiable risk factor is her ongoing smoking. The family history is significant, and she should be aware that this increases her cardiovascular risk. The goal when treating hypertension with medications is reduction of blood pressure to under 140/90 mm Hg. There is no indication that stress is a risk factor for this client. The client's work involves moderate physical activity; although leisure exercise may further decrease her cardiac risk, this is not an immediate need for this client. **Focus:** Prioritization
 7. **Ans: 2** An RN who worked on a medical-surgical unit would be familiar with left ventricular failure, the administration of IV medications, and ongoing monitoring for therapeutic and adverse effects of furosemide. The other clients need to be cared for by RNs who are more familiar with the care of clients who have ACS and with collaborative treatments such as coronary angioplasty and coronary artery stenting. **Focus:** Assignment
 8. **Ans: 4** Because continuous chest pain lasting for more than 12 hours indicates that reversible myocardial injury has progressed to irreversible myocardial necrosis, fibrinolytic drugs are not recommended for clients with chest pain that has lasted for more than 12 hours. The other information is also important to communicate but would not impact the decision about alteplase use. **Focus:** Prioritization
 9. **Ans: 1** Administration of nitroglycerin and appropriate client monitoring for therapeutic and adverse effects are included in LPN/LVN education and scope of practice. Monitoring of blood pressure, pulse, and oxygen saturation should be delegated to the UAP. Client teaching requires RN-level education and scope of practice. **Focus:** Delegation
 10. **Ans: 3** The priority for a client with unstable angina or MI is treatment of pain. It is important to remember to assess vital signs before administering sublingual nitroglycerin. The other activities also should be accomplished rapidly but are not as high a priority. **Focus:** Prioritization
 11. **Ans: 3** The best option in this situation is to educate the client about the purpose of the docusate (to counteract the negative effects of immobility and narcotic use on peristalsis). Charting the medication as "refused" or telling the client that he should take the docusate simply because it was prescribed are possible actions but are not as appropriate as client education. It is unethical to administer a medication to a client who is unwilling to take it, unless someone else has health care power of attorney and has authorized use of the medication. **Focus:** Prioritization
 12. **Ans: 4** The goal in pain management for the client with an acute MI is to completely eliminate the pain. Even pain rated at a level of 1 out of 10 should be treated with additional morphine sulfate (although possibly a lower dose). The other data indicate a need for ongoing assessment for the possible adverse effects of hypotension, respiratory depression, and tachycardia but do not require further action at this time. **Focus:** Prioritization
 13. **Ans: 2** For behavior to change, the client must be aware of the need to make changes. This response acknowledges the client's statement and asks for further clarification. This will give you more information about the client's feelings, current diet, and activity levels and may increase the willingness to learn. The other responses (although possibly accurate) indicate an intention to teach whether the client is ready or not and are not likely to lead to changes in lifestyle. **Focus:** Prioritization
 14. **Ans: 3** Hyperkalemia is a common adverse effect of both ACE inhibitors and potassium-sparing diuretics. The other laboratory values may be affected by these medications but are not as likely or as potentially life threatening. **Focus:** Prioritization
 15. **Ans: 2** Since proton pump inhibitors such as omeprazole affect the metabolism of clopidogrel and decrease its effectiveness, the health care provider may want to discontinue the omeprazole in this client with unstable angina. The other medications should also be verified, but current national guidelines for clients with unstable angina indicate that providers should consider avoiding proton pump inhibitors in those who require clopidogrel. **Focus:** Prioritization

16. **Ans: 1** Because TEE is performed after the throat is numbed using a topical anesthetic and possibly after IV sedation, it is important that the client be placed on NPO status for several hours before the test. The other actions also will need to be accomplished before the TEE but do not need to be implemented immediately. **Focus: Prioritization**
17. **Ans: 4** The most common complication after coronary arteriography is hemorrhage, and the earliest indication of hemorrhage is an increase in heart rate. The other data may also indicate a need for ongoing assessment, but the increase in heart rate is of most concern. **Focus: Prioritization**
18. **Ans: 1** Measurement of ankle and brachial blood pressures for ankle-brachial index calculation is within the UAP's scope of practice. Calculating the ankle-brachial index and any referrals or discussion with the client are the responsibility of the supervising RN. The other clients require more complex assessments or client teaching, which should be done by an experienced RN. **Focus: Delegation**
19. **Ans: 2** The new RN's education and hospital orientation would have included safe administration of IV medications. The preceptor will be responsible for the supervision of the new graduate in assessments and client care. The other clients require more complex assessment or client teaching by an RN with experience in caring for clients with these diagnoses. **Focus: Assignment**
20. **Ans: 3** Premature ventricular contractions occurring in the setting of acute myocardial injury or infarction can lead to ventricular tachycardia and/or ventricular fibrillation (cardiac arrest), so rapid treatment is necessary. The other clients also have dysrhythmias that will require further assessment, but these are not as immediately life threatening as the premature ventricular contractions in the setting of MI. **Focus: Prioritization**
21. **Ans: 1** Research indicates that rapid defibrillation improves the success of resuscitation in cardiac arrest. If defibrillation is unsuccessful in converting the client's rhythm into a perfusing rhythm, CPR should be initiated. Administration of medications and intubation are later interventions. Determining which of these interventions will be used first depends on other factors, such as whether IV access is available. **Focus: Prioritization**
22. **Ans: 3** Research indicates that mortality is decreased when clients with heart failure use beta-blocking medications such as carvedilol. When beta-blocker therapy is started for clients with heart failure, heart failure symptoms may initially become worse for a few weeks, so increased fatigue, activity intolerance, weight gain, and edema are not indicative of a need to discontinue the medication at this time. However, the slow heart rate does require further follow-up, because bradycardia may progress to more serious dysrhythmias such as heart block. **Focus: Prioritization**
23. **Ans: 2** The client's symptoms indicate acute hypoxia, so immediate further assessments (such as assessment of oxygen saturation, neurologic status, and breath sounds) are indicated. The other clients also should be assessed soon, because they are likely to require nursing actions such as medication administration and teaching, but they are not as acutely ill as the dyspneic client. **Focus: Prioritization**
24. **Ans: 2** LPN/LVN education and scope of practice include data collection such as listening to lung sounds and checking for peripheral edema when caring for stable clients. Weighing the residents should be delegated to a UAP. Reviewing medications with residents and planning appropriate activity levels are nursing actions that require RN-level education and scope of practice. **Focus: Delegation**
25. **Ans: 3** The client's visual disturbances may be a sign of digoxin toxicity. The nurse should notify the health care provider and obtain an order to measure the digoxin level. An irregularly irregular pulse is expected with atrial fibrillation; there are no contraindications to taking digoxin with food; and crackles that clear with coughing are indicative of atelectasis, not worsening of heart failure. **Focus: Prioritization**
26. **Ans: 2, 4, 3, 1** The primary goal is to decrease the cardiac ischemia that may be causing the client's tachycardia. This would be most rapidly accomplished by decreasing the workload of the heart and administering supplemental oxygen. Changes in blood pressure indicate the impact of the tachycardia on cardiac output and tissue perfusion. Finally, the physician should be notified about the client's response to activity, because changes in therapy may be indicated. **Focus: Prioritization**
27. **Ans: 3** The client's history and symptoms indicate that acute arterial occlusion has occurred. Because it is important to return blood flow to the foot rapidly, the physician should be notified immediately so that interventions such as balloon angioplasty or surgery can be initiated. Changing the position of the foot and improving blood oxygen saturation will not improve oxygen delivery to the foot. Telling the client that embolization is a common complication of endocarditis will not reassure a client who is experiencing acute pain. **Focus: Prioritization**
28. **Ans: 4** Assisting with hygiene is included in the role and education of UAP. Assessments and teaching are appropriate activities for licensed nursing staff members. **Focus: Delegation**
29. **Ans: 1** Elevated blood pressure in the immediate postoperative period puts stress on the graft suture line and could lead to graft rupture and/or hemorrhage, so it is important to lower blood pressure quickly. The other data also indicate the need for ongoing assessments and possible interventions but do

not pose an immediate threat to the client's hemodynamic stability. **Focus:** Prioritization

30. **Ans: 3** Development of plans for client care or teaching requires RN-level education and is the responsibility of the RN. Wound care, medication administration, assisting with ambulation, and reinforcing previously-taught information are activities that can be delegated to other nursing personnel under the supervision of the RN. **Focus:** Delegation
31. **Ans: 4** Anticoagulant medications are high-alert medications and require special safeguards, such as double-checking of medications by two nurses before administration. Although the other medications require the usual medication safety procedures, double-checking is not needed. **Focus:** Prioritization
32. **Ans: 2** Research indicates that B-type natriuretic peptide levels increase in clients with poor left ventricular function and symptomatic heart failure and can be used to differentiate heart failure from other causes of dyspnea and fatigue such as pneumonia. The other values should also be monitored, but do not indicate whether the client has heart failure. **Focus:** Prioritization

CHAPTER 8: Hematologic Problems, pages 41-44

1. **Ans: 4** Centers for Disease Control and Prevention (CDC) guidelines for the prevention of surgical site infections indicate that surgery should be postponed when there is evidence of a pre-existing infection such as an elevation in white blood cell count. The other values are slightly abnormal, but would not be likely to cause postoperative problems for knee arthroscopy. **Focus:** Prioritization
2. **Ans: 3** Normal saline, an isotonic solution, should be used when priming the IV line to avoid causing hemolysis of red blood cells (RBCs). Ideally, blood products should be infused as soon as possible after they are obtained; however, a 20-minute delay would not be unsafe. Large-bore IV catheters are preferable for blood administration; if a smaller catheter must be used, normal saline may be used to dilute the RBCs. Although the new RN should avoid increasing patient anxiety by indicating that a serious transfusion reaction may occur, this action is not as high a concern as using an inappropriate fluid for priming the IV tubing. **Focus:** Prioritization
3. **Ans: 2** Hypoxia and deoxygenation of the RBCs are the most common cause of sickling, so administration of oxygen is the priority intervention here. Pain control and hydration are also important interventions for this patient and should be accomplished rapidly. Vaccination may help prevent future sickling episodes by decreasing the risk of infection, but it will not help with the current sickling crisis. **Focus:** Prioritization
4. **Ans: 1** An experienced UAP will have been taught how to obtain a stool specimen for the Hemoccult slide test, because this is a common screening test for hospitalized patients. Having the patient sign an informed consent form should be done by the physician who will be performing the colonoscopy. Administering medications and checking for allergies are within the scope of practice of licensed nursing staff. **Focus:** Delegation
5. **Ans: 2** A nurse who works in the PACU will be familiar with the monitoring needed for a patient who has just returned from a procedure such as a colonoscopy, which requires conscious sedation. Care of the other patients requires staff with more experience with various types of hematologic disorders and would be better to assign to nursing personnel who regularly work on the medical-surgical unit. **Focus:** Assignment
6. **Ans: 1** Patients with pancytopenia are at higher risk for infection. The patient with digoxin toxicity presents the least risk of infecting the new patient. Viral pneumonia, shingles, and cellulitis are infectious processes. **Focus:** Prioritization
7. **Ans: 3** Because aspirin will decrease platelet aggregation, patients with thrombocytopenia should not use aspirin routinely. Patient teaching about this should be included in the care plan. Bruising is consistent with the patient's admission problem of thrombocytopenia. Some dark brown stools indicate that there is no frank blood in the bowel movements. Although the patient's decreased appetite requires further assessment by the nurse, this is a common complication of chemotherapy. **Focus:** Prioritization
8. **Ans: 2** When a hemophilic patient is at high risk for bleeding, the priority intervention is to maximize the availability of clotting factors. The other orders also should be implemented rapidly but do not have as high a priority as administering clotting factors. **Focus:** Prioritization
9. **Ans: 1** Patients taking warfarin are advised to avoid making sudden dietary changes, because changing the oral intake of foods high in vitamin K (such as green leafy vegetables and some fruits) will have an impact on the effectiveness of the medication. The other statements suggest that further teaching may be indicated, but more assessment for teaching needs is required first. **Focus:** Prioritization
10. **Ans: 3** Because the decrease in oxygen saturation will have the greatest immediate effect on all body systems, improvement in oxygenation should be the priority goal of care. The other data also indicate the need for rapid intervention, but improvement of oxygenation is the most urgent need. **Focus:** Prioritization
11. **Ans: 3** More assessment about what the patient means is needed before any interventions can be planned or implemented. All of the other statements indicate an assumption that the patient is afraid of