

Lewis's Medical-Surgical Nursing: Assessment and Management of Clinical Problems 11th Edition

TESTBANK

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Chapter 1. Professional Nursing

MULTIPLE CHOICE

1. The nurse completes an admission database and explains that the plan of care and discharge goals will be developed with the patients input. The patient states, How is this different from what the doctor does? Which response would be most appropriate for the nurse to make?

- a. The role of the nurse is to administer medications and other treatments prescribed by your doctor.
- b. The nurses job is to help the doctor by collecting information and communicating any problems that occur.
- c. Nurses perform many of the same procedures as the doctor, but nurses are with the patients for a longer time than the doctor.
- d. In addition to caring for you while you are sick, the nurses will assist you to develop an individualized plan to maintain your health.

ANS: D

This response is consistent with the American Nurses Association (ANA) definition of nursing, which describes the role of nurses in promoting health. The other responses describe some of the dependent and collaborative functions of the nursing role but do not accurately describe the nurses role in the health care system.

DIF: Cognitive Level: Understand (comprehension) REF: 3

TOP: Nursing Process: Implementation MSC: NCLEX: Safe and Effective Care Environment

2. The nurse describes to a student nurse how to use evidence-based practice guidelines when caring for patients. Which statement, if made by the nurse, would be the most accurate?

- a. Inferences from clinical research studies are used as a guide.
- b. Patient care is based on clinical judgment, experience, and traditions.
- c. Data are evaluated to show that the patient outcomes are consistently met.
- d. Recommendations are based on research, clinical expertise, and patient preferences.

ANS: D

Evidence-based practice (EBP) is the use of the best research-based evidence combined with clinician expertise. Clinical judgment based on the nurses clinical experience is part of EBP, but clinical decision making should also incorporate current research and research-based guidelines. Evaluation of patient outcomes is important, but interventions should be based on research from randomized control studies with a large number of subjects.

DIF: Cognitive Level: Remember (knowledge) REF: 11

TOP: Nursing Process: Planning MSC: NCLEX: Safe and Effective Care Environment

3. The nurse teaches a student nurse about how to apply the nursing process when providing patient care. Which statement, if made by the student nurse, indicates that teaching was successful?

- a. The nursing process is a scientific-based method of diagnosing the patients health care problems.
- b. The nursing process is a problem-solving tool used to identify and treat patients health care needs.
- c. The nursing process is based on nursing theory that incorporates the biopsychosocial nature of humans.

- d. The nursing process is used primarily to explain nursing interventions to other health care professionals.

ANS: B

The nursing process is a problem-solving approach to the identification and treatment of patients problems. Diagnosis is only one phase of the nursing process. The primary use of the nursing process is in patient care, not to establish nursing theory or explain nursing interventions to other health care professionals.

DIF: Cognitive Level: Understand (comprehension) REF: 7

TOP: Nursing Process: Implementation MSC: NCLEX: Safe and Effective Care Environment

4. A patient has been admitted to the hospital for surgery and tells the nurse, I do not feel comfortable leaving my children with my parents. Which action should the nurse take next?

- a. Reassure the patient that these feelings are common for parents.
- b. Have the patient call the children to ensure that they are doing well.
- c. Gather more data about the patients feelings about the child-care arrangements.
- d. Call the patients parents to determine whether adequate child care is being provided.

ANS: C

Since a complete assessment is necessary in order to identify a problem and choose an appropriate intervention, the nurses first action should be to obtain more information. The other actions may be appropriate, but more assessment is needed before the best intervention can be chosen.

DIF: Cognitive Level: Apply (application) REF: 6-7

OBJ: Special Questions: Prioritization TOP: Nursing Process: Assessment

MSC: NCLEX: Psychosocial Integrity

5. A patient who is paralyzed on the left side of the body after a stroke develops a pressure ulcer on the left hip. Which nursing diagnosis is most appropriate?

- a. Impaired physical mobility related to left-sided paralysis
- b. Risk for impaired tissue integrity related to left-sided weakness
- c. Impaired skin integrity related to altered circulation and pressure
- d. Ineffective tissue perfusion related to inability to move independently

ANS: C

The patient's major problem is the impaired skin integrity as demonstrated by the presence of a pressure ulcer. The nurse is able to treat the cause of altered circulation and pressure by frequently repositioning the patient. Although left-sided weakness is a problem for the patient, the nurse cannot treat the weakness. The risk for diagnosis is not appropriate for this patient, who already has impaired tissue integrity. The patient does have ineffective tissue perfusion, but the impaired skin integrity diagnosis indicates more clearly what the health problem is.

DIF: Cognitive Level: Apply (application) REF: 7-9

TOP: Nursing Process: Diagnosis MSC: NCLEX: Physiological Integrity

6. A patient with a bacterial infection has a nursing diagnosis of deficient fluid volume related to excessive diaphoresis. Which outcome would the nurse recognize as most appropriate for this patient?

- a. Patient has a balanced intake and output.
- b. Patient's bedding is changed when it becomes damp.
- c. Patient understands the need for increased fluid intake.
- d. Patient's skin remains cool and dry throughout hospitalization.

ANS: A

This statement gives measurable data showing resolution of the problem of deficient fluid volume that was identified in the nursing diagnosis statement. The other statements would not indicate that the problem of deficient fluid volume was resolved.

DIF: Cognitive Level: Apply (application) REF: 7-9

TOP: Nursing Process: Planning MSC: NCLEX: Physiological Integrity

7. A nurse asks the patient if pain was relieved after receiving medication. What is the purpose of the evaluation phase of the nursing process?

- a. To determine if interventions have been effective in meeting patient outcomes
- b. To document the nursing care plan in the progress notes of the medical record
- c. To decide whether the patient's health problems have been completely resolved
- d. To establish if the patient agrees that the nursing care provided was satisfactory

ANS: A

Evaluation consists of determining whether the desired patient outcomes have been met and whether the nursing interventions were appropriate. The other responses do not describe the evaluation phase.

DIF: Cognitive Level: Understand (comprehension) REF: 7-9

TOP: Nursing Process: Evaluation MSC: NCLEX: Safe and Effective Care Environment

8. The nurse interviews a patient while completing the health history and physical examination. What is the purpose of the assessment phase of the nursing process?

- a. To teach interventions that relieve health problems
- b. To use patient data to evaluate patient care outcomes

- c. To obtain data with which to diagnose patient problems
- d. To help the patient identify realistic outcomes for health problems

ANS: C

During the assessment phase, the nurse gathers information about the patient to diagnose patient problems. The other responses are examples of the planning, intervention, and evaluation phases of the nursing process.

DIF: Cognitive Level: Understand (comprehension) REF: 7-9

TOP: Nursing Process: Assessment MSC: NCLEX: Safe and Effective Care Environment

9. Which nursing diagnosis statement is written correctly?

- a. Altered tissue perfusion related to heart failure
- b. Risk for impaired tissue integrity related to sacral redness
- c. Ineffective coping related to response to biopsy test results
- d. Altered urinary elimination related to urinary tract infection

ANS: C

This diagnosis statement includes a NANDA nursing diagnosis and an etiology that describes a patient's response to a health problem that can be treated by nursing. The use of a medical diagnosis as an etiology (as in the responses beginning Altered tissue perfusion and Altered urinary elimination) is not appropriate. The response beginning Risk for impaired tissue integrity uses the defining characteristic as the etiology.

DIF: Cognitive Level: Understand (comprehension) REF: 7

TOP: Nursing Process: Diagnosis MSC: NCLEX: Safe and Effective Care Environment

10. The nurse admits a patient to the hospital and develops a plan of care. What components should the nurse include in the nursing diagnosis statement?

- a. The problem and the suggested patient goals or outcomes
- b. The problem with possible causes and the planned interventions
- c. The problem, its cause, and objective data that support the problem
- d. The problem with an etiology and the signs and symptoms of the problem

ANS: D

When writing nursing diagnoses, this format should be used: problem, etiology, and signs and symptoms. The subjective, as well as objective, data should be included in the defining characteristics. Interventions and outcomes are not included in the nursing diagnosis statement.

DIF: Cognitive Level: Remember (knowledge) REF: 8-9

TOP: Nursing Process: Diagnosis MSC: NCLEX: Safe and Effective Care Environment

11. A nurse is caring for a patient with heart failure. Which task is appropriate for the nurse to delegate to experienced unlicensed assistive personnel (UAP)?

- a. Monitor for shortness of breath or fatigue after ambulation.
- b. Instruct the patient about the need to alternate activity and rest.
- c. Obtain the patient's blood pressure and pulse rate after ambulation.
- d. Determine whether the patient is ready to increase the activity level.

ANS: C

UAP education includes accurate vital sign measurement. Assessment and patient teaching require registered nurse education and scope of practice and cannot be delegated.

DIF: Cognitive Level: Apply (application) REF: 15

OBJ: Special Questions: Delegation TOP: Nursing Process: Planning

MSC: NCLEX: Safe and Effective Care Environment

12. A nurse is caring for a group of patients on the medical-surgical unit with the help of one float registered nurse (RN), one unlicensed assistive personnel (UAP), and one licensed practical/vocational nurse (LPN/LVN). Which assignment, if delegated by the nurse, would be inappropriate?

- a. Measurement of a patient's urine output by UAP
- b. Administration of oral medications by LPN/LVN
- c. Check for the presence of bowel sounds and flatulence by UAP
- d. Care of a patient with diabetes by RN who usually works on the pediatric unit

ANS: C

Assessment requires RN education and scope of practice and cannot be delegated to an LPN/LVN or UAP. The other assignments made by the RN are appropriate.

DIF: Cognitive Level: Apply (application) REF: 15-16

OBJ: Special Questions: Delegation TOP: Nursing Process: Planning

MSC: NCLEX: Safe and Effective Care Environment

13. Which task is appropriate for the nurse to delegate to a licensed practical/vocational nurse (LPN/LVN)?

- a. Complete the initial admission assessment and plan of care.
- b. Document teaching completed before a diagnostic procedure.
- c. Instruct a patient about low-fat, reduced sodium dietary restrictions.
- d. Obtain bedside blood glucose on a patient before insulin administration.

ANS: D

The education and scope of practice of the LPN/LVN include activities such as obtaining glucose testing using a finger stick. Patient teaching and the initial assessment and development of the plan of care are nursing actions that require registered nurse education and scope of practice.

DIF: Cognitive Level: Apply (application) REF: 15-16

OBJ: Special Questions: Delegation TOP: Nursing Process: Planning

MSC: NCLEX: Safe and Effective Care Environment

14. A nurse is assigned as a case manager for a hospitalized patient with a spinal cord injury. The patient can expect the nurse functioning in this role to perform which activity?

- a. Care for the patient during hospitalization for the injuries.
- b. Assist the patient with home care activities during recovery.
- c. Determine what medical care the patient needs for optimal rehabilitation.
- d. Coordinate the services that the patient receives in the hospital and at home.

ANS: D

The role of the case manager is to coordinate the patient's care through multiple settings and levels of care to allow the maximal patient benefit at the least cost. The case manager does not provide direct care in either the acute or home setting. The case manager coordinates and advocates for care but does not determine what medical care is needed; that would be completed by the health care provider or other provider.

DIF: Cognitive Level: Apply (application) REF: 15

TOP: Nursing Process: Implementation MSC: NCLEX: Safe and Effective Care Environment

15. The nurse is caring for an older adult patient who had surgery to repair a fractured hip. The patient needs continued nursing care and physical therapy to improve mobility before returning home. The nurse will help to arrange for transfer of this patient to which facility?

- a. A skilled care facility
- b. A residential care facility
- c. A transitional care facility
- d. An intermediate care facility

ANS: C

Transitional care settings are appropriate for patients who need continued rehabilitation before discharge to home or to long-term care settings. The patient is no longer in need of the more continuous assessment and care given in acute care settings. There is no indication that the patient will need the permanent and ongoing medical and nursing services available in intermediate or skilled care. The patient is not yet independent enough to transfer to a residential care facility.

DIF: Cognitive Level: Apply (application)

REF: eTable 1-1 | eTable 1-2 | eTable 1-3 TOP: Nursing Process: Planning

MSC: NCLEX: Safe and Effective Care Environment

16. A home care nurse is planning care for a patient who has just been diagnosed with type 2 diabetes mellitus. Which task is appropriate for the nurse to delegate to the home health aide?

- a. Assist the patient to choose appropriate foods.
- b. Help the patient with a daily bath and oral care.
- c. Check the patients feet for signs of breakdown.
- d. Teach the patient how to monitor blood glucose.

ANS: B

Assisting with patient hygiene is included in home health-aide education and scope of practice. Assessment of the patient and instructing the patient in new skills, such as diet and blood glucose monitoring, are complex skills that are included in registered nurse education and scope of practice.

DIF: Cognitive Level: Apply (application) REF: 14

OBJ: Special Questions: Delegation TOP: Nursing Process: Implementation

MSC: NCLEX: Safe and Effective Care Environment

17. The nurse is providing education to nursing staff on quality care initiatives. Which statement would be the **most** accurate description of the impact of health care financing on quality care?

- a. Hospitals are reimbursed for all costs incurred if care is documented electronically.
- b. Payment for patient care is primarily based on clinical outcomes and patient satisfaction.
- c. If a patient develops a catheter-related infection, the hospital receives additional funding.
- d. Because hospitals are accountable for overall care, it is not nursing's responsibility to monitor care delivered by others.

ANS: B

Payment for health care services programs reimburses hospitals for their performance on overall quality-of-care measures. These measures include clinical outcomes and patient satisfaction. Nurses are responsible for coordinating complex aspects of patient care, including the care delivered by others, and identifying issues that are associated with poor quality care. Payment for care can be withheld if something happens to the patient that is considered preventable (e.g., acquiring a catheter-related urinary tract infection).

DIF: Cognitive Level: Apply (application) REF: 4-5

TOP: Nursing Process: Implementation MSC: NCLEX: Safe and Effective Care Environment

18. The nurse documenting the patients progress in the care plan in the electronic health record before an interdisciplinary discharge conference is demonstrating competency in which QSEN category?

- a. Patient-centered care
- b. Quality improvement
- c. Evidence-based practice
- d. Informatics and technology

ANS: D

The nurse is displaying competency in the QSEN area of informatics and technology. Using a computerized information system to document patient needs and progress and communicate vital information regarding the patient with health care team members provides evidence that nursing practice standards related to the nursing process have been maintained during the care of the patient.

DIF: Cognitive Level: Apply (application) REF: 5 | 10-11

TOP: Nursing Process: Implementation MSC: NCLEX: Safe and Effective Care Environment

MULTIPLE RESPONSE

1. Which information will the nurse consider when deciding what nursing actions to delegate to a licensed practical/vocational nurse (LPN/LVN) who is working on a medical-surgical unit (*select all that apply*)?

- a. Institutional policies
- b. Stability of the patient
- c. State nurse practice act

- d. LPN/LVN teaching abilities
- e. Experience of the LPN/LVN

ANS: A, B, C, E

The nurse should assess the experience of LPN/LVNs when delegating. In addition, state nurse practice acts and institutional policies must be considered. In general, LPN/LVN scope of practice includes caring for patients who are stable, while registered nurses should provide most of the care for unstable patients. Since LPN/LVN scope of practice does not include patient education, this will not be part of the delegation process.

DIF: Cognitive Level: Apply (application) REF: 14

OBJ: Special Questions: Delegation TOP: Nursing Process: Planning

MSC: NCLEX: Safe and Effective Care Environment

2. The nurse is administering medications to a patient. Which actions by the nurse during this process are consistent with promoting safe delivery of care (*select all that apply*)?

- a. Throws away a medication that is not labeled
- b. Uses a hand sanitizer before preparing a medication
- c. Identifies the patient by the room number on the door
- d. Checks lab test results before administering a diuretic
- e. Gives the patient a list of current medications upon discharge

ANS: A, B, D, E

National Patient Safety Goals have been established to promote safe delivery of care. The nurse should use at least two reliable ways to identify the patient such as asking the patients full name and date of birth before medication administration. Other actions that improve patient safety include performing hand hygiene, disposing of

unlabeled medications, completing appropriate assessments before administering medications, and giving a list of the current medicines to the patient and caregiver before discharge.

DIF: Cognitive Level: Apply (application) REF: 15-16

TOP: Nursing Process: Implementation MSC: NCLEX: Safe and Effective Care Environment

OTHER

1. The nurse uses the Situation-Background-Assessment-Recommendation (SBAR) format to communicate a change in patient status to a health care provider. In which order should the nurse make the following statements? *(Put a comma and a space between each answer choice [A, B, C, D].)*

- a. The patient needs to be evaluated immediately and may need intubation and mechanical ventilation.
- b. The patient was admitted yesterday with heart failure and has been receiving furosemide (Lasix) for diuresis, but urine output has been low.
- c. The patient has crackles audible throughout the posterior chest and the most recent oxygen saturation is 89%. Her condition is very unstable.
- d. This is the nurse on the surgical unit. After assessing the patient, I am very concerned about increased shortness of breath over the past hour.

ANS:

D, B, C, A

The order of the nurses statements follows the SBAR format.

Chapter 2. Health Equity and Culturally Competent Care

MULTIPLE CHOICE

1. The nurse is obtaining a health history from a new patient. Which data will be the focus of patient teaching?

- a. Age and gender
- b. Saturated fat intake
- c. Hispanic/Latino ethnicity
- d. Family history of diabetes

ANS: B

Behaviors are strongly linked to many health care problems. The patient's saturated fat intake is a behavior that the patient can change. The other information will be useful as the nurse develops an individualized plan for improving the patient's health, but will not be the focus of patient teaching.

DIF: Cognitive Level: Apply (application) REF: 31

TOP: Nursing Process: Planning MSC: NCLEX: Health Promotion and Maintenance

2. The nurse works in a clinic located in a community with many Hispanics. Which strategy, if implemented by the nurse, would decrease health care disparities for the Hispanic patients?

- a. Improve public transportation to the clinic.
- b. Update equipment and supplies at the clinic.
- c. Obtain low-cost medications for clinic patients.
- d. Teach clinic staff about Hispanic health beliefs.

ANS: D

Health care disparities are due to stereotyping, biases, and prejudice of health care providers. The nurse can decrease these through staff education. The other strategies also may be addressed by the nurse but will not directly impact health disparities.

DIF: Cognitive Level: Apply (application) REF: 24-25

TOP: Nursing Process: Planning MSC: NCLEX: Health Promotion and Maintenance

3. What information should the nurse collect when assessing the health status of a community?

- a. Air pollution levels
- b. Number of health food stores
- c. Most common causes of death
- d. Education level of the individuals

ANS: C

Health status measures of a community include birth and death rates, life expectancy, access to care, and morbidity and mortality rates related to disease and injury. Although air pollution, access to health food stores, and education level are factors that affect a community's health status, they are not health measures.

DIF: Cognitive Level: Understand (comprehension) REF: 19

TOP: Nursing Process: Assessment MSC: NCLEX: Health Promotion and Maintenance

4. The nurse is caring for a Native American patient who has traditional beliefs about health and illness. Which action by nurse is **most** appropriate?

- a. Avoid asking questions unless the patient initiates the conversation.
- b. Ask the patient whether it is important that cultural healers are contacted.
- c. Explain the usual hospital routines for meal times, care, and family visits.
- d. Obtain further information about the patient's cultural beliefs from a family member.

ANS: B

Because the patient has traditional health care beliefs, it is appropriate for the nurse to ask whether the patient would like a visit by a *shaman* or other cultural healer. There is no cultural reason for the nurse to avoid asking the patient questions because they are necessary to obtain health information. The patient (rather than the family) should be consulted about personal cultural beliefs. The hospital routines for meals, care, and visits should be adapted to the patients preferences rather than expecting the patient to adapt to the hospital schedule.

DIF: Cognitive Level: Apply (application) REF: 26

TOP: Nursing Process: Implementation MSC: NCLEX: Psychosocial Integrity

5. The nurse is caring for an Asian patient who is being admitted to the hospital. Which action would be **most** appropriate for the nurse to take when interviewing this patient?

- a. Avoid eye contact with the patient.
- b. Observe the patients use of eye contact.
- c. Look directly at the patient when interacting.
- d. Ask a family member about the patients cultural beliefs.

ANS: B

Observation of the patients use of eye contact will be most useful in determining the best way to communicate effectively with the patient. Looking directly at the patient or avoiding eye contact may be appropriate, depending on the patients individual cultural beliefs. The nurse should assess the patient, rather than asking family members about the patients beliefs.

DIF: Cognitive Level: Apply (application) REF: 28 | 31

TOP: Nursing Process: Implementation MSC: NCLEX: Psychosocial Integrity

6. A female staff nurse is assessing a male patient of Arab descent who is admitted with complaints of severe headaches. It is most important for the charge nurse to intervene if the nurse takes which action?

- a. The nurse explains the 0 to 10 intensity pain scale.
- b. The nurse asks the patient when the headaches started.
- c. The nurse sits down at the bedside and closes the privacy curtain.
- d. The nurse calls for a male nurse to bring a hospital gown to the room.

ANS: C

Many males of Arab ethnicity do not believe it is appropriate to be alone with any female except for their spouse. The other actions are appropriate.

DIF: Cognitive Level: Apply (application) REF: 28

TOP: Nursing Process: Implementation MSC: NCLEX: Psychosocial Integrity

7. The nurse cares for a patient who speaks a different language. If an interpreter is not available, which action by the nurse is **most** appropriate?

- a. Talk slowly so that each word is clearly heard.
- b. Speak loudly in close proximity to the patient's ears.
- c. Repeat important words so that the patient recognizes their significance.
- d. Use simple gestures to demonstrate meaning while talking to the patient.

ANS: D

The use of gestures will enable some information to be communicated to the patient. The other actions will not improve communication with the patient.

DIF: Cognitive Level: Understand (comprehension) REF: 32

TOP: Nursing Process: Implementation MSC: NCLEX: Psychosocial Integrity

8. The nurse plans care for a hospitalized patient who uses culturally based treatments. Which action by the nurse is **best**?

- a. Encourage the use of diagnostic procedures.
- b. Coordinate the use of folk treatments with ordered medical therapies.
- c. Ask the patient to discontinue the cultural treatments during hospitalization.
- d. Teach the patient that folk remedies will interfere with orders by the health care provider.

ANS: B

Many culturally based therapies can be accommodated along with the use of Western treatments and medications. The nurse should attempt to use both traditional folk treatments and the ordered Western therapies as much as possible. Some culturally based treatments can be effective in treating Western diseases. Not all folk remedies interfere with Western therapies. It may be appropriate for the patient to continue some culturally based treatments while he or she is hospitalized.

DIF: Cognitive Level: Apply (application) REF: 26

TOP: Nursing Process: Planning MSC: NCLEX: Psychosocial Integrity

9. The nurse is caring for a newly admitted patient. Which intervention is the **best** example of a culturally appropriate nursing intervention?

- a. Insist family members provide most of the patients personal care.
- b. Maintain a personal space of at least 2 feet when assessing the patient.
- c. Ask permission before touching a patient during the physical assessment.
- d. Consider the patients ethnicity as the most important factor in planning care.

ANS: C

Many cultures consider it disrespectful to touch a patient without asking permission, so asking a patient for permission is always culturally appropriate. The other actions may be appropriate for some patients but are not appropriate across all cultural groups or for all individual patients. Ethnicity may not be the most important factor in planning care, especially if the patient has urgent physiologic problems.

DIF: Cognitive Level: Understand (comprehension) REF: 28

TOP: Nursing Process: Implementation MSC: NCLEX: Psychosocial Integrity

10. A staff nurse expresses frustration that a Native American patient always has several family members at the bedside. Which action by the charge nurse is **most** appropriate?

- a. Remind the nurse that family support is important to this family and patient.
- b. Have the nurse explain to the family that too many visitors will tire the patient.
- c. Suggest that the nurse ask family members to leave the room during patient care.
- d. Ask about the nurses personal beliefs about family support during hospitalization.

ANS: D

The first step in providing culturally competent care is to understand ones own beliefs and values related to health and health care. Asking the nurse about personal beliefs will help achieve this step. Reminding the nurse that this cultural practice is important to the family and patient will not decrease the nurses frustration. The remaining responses (suggest that the nurse ask family members to leave the room, and have the nurse explain to family that too many visitors will tire the patient) are not culturally appropriate for this patient.

DIF: Cognitive Level: Apply (application) REF: 30-31

TOP: Nursing Process: Implementation MSC: NCLEX: Psychosocial Integrity

11. An older Asian American patient tells the nurse that she has lived in the United States for 50 years. The patient speaks English and lives in a predominantly Asian neighborhood. Which action by the nurse is **most** appropriate?

- a. Include a *shaman* when planning the patients care.
- b. Avoid direct eye contact with the patient during care.
- c. Ask the patient about any special cultural beliefs or practices.
- d. Involve the patients oldest son to assist with health care decisions.

ANS: C

Further assessment of the patients health care preferences is needed before making further plans for culturally appropriate care. The other responses indicate stereotyping of the patient based on ethnicity and would not be appropriate initial actions.

DIF: Cognitive Level: Apply (application) REF: 31

TOP: Nursing Process: Planning MSC: NCLEX: Psychosocial Integrity

12. The nurse plans health care for a community with a large number of recent immigrants from Vietnam. Which intervention is the **most** important for the nurse to implement?

- a. Hepatitis testing
- b. Tuberculosis screening
- c. Contraceptive teaching
- d. Colonoscopy information

ANS: B

Tuberculosis (TB) is endemic in many parts of Asia, and the incidence of TB is much higher in immigrants from Vietnam than in the general U.S. population. Teaching

about contraceptive use, colonoscopy, and testing for hepatitis may also be appropriate for some patients but is not generally indicated for all members of this community.

DIF: Cognitive Level: Apply (application) REF: 29

TOP: Nursing Process: Planning MSC: NCLEX: Physiological Integrity

13. When doing an admission assessment for a patient, the nurse notices that the patient pauses before answering questions about the health history. Which action by the nurse is **most** appropriate?

- a. Interview a family member instead.
- b. Wait for the patient to answer the questions.
- c. Remind the patient that you have other patients who need care.
- d. Give the patient an assessment form listing the questions and a pen.

ANS: B

Patients from some cultures take time to consider a question carefully before answering. The nurse will show respect for the patient and help develop a trusting relationship by allowing the patient time to give a thoughtful answer. Asking the patient why the answers are taking so much time, stopping the assessment, and handing the patient a form indicate that the nurse does not have time for the patient.

DIF: Cognitive Level: Apply (application) REF: 28

TOP: Nursing Process: Assessment MSC: NCLEX: Psychosocial Integrity

14. Which strategy should be a **priority** when the nurse is planning care for a diabetic patient who is uninsured?

- a. Obtain less expensive medications.
- b. Follow evidence-based practice guidelines.

- c. Assist with dietary changes as the first action.
- d. Teach about the impact of exercise on diabetes.

ANS: B

The use of standardized evidence-based guidelines will reduce the incidence of health care disparities among various socioeconomic groups. The other strategies may also be appropriate, but the priority concern should be that the patient receives care that meets the accepted standard.

DIF: Cognitive Level: Apply (application) REF: 23 | 31

OBJ: Special Questions: Prioritization TOP: Nursing Process: Planning

MSC: NCLEX: Health Promotion and Maintenance

15. A Hispanic patient complains of abdominal cramping caused by *empacho*. Which action should the nurse take **first**?

- a. Ask the patient what treatments are likely to help.
- b. Massage the patient's abdomen until the pain is gone.
- c. Administer prescribed medications to decrease the cramping.
- d. Offer to contact a *curandero(a)* to make a visit to the patient.

ANS: A

Further assessment of the patient's cultural beliefs is appropriate before implementing any interventions for a culture-bound syndrome such as *empacho*. Although medication, a visit by a *curandero(a)*, or massage may be helpful, more information about the patient's beliefs is needed to determine which intervention(s) will be most helpful.

DIF: Cognitive Level: Apply (application) REF: 26 | 30

OBJ: Special Questions: Prioritization TOP: Nursing Process: Assessment

MSC: NCLEX: Psychosocial Integrity

16. The nurse performs a cultural assessment with a patient from a different culture. Which action by the nurse should be taken **first**?

- a. Request an interpreter before interviewing the patient.
- b. Wait until a family member is available to help with the assessment.
- c. Ask the patient about any affiliation with a particular cultural group.
- d. Tell the patient what the nurse already knows about the patients culture.

ANS: C

An early step in performing a cultural assessment is to determine whether the patient feels an affiliation with any cultural group. The other actions may be appropriate if the patient does identify with a particular culture.

DIF: Cognitive Level: Apply (application) REF: 30-31

OBJ: Special Questions: Prioritization TOP: Nursing Process: Assessment

MSC: NCLEX: Psychosocial Integrity

17. The nurse working in a clinic in a primarily African American community notes a higher incidence of uncontrolled hypertension in the patients. To correct this health disparity, which action should the nurse take **first**?

- a. Initiate a regular home-visit program by nurses working at the clinic.
- b. Schedule teaching sessions about low-salt diets at community events.
- c. Assess the perceptions of community members about the care at the clinic.
- d. Obtain low-cost antihypertensive drugs using funding from government grants.

ANS: C

Before other actions are taken, additional assessment data are needed to determine the reason for the disparity. The other actions also may be appropriate, but additional assessment is needed before the next action is selected.

DIF: Cognitive Level: Apply (application) REF: 30-31

OBJ: Special Questions: Prioritization TOP: Nursing Process: Assessment

MSC: NCLEX: Health Promotion and Maintenance

MULTIPLE RESPONSE

1. The nurse is performing an admission assessment for a non-English speaking patient who is from China. Which actions could the nurse take to enhance communication (*select all that apply*)?

- a. Use an electronic translation application.
- b. Use a telephone-based medical interpreter.
- c. Wait until an agency interpreter is available.
- d. Ask the patient's teenage daughter to interpret.
- e. Use exaggerated gestures to convey information.

ANS: A, B, C

Electronic translation applications, telephone-based interpreters, and agency interpreters are all appropriate to use to communicate with non-English-speaking patients. When no interpreter is available, family members may be considered, but some information that will be needed in an admission assessment may be misunderstood or not shared if a child is used as the interpreter. Gestures are appropriate to use, but exaggeration of the gestures is not needed.

Chapter 3. Health History and Physical Examination

MULTIPLE CHOICE

1. A patient who is actively bleeding is admitted to the emergency department. Which approach is **best** for the nurse to use to obtain a health history?

- a. Briefly interview the patient while obtaining vital signs.
- b. Obtain subjective data about the patient from family members.
- c. Omit subjective data collection and obtain the physical examination.
- d. Use the health care providers medical history to obtain subjective data.

ANS: A

In an emergency situation the nurse may need to ask only the most pertinent questions for a specific problem and obtain more information later. A complete health history will include subjective information that is not available in the health care providers medical history. Family members may be able to provide some subjective data, but only the patient will be able to give subjective information about the bleeding. Because the subjective data about the cause of the patients bleeding will be essential, obtaining the physical examination alone will not provide sufficient information.

DIF: Cognitive Level: Apply (application) REF: 45

TOP: Nursing Process: Assessment MSC: NCLEX: Health Promotion and Maintenance

2. Immediate surgery is planned for a patient with acute abdominal pain. Which question by the nurse will elicit the **most** complete information about the patients coping-stress tolerance pattern?

- a. Can you rate your pain on a 0 to 10 scale?
- b. What do you think caused this abdominal pain?
- c. How do you feel about yourself and your hospitalization?
- d. Are there other major problems that are a concern right now?

ANS: D

The coping-stress tolerance pattern includes information about other major stressors confronting the patient. The health perception/health management pattern includes information about the patient's ideas about risk factors. Feelings about self and the hospitalization are assessed in the self-perception/self-concept pattern. Intensity of pain is part of the cognitive-perceptual pattern.

DIF: Cognitive Level: Apply (application) REF: 41

TOP: Nursing Process: Assessment MSC: NCLEX: Psychosocial Integrity

3. During the health history interview, a patient tells the nurse about periodic fainting spells. Which question by the nurse will **best** elicit any associated clinical manifestations?

- a. How frequently do you have the fainting spells?
- b. Where are you when you have the fainting spells?
- c. Do the spells tend to occur at any special time of day?
- d. Do you have any other symptoms along with the spells?

ANS: D

Asking about other associated symptoms will provide the nurse more information about all the clinical manifestations related to the fainting spells. Information about the setting is obtained by asking where the patient was and what the patient was doing when the symptom occurred. The other questions from the nurse are appropriate for obtaining information about chronology and frequency.

DIF: Cognitive Level: Apply (application) REF: 42

TOP: Nursing Process: Assessment MSC: NCLEX: Health Promotion and Maintenance

4. The nurse records the following general survey of a patient: The patient is a 50-year-old Asian female attended by her husband and two daughters. Alert and oriented. Does not make eye contact with the nurse and responds slowly, but appropriately, to

questions. No apparent disabilities or distinguishing features. What additional information should the nurse add to this general survey?

- a. Nutritional status
- b. Intake and output
- c. Reasons for contact with the health care system
- d. Comments of family members about his condition

ANS: A

The general survey also describes the patient's general nutritional status. The other information will be obtained when doing the complete nursing history and examination but is not obtained through the initial scanning of a patient.

DIF: Cognitive Level: Understand (comprehension) REF: 39-41

TOP: Nursing Process: Assessment MSC: NCLEX: Health Promotion and Maintenance

5. A nurse performs a health history and physical examination with a patient who has a right leg fracture. Which assessment would be a pertinent negative finding?

- a. Patient has several bruised and swollen areas on the right leg.
- b. Patient states that there have been no other recent health problems.
- c. Patient refuses to bend the right knee because of the associated pain.
- d. Patient denies having pain when the area over the fracture is palpated.

ANS: D

The nurse expects that a patient with a leg fracture will have pain over the fractured area. The bruising and swelling and pain with bending are positive findings. No other recent health problems is neither a positive nor a negative finding with regard to a leg fracture.

DIF: Cognitive Level: Apply (application) REF: 41

TOP: Nursing Process: Assessment MSC: NCLEX: Health Promotion and Maintenance

6. The nurse who is assessing an older adult with rectal bleeding asks, Have you ever had a colonoscopy? The nurse is performing what type of assessment?

- a. Focused assessment
- b. Emergency assessment
- c. Detailed health assessment
- d. Comprehensive assessment

ANS: A

A focused assessment is an abbreviated assessment used to evaluate the status of previously identified problems and monitor for signs of new problems. It can be done when a specific problem is identified. An emergency assessment is done when the nurse needs to obtain information about life-threatening problems quickly while simultaneously taking action to maintain vital function. A comprehensive assessment includes a detailed health history and physical examination of one body system or many body systems. It is typically done on admission to the hospital or onset of care in a primary care setting.

DIF: Cognitive Level: Understand (comprehension) REF: 42

TOP: Nursing Process: Assessment MSC: NCLEX: Health Promotion and Maintenance

7. The nurse is preparing to perform a focused assessment for a patient complaining of shortness of breath. Which equipment will be needed?

- a. Flashlight
- b. Stethoscope
- c. Tongue blades
- d. Percussion hammer

ANS: B

A stethoscope is used to auscultate breath sounds. The other equipment may be used for a comprehensive assessment but will not be needed for a focused respiratory assessment.

DIF: Cognitive Level: Understand (comprehension) REF: 42

TOP: Nursing Process: Assessment MSC: NCLEX: Health Promotion and Maintenance

8. The nurse plans to complete a physical examination of an alert, older patient. Which adaptations to the examination technique should the nurse include?

- a. Avoid the use of touch as much as possible.
- b. Use slightly more pressure for palpation of the liver.
- c. Speak softly and slowly when talking with the patient.
- d. Organize the sequence to minimize the position changes.

ANS: D

Older patients may have age-related changes in mobility that make it more difficult to change position. There is no need to avoid the use of touch when examining older patients. Less pressure should be used over the liver. Because the patient is alert, there is no indication that there is any age-related difficulty in understanding directions from the nurse.

DIF: Cognitive Level: Apply (application) REF: 42

TOP: Nursing Process: Assessment MSC: NCLEX: Health Promotion and Maintenance

9. While the nurse is taking the health history, a patient states, My mother and sister both had double mastectomies and were unable to be very active for weeks. Which functional health pattern is represented by this patients statement?

- a. Activity-exercise
- b. Cognitive-perceptual

- c. Coping-stress tolerance
- d. Health perceptionhealth management

ANS: D

The information in the patient statement relates to risk factors and important information about the family history. Identification of risk factors falls into the health perceptionhealth maintenance pattern.

DIF: Cognitive Level: Understand (comprehension) REF: 39-40

TOP: Nursing Process: Assessment MSC: NCLEX: Health Promotion and Maintenance

10. A patient is seen in the emergency department with severe abdominal pain and hypotension. Which type of assessment should the nurse do at this time?

- a. Focused assessment
- b. Subjective assessment
- c. Emergency assessment
- d. Comprehensive assessment

ANS: C

Because the patient is hemodynamically unstable, an emergency assessment is needed. Comprehensive and focused assessments may be needed after the patient is stabilized. Subjective information is needed, but objective data such as vital signs are essential for the unstable patient.

DIF: Cognitive Level: Understand (comprehension) REF: 42 | 45

TOP: Nursing Process: Assessment MSC: NCLEX: Health Promotion and Maintenance

11. The registered nurse (RN) cares for a patient who was admitted a few hours previously with back pain after falling. Which action can the RN delegate to unlicensed assistive personnel (UAP)?

- a. Finish documenting the admission assessment.
- b. Determine the patients priority nursing diagnoses.
- c. Obtain the health history from the patients caregiver.
- d. Take the patients temperature, pulse, and blood pressure.

ANS: D

The RN may delegate vital signs to the UAP. Obtaining the health history, documentation of the admission assessment, and determining nursing diagnoses require the education and scope of practice of the RN.

DIF: Cognitive Level: Apply (application) REF: 38

OBJ: Special Questions: Delegation TOP: Nursing Process: Planning

MSC: NCLEX: Safe and Effective Care Environment

12. When assessing for formation of a possible blood clot in the lower leg of a patient, which action should the nurse take **first**?

- a. Visually inspect the leg.
- b. Feel for the temperature of the leg.
- c. Check the patients pedal pulses using the fingertips.
- d. Compress the nail beds to determine capillary refill time.

ANS: A

Inspection is the first of the major techniques used in the physical examination. Palpation and auscultation are then used later in the examination.

DIF: Cognitive Level: Apply (application) REF: 41

OBJ: Special Questions: Prioritization TOP: Nursing Process: Assessment

MSC: NCLEX: Health Promotion and Maintenance

13. When assessing a patient's abdomen during the admission assessment, which action should the nurse take **first**?

- a. Feel for any masses.
- b. Palpate the abdomen.
- c. Listen for bowel sounds.
- d. Percuss the liver borders.

ANS: C

When assessing the abdomen, auscultation is done before palpation or percussion because palpation and percussion can cause changes in bowel sounds and alter the findings. All of the techniques are appropriate, but auscultation should be done first.

DIF: Cognitive Level: Understand (comprehension) REF: 41

OBJ: Special Questions: Prioritization TOP: Nursing Process: Assessment

MSC: NCLEX: Health Promotion and Maintenance

14. When admitting a patient who has just arrived on the unit with a severe headache, what should the nurse do **first**?

- a. Complete only basic demographic data before addressing the patient's pain.
- b. Medicate the patient for the headache before doing the health history and examination.
- c. Take the initial vital signs and then address the headache before completing the health history.
- d. Inform the patient that the headache will be treated as soon as the health history is completed.

ANS: C

The patient priority in this situation will be to decrease the pain level because the patient will be unlikely to cooperate in providing demographic data or the health history until the nurse addresses the pain. However, obtaining information about vital signs is essential before using either pharmacologic or nonpharmacologic therapies for pain control. The vital signs may indicate hemodynamic instability that would need to be addressed immediately.

DIF: Cognitive Level: Apply (application) REF: 37

OBJ: Special Questions: Prioritization TOP: Nursing Process: Assessment

MSC: NCLEX: Physiological Integrity

OTHER

1. In what order will the nurse perform these actions when doing a physical assessment for a patient admitted with abdominal pain? *(Put a comma and a space between each answer choice [A, B, C, D].)*

- a. Percuss the abdomen to locate any areas of dullness.
- b. Palpate the abdomen to check for tenderness or masses.
- c. Inspect the abdomen for distention or other abnormalities.
- d. Auscultate the abdomen for the presence of bowel sounds.

ANS:

C, D, A, B

When assessing the abdomen, the initial action is to inspect the abdomen. Auscultation is done next because percussion and palpation can alter bowel sounds and produce misleading findings.

MULTIPLE CHOICE

1. A patient with newly diagnosed colon cancer has a nursing diagnosis of deficient knowledge about colon cancer. The nurse should initially focus on which learning goal for this patient?

- a. The patient will select the most appropriate colon cancer therapy.
- b. The patient will state ways of preventing the recurrence of the cancer.
- c. The patient will demonstrate coping skills needed to manage the disease.
- d. The patient will choose methods to minimize adverse effects of treatment.

ANS: A

Adults learn best when given information that can be used immediately. The first action the patient will need to take after a cancer diagnosis is to choose a treatment option. The other goals may be appropriate as treatment progresses.

DIF: Cognitive Level: Apply (application) REF: 48

TOP: Nursing Process: Planning MSC: NCLEX: Health Promotion and Maintenance

2. After the nurse provides dietary instructions for a patient with diabetes, the patient can explain the information but fails to make the recommended dietary changes. How would the nurse evaluate the patients situation?

- a. Learning did not occur because the patients behavior did not change.
- b. Choosing not to follow the diet is the behavior that resulted from learning.
- c. The nursing responsibility for helping the patient make dietary changes has been fulfilled.
- d. The teaching methods were ineffective in helping the patient learn the dietary instructions.

ANS: B

Although the patient behavior has not changed, the patient's ability to explain the information indicates that learning has occurred and the patient is choosing at this time not to change the diet. The patient may be in the contemplation or preparation stage in the Transtheoretical Model. The nurse should reinforce the need for change and continue to provide information and assistance with planning for change.

DIF: Cognitive Level: Apply (application) REF: 49

TOP: Nursing Process: Evaluation MSC: NCLEX: Health Promotion and Maintenance

3. A patient is diagnosed with heart failure after being admitted to the hospital for shortness of breath and fatigue. Which teaching strategy, if implemented by the nurse, is **most** likely to be effective?

- a. Assure the patient that the nurse is an expert on management of heart failure.
- b. Teach the patient at each meal about the amounts of sodium in various foods.
- c. Discuss the importance of medication control in maintenance of long-term health.
- d. Refer the patient to a home health nurse for instructions on diet and fluid restrictions.

ANS: B

Principles of adult education indicate that readiness and motivation to learn are high when facing new tasks (such as learning about the sodium amounts in various food items) and when demonstration and practice of skills are available. Although a home health referral may be needed for this patient, teaching should not be postponed until discharge. Adult learners are independent. The nurse should act as a facilitator for learning, rather than as the expert. Adults learn best when the topic is of immediate usefulness. Long-term goals may not be very motivating.

DIF: Cognitive Level: Apply (application) REF: 48

TOP: Nursing Process: Planning MSC: NCLEX: Health Promotion and Maintenance

4. A patient who was admitted to the hospital with hyperglycemia and newly diagnosed diabetes mellitus is scheduled for discharge the second day after admission. When implementing patient teaching, what is the **priority** action for the nurse?

- a. Instruct about the increased risk for cardiovascular disease.
- b. Provide detailed information about dietary control of glucose.
- c. Teach glucose self-monitoring and medication administration.
- d. Give information about the effects of exercise on glucose control.

ANS: C

When time is limited, the nurse should focus on the priorities of teaching. In this situation, the patient should know how to test blood glucose and administer medications to control glucose levels. The patient will need further teaching about the role of diet, exercise, various medications, and the many potential complications of diabetes, but these topics can be addressed through planning for appropriate referrals.

DIF: Cognitive Level: Apply (application) REF: 50

TOP: Nursing Process: Implementation MSC: NCLEX: Health Promotion and Maintenance

5. A patient states, I told my husband I wouldnt buy as much prepared food snacks, so I will go the grocery store to buy fresh fruit, vegetables, and whole grains. When using the Transtheoretical Model of Health Behavior Change, the nurse identifies that this patient is in which stage of change?

- a. Preparation
- b. Termination
- c. Maintenance
- d. Contemplation

ANS: A

The patient's statement indicating that the plan for change is being shared with someone else indicates that the preparation stage has been achieved. Contemplation of a change would be indicated by a statement like I know I should exercise.

Maintenance of a change occurs when the patient practices the behavior regularly.

Termination would be indicated when the change is a permanent part of the lifestyle.

DIF: Cognitive Level: Understand (comprehension) REF: 49

TOP: Nursing Process: Assessment MSC: NCLEX: Health Promotion and Maintenance

6. While admitting a patient to the medical unit, the nurse determines that the patient is hard of hearing. How should the nurse use this information to plan teaching and learning strategies?

- a. Motivation and readiness to learn will be affected.
- b. The family must be included in the teaching process.
- c. The patient will have problems understanding information.
- d. Written materials should be provided with verbal instructions.

ANS: D

The information that the patient is hard of hearing indicates that the nurse should use written and verbal materials in teaching along with other strategies. The patient does not indicate a lack of motivation or an inability to understand new information. The patient's decreased hearing does not necessarily imply that the family must be included in the teaching process.

DIF: Cognitive Level: Understand (comprehension) REF: 52

TOP: Nursing Process: Planning MSC: NCLEX: Health Promotion and Maintenance

7. A patient who is morbidly obese states, I've recently made some changes in my life. I've decreased my fat intake and I've stopped smoking. Which statement, if made by the nurse, is the **best** initial response?

- a. Although those are important, it is essential that you make other changes, too.
- b. Are you having any difficulty in maintaining the changes you have already made?
- c. Which additional changes in your lifestyle would you like to implement at this time?
- d. You have already accomplished changes that are important for the health of your heart.

ANS: D

Positive reinforcement of the learner's achievements is critical in making lifestyle changes. This patient is in the action stage of the Transtheoretical Model, when reinforcement of the changes being made is an important nursing intervention. The other responses are also appropriate, but are not the best initial response.

DIF: Cognitive Level: Apply (application) REF: 49

TOP: Nursing Process: Implementation MSC: NCLEX: Health Promotion and Maintenance

8. The nurse is planning a teaching session with a patient newly diagnosed with migraine headaches. To assess a patient's readiness to learn, which question should the nurse ask?

- a. What kind of work and leisure activities do you do?
- b. What information do you think you need right now?
- c. Can you describe the types of activities that help you learn new information?
- d. Do you have any religious beliefs that are inconsistent with the planned treatment?

ANS: B

Motivation and readiness to learn depend on what the patient values and perceives as important. The other questions are also important in developing the teaching plan, but do not address what information most interests the patient at present.

DIF: Cognitive Level: Apply (application) REF: 48

TOP: Nursing Process: Assessment MSC: NCLEX: Health Promotion and Maintenance

9. The nurse considers a nursing diagnosis of ineffective health maintenance related to low motivation for a patient with diabetes. Which finding would the nurse **most** likely use to support this nursing diagnosis?

- a. The patient does not perform capillary blood glucose tests as directed.
- b. The patient occasionally forgets to take the daily prescribed medication.
- c. The patient states that dietary changes have not made any difference at all.
- d. The patient cannot identify signs or symptoms of high and low blood glucose.

ANS: C

The patient's motivation to follow a diabetic diet will be decreased if the patient feels that dietary changes do not affect symptoms. The other responses do not indicate that the ineffective health maintenance is caused by lack of motivation.

DIF: Cognitive Level: Apply (application) REF: 48-49

TOP: Nursing Process: Diagnosis MSC: NCLEX: Health Promotion and Maintenance

10. A patient with diabetic neuropathy requires teaching about foot care. Which learning goal should the nurse include in the teaching plan?

- a. The nurse will demonstrate the proper technique for trimming toenails.

- b. The patient will list three ways to protect the feet from injury by discharge.
- c. The nurse will instruct the patient on appropriate foot care before discharge.
- d. The patient will understand the rationale for proper foot care after instruction.

ANS: B

Learning goals should state clear, measurable outcomes of the learning process. Demonstrating technique for trimming toenails and providing instructions on foot care are actions that the nurse will take rather than behaviors that indicate that patient learning has occurred. A learning goal that states that the patient will understand the rationale for proper foot care is too vague and nonspecific to measure whether learning has occurred.

DIF: Cognitive Level: Apply (application) REF: 55

TOP: Nursing Process: Planning MSC: NCLEX: Health Promotion and Maintenance

11. The nurse educator teaches students how to be more assertive. Which teaching strategy, if implemented by the nurse educator, would be **most** effective?

- a. Role playing
- b. Peer teaching
- c. Printed materials
- d. Lecture-discussion

ANS: A

Role playing allows the students to practice assertive behavior and receive feedback about how the behavior is perceived. Lecture-discussion, peer-teaching, and printed materials are more useful for other learning needs.

DIF: Cognitive Level: Understand (comprehension) REF: 56

TOP: Nursing Process: Planning MSC: NCLEX: Health Promotion and Maintenance

12. The nurse and the patient who is diagnosed with hypertension develop this goal: The patient will select a 2-gram sodium diet from the hospital menu for the next 3 days. Which evaluation method will be **best** for the nurse to use when determining whether teaching was effective?

- a. Have the patient list substitutes for favorite foods that are high in sodium.
- b. Check the sodium content of the patients menu choices over the next 3 days.
- c. Ask the patient to identify which foods on the hospital menus are high in sodium.
- d. Compare the patients sodium intake before and after the teaching was implemented.

ANS: B

All of the answers address the patients sodium intake, but the desired patient behaviors in the learning objective are most clearly addressed by evaluating the sodium content of the patients menu choices.

DIF: Cognitive Level: Apply (application) REF: 57-58

TOP: Nursing Process: Evaluation MSC: NCLEX: Health Promotion and Maintenance

13. The nurse prepares written handouts to be used as part of the standardized teaching plan for patients who have been recently diagnosed with diabetes. What statement would be appropriate to include in the handouts?

- a. Eating the right foods can help in keeping blood glucose at a near-normal level.
- b. Polyphagia, polydipsia, and polyuria are common symptoms of diabetes mellitus.

- c. Some diabetics control blood glucose with oral medications, injections, or nutritional interventions.
- d. Diabetes mellitus is characterized by chronic hyperglycemia and the associated symptoms than can lead to long-term complications.

ANS: A

The reading level for patient teaching materials should be at the 5th grade level. The other responses have words with three or more syllables, use many medical terms, and/or are too long.

DIF: Cognitive Level: Apply (application) REF: 53

TOP: Nursing Process: Planning MSC: NCLEX: Health Promotion and Maintenance

14. The hospital nurse implements a teaching plan to assist an older patient who lives alone to independently accomplish daily activities. How would the nurse **best** evaluate the patients long-term response to the teaching?

- a. Make a referral to the home health nursing department for home visits.
- b. Have the patient demonstrate the learned skills at the end of the teaching session.
- c. Arrange a physical therapy visit before the patient is discharged from the hospital.
- d. Check the patients ability to bathe and get dressed without any assistance the next day.

ANS: A

A home health referral would allow for the assessment of the patients long-term response after discharge. The other actions allow evaluation of the patients short-term response to teaching.

DIF: Cognitive Level: Apply (application) REF: 58

TOP: Nursing Process: Evaluation MSC: NCLEX: Health Promotion and Maintenance

15. A patient who smokes a pack of cigarettes per day tells the nurse, I enjoy smoking and have no plans to quit. Which nursing diagnosis is **most** appropriate?

- a. Health seeking behaviors related to cigarette use
- b. Ineffective health maintenance related to tobacco use
- c. Readiness for enhanced self-health management related to smoking
- d. Deficient knowledge related to long-term effects of cigarette smoking

ANS: B

The patient's statement indicates that he or she is not considering smoking cessation. Ineffective health maintenance is defined as the inability to identify, manage, and/or seek out help to maintain health.

DIF: Cognitive Level: Apply (application) REF: 49

TOP: Nursing Process: Diagnosis MSC: NCLEX: Health Promotion and Maintenance

16. An older Asian patient, who is seen at the health clinic, is diagnosed with protein malnutrition. What **priority** action should the nurse include in the teaching plan?

- a. Suggest the use of liquid supplements as a way to increase protein intake.
- b. Encourage the patient to increase the dietary intake of meat, cheese, and milk.
- c. Ask the patient to record the intake of all foods and beverages for a 3-day period.
- d. Focus on the use of combinations of beans and rice to improve daily protein intake.

ANS: C

Assessment is the first step in assisting a patient with health changes. The other answers may be appropriate for the patient, but the nurse will not be able to determine this until the assessment of the patient is complete.

DIF: Cognitive Level: Apply (application) REF: 52-54

OBJ: Special Questions: Prioritization TOP: Nursing Process: Planning

MSC: NCLEX: Health Promotion and Maintenance

17. A middle-aged patient who has diabetes tells the nurse, I want to know how to give my own insulin so I don't have to bother my wife all the time. What is the **priority** action of the nurse?

- a. Demonstrate how to draw up and administer insulin.
- b. Discuss the use of exercise to decrease insulin needs.
- c. Teach about differences between the various types of insulin.
- d. Provide handouts about therapeutic and adverse effects of insulin.

ANS: A

Adult education is most effective when focused on information that the patient thinks is needed right now. All of the indicated information will need to be included when planning teaching for this patient, but the teaching will be most effective if the nurse starts with the patient's stated priority topic.

DIF: Cognitive Level: Apply (application) REF: 48

OBJ: Special Questions: Prioritization TOP: Nursing Process: Implementation

MSC: NCLEX: Health Promotion and Maintenance

18. The nurse plans to teach a patient and the caregiver how to manage high blood pressure (BP). Which action should the nurse take **first**?

- a. Give written information about hypertension to the patient and caregiver.
- b. Have the dietitian meet with the patient and caregiver to discuss a low sodium diet.
- c. Teach the caregiver how to take the patients BP using a manual blood pressure cuff.
- d. Ask the patient and caregiver to select information from a list of high BP teaching topics.

ANS: D

Because adults learn best when given information that they view as being needed immediately, asking the caregiver and patient to prioritize learning needs is likely to be the most successful approach to home management of health problems. The other actions may also be appropriate, depending on what learning needs the caregiver and patient have, but the initial action should be to assess what the learners feel is important.

DIF: Cognitive Level: Apply (application) REF: 54

OBJ: Special Questions: Prioritization TOP: Nursing Process: Assessment

MSC: NCLEX: Health Promotion and Maintenance

19. A postoperative patient and caregiver need discharge teaching. Which actions included in the teaching plan can the nurse delegate to unlicensed assistive personnel (UAP)?

- a. Evaluate whether the patient and caregiver understand the teaching.
- b. Show the caregiver how to accurately check the patients temperature.
- c. Schedule the discharge teaching session with the patient and caregiver.
- d. Give the patient a pamphlet reinforcing teaching already done by the nurse.

ANS: D

Providing a pamphlet to a patient to reinforce previously taught material does not require nursing judgment and can safely be delegated to UAP. Demonstration of how to take a temperature accurately, determining the best time for teaching, and evaluation of the success of patient teaching all require judgment and critical thinking and should be done by the registered nurse.

DIF: Cognitive Level: Apply (application) REF: 47-48

OBJ: Special Questions: Delegation TOP: Nursing Process: Planning

MSC: NCLEX: Safe and Effective Care Environment

20. A family caregiver tells the home health nurse, I feel like I can never get away to do anything for myself. Which action is **best** for the nurse to take?

- a. Assist the caregiver in finding respite services.
- b. Assure the caregiver that the work is appreciated.
- c. Encourage the caregiver to discuss feelings openly with the nurse as needed.
- d. Teach the caregiver that family members can also provide excellent patient care.

ANS: A

Respite services allow family caregivers to have time away from their caregiving responsibilities. The other actions may also be helpful, but the caregivers statement clearly indicates the need for some time away.

DIF: Cognitive Level: Apply (application) REF: 51

TOP: Nursing Process: Implementation MSC: NCLEX: Psychosocial Integrity

MULTIPLE RESPONSE

1. The nurse plans to provide instructions about diabetes to a patient who has a low literacy level. Which teaching strategies should the nurse use (*select all that apply*)?

- a. Discourage use of the Internet as a source of health information.
- b. Avoid asking the patient about reading abilities and level of education.
- c. Provide illustrations and photographs showing various types of insulin.
- d. Schedule one-to-one teaching sessions to practice insulin administration.
- e. Obtain CDs and DVDs that illustrate how to perform blood glucose testing.

ANS: C, D, E

For patients with low literacy, visual and hands-on learning techniques are most appropriate. The nurse will need to obtain as much information as possible about the patients reading level in order to provide appropriate learning materials. The nurse should guide the patient to Internet sites established by reputable health care organizations such as the American Diabetes Association.

Chapter 5. Chronic Illness and Older Adults

MULTIPLE CHOICE

1. When caring for an older patient with hypertension who has been hospitalized after a transient ischemic (TIA), which topic is the **most** important for the nurse to include in the discharge teaching?

- a. Effect of atherosclerosis on blood vessels
- b. Mechanism of action of anticoagulant drug therapy
- c. Symptoms indicating that the patient should contact the health care provider
- d. Impact of the patients family history on likelihood of developing a serious stroke

ANS: C

One of the tasks for patients with chronic illnesses is to prevent and manage a crisis. The patient needs instruction on recognition of symptoms of hypertension and TIA and appropriate actions to take if these symptoms occur. The other information also may be included in patient teaching but is not as essential in the patients self-management of the illness.

DIF: Cognitive Level: Apply (application) REF: 63

TOP: Nursing Process: Implementation MSC: NCLEX: Physiological Integrity

2. The nurse performs a comprehensive geriatric assessment of a patient who is being assessed for admission to an assisted living facility. Which question is the **most** important for the nurse to ask?

- a. Have you had any recent infections?
- b. How frequently do you see a doctor?
- c. Do you have a history of heart disease?
- d. Are you able to prepare your own meals?

ANS: D

The patients functional abilities, rather than the presence of an acute or chronic illness, are more useful in determining how well the patient might adapt to an assisted living situation. The other questions will also provide helpful information but are not as useful in providing a basis for determining patient needs or for developing interventions for the older patient.

DIF: Cognitive Level: Apply (application) REF: 71

TOP: Nursing Process: Assessment MSC: NCLEX: Health Promotion and Maintenance

3. An older patient who takes multiple medications for chronic cardiac and pulmonary diseases is alert and lives with a daughter who works during the day. During a clinic visit, the patient verbalizes to the nurse that she has a strained relationship with her

daughter and does not enjoy being alone all day. Which nursing diagnosis should the nurse assign as the **priority** for this patient?

- a. Risk for injury related to drug interactions
- b. Social isolation related to weakness and fatigue
- c. Compromised family coping related to the patients many care needs
- d. Caregiver role strain related to need to adjust family employment schedule

ANS: A

The patients age and multiple medications indicate a risk for injury caused by interactions between the multiple drugs being taken and a decreased drug metabolism rate. Problems with social isolation, caregiver role strain, or compromised family coping are not physiologic priorities. Drug-drug interactions could cause the most harm to the patient and is therefore the priority.

DIF: Cognitive Level: Apply (application) REF: 73-74

TOP: Nursing Process: Diagnosis MSC: NCLEX: Health Promotion and Maintenance

4. The nurse plans to complete a thorough assessment of an older patient. Which method should the nurse use to gather the **most** complete information?

- a. Use a geriatric assessment instrument to evaluate the patient.
- b. Ask the patient to write down medical problems and medications.
- c. Interview both the patient and the primary caregiver for the patient.
- d. Review the patients medical record for a history of medical problems.

ANS: A

The most complete information about the patient will be obtained through the use of an assessment instrument specific to the geriatric population, which includes information about both medical diagnoses and treatments and about functional health

patterns and abilities. A review of the medical record, interviews with the patient and caregiver, and written information by the patient are all included in a comprehensive geriatric assessment.

DIF: Cognitive Level: Apply (application) REF: 71

TOP: Nursing Process: Assessment MSC: NCLEX: Health Promotion and Maintenance

5. An older patient is hospitalized with pneumonia. Which intervention should the nurse implement to provide optimal care for this patient?

- a. Use a standardized geriatric nursing care plan.
- b. Minimize activity level during hospitalization.
- c. Plan for transfer to a long-term care facility upon discharge.
- d. Consider the preadmission functional abilities when setting patient goals.

ANS: D

The plan of care for older adults should be individualized and based on the patients current functional abilities. A standardized geriatric nursing care plan will not address individual patient needs and strengths. A patients need for discharge to a long-term care facility is variable. Activity level should be designed to allow the patient to retain functional abilities while hospitalized and also to allow any additional rest needed for recovery from the acute process.

DIF: Cognitive Level: Apply (application) REF: 71

TOP: Nursing Process: Planning MSC: NCLEX: Physiological Integrity

6. The nurse cares for an older adult patient who lives in a rural area. Which intervention should the nurse plan to implement to **best** meet this patients needs?

- a. Suggest that the patient move to an urban area.
- b. Assess the patient for chronic diseases that are unique to rural areas.

- c. Ensure transportation to appointments with the health care provider.
- d. Obtain adequate medications for the patient to last for 4 to 6 months.

ANS: C

Transportation can be a barrier to accessing health services in rural areas. The patient living in a rural area may lose the benefits of a familiar situation and social support by moving to an urban area. There are no chronic diseases unique to rural areas. Because medications may change, the nurse should help the patient plan for obtaining medications through alternate means such as the mail or delivery services, not by purchasing large quantities of the medications.

DIF: Cognitive Level: Apply (application) REF: 66-67

TOP: Nursing Process: Planning MSC: NCLEX: Health Promotion and Maintenance

7. Which nursing action will be **most** helpful in decreasing the risk for drug-drug interactions in an older adult?

- a. Teach the patient to have all prescriptions filled at the same pharmacy.
- b. Instruct the patient to avoid taking over-the-counter (OTC) medications.
- c. Make a schedule for the patient as a reminder of when to take each medication.
- d. Have the patient bring all medications, supplements, and herbs to each appointment.

ANS: D

The most information about drug use and possible interactions is obtained when the patient brings all prescribed medications, OTC medications, and supplements to every health care appointment. The patient should discuss the use of any OTC medications with the health care provider and obtain all prescribed medications from the same pharmacy, but use of supplements and herbal medications also need to be considered

in order to prevent drug-drug interactions. Use of a medication schedule will help the patient take medications as scheduled but will not prevent drug-drug interactions.

DIF: Cognitive Level: Understand (comprehension) REF: 74

TOP: Nursing Process: Implementation MSC: NCLEX: Physiological Integrity

8. A patient who has just moved to a long-term care facility has a nursing diagnosis of relocation stress syndrome. Which action should the nurse include in the plan of care?

- a. Remind the patient that making changes is usually stressful.
- b. Discuss the reason for the move to the facility with the patient.
- c. Restrict family visits until the patient is accustomed to the facility.
- d. Have staff members write notes welcoming the patient to the facility.

ANS: D

Having staff members write notes will make the patient feel more welcome and comfortable at the long-term care facility. Discussing the reason for the move and reminding the patient that change is usually stressful will not decrease the patient's stress about the move. Family member visits will decrease the patient's sense of stress about the relocation.

DIF: Cognitive Level: Apply (application) REF: 70

TOP: Nursing Process: Planning MSC: NCLEX: Psychosocial Integrity

9. An older patient complains of having no energy and feeling increasingly weak. The patient has had a 12-pound weight loss over the last year. Which action should the nurse take **initially**?

- a. Ask the patient about daily dietary intake.
- b. Schedule regular range-of-motion exercise.
- c. Discuss long-term care placement with the patient.

- d. Describe normal changes associated with aging to the patient.

ANS: A

In a frail older patient, nutrition is frequently compromised, and the nurses initial action should be to assess the patients nutritional status. Active range of motion may be helpful in improving the patients strength and endurance, but nutritional assessment is the priority because the patient has had a significant weight loss. The patient may be a candidate for long-term care placement, but more assessment is needed before this can be determined. The patients assessment data are not consistent with normal changes associated with aging.

DIF: Cognitive Level: Apply (application) REF: 67

OBJ: Special Questions: Prioritization TOP: Nursing Process: Assessment

MSC: NCLEX: Health Promotion and Maintenance

10. The nurse admits an acutely ill, older patient to the hospital. Which action should the nurse take **first**?

- a. Speak slowly and loudly while facing the patient.
- b. Obtain a detailed medical history from the patient.
- c. Perform the physical assessment before interviewing the patient.
- d. Ask a family member to go home and retrieve the patients cane.

ANS: C

When a patient is acutely ill, the physical assessment should be accomplished first to detect any physiologic changes that require immediate action. Not all older patients have hearing deficits, and it is insensitive of the nurse to speak loudly and slowly to all older patients. To avoid tiring the patient, much of the medical history can be obtained from medical records. After the initial physical assessment to determine the

patients current condition, then the nurse could ask someone to obtain any assistive devices for the patient if applicable.

DIF: Cognitive Level: Apply (application) REF: 71

OBJ: Special Questions: Prioritization TOP: Nursing Process: Planning

MSC: NCLEX: Health Promotion and Maintenance

11. The nurse cares for an alert, homeless older adult patient who was admitted to the hospital with a chronic foot infection. Which intervention is the **most** appropriate for the nurse to include in the discharge plan for this patient?

- a. Refer the patient to social services for further assessment.
- b. Teach the patient how to assess and care for the foot infection.
- c. Schedule the patient to return to outpatient services for foot care.
- d. Give the patient written information about shelters and meal sites.

ANS: A

An interdisciplinary approach, including social services, is needed when caring for homeless older adults. Even with appropriate teaching, a homeless individual may not be able to maintain adequate foot care because of a lack of supplies or a suitable place to accomplish care. Older homeless individuals are less likely to use shelters or meal sites. A homeless person may fail to keep appointments for outpatient services because of factors such as fear of institutionalization or lack of transportation.

DIF: Cognitive Level: Apply (application) REF: 67

TOP: Nursing Process: Implementation MSC: NCLEX: Safe and Effective Care Environment

12. The home health nurse cares for an older adult patient who lives alone and takes several different prescribed medications for chronic health problems. Which intervention, if implemented by the nurse, would **best** encourage medication compliance?

- a. Use a marked pillbox to set up the patients medications.
- b. Discuss the option of moving to an assisted living facility.
- c. Remind the patient about the importance of taking medications.
- d. Visit the patient daily to administer the prescribed medications.

ANS: A

Because forgetting to take medications is a common cause of medication errors in older adults, the use of medication reminder devices is helpful when older adults have multiple medications to take. There is no indication that the patient needs to move to assisted living or that the patient does not understand the importance of medication compliance. Home health care is not designed for the patient who needs ongoing assistance with activities of daily living (ADLs) or instrumental ADLs (IADLs).

DIF: Cognitive Level: Apply (application) REF: 65

TOP: Nursing Process: Implementation MSC: NCLEX: Physiological Integrity

13. The home health nurse visits an older patient with mild forgetfulness. The nurse is **most** concerned if which information is obtained?

- a. The patient tells the nurse that a close friend recently died.
- b. The patient has lost 10 pounds (4.5 kg) during the last month.
- c. The patient is cared for by a daughter during the day and stays with a son at night.
- d. The patients son uses a marked pillbox to set up the patients medications weekly.

ANS: B

A 10-pound weight loss may be an indication of elder neglect or depression and requires further assessment by the nurse. The use of a marked pillbox and planning by the family for 24-hour care are appropriate for this patient. It is not unusual that an 86-year-old would have friends who have died.

DIF: Cognitive Level: Apply (application) REF: 67

TOP: Nursing Process: Assessment MSC: NCLEX: Physiological Integrity

14. Which statement, if made by an older adult patient, would be of **most** concern to the nurse?

- a. I prefer to manage my life without much help from other people.
- b. I take three different medications for my heart and joint problems.
- c. I don't go on daily walks anymore since I had pneumonia 3 months ago.
- d. I set up my medications in a marked pillbox so I don't forget to take them.

ANS: C

Inactivity and immobility lead rapidly to loss of function in older adults. The nurse should develop a plan to prevent further deconditioning and restore function for the patient. Self-management is appropriate for independently living older adults. On average, an older adult takes seven different medications so the use of three medications is not unusual for this patient. The use of memory devices to assist with safe medication administration is recommended for older adults.

DIF: Cognitive Level: Apply (application) REF: 73

TOP: Nursing Process: Assessment MSC: NCLEX: Health Promotion and Maintenance

15. The nurse assesses an older patient who takes diuretics and has a possible urinary tract infection (UTI). Which action should the nurse take **first**?

- a. Palpate over the suprapubic area.
- b. Inspect for abdominal distention.
- c. Question the patient about hematuria.
- d. Invite the patient to use the bathroom.

ANS: D

Before beginning the assessment of an older patient with a UTI and on diuretics, the nurse should have the patient empty the bladder because bladder fullness or discomfort will distract from the patient's ability to provide accurate information. The patient may seem disoriented if distracted by pain or urgency. The physical assessment data are obtained after the patient is as comfortable as possible.

DIF: Cognitive Level: Apply (application) REF: 71

OBJ: Special Questions: Prioritization TOP: Nursing Process: Assessment

MSC: NCLEX: Physiological Integrity

16. Which patient is **most** likely to need long-term nursing care management?

- a. 72-year-old who had a hip replacement after a fall at home
- b. 64-year-old who developed sepsis after a ruptured peptic ulcer
- c. 76-year-old who had a cholecystectomy and bile duct drainage
- d. 63-year-old with bilateral knee osteoarthritis who weighs 350 lb (159 kg)

ANS: D

Osteoarthritis and obesity are chronic problems that will require planning for long-term interventions such as physical therapy and nutrition counseling. The other patients have acute problems that are not likely to require long-term management.

DIF: Cognitive Level: Apply (application) REF: 70

OBJ: Special Questions: Multiple Patients TOP: Nursing Process: Planning

MSC: NCLEX: Safe and Effective Care Environment

17. When completing an admission assessment on an older adult, the nurse gives the patient a high fall risk score. Which action should the nurse take **first**?

- a. Use a bed alarm system on the patients bed.
- b. Administer the prescribed PRN sedative medication.
- c. Ask the health care provider to order a vest restraint.
- d. Place the patient in a geri-chair near the nurses station.

ANS: A

The use of the least restrictive restraint alternative is required. Physical or chemical restraints may be necessary, but the nurses first action should be an alternative such as a bed alarm.

DIF: Cognitive Level: Apply (application) REF: 75

OBJ: Special Questions: Prioritization TOP: Nursing Process: Implementation

MSC: NCLEX: Safe and Effective Care Environment

18. An older adult patient presents with a broken arm and visible scattered bruises healing at different stages. Which action should the nurse take **first**?

- a. Notify an elder protective services agency about the possible abuse.
- b. Make a referral for a home assessment visit by the home health nurse.
- c. Have the family member stay in the waiting area while the patient is assessed.
- d. Ask the patient how the injury occurred and observe the family members reaction.

ANS: C

The initial action should be assessment and interviewing of the patient. The patient should be interviewed alone because the patient will be unlikely to give accurate information if the abuser is present. If abuse is occurring, the patient should not be discharged home for a later assessment by a home health nurse. The nurse needs to collect and document data before notifying the elder protective services agency.

DIF: Cognitive Level: Apply (application) REF: 68-69

OBJ: Special Questions: Prioritization TOP: Nursing Process: Assessment

MSC: NCLEX: Safe and Effective Care Environment

19. The family of an older patient with chronic health problems and increasing weakness is considering placement in a long-term care (LTC) facility. Which action by the nurse will be **most** helpful in assisting the patient to make this transition?

- a. Have the family select a LTC facility that is relatively new.
- b. Obtain the patients input about the choice of a LTC facility.
- c. Ask that the patient be placed in a private room at the facility.
- d. Explain the reasons for the need to live in LTC to the patient.

ANS: B

The stress of relocation is likely to be less when the patient has input into the choice of the facility. The age of the long-term care facility does not indicate a better fit for the patient or better quality of care. Although some patients may prefer a private room, others may adjust better when given a well-suited roommate. The patient should understand the reasons for the move but will make the best adjustment when involved with the choice to move and the choice of the facility.

DIF: Cognitive Level: Apply (application) REF: 70

TOP: Nursing Process: Implementation MSC: NCLEX: Psychosocial Integrity

20. The nurse manages the care of older adults in an adult health day care center. Which

action can the nurse delegate to unlicensed assistive personnel (UAP)?

- a. Obtain information about food and medication allergies from patients.
- b. Take blood pressures daily and document in individual patient records.

- c. Choose social activities based on the individual patient needs and desires.
- d. Teach family members how to cope with patients who are cognitively impaired.

ANS: B

Measurement and documentation of vital signs are included in UAP education and scope of practice. Obtaining patient health history, planning activities based on the patient assessment, and patient education are all actions that require critical thinking and will be done by the registered nurse.

DIF: Cognitive Level: Apply (application) REF: 72

OBJ: Special Questions: Delegation TOP: Nursing Process: Planning

MSC: NCLEX: Safe and Effective Care Environment

MULTIPLE RESPONSE

1. Which nursing actions will the nurse take to assess for possible malnutrition in an older adult patient (*select all that apply*)?

- a. Observe for depression.
- b. Review laboratory results.
- c. Assess teeth and oral mucosa.
- d. Ask about transportation needs.
- e. Determine food likes and dislikes.

ANS: A, B, C, D

The laboratory results, especially albumin and cholesterol levels, may indicate chronic poor protein intake or high-fat/cholesterol intake. Transportation impacts patients ability to shop for groceries. Depression may lead to decreased appetite. Oral sores or

teeth in poor condition may decrease the ability to chew and swallow. Food likes and dislikes are not necessarily associated with malnutrition.

Chapter 6. Stress Management

MULTIPLE CHOICE

1. An adult patient arrived in the emergency department (ED) with minor facial lacerations after a motor vehicle accident and has an initial blood pressure (BP) of 182/94. Which action by the nurse is **most** appropriate?

- a. Start an IV line to administer antihypertensive medications.
- b. Discuss the need for hospital admission to control blood pressure.
- c. Treat the abrasions and discuss the risks associated with hypertension.
- d. Recheck the blood pressure after the patient is stabilized and has received treatment.

ANS: D

When a patient experiences an acute stressor, the blood pressure increases. The nurse should plan to recheck the BP after the patient has stabilized and received treatment. This will provide a more accurate indication of the patient's usual blood pressure. Elevated blood pressure that occurs in response to acute stress does not increase the risk for health problems such as stroke, indicate a need for hospitalization, or indicate a need for IV antihypertensive medications.

2. A female patient who initially came to the clinic with incontinence was recently diagnosed with endometrial cancer. She is usually well organized and calm but the nurse who is giving her preoperative instructions observes that she is irritable, has difficulty concentrating, and yells at her husband. Which action should the nurse take?

- a. Ask the health care provider for a psychiatric referral.
- b. Focus teaching on preventing postoperative complications.
- c. Try to calm patient and reinforce and repeat teaching about the surgery.

- d. Encourage the patient to have bladder repair at the same time as the hysterectomy.

ANS: C

Since behavioral responses to stress include temporary changes such as irritability, changes in memory, and poor concentration, patient teaching will need to be repeated. It is also important to try to calm the patient by listening to her concerns and fears. Psychiatric referral will not necessarily be needed for her, but that can better be evaluated after surgery. Focusing on postoperative care does not address the need for preoperative instruction such as the procedure, NPO instructions before surgery, date and time of surgery, medications to be taken and/or discontinued before surgery, etc. The issue of incontinence is not immediately relevant in the discussion of preoperative teaching for her hysterectomy.

3. An adult patient who is hospitalized following a motorcycle accident when a car ran a red light tells the nurse, I didnt sleep last night because I worried about missing work at my new job and losing my insurance coverage. Which nursing diagnosis is appropriate to include in the plan of care?

- a. Anxiety
- b. Defensive coping
- c. Ineffective denial
- d. Risk prone health behavior

ANS: A

The information about the patient indicates that anxiety is an appropriate nursing diagnosis. The patient data do not support defensive coping, ineffective denial, or risk prone health behavior as problems for this patient.

4. A patient is extremely anxious about having a biopsy on a femoral lymph node in the groin area. Which relaxation technique would be **best** for the nurse to use at this time?

- a. Meditation
- b. Yoga stretching
- c. Guided imagery
- d. Relaxation breathing

ANS: D

Relaxation breathing is an easy relaxation technique to teach and use. The patient should remain still during the biopsy and not move or stretch any of his extremities. Meditation and guided imagery require more time to practice and learn.

5. A patient who suffers from frequent migraines tells the nurse, My life feels chaotic and out of my control. I will not be able to manage if anything else happens. Which response should the nurse make **initially**?

- a. Regular exercise may get your mind off the pain.
- b. Guided imagery can be helpful in regaining control.
- c. Tell me more about how your life has been recently.
- d. Your previous coping strategies can be very helpful to you now.

ANS: C

The nurses initial strategy should be further assessment of the stressors in the patients life. Exercise, guided imagery, or understanding how to use coping strategies that worked in the past may be of assistance to the patient, but more assessment is needed before the nurse can determine this.

6. A nurse prepares an adult patient with a severe burn injury for a dressing change. The nurse knows that this is a painful procedure and wants to provide music to help the patient relax. Which action is **best** for the nurse to take?

- a. Use music composed by Mozart.
- b. Ask the patient about music preferences.

- c. Select music that has 60 to 80 beats/minute.
- d. Encourage the patient to use music without words.

ANS: B

Although music with 60 to 80 beats/minute, music without words, and music composed by Mozart are frequently recommended to reduce stress, each patient responds individually to music and personal preferences are important.

7. The nurse teaches a patient who is experiencing stress at work how to use imagery as a relaxation technique. Which statement by the nurse would be **most** appropriate?

- a. Think of a place where you feel peaceful and comfortable.
- b. Place the stress in your life in an image that you can destroy.
- c. Bring what you hear and sense in your present work environment into your image.
- d. If your work environment is stressful, continue visualizing to overcome the distress.

ANS: A

Imagery is the use of one's mind to generate images that have a calming effect on the body.

When using imagery for relaxation, the patient should visualize a comfortable and peaceful place. The goal is to offer a relaxing retreat from the actual work environment. Imagery can also be used to specifically target a disease, problem, or stressor.

8. An overweight female patient who had enjoyed active outdoor activities is stressed because she is limited in what she can do because she has osteoarthritis in her hips.

Which action by the nurse will **best** assist the patient to cope with this situation?

- a. Ask the patient what activities she misses the most.

- b. Have the patient practice frequent relaxation breathing.
- c. Teach the patient to use imagery to decrease pain and decrease stress.
- d. Encourage the patient to think about how weight loss might improve symptoms.

ANS: D

For problems that can be changed or controlled, problem-focused coping strategies, such as encouraging the patient to lose weight, are most helpful. The other strategies also may assist the patient in coping with her problem, but they will not be as helpful as a problem-focused strategy.

9. A hospitalized patient with diabetes tells the nurse, I don't understand why I can keep my blood sugar under control at home with diet alone, but when I get sick, my blood sugar goes up. This is so frustrating. Which response by the nurse is **most** appropriate?

- a. It is probably just coincidental that your blood glucose is higher when you are ill.
- b. Stressors such as illness cause the release of hormones that increase blood glucose.
- c. Increased blood glucose occurs because the liver is not able to metabolize glucose as well during stressful times.
- d. Your diet is different here in the hospital than at home and that is the most likely cause of the increased glucose level.

ANS: B

The release of cortisol, epinephrine, and norepinephrine increase blood glucose levels. The increase in blood glucose is not coincidental. The liver does not control blood glucose. A diabetic patient who is hospitalized will be on an appropriate diet to help control blood glucose.

10. A middle-aged male patient with usually well-controlled hypertension and diabetes visits the clinic. Today he has a blood pressure of 174/94 and a blood glucose level of 190 mg/dL. What additional patient information may indicate that an intervention by the nurse is needed?

- a. The patient indicates that he usually does blood glucose monitoring several times each day.
- b. The patient states that he usually takes his prescribed antihypertensive medications on a daily basis.
- c. The patient reports that he and his wife are getting divorced and are in a custody battle over their 12-year-old son.
- d. The patient states that the results are related to his family history because both of his parents have high blood pressure and diabetes.

ANS: C

The increase in blood pressure and glucose levels possibly suggests that stress caused by his divorce and custody battle may be adversely affecting his health. The nurse should assess this further and develop an appropriate plan to assist the patient in decreasing his stress. Although he has been very compliant with his treatment plan in the past, the nurse should assess whether the stress in his life is interfering with his management of his health problems. The family history will not necessarily explain why he has had changes in his blood pressure and glucose levels.

11. A patient who is taking antiretroviral medication to control human immunodeficiency virus (HIV) infection tells the nurse about feeling mild depression and anxiety. Which additional information about the patient is **most** important to communicate to the health care provider?

- a. The patient's blood pressure is 152/88 mm Hg.
- b. The patient uses over-the-counter St. John's wort.
- c. The patient recently experienced the death of a close friend.
- d. The patient expresses anxiety about whether the drugs are effective.

ANS: B

St. John's wort interferes with metabolism of medications that use the cytochrome P450 enzyme system, including many HIV medications. The health care provider will need to check for toxicity caused by the drug interactions. Teaching is needed about drug interactions. The other information will also be reported but does not have immediate serious implications for the patient's health.

MULTIPLE RESPONSE

1. A patient who is hospitalized with a pelvic fracture after a motor vehicle accident just received news that the driver of the car died from multiple injuries. What actions should the nurse take based on knowledge of the physiologic stress reactions that may occur in this patient (*select all that apply*)?

- a. Assess for bradycardia.
- b. Ask about epigastric pain.
- c. Observe for decreased appetite.
- d. Check for elevated blood glucose levels.
- e. Monitor for a decrease in respiratory rate.

ANS: B, C, D

The physiologic changes associated with the acute stress response can cause changes in appetite, increased gastric acid secretion, and increased blood glucose levels. In addition, stress causes an increase in respiratory and heart rates.

Chapter 7. Sleep and Sleep Disorders

MULTIPLE CHOICE

1. A patient complains of difficulty falling asleep and daytime fatigue for the past 6 weeks. What is the **best initial** action for the nurse to take in determining whether this patient has chronic insomnia?

- a. Schedule a polysomnography (PSG) study.
- b. Arrange for the patient to have a sleep study.
- c. Ask the patient to keep a 2-week sleep diary.
- d. Teach the patient about the use of an actigraph.

ANS: C

The diagnosis of insomnia is made on the basis of subjective complaints and an evaluation of a 1- to 2-week sleep diary completed by the patient. Actigraphy and PSG studies/sleep studies may be used for determining specific sleep disorders but are not necessary to make an initial insomnia diagnosis.

2. A patient with chronic insomnia asks the nurse about ways to improve sleep quality. What is the nurses **best** response?

- a. Avoid aerobic exercise during the day.
- b. Read in bed for a few minutes each night.
- c. Keep the bedroom temperature slightly warm.
- d. Try to go to bed at the same time every evening.

ANS: D

A regular evening schedule is recommended to improve sleep time and quality. Aerobic exercise may improve sleep quality but should occur at least 6 hours before bedtime. Reading in bed is discouraged for patients with insomnia. The bedroom temperature should be slightly cool.

3. Which patient statement indicates a need for further teaching about extended-release zolpidem (Ambien CR)?

- a. I will take the medication an hour before bedtime.
- b. I should take the medication on an empty stomach.
- c. I should not take this medication unless I can sleep for at least 6 hours.

- d. I will schedule activities that require mental alertness for later in the day.

ANS: A

Benzodiazepine receptor agonists such as zolpidem work quickly and should be taken immediately before bedtime. The other patient statements are correct.

4. The nurse cares for a critically ill patient in the intensive care unit (ICU). Which intervention should the nurse include in the plan of care to improve this patient's sleep quality?

- a. Ask all visitors to leave the ICU for the night.
- b. Lower the level of lights from 8:00 PM until 7:00 AM.
- c. Avoid the use of opioids for pain relief during the evening hours.
- d. Schedule assessments to allow at least 4 hours of uninterrupted sleep.

ANS: B

Lowering the level of light will help mimic normal day/night patterns and maximize the opportunity for sleep. Although frequent assessments and opioid use can disturb sleep patterns, these actions are necessary for the care of critically ill patients. For some patients, having a family member or friend at the bedside may decrease anxiety and improve sleep.

5. What teaching should be included in the plan of care for a patient with narcolepsy?

- a. Driving an automobile may be possible with appropriate treatment of narcolepsy.
- b. Changes in sleep hygiene are ineffective in improving sleep quality in narcolepsy.
- c. Antidepressant drugs are prescribed to treat the depression caused by the disorder.
- d. Stimulant drugs should be used for only a short time because of the risk for abuse.

ANS: A

The accident rate for patients with narcolepsy who are receiving appropriate treatment is similar to the general population. Stimulant medications are used on an ongoing basis for patients with narcolepsy. The purpose of antidepressant drugs in the treatment of narcolepsy is the management of cataplexy, not to treat depression. Changes in sleep hygiene are recommended for patients with narcolepsy to improve sleep quality.

6. The nurse manager of a medical/surgical unit wants to improve the alertness of nurses who work the night shift. Which action will be the **most** helpful?

- a. Arrange for older staff members to work most night shifts.
- b. Provide a sleeping area for staff to use for napping at night.
- c. Post reminders about the relationship of sleep and alertness.
- d. Schedule nursing staff to rotate day and night shifts monthly.

ANS: B

Short on-site naps will improve alertness. Rotating shifts causes the most disruption in sleep habits. Reminding staff members about the impact of lack of sleep on alertness will not improve sleep or alertness. It is not feasible to schedule nurses based on their ages.

7. Which information regarding a patient's sleep is **most** important for the nurse to communicate to the health care provider?

- a. 64-year-old nurse who works the night shift reports drinking hot chocolate before going to bed in the morning
- b. 21-year-old student who takes melatonin to assist in sleeping when traveling from the United States to Europe
- c. 41-year-old librarian who has a body mass index (BMI) of 42 kg/m² says that the spouse complains about snoring

- d. 32-year-old accountant who is experiencing a stressful week uses diphenhydramine (Benadryl) for several nights

ANS: C

The patient's BMI and snoring suggest possible sleep apnea, which can cause complications such as cardiac dysrhythmias, hypertension, and right-sided heart failure. Melatonin is safe to use as a therapy for jet lag. Short-term use of diphenhydramine in young adults is not a concern. Hot chocolate contains only 5 mg of caffeine and is unlikely to affect this patient's sleep quality.

8. A patient complains of insomnia and daytime fatigue. What is the **first** action the nurse should take in addressing the patient's concerns?

- a. Question the patient about the use of over-the-counter (OTC) sleep aids.
- b. Suggest that the patient decrease intake of caffeine-containing beverages.
- c. Advise the patient to get out of bed if unable to fall asleep in 10 to 20 minutes.
- d. Recommend that the patient use any prescribed sleep aids for only 2 to 3 weeks.

ANS: A

The nurse's first action should be assessment of the patient for factors that may contribute to poor sleep quality or daytime fatigue such as the use of OTC medications. The other actions may be appropriate, but assessment is needed first to choose appropriate interventions to improve the patient's sleep.

9. A patient with sleep apnea who uses a continuous positive airway pressure (CPAP) device is preparing to have inpatient surgery. Which instructions should the nurse provide to the patient?

- a. Remind the patient to take the CPAP device to the hospital.

- b. Plan to schedule a nighttime polysomnography (PSG) study before surgery.
- c. Discourage the patient from requesting pain medication while hospitalized.
- d. Call the hospital to ensure that mechanical ventilation will be available for the patient.

ANS: A

The patient should be told to take the CPAP device to the hospital if an overnight stay is expected. Many patients will be able to use their own CPAP equipment, but hospital policy should be checked to make sure it can be used. Patients should be treated for pain and monitored for respiratory depression. Another PSG is not required before surgery. There is no need to call the hospital if the patient takes the CPAP device to the hospital.

10. When caring for patients with sleep disorders, which activity can the nurse appropriately delegate to unlicensed assistive personnel (UAP)?

- a. Interview a new patient about risk factors for obstructive sleep disorders.
- b. Discuss the benefits of oral appliances in decreasing obstructive sleep apnea.
- c. Help a patient choose an appropriate continuous positive airway pressure (CPAP) mask.
- d. Assist a patient to place the CPAP device correctly over the nose and mouth at bedtime.

ANS: D

Because CPAP mask placement is consistently done in the same way, this is appropriate to delegate to UAP. The other actions require critical thinking and nursing judgment, and should be done by the RN.

MULTIPLE RESPONSE

1. Which information obtained by the nurse about an older adult who complains of occasional insomnia indicates a need for patient teaching (*select all that apply*)?

- a. Drinks a cup of coffee every morning with breakfast
- b. Has a snack every evening 1 hour before going to bed
- c. Likes to read or watch television in bed on most evenings
- d. Usually takes a warm bath just before bedtime every night
- e. Occasionally uses diphenhydramine (Benadryl) as a sleep aid

ANS: C, E

Reading and watching television in bed may contribute to insomnia. Older adults should avoid the use of medications that have anticholinergic effects, such as diphenhydramine. Having a snack 1 hour before bedtime and/or coffee early in the day should not affect sleep quality. Rituals such as a warm bath before bedtime can enhance sleep quality.

Chapter 8. Pain

MULTIPLE CHOICE

1. Which question asked by the nurse will give the **most** information about the patient's metastatic bone cancer pain?

- a. How long have you had this pain?
- b. How would you describe your pain?
- c. How much medication do you take for the pain?
- d. How many times a day do you take medication for the pain?

ANS: B

Because pain is a multidimensional experience, asking a question that addresses the patient's experience with the pain will elicit more information than the more specific

information asked in the other three responses. All of these questions are appropriate, but the response beginning How would you describe your pain? is the best initial question.

2. A patient who uses a fentanyl (Duragesic) patch for chronic cancer pain suddenly complains of rapid onset pain at a level 9 (0 to 10 scale) and requests something for pain that will work now. How will the nurse document the type of pain reported by this patient?

- a. Somatic pain
- b. Referred pain
- c. Neuropathic pain
- d. Breakthrough pain

ANS: D

Pain that occurs beyond the chronic pain already being treated by appropriate analgesics is termed breakthrough pain. Neuropathic pain is caused by damage to peripheral nerves or the central nervous system (CNS). Somatic pain is localized and arises from bone, joint, muscle, skin, or connective tissue. Referred pain is pain that is localized in uninjured tissue.

3. The nurse teaches a student nurse about the action of ibuprofen. Which statement, if made by the student, indicates that teaching was effective?

- a. The drug decreases pain impulses in the spinal cord.
- b. The drug decreases sensitivity of the brain to painful stimuli.
- c. The drug decreases production of pain-sensitizing chemicals.
- d. The drug decreases the modulating effect of descending nerves.

ANS: C

Nonsteroidal antiinflammatory drugs (NSAIDs) provide analgesic effects by decreasing the production of pain-sensitizing chemicals such as prostaglandins at the site of injury. Transmission of impulses through the spinal cord, brain sensitivity to pain, and the descending nerve pathways are not affected by NSAIDs.

4. A nurse assesses a patient with chronic cancer pain who is receiving imipramine (Tofranil) in addition to long-acting morphine. Which statement, if made by the patient, indicates to the nurse that the patient is receiving adequate pain control?

- a. I'm not anxious at all.
- b. I sleep 8 hours every night.
- c. I feel much less depressed since I've been taking the Tofranil.
- d. The pain is manageable and I can accomplish my desired activities.

ANS: D

Imipramine is being used in this patient to manage chronic pain and improve functional ability. Although the medication is also prescribed for patients with depression, insomnia, and anxiety, the evaluation for this patient is based on improved pain control and activity level.

5. A patient with chronic back pain has learned to control the pain with the use of imagery and hypnosis. The patient's spouse asks the nurse how these techniques work. Which response by the nurse is **best**?

- a. The strategies work by affecting the perception of pain.
- b. These techniques block the pain pathways of the nerves.
- c. Both strategies prevent transmission of painful stimuli to the brain.
- d. The therapies slow the release of chemicals in the spinal cord that cause pain.

ANS: A

Cognitive therapies affect the perception of pain by the brain rather than affecting efferent or afferent pathways or influencing the release of chemical transmitters in the dorsal horn.

6. A patient who is receiving sustained-release morphine sulfate (MS Contin) every 12 hours for chronic pain experiences level 9 (0 to 10 scale) breakthrough pain and anxiety. Which action by the nurse is **best**?

- a. Provide amitriptyline (Elavil) 10 mg orally.
- b. Administer lorazepam (Ativan) 1 mg orally.
- c. Offer ibuprofen (Motrin) 400 to 800 mg orally.
- d. Give immediate-release morphine 30 mg orally.

ANS: D

The severe breakthrough pain indicates that the initial therapy should be a rapidly acting opioid, such as the immediate-release morphine. Lorazepam and amitriptyline may be appropriate to use as adjuvant therapy, but they are not likely to block severe breakthrough pain. Use of antianxiety agents for pain control is inappropriate because this patient's anxiety is caused by the pain.

7. A patient with chronic neck pain is seen in the pain clinic for follow-up. In order to evaluate whether the pain management is effective, which question is **best** for the nurse to ask?

- a. Can you describe the quality of your pain?
- b. Has there been a change in the pain location?
- c. How would you rate your pain on a 0 to 10 scale?
- d. Does the pain keep you from doing things you enjoy?

ANS: D

The goal for the treatment of chronic pain usually is to enhance function and quality of life. The other questions are also appropriate to ask, but information about patient function is more useful in evaluating effectiveness.

8. A patient with second-degree burns has been receiving hydromorphone through patient-controlled analgesia (PCA) for a week. The patient wakes up frequently during the night complaining of pain. What action by the nurse is **most** appropriate?

- a. Administer a dose of morphine every 1 to 2 hours from the PCA machine while the patient is sleeping.
- b. Consult with the health care provider about using a different treatment protocol to control the patients pain.
- c. Request that the health care provider order a bolus dose of morphine to be given when the patient awakens with pain.
- d. Teach the patient to push the button every 10 minutes for an hour before going to sleep, even if the pain is minimal.

ANS: B

PCAs are best for controlling acute pain. This patients history indicates chronic pain and a need for a pain management plan that will provide adequate analgesia while the patient is sleeping. Administering a dose of morphine when the patient already has severe pain will not address the problem. Teaching the patient to administer unneeded medication before going to sleep can result in oversedation and respiratory depression. It is illegal for the nurse to administer the morphine for a patient through PCA.

9. The nurse assesses that a patient receiving epidural morphine has not voided for over 10 hours. What action should the nurse take **initially**?

- a. Monitor for withdrawal symptoms.
- b. Place an indwelling urinary catheter.
- c. Ask if the patient feels the need to void.
- d. Document this allergic reaction in the patients chart.

ANS: C

Urinary retention is a common side effect of epidural opioids. Assess whether the patient feels the need to void. Since urinary retention is a possible side effect, there is no reason for concern of withdrawal symptoms. Placing an indwelling catheter requires an order from the health care provider. Usually an in and out catheter is performed to empty the bladder if the patient is unable to void because of the risk of infection with an indwelling catheter. Urinary retention does not indicate that this reaction is an allergic reaction.

10. When visiting a hospice patient, the nurse assesses that the patient has a respiratory rate of 11 breaths/minute and complains of severe pain. Which action is **best** for the nurse to take?

- a. Inform the patient that increasing the morphine will cause the respiratory drive to fail.
- b. Tell the patient that additional morphine can be administered when the respirations are 12.
- c. Titrate the prescribed morphine dose upward until the patient indicates adequate pain relief.
- d. Administer a nonopioid analgesic, such as a nonsteroidal antiinflammatory drug (NSAID), to improve patient pain control.

ANS: C

The goal of opioid use in terminally ill patients is effective pain relief regardless of adverse effects such as respiratory depression. A nonopioid analgesic like ibuprofen would not provide adequate analgesia or be absorbed quickly. The rule of double effect provides ethical justification for administering an increased morphine dose to provide effective pain control even though the morphine may further decrease the patients respiratory rate.

11. The nurse is completing the medication reconciliation form for a patient admitted with chronic cancer pain. Which medication is of **most** concern to the nurse?

- a. Amitriptyline (Elavil) 50 mg at bedtime
- b. Ibuprofen (Advil) 800 mg 3 times daily
- c. Oxycodone (OxyContin) 80 mg twice daily
- d. Meperidine (Demerol) 25 mg every 4 hours

ANS: D

Meperidine is contraindicated for chronic pain because it forms a metabolite that is neurotoxic and can cause seizures when used for prolonged periods. The ibuprofen, amitriptyline, and oxycodone are all appropriate medications for long-term pain management.

12. The nurse reviews the medication administration record in order to choose the most appropriate pain medication for a patient with cancer who describes the pain as deep, aching and at a level 8 on a 0 to 10 scale. Which medication should the nurse administer?

- a. Fentanyl (Duragesic) patch
- b. Ketorolac (Toradol) tablets
- c. Hydromorphone (Dilaudid) IV
- d. Acetaminophen (Tylenol) suppository

ANS: C

The patient's pain level indicates that a rapidly acting medication such as an IV opioid is needed. The other medications also may be appropriate to use, but will not work as rapidly or as effectively as the IV hydromorphone.

13. The nurse is caring for a patient who has diabetes and complains of chronic burning leg pain even when taking oxycodone (OxyContin) twice daily. When reviewing the orders, which prescribed medication is the **best** choice for the nurse to administer as an adjuvant to decrease the patient's pain?

- a. Aspirin (Ecotrin)
- b. Celecoxib (Celebrex)
- c. Amitriptyline (Elavil)
- d. Acetaminophen (Tylenol)

ANS: C

The patient's pain symptoms are consistent with neuropathic pain and the tricyclic antidepressants are effective for treating this type of pain. The other medications are more effective for nociceptive pain.

14. A patient who uses a fentanyl (Duragesic) patch for chronic abdominal pain caused by ovarian cancer asks the nurse to administer the prescribed hydrocodone (Vicodin) tablets, but the patient is asleep when the nurse returns with the medication. Which action is **best** for the nurse to take?

- a. Wake the patient and administer the hydrocodone.
- b. Wait until the patient wakes up and reassess the pain.
- c. Suggest the use of nondrug therapies for pain relief instead of additional opioids.
- d. Consult with the health care provider about changing the fentanyl (Duragesic) dose.

ANS: A

Because patients with chronic pain frequently use withdrawal and decreased activity as coping mechanisms for pain, sleep is not an indicator that the patient is pain free. The nurse should wake the patient and administer the hydrocodone.

15. The following medications are prescribed by the health care provider for a middle-aged patient who uses long-acting morphine (MS Contin) for chronic back pain, but still has ongoing pain. Which medication should the nurse question?

- a. Morphine (Roxanol)

- b. Pentazocine (Talwin)
- c. Celecoxib (Celebrex)
- d. Dexamethasone (Decadron)

ANS: B

Opioid agonist-antagonists can precipitate withdrawal if used in a patient who is physically dependent on mu agonist drugs such as morphine. The other medications are appropriate for the patient.

16. The nurse is caring for a 1-day postoperative patient who is receiving morphine through patient-controlled analgesia (PCA). What action by the nurse is a **priority**?

- a. Check the respiratory rate.
- b. Assess for nausea after eating.
- c. Inspect the abdomen and auscultate bowel sounds.
- d. Evaluate the sacral and heel areas for signs of redness.

ANS: A

The patient's respiratory rate is the highest priority of care while using PCA medication because of the possible respiratory depression. The other information may also require intervention but is not as urgent to report as the respiratory rate.

17. A patient who has fibromyalgia tells the nurse, I feel depressed because I ache too much to play golf. The patient says the pain is usually at a level 7 (0 to 10 scale). Which patient goal has the **highest** priority when the nurse is developing the treatment plan?

- a. The patient will exhibit fewer signs of depression.
- b. The patient will say that the aching has decreased.
- c. The patient will state that pain is at a level 2 of 10.
- d. The patient will be able to play 1 to 2 rounds of golf.

ANS: D

For chronic pain, patients are encouraged to set functional goals such as being able to perform daily activities and hobbies. The patient has identified playing golf as the desired activity, so a pain level of 2 of 10 or a decrease in aching would be less useful in evaluating successful treatment. The nurse should also assess for depression, but the patient has identified the depression as being due to the inability to play golf, so the goal of being able to play 1 or 2 rounds of golf is the most appropriate.

18. A patient who has just started taking sustained-release morphine sulfate (MS Contin) for chronic arthritic joint pain following a traumatic injury complains of nausea and abdominal fullness. Which action should the nurse take **initially**?

- a. Administer the ordered antiemetic medication.
- b. Tell the patient that the nausea will subside in about a week.
- c. Order the patient a clear liquid diet until the nausea decreases.
- d. Consult with the health care provider about using a different opioid.

ANS: A

Nausea is frequently experienced with the initiation of opioid therapy, and antiemetics usually are prescribed to treat this expected side effect. There is no indication that a different opioid is needed, although if the nausea persists, the health care provider may order a change of opioid. Although tolerance develops and the nausea will subside in about a week, it is not appropriate to allow the patient to continue to be nauseated. A clear liquid diet may decrease the nausea, but the best choice would be to administer the antiemetic medication and allow the patient to eat.

19. A patient with terminal cancer-related pain and a history of opioid abuse complains of breakthrough pain 2 hours before the next dose of sustained-release morphine sulfate (MS Contin) is due. Which action should the nurse take **first**?

- a. Use distraction by talking about things the patient enjoys.
- b. Administer the prescribed PRN immediate-acting morphine.

- c. Suggest the use of alternative therapies such as heat or cold.
- d. Consult with the doctor about increasing the MS Contin dose.

ANS: B

The patient's pain requires rapid treatment and the nurse should administer the immediate-acting morphine. Increasing the MS Contin dose and use of alternative therapies may also be needed, but the initial action should be to use the prescribed analgesic medications.

20. Which nursing action could the nurse delegate to unlicensed assistive personnel (UAP) when caring for a patient who is using a fentanyl (Duragesic) patch and a heating pad for treatment of chronic back pain?

- a. Check the skin under the heating pad.
- b. Take the respiratory rate every 2 hours.
- c. Monitor sedation using the sedation assessment scale.
- d. Ask the patient about whether pain control is effective.

ANS: B

Obtaining the respiratory rate is included in UAP education and scope of practice. Assessment for sedation, pain control, and skin integrity requires more education and scope of practice.

21. A patient who is using a fentanyl (Duragesic) patch and immediate-release morphine for chronic cancer pain develops new-onset confusion, dizziness, and a decrease in respiratory rate. Which action should the nurse take **first**?

- a. Obtain vital signs.
- b. Remove the fentanyl patch.
- c. Notify the health care provider.
- d. Administer the prescribed PRN naloxone (Narcan).

ANS: B

The assessment data indicate a possible overdose of opioid. The first action should be to remove the patch. Naloxone administration in a patient who has been chronically using opioids can precipitate withdrawal and would not be the first action.

Notification of the health care provider and continued monitoring are also needed, but the patient's data indicate that more rapid action is needed. The respiratory rate alone is an indicator for immediate action before obtaining blood pressure, pulse, and temperature.

22. The nurse reviews the medication orders for an older patient with arthritis in both hips who is complaining of level 3 (0 to 10 scale) hip pain while ambulating. Which medication should the nurse use as **initial** therapy?

- a. Naproxen (Aleve) 200 mg orally
- b. Oxycodone (Roxicodone) 5 mg orally
- c. Acetaminophen (Tylenol) 650 mg orally
- d. Aspirin (acetylsalicylic acid, ASA) 650 mg orally

ANS: C

Acetaminophen is the best first-choice medication. The principle of start low, go slow is used to guide therapy when treating older adults because the ability to metabolize medications is decreased and the likelihood of medication interactions is increased. Nonopioid analgesics are used first for mild to moderate pain, although opioids may be used later. Aspirin and the NSAIDs are associated with a high incidence of gastrointestinal bleeding in older patients.

23. Which patient with pain should the nurse assess **first**?

- a. Patient with postoperative pain who received morphine sulfate IV 15 minutes ago
- b. Patient with neuropathic pain who has a dose of hydrocodone (Lortab) scheduled now

- c. Patient who received hydromorphone (Dilaudid) 1 hour ago and currently has a sedation scale of 2
- d. Patient who returned from the postanesthesia care unit 2 hours ago and has a respiratory rate of 10

ANS: D

This patient's respiratory rate indicates possible respiratory depression. The risk for oversedation is greatest in the first 4 hours after transfer from the postanesthesia care unit. Patients should be reassessed 30 minutes after receiving IV opioids for pain. A scheduled oral medication does not need to be administered exactly at the scheduled time. A sedation scale of 2 indicates adequate pain control from hydromorphone.

MULTIPLE RESPONSE

1. The health care provider orders a patient-controlled analgesia (PCA) machine to provide pain relief for a patient with acute surgical pain who has never received opioids in the past. Which nursing actions regarding opioid administration are appropriate at this time (*select all that apply*)?

- a. Assess for signs that the patient is becoming addicted to the opioid.
- b. Monitor for therapeutic and adverse effects of opioid administration.
- c. Emphasize that the risk of some opioid side effects increases over time.
- d. Teach the patient about how analgesics improve postoperative activity levels.
- e. Provide instructions on decreasing opioid doses by the second postoperative day.

ANS: B, D

Monitoring for pain relief and teaching the patient about how opioid use will improve postoperative outcomes are appropriate actions when administering opioids for acute pain. Although postoperative patients usually need a decreasing amount of opioids by the second postoperative day, each patient's response is individual. Tolerance may

occur, but addiction to opioids will not develop in the acute postoperative period. The patient should use the opioids to achieve adequate pain control, and so the nurse should not emphasize the adverse effects.

2. A nurse assesses a postoperative patient 2 days after chest surgery. What findings indicate that the patient requires better pain management (*select all that apply*)?

- a. Confusion
- b. Hypoglycemia
- c. Poor cough effort
- d. Shallow breathing
- e. Elevated temperature

ANS: A, C, D, E

Inadequate pain control can decrease tidal volume and cough effort, leading to complications such as pneumonia with increases in temperature. Poor pain control may lead to confusion through a variety of mechanism, including hypoventilation and poor sleep quality. Stressors such as pain cause increased release of corticosteroids that can result in hyperglycemia.

OTHER

1. A patient with chronic pain who has been receiving morphine sulfate 20 mg IV over 24 hours is to be discharged home on oral sustained-release morphine (MS Contin), which will be administered twice a day. What dosage of MS Contin will be needed for each dose to obtain an equianalgesic dose for the patient? (Morphine sulfate 10 mg IV is equianalgesic to morphine sulfate 30 mg orally.)

ANS:

MS Contin 30 mg/dose

Morphine sulfate 20 mg IV over 24 hours will be equianalgesic to MS Contin 60 mg in 24 hours. Since the total dose needs to be divided into two doses, each dose should be 30 mg.

Chapter 9. Palliative and End-of-Life Care

MULTIPLE CHOICE

1. The nurse cares for a terminally ill patient who has 20-second periods of apnea followed by periods of deep and rapid breathing. Which action by the nurse would be **most** appropriate?

- a. Suction the patient.
- b. Administer oxygen via face mask.
- c. Place the patient in high Fowlers position.
- d. Document the respirations as Cheyne-Stokes.

ANS: D

Cheyne-Stokes respirations are characterized by periods of apnea alternating with deep and rapid breaths. Cheyne-Stokes respirations are expected in the last days of life. There is also no need for supplemental oxygen by face mask or suctioning the patient. Raising the head of the bed slightly and/or turning the patient on the side may promote comfort. There is no need to place the patient in high Fowlers position.

2. The nurse cares for an adolescent patient who is dying. The patients parents are interested in organ donation and ask the nurse how the decision about brain death is made. Which response by the nurse is **most** appropriate?

- a. Brain death occurs if a person is flaccid and unresponsive.
- b. If CPR is ineffective in restoring a heartbeat, the brain cannot function.
- c. Brain death has occurred if there is no breathing and certain reflexes are absent.

- d. If respiratory efforts cease and no apical pulse is audible, brain death is present.

ANS: C

The diagnosis of brain death is based on irreversible loss of all brain functions, including brainstem functions that control respirations and brainstem reflexes. The other descriptions describe other clinical manifestations associated with death but are insufficient to declare a patient brain dead.

3. A hospice patient is manifesting a decrease in all body system functions except for a heart rate of 124 and a respiratory rate of 28. Which statement, if made by the nurse to the patients family member, is **most** appropriate?

- a. These symptoms will continue to increase until death finally occurs.
- b. These symptoms are a normal response before these functions decrease.
- c. These symptoms indicate a reflex response to the slowing of other body systems.
- d. These symptoms may be associated with an improvement in the patients condition.

ANS: B

An increase in heart and respiratory rate may occur before the slowing of these functions in the dying patient. Heart and respiratory rate typically slow as the patient progresses further toward death. In a dying patient, high respiratory and pulse rates do not indicate improvement, and it would be inappropriate for the nurse to indicate this to the family. The changes in pulse and respirations are not reflex responses.

4. A patient who has been diagnosed with inoperable lung cancer and has a poor prognosis plans a trip across the country to settle some issues with sisters and brothers. The nurse recognizes that the patient is manifesting which psychosocial response to death?

- a. Restlessness

- b. Yearning and protest
- c. Anxiety about unfinished business
- d. Fear of the meaninglessness of ones life

ANS: C

The patients statement indicates that there is some unfinished family business that the patient would like to address before dying. Restlessness is frequently a behavior associated with an inability to express emotional or physical distress, but this patient does not express distress and is able to communicate clearly. There is no indication that the patient is protesting the prognosis, or that there is any fear that the patients life has been meaningless.

5. The spouse of a patient with terminal cancer visits daily and cheerfully talks with the patient about wedding anniversary plans for the next year. When the nurse asks about any concerns, the spouse says, Im busy at work, but otherwise things are fine. Which nursing diagnosis is **most** appropriate?

- a. Ineffective coping related to lack of grieving
- b. Anxiety related to complicated grieving process
- c. Caregiver role strain related to feeling overwhelmed
- d. Hopelessness related to knowledge deficit about cancer

ANS: A

The spouses behavior and statements indicate the absence of anticipatory grieving, which may lead to impaired adjustment as the patient progresses toward death. The spouse does not appear to feel overwhelmed, hopeless, or anxious.

6. As the nurse admits a patient in end-stage kidney disease to the hospital, the patient tells the nurse, If my heart or breathing stop, I do not want to be resuscitated. Which action is **best** for the nurse to take?

- a. Ask if these wishes have been discussed with the health care provider.
- b. Place a Do Not Resuscitate (DNR) notation in the patients care plan.
- c. Inform the patient that a notarized advance directive must be included in the record or resuscitation must be performed.
- d. Advise the patient to designate a person to make health care decisions when the patient is not able to make them independently.

ANS: A

A health care providers order should be written describing the actions that the nurses should take if the patient requires CPR, but the primary right to decide belongs to the patient or family. The nurse should document the patients request but does not have the authority to place the DNR order in the care plan. A notarized advance directive is not needed to establish the patients wishes. The patient may need a durable power of attorney for health care (or the equivalent), but this does not address the patients current concern with possible resuscitation.

7. A young adult patient with metastatic cancer, who is very close to death, appears restless. The patient keeps repeating, I am not ready to die. Which action is **best** for the nurse to take?

- a. Remind the patient that no one feels ready for death.
- b. Sit at the bedside and ask if there is anything the patient needs.
- c. Insist that family members remain at the bedside with the patient.
- d. Tell the patient that everything possible is being done to delay death.

ANS: B

Staying at the bedside and listening allows the patient to discuss any unresolved issues or physical discomforts that should be addressed. Stating that no one feels ready for death fails to address the individual patients concerns. Telling the patient that everything is being done does not address the patients fears about dying, especially since the patient is likely to die soon. Family members may not feel comfortable

staying at the bedside of a dying patient, and the nurse should not insist that they remain there.

8. The nurse cares for a terminally ill patient who is experiencing pain that is continuous and severe. How should the nurse schedule the administration of opioid pain medications?

- a. Give around-the-clock routine administration of analgesics.
- b. Provide PRN doses of medication whenever the patient requests.
- c. Offer enough pain medication to keep the patient sedated and unaware of stimuli.
- d. Suggest analgesic doses that provide pain control without decreasing respiratory rate.

ANS: A

The principles of beneficence and nonmaleficence indicate that the goal of pain management in a terminally ill patient is adequate pain relief even if the effect of pain medications could hasten death. Administration of analgesics on a PRN basis will not provide the consistent level of analgesia the patient needs. Patients usually do not require so much pain medication that they are oversedated and unaware of stimuli. Adequate pain relief may require a dosage that will result in a decrease in respiratory rate.

9. The nurse cares for a patient with lung cancer in a home hospice program. Which action by the nurse is **most** appropriate?

- a. Discuss cancer risk factors and appropriate lifestyle modifications.
- b. Encourage the patient to discuss past life events and their meaning.
- c. Teach the patient about the purpose of chemotherapy and radiation.
- d. Accomplish a thorough head-to-toe assessment several times a week.

ANS: B

The role of the hospice nurse includes assisting the patient with the important end-of-life task of finding meaning in the patient's life. Frequent head-to-toe assessments are not needed for hospice patients and may tire the patient unnecessarily. Patients admitted to hospice forego curative treatments such as chemotherapy and radiation for lung cancer. Discussion of cancer risk factors and therapies is not appropriate.

10. A hospice nurse who has become close to a terminally ill patient is present in the home when the patient dies and feels saddened and tearful as the family members begin to cry. Which action should the nurse take at this time?

- a. Contact a grief counselor as soon as possible.
- b. Cry along with the patient's family members.
- c. Leave the home as soon as possible to allow the family to grieve privately.
- d. Consider whether working in hospice is desirable because patient losses are common.

ANS: B

It is appropriate for the nurse to cry and express sadness in other ways when a patient dies, and the family is likely to feel that this is therapeutic. Contacting a grief counselor, leaving the family to grieve privately, and considering whether hospice continues to be a satisfying place to work are all appropriate actions as well, but the nurse's initial action at this time should be to share the grieving process with the family.

11. A middle-aged patient tells the nurse, My mother died 4 months ago, and I just can't seem to get over it. I'm not sure it is normal to still think about her every day. Which nursing diagnosis is **most** appropriate?

- a. Hopelessness related to inability to resolve grief
- b. Complicated grieving related to unresolved issues
- c. Anxiety related to lack of knowledge about normal grieving

- d. Chronic sorrow related to ongoing distress about loss of mother

ANS: C

The patient should be reassured that grieving activities such as frequent thoughts about the deceased are considered normal for months or years after a death. The other nursing diagnoses imply that the patient's grief is unusual or pathologic, which is not the case.

12. The son of a dying patient tells the nurse, Mother doesn't really respond any more when I visit. I don't think she knows that I am here. Which response by the nurse is appropriate?

- a. You may need to cut back your visits for now to avoid overtiring your mother.
- b. Withdrawal may sometimes be a normal response when preparing to leave life.
- c. It will be important for you to stimulate your mother as she gets closer to dying.
- d. Many patients don't really know what is going on around them at the end of life.

ANS: B

Withdrawal is a normal psychosocial response to approaching death. Dying patients may maintain the ability to hear while not being able to respond. Stimulation will tire the patient and is not an appropriate response to withdrawal in this circumstance. Visitors are encouraged to be present with the patient, talking softly and making physical contact in a way that does not demand a response from the patient.

13. Which patient should the nurse refer for hospice care?

- a. 60-year-old with lymphoma whose children are unable to discuss issues related to dying

- b. 72-year-old with chronic severe pain as a result of spinal arthritis and vertebral collapse
- c. 28-year-old with AIDS-related dementia who needs palliative care and pain management
- d. 56-year-old with advanced liver failure whose family members can no longer provide care in the home

ANS: C

Hospice is designed to provide palliative care such as symptom management and pain control for patients at the end of life. Patients who require more care than the family can provide, whose families are unable to discuss important issues related to dying, or who have severe pain are candidates for other nursing services but are not appropriate hospice patients.

14. The nurse admits a terminally ill patient to the hospital. What is the **first** action that the nurse should complete when planning this patient's care?

- a. Determine the patient's wishes regarding end-of-life care.
- b. Emphasize the importance of addressing any family issues.
- c. Discuss the normal grief process with the patient and family.
- d. Encourage the patient to talk about any fears or unresolved issues.

ANS: A

The nurse's initial action should be to assess the patient's wishes at this time. The other actions may be implemented if the patient or the family express a desire to discuss fears, understand the grief process, or address family issues, but they should not be implemented until the assessment indicates that they are appropriate.

15. Which action is **best** for the nurse to take to ensure culturally competent care for an alert, terminally ill Filipino patient?

- a. Ask the patient and family about their preferences for care during this time.
- b. Let the family decide whether to tell the patient about the terminal diagnosis.
- c. Obtain information from Filipino staff members about possible cultural needs.
- d. Remind family members that dying patients prefer to have someone at the bedside.

ANS: A

Because cultural beliefs may vary among people of the same ethnicity, the nurses best action is to assess the expectations of both the patient and family. The other actions may be appropriate, but the nurse can only plan for individualized culturally competent care after assessment of this patient and family.

MULTIPLE RESPONSE

1. Which nursing actions for the care of a dying patient can the nurse delegate to a licensed practical/vocational nurse (LPN/LVN) (*select all that apply*)?

- a. Provide postmortem care to the patient.
- b. Encourage the family members to talk with and reassure the patient.
- c. Determine how frequently physical assessments are needed for the patient.
- d. Teach family members about commonly occurring signs of approaching death.
- e. Administer the prescribed morphine sulfate sublingual as necessary for pain control.

ANS: A, B, E

Medication administration, psychosocial care, and postmortem care are included in LPN/LVN education and scope of practice. Patient and family teaching and

assessment and planning of frequency for assessments are skills that require registered nurse level education and scope of practice.

Chapter 10. Substance Use Disorders

MULTIPLE CHOICE

1. Which assessment finding would alert the nurse to ask the patient about alcohol use?

- a. Low blood pressure
- b. Decreased heart rate
- c. Elevated temperature
- d. Abdominal tenderness

ANS: D

Abdominal pain associated with gastrointestinal tract and liver dysfunction is common in patients with chronic alcohol use. The other problems are not associated with alcohol abuse.

2. The nurse plans postoperative care for a patient who smokes a pack of cigarettes daily. Which goal should the nurse include in the plan of care for this patient?

- a. Improve sleep
- b. Enhance appetite
- c. Decrease diarrhea
- d. Prevent sore throat

ANS: A

Insomnia is a characteristic of nicotine withdrawal. Diarrhea, sore throat, and anorexia are not symptoms associated with nicotine withdrawal.

3. A young adult patient scheduled for an annual physical examination arrives in the clinic smelling of cigarette smoke and carrying a pack of cigarettes. Which action will the nurse plan to take?

- a. Urge the patient to quit smoking as soon as possible.
- b. Avoid confronting the patient about smoking at this time.
- c. Wait for the patient to start the discussion about quitting smoking.
- d. Explain that the cold turkey method is most effective in stopping smoking.

ANS: A

Current national guidelines indicate that health care professionals should urge patients who smoke to quit smoking at every encounter. The other actions will not help decrease the patients health risks related to smoking.

4. A patient admitted to the hospital after an automobile accident is alert and does not appear to be highly intoxicated. The blood alcohol concentration (BAC) is 110 mg/dL (0.11 mg%). Which action by the nurse is **most** appropriate?

- a. Avoid the use of IV fluids.
- b. Maintain the patient on NPO status.
- c. Administer acetaminophen for headache.
- d. Monitor frequently for anxiety, hyperreflexia, and sweating.

ANS: D

The patients assessment data indicate probable physiologic dependence on alcohol, and the patient is likely to develop acute withdrawal such as anxiety, hyperreflexia, and sweating, which could be life threatening. Acetaminophen is not recommended because it is metabolized by the liver. IV thiamine and IV glucose solutions usually are given to intoxicated patients to prevent Wernickes encephalopathy, and there is no indication that the patient should be NPO.

5. An alcohol-intoxicated patient with a penetrating wound to the abdomen is undergoing emergency surgery. What will the nurse expect the patient to need during the perioperative period?

- a. An increased dose of the general anesthetic medication
- b. Frequent monitoring for bleeding and respiratory complications
- c. Interventions to prevent withdrawal symptoms within a few hours
- d. Stimulation every hour to prevent prolonged postoperative sedation

ANS: B

Patients who are intoxicated at the time of surgery are at increased risk for problems with bleeding and respiratory complications such as aspiration. In an intoxicated patient, a lower dose of anesthesia is used because of the synergistic effect of the alcohol. Withdrawal is likely to occur later in the postoperative course because the medications used for anesthesia, sedation, and pain will delay withdrawal symptoms. The patient should be monitored frequently for oversedation but does not need to be stimulated.

6. A patient with alcohol dependence is admitted to the hospital with back pain following a fall. Twenty-four hours after admission, the patient becomes tremulous and anxious. Which action by the nurse is **most** appropriate?

- a. Insert an IV line and infuse fluids.
- b. Promote oral intake to 3000 mL/day.
- c. Provide a quiet, well-lit environment.
- d. Administer opioids to provide sedation.

ANS: C

The patient's symptoms suggest acute alcohol withdrawal, and a quiet and well-lit environment will help decrease agitation, delusions, and hallucinations. There is no

indication that the patient is dehydrated. Benzodiazepines, rather than opioids, are used to prevent withdrawal. IV lines are avoided whenever possible.

7. A patient with a history of heavy alcohol use is diagnosed with acute gastritis. Which statement by the patient indicates a willingness to stop alcohol use?

- a. I am older and wiser now, and I think I can change my drinking behavior.
- b. Alcohol has never bothered my stomach before. I think I likely have the flu.
- c. My drinking is affecting my stomach, but some drugs will help me feel better.
- d. People say that I drink too much, but I really feel pretty good most of the time.

ANS: A

The statement I am older and wiser now, and I know I can change my drinking behavior indicates the patient expresses willingness to stop alcohol use and an initial commitment to changing alcohol intake behaviors. In the remaining statements, the patient recognizes that alcohol use is the reason for the gastritis but is not yet willing to make a change.

8. A patient who smokes a pack of cigarettes daily develops tachycardia and irritability on the second day after abdominal surgery. What is the nurses **best** action at this time?

- a. Escort the patient outside where smoking is allowed.
- b. Move the patient to a private room and allow smoking.
- c. Tell the patient that this is a good time to quit smoking.
- d. Request a prescription for a nicotine replacement agent.

ANS: D

Nicotine replacement agents should be prescribed for patients who smoke and are hospitalized to avoid withdrawal symptoms. Allowing the patient to smoke encourages ongoing smoking. Urging the patient to quit smoking is appropriate, but the first action should be to obtain appropriate medications to prevent withdrawal symptoms.

9. A patient who is admitted to the hospital for wound debridement admits to using fentanyl (Sublimaze) illegally. What finding does the nurse expect?

- a. Nausea and diarrhea
- b. Tremors and seizures
- c. Lethargy and disorientation
- d. Delusions and hallucinations

ANS: A

Symptoms of opioid withdrawal include gastrointestinal symptoms such as nausea, vomiting, and diarrhea. The other symptoms are seen during withdrawal from other substances such as alcohol, sedative-hypnotics, or stimulants.

10. A newly admitted patient complains of waking frequently during the night. The nurse observes the patient wearing a nicotine patch (Nicoderm CQ) on the right upper arm. Which action is **best** for the nurse to take?

- a. Question the patient about use of the patch at night.
- b. Suggest that the patient go to bed earlier in the evening.
- c. Ask the health care provider about prescribing a sedative drug for nighttime use.
- d. Remind the patient that the benefits of the patch outweigh the short-term insomnia.

ANS: A

Insomnia can occur when nicotine patches are used all night. This can be resolved by removing the patch in the evening. The other actions may be helpful in improving the patients sleep, but the initial action should be to ask about nighttime use of the patch and suggest removal of the patch at bedtime.

11. During physical assessment of a patient who has frequent nosebleeds, the nurse finds nasal sores and necrosis of the nasal septum. The nurse should ask the patient specifically about the use of which drug?

- a. Heroin
- b. Cocaine
- c. Tobacco
- d. Marijuana

ANS: B

When cocaine is inhaled, it causes ischemia of the nasal septum, leading to nasal sores and necrosis. These symptoms are not associated with the use of heroin, tobacco, or marijuana.

12. A patient admitted with shortness of breath and chest pain who is a pack-a-day smoker tells the nurse, I am just not ready to quit smoking yet. Which response by the nurse is **best**?

- a. This would be a really good time to quit.
- b. Your smoking is the cause of your chest pain.
- c. What health problems do you think smoking has caused?
- d. Are you familiar with the various nicotine replacement options?

ANS: C

The patient is in the precontemplation stage of change, and the nurses role is to assist the patient to become motivated to quit. The current Clinical Practice Guidelines

indicate that the nurse should ask the patient to identify any negative consequences from smoking. The responses This would be a really good time to quit and Your smoking is the cause of your chest pain express judgmental feelings by the nurse and are not likely to motivate the patient. Providing information about the various nicotine replacement options would be appropriate for a patient who has expressed a desire to quit smoking.

13. A disoriented and agitated patient comes to the emergency department and admits using methamphetamine. Vital signs are blood pressure 162/98, heart rate 142 and irregular, and respirations 32. Which action by the nurse is **most** important?

- a. Reorient the patient at frequent intervals.
- b. Monitor the patient's electrocardiogram (ECG) and vital signs.
- c. Keep the patient in a quiet and darkened room.
- d. Obtain a health history including prior drug use.

ANS: B

The priority is to ensure physiologic stability given that methamphetamine use can lead to complications such as myocardial infarction. The other actions are also appropriate but are not of as high a priority.

14. A 75-year-old patient is admitted for pancreatitis. Which tool would be the **most** appropriate for the nurse to use during the admission assessment?

- a. Drug Abuse Screening Test (DAST-10)
- b. Clinical Institute Withdrawal Assessment of Alcohol Scale, Revised (CIWA-Ar)
- c. Screening Test-Geriatric Version (SMAST-G)
- d. Mini-Mental State Examination

ANS: C

Because the abuse of alcohol is a common factor associated with the development of pancreatitis, the first assessment step is to screen for alcohol use using a validated screening questionnaire. The SMAST-G is a short-form alcoholism screening instrument tailored specifically to the needs of the older adult. If the patient scores positively on the SMAST-G, then the CIWA-Ar would be a useful tool for determining treatment. The DAST-10 provides more general information regarding substance use. The Mini-Mental State Examination is used to screen for cognitive impairment.

15. An older adult patient who has been taking alprazolam (Xanax) calls the clinic asking for a refill of the prescription 1 month before the alprazolam should need to be refilled. Which response by the nurse is **best**?

- a. The prescription cannot be refilled for another month. What happened to all of your pills?
- b. Do you have any muscle cramps and tremors if you don't take the medication frequently?
- c. I am concerned that you may be overusing the Xanax. Let's make an appointment for you to see the doctor.
- d. I will ask the doctor to prescribe a few more pills, but you will not be able to get any more for another month.

ANS: C

The patient should be assessed for problems that are causing overuse of alprazolam, such as anxiety or memory loss. The other responses by the nurse will not allow for the needed assessment and possible referral for support services or treatment of drug dependence.

16. A patient who has inhaled cocaine is admitted to the emergency department with palpitations and shortness of breath. What should the nurse do **first**?

- a. Obtain a 12-lead echocardiogram (ECG).
- b. Start oxygen at 4 L/minute.

- c. Draw blood for drug screening.
- d. Infuse normal saline at 100 mL/hr.

ANS: B

The priority here is to ensure that oxygenation is adequate. The other orders also should be accomplished as soon as possible but are not the first priority.

17. The nurse cares for an agitated patient who was admitted to the emergency department after taking a hallucinogenic drug and attempting to jump from a third-story window. Which nursing diagnosis should the nurse assign as the **highest** priority?

- a. Risk for injury related to altered perception
- b. Ineffective health maintenance related to drug use
- c. Powerlessness related to loss of behavioral control
- d. Ineffective denial related to lack of control of life situation

ANS: A

Although all the diagnoses may be appropriate for the patient, the highest priority is to address the patient's immediate risk for injury.

18. A young adult patient comes to the emergency department with severe chest pain and agitation. Which action should the nurse take **first**?

- a. Give naloxone (Narcan) IV.
- b. Ask about any use of stimulant drugs.
- c. Assess orientation to person, place, and time.
- d. Check blood pressure, pulse, and respirations.

ANS: D

The patient has symptoms consistent with the use of cocaine or amphetamines and is at risk for fatal tachydysrhythmias or complications of hypertension such as stroke or myocardial infarction. The nurse also will ask about drug use and assess orientation, but these are not the priority actions. Naloxone may be given if the patient develops symptoms of central nervous system (CNS) depression, but this patient's current symptoms indicate stimulant use.

19. A patient presents to the emergency department with a blood alcohol concentration (BAC) of 0.18%. After reviewing the medication orders, which drug should the nurse administer **first**?

- a. Thiamine (vitamin B₁) 100 mg daily
- b. Lorazepam (Ativan) 1 mg as needed
- c. Folic acid (Vitamin B₉) 0.4 mg daily
- d. Dextrose 5% in 0.45 saline at 125 mL/hr

ANS: A

Thiamine is given to all patients with alcohol intoxication to prevent Wernicke's encephalopathy. Because Wernicke's encephalopathy can be precipitated by the administration of glucose solutions, the thiamine should be given before (or concurrently with) the 5% dextrose solution. Lorazepam would not be appropriate while the patient still has an elevated BAC. Folic acid may also be administered, but is not as important as thiamine.

20. Which information is **most** important for the nurse to report to the health care provider about a patient who has been using varenicline (Chantix)?

- a. The patient continues to smoke a few cigarettes every day.
- b. The patient complains of headaches that occur almost daily.
- c. The patient complains of new-onset sadness and depression.
- d. The patient says, I have decided that I am not ready to quit.

ANS: C

Adverse effects of varenicline include depression and attempted suicide. The patient's symptoms require immediate assessment and discontinuation of the drug. The other information will also be reported, but it does not indicate any life-threatening problems associated with the medication.

21. A patient who has a history of ongoing opioid abuse is hospitalized for surgery. After a visit by a friend, the nurse finds that the patient is unresponsive with pinpoint pupils. Which prescribed medication will the nurse administer **immediately**?

- a. Naloxone (Narcan)
- b. Diazepam (Valium)
- c. Clonidine (Catapres)
- d. Methadone (Dolophine)

ANS: A

The patient's assessment indicates an opioid overdose, and naloxone should be given to prevent respiratory arrest. The other medications may be used to decrease symptoms associated with opioid withdrawal but would not be appropriate for an overdose.

22. After receiving change-of-shift report on four patients who are undergoing substance abuse treatment, which patient will the nurse assess **first**?

- a. A patient who has just arrived for alcohol abuse treatment and states that the last drink was 3 hours ago
- b. A patient who is agitated and experiencing nausea, occasional vomiting, and diarrhea while withdrawing from heroin
- c. A patient who has tremors secondary to benzodiazepine withdrawal and whose last benzodiazepine use was 4 days ago
- d. A patient who is being treated for cocaine addiction and is irritable and disoriented, with a pulse rate of 112 beats/minute

ANS: C

The patient's tremors indicate risk for seizures and possible cardiac/respiratory arrest, which can occur with withdrawal from sedative-hypnotics. The greatest risk for these complications is during days three to five after stopping the drug. Opioid and stimulant withdrawal is uncomfortable, but not life threatening. Symptoms of alcohol withdrawal do not occur until 4 to 6 hours after the last drink.

23. After the nurse receives report, which patient should the nurse assess **first**?

- a. Patient who has a respiratory rate of 14 after overdosing on oxycodone (OxyContin)
- b. Patient admitted with cocaine use who has an irregular heart rate of 142 beats/minute
- c. Patient who is experiencing hallucinations and extreme anxiety after the use of marijuana
- d. Patient with a history of daily alcohol use who is complaining of insomnia and diaphoresis

ANS: B

Because the patient with cocaine use has symptoms suggestive of a possible fatal dysrhythmia, this patient should be assessed immediately. The other patients should also be seen as soon as possible, but their clinical manifestations do not suggest that life-threatening complications may be occurring.

24. Which nursing activity can the nurse delegate to unlicensed assistive personnel (UAP) who are working in a family practice clinic?

- a. Make referrals to community substance abuse treatment centers.
- b. Teach patients about the use of prescribed nicotine replacement products.
- c. Administer and score the Alcohol Use Disorders Identification Test (AUDIT).

- d. Obtain patient histories regarding alcohol, tobacco, and other substance abuse.

ANS: C

No clinical judgment is needed to administer the AUDIT, which is a written questionnaire that is given to patients for self-administration and scored based on patient answers. Making appropriate referrals, patient teaching, and obtaining a patient history all require critical thinking and RN education and scope of practice.

OTHER

1. A patient is admitted to the emergency department for treatment of a possible opioid overdose. Rank the nursing activities in the correct order from first activity to last activity. *(Put a comma and a space between each answer choice [A, B, C, D, E]).*

- a. Initiate IV access.
- b. Take a health history.
- c. Obtain a toxicology screen.
- d. Administer naloxone (Narcan).
- e. Provide respiratory support with a bag-valve mask.

ANS:

E, A, D, C, B

Maintenance of the airway is the first priority for patients with possible depressant overdose. Opioid antagonists are given before toxicology testing is done because reversal of the opioid will prevent respiratory arrest. However, this will require IV access. The toxicology report will help guide further treatment for possible multiple substance ingestions. The health history will guide care after the initial emergency treatment phase.

MULTIPLE CHOICE

1. The nurse assesses a patient's surgical wound on the first postoperative day and notes redness and warmth around the incision. Which action by the nurse is **most** appropriate?

- a. Obtain wound cultures.
- b. Document the assessment.
- c. Notify the health care provider.
- d. Assess the wound every 2 hours.

ANS: B

The incisional redness and warmth are indicators of the normal initial (inflammatory) stage of wound healing by primary intention. The nurse should document the wound appearance and continue to monitor the wound. Notification of the health care provider, assessment every 2 hours, and obtaining wound cultures are not indicated because the healing is progressing normally.

2. A patient with an open leg wound has a white blood cell (WBC) count of 13,500/L and a band count of 11%. What action should the nurse take **first**?

- a. Obtain wound cultures.
- b. Start antibiotic therapy.
- c. Redress the wound with wet-to-dry dressings.
- d. Continue to monitor the wound for purulent drainage.

ANS: A

The increase in WBC count with the increased bands (shift to the left) indicates that the patient probably has a bacterial infection, and the nurse should obtain wound

cultures. Antibiotic therapy and/or dressing changes may be started, but cultures should be done first. The nurse will continue to monitor the wound, but additional actions are needed as well.

3. A patient with a systemic bacterial infection feels cold and has a shaking chill. Which assessment finding will the nurse expect **next**?

- a. Skin flushing
- b. Muscle cramps
- c. Rising body temperature
- d. Decreasing blood pressure

ANS: C

The patient's complaints of feeling cold and shivering indicate that the hypothalamic set point for temperature has been increased and the temperature is increasing. Because associated peripheral vasoconstriction and sympathetic nervous system stimulation will occur, skin flushing and hypotension are not expected. Muscle cramps are not expected with chills and shivering or with a rising temperature.

4. A young adult patient who is receiving antibiotics for an infected leg wound has a temperature of 101.8 F (38.7 C). Which action by the nurse is **most** appropriate?

- a. Apply a cooling blanket.
- b. Notify the health care provider.
- c. Give the prescribed PRN aspirin (Ascriptin) 650 mg.
- d. Check the patient's oral temperature again in 4 hours.

ANS: D

Mild to moderate temperature elevations (less than 103 F) do not harm the young adult patient and may benefit host defense mechanisms. The nurse should continue to monitor the temperature. Antipyretics are not indicated unless the patient is

complaining of fever-related symptoms. There is no need to notify the patients health care provider or to use a cooling blanket for a moderate temperature elevation.

5. A patients 4 3-cm leg wound has a 0.4 cm black area in the center of the wound surrounded by yellow-green semiliquid material. Which dressing should the nurse apply to the wound?

- a. Dry gauze dressing (Kerlix)
- b. Nonadherent dressing (Xeroform)
- c. Hydrocolloid dressing (DuoDerm)
- d. Transparent film dressing (Tegaderm)

ANS: C

The wound requires debridement of the necrotic areas and absorption of the yellow-green slough. A hydrocolloid dressing such as DuoDerm would accomplish these goals. Transparent film dressings are used for red wounds or approximated surgical incisions. Dry dressings will not debride the necrotic areas. Nonadherent dressings will not absorb wound drainage or debride the wound.

6. A patient has an open surgical wound on the abdomen that contains deep pink granulation tissue. How would the nurse document this wound?

- a. Red wound
- b. Yellow wound
- c. Full-thickness wound
- d. Stage III pressure ulcer

ANS: A

The description is consistent with a red wound. A stage III pressure ulcer would expose subcutaneous fat. A yellow wound would have creamy colored exudate. A

full-thickness wound involves subcutaneous tissue, which is not indicated in the wound description.

7. A patient with rheumatoid arthritis has been taking corticosteroids for 11 months. Which nursing action is **most** likely to detect early signs of infection in this patient?

- a. Monitor white blood cell count.
- b. Check the skin for areas of redness.
- c. Check the temperature every 2 hours.
- d. Ask about fatigue or feelings of malaise.

ANS: D

Common clinical manifestations of inflammation and infection are frequently not present when patients receive immunosuppressive medications. The earliest manifestation of an infection may be just not feeling well.

8. The nurse should plan to use a wet-to-dry dressing for which patient?

- a. A patient who has a pressure ulcer with pink granulation tissue
- b. A patient who has a surgical incision with pink, approximated edges
- c. A patient who has a full-thickness burn filled with dry, black material
- d. A patient who has a wound with purulent drainage and dry brown areas

ANS: D

Wet-to-dry dressings are used when there is minimal eschar to be removed. A full-thickness wound filled with eschar will require interventions such as surgical debridement to remove the necrotic tissue. Wet-to-dry dressings are not needed on approximated surgical incisions. Wet-to-dry dressings are not used on uninfected granulating wounds because of the damage to the granulation tissue.

9. A patient from a long-term care facility is admitted to the hospital with a sacral pressure ulcer. The base of the wound is yellow and involves subcutaneous tissue. How should the nurse classify this pressure ulcer?

- a. Stage I
- b. Stage II
- c. Stage III
- d. Stage IV

ANS: C

A stage III pressure ulcer has full-thickness skin damage and extends into the subcutaneous tissue. A stage I pressure ulcer has intact skin with some observable damage such as redness or a boggy feel. Stage II pressure ulcers have partial-thickness skin loss. Stage IV pressure ulcers have full-thickness damage with tissue necrosis, extensive damage, or damage to bone, muscle, or supporting tissues.

10. A young male patient who is a paraplegic has a stage II sacral pressure ulcer and is being cared for at home by his mother. To prevent further tissue damage, what instructions are **most** important for the nurse to teach the mother?

- a. Change the patients bedding frequently.
- b. Use a hydrocolloid dressing over the ulcer.
- c. Record the size and appearance of the ulcer weekly.
- d. Change the patients position at least every 2 hours.

ANS: D

The most important intervention is to avoid prolonged pressure on bony prominences by frequent repositioning. The other interventions may also be included in family teaching, but the most important instruction is to change the patients position at least every 2 hours.

11. The nurse will perform which action when doing a wet-to-dry dressing change on a patient's stage III sacral pressure ulcer?

- a. Soak the old dressings with sterile saline 30 minutes before removing them.
- b. Pour sterile saline onto the new dry dressings after the wound has been packed.
- c. Apply antimicrobial ointment before repacking the wound with moist dressings.
- d. Administer the ordered PRN hydrocodone (Lortab) 30 minutes before the dressing change.

ANS: D

Mechanical debridement with wet-to-dry dressings is painful, and patients should receive pain medications before the dressing change begins. The new dressings are moistened with saline before being applied to the wound. Soaking the old dressings before removing them will eliminate the wound debridement that is the purpose of this type of dressing. Application of antimicrobial ointments is not indicated for a wet-to-dry dressing.

12. A new nurse performs a dressing change on a stage II left heel pressure ulcer. Which action by the new nurse indicates a need for further teaching about pressure ulcer care?

- a. The new nurse uses a hydrocolloid dressing (DuoDerm) to cover the ulcer.
- b. The new nurse inserts a sterile cotton-tipped applicator into the pressure ulcer.
- c. The new nurse irrigates the pressure ulcer with sterile saline using a 30-mL syringe.
- d. The new nurse cleans the ulcer with a sterile dressing soaked in half-strength peroxide.

ANS: D

Pressure ulcers should not be cleaned with solutions that are cytotoxic, such as hydrogen peroxide. The other actions by the new nurse are appropriate.

13. A patient arrives in the emergency department with a swollen ankle after an injury incurred while playing soccer. Which action by the nurse is **most** appropriate?

- a. Elevate the ankle above heart level.
- b. Apply a warm moist pack to the ankle.
- c. Assess the ankle's range of motion (ROM).
- d. Assess whether the patient can bear weight on the affected ankle.

ANS: A

Soft tissue injuries are treated with rest, ice, compression, and elevation (RICE). Elevation of the ankle will decrease tissue swelling. Moving the ankle through the ROM will increase swelling and risk further injury. Cold packs should be applied the first 24 hours to reduce swelling. The nurse should not ask the patient to move or bear weight on the swollen ankle because immobilization of the inflamed or injured area promotes healing by decreasing metabolic needs of the tissues.

14. When admitting a patient with stage III pressure ulcers on both heels, which information obtained by the nurse will have the **most** impact on wound healing?

- a. The patient takes insulin daily.
- b. The patient states that the ulcers are very painful.
- c. The patient has had the heel ulcers for the last 6 months.
- d. The patient has several old incisions that have formed keloids.

ANS: A

Chronic insulin use indicates diabetes, which can interfere with wound healing. The persistence of the ulcers over the last 6 months is a concern, but changes in care may

be effective in promoting healing. Keloids are not disabling or painful, although the cosmetic effects may be distressing for some patients. Actions to reduce the patients pain will be implemented, but pain does not directly affect wound healing.

15. After receiving a change-of-shift report, which patient should the nurse assess **first**?

- a. The patient who has multiple black wounds on the feet and ankles
- b. The newly admitted patient with a stage IV pressure ulcer on the coccyx
- c. The patient who has been receiving chemotherapy and has a temperature of 102 F
- d. The patient who needs to be medicated with multiple analgesics before a scheduled dressing change

ANS: C

Chemotherapy is an immunosuppressant. Even a low fever in an immunosuppressed patient is a sign of serious infection and should be treated immediately with cultures and rapid initiation of antibiotic therapy. The nurse should assess the other patients as soon as possible after assessing and implementing appropriate care for the immunosuppressed patient.

16. The nurse could delegate care of which patient to a licensed practical/vocational nurse (LPN/LVN)?

- a. The patient who has increased tenderness and swelling around a leg wound
- b. The patient who was just admitted after suturing of a full-thickness arm wound
- c. The patient who needs teaching about home care for a draining abdominal wound
- d. The patient who requires a hydrocolloid dressing change for a stage III sacral ulcer

ANS: D

LPN/LVN education and scope of practice include sterile dressing changes for stable patients. Initial wound assessments, patient teaching, and evaluation for possible poor wound healing or infection should be done by the registered nurse (RN).

17. The nurse is caring for a patient with diabetes who had abdominal surgery 3 days ago. Which finding is **most** important for the nurse to report to the health care provider?

- a. Blood glucose 136 mg/dL
- b. Oral temperature 101 F (38.3 C)
- c. Patient complaint of increased incisional pain
- d. Separation of the proximal wound edges by 1 cm

ANS: D

Wound separation 3 days postoperatively indicates possible wound dehiscence and should be immediately reported to the health care provider. The other findings will also be reported but do not require intervention as rapidly.

18. A patient who has diabetes is admitted for an exploratory laparotomy for abdominal pain. When planning interventions to promote wound healing, what is the nurses **highest** priority?

- a. Maintaining the patients blood glucose within a normal range
- b. Ensuring that the patient has an adequate dietary protein intake
- c. Giving antipyretics to keep the temperature less than 102 F (38.9 C)
- d. Redressing the surgical incision with a dry, sterile dressing twice daily

ANS: A

Elevated blood glucose will have an impact on multiple factors involved in wound healing. Ensuring adequate nutrition also is important for the postoperative patient,

but a higher priority is blood glucose control. A temperature of 102 F will not impact adversely on wound healing, although the nurse may administer antipyretics if the patient is uncomfortable. Application of a dry, sterile dressing daily may be ordered, but frequent dressing changes for a wound healing by primary intention is not necessary to promote wound healing.

19. Which finding is **most** important for the nurse to communicate to the health care provider when caring for a patient who is receiving negative pressure wound therapy?

- a. Low serum albumin level
- b. Serosanguineous drainage
- c. Deep red and moist wound bed
- d. Cobblestone appearance of wound

ANS: A

With negative pressure therapy, serum protein levels may decrease, which will adversely affect wound healing. The other findings are expected with wound healing.

20. After the home health nurse teaches a patient's family member about how to care for a sacral pressure ulcer, which finding indicates that additional teaching is needed?

- a. The family member uses a lift sheet to reposition the patient.
- b. The family member uses clean tap water to clean the wound.
- c. The family member places contaminated dressings in a plastic grocery bag.
- d. The family member dries the wound using a hair dryer set on a low setting.

ANS: D

Pressure ulcers need to be kept moist to facilitate wound healing. The other actions indicate a good understanding of pressure ulcer care.

SHORT ANSWER

1. A patient's temperature has been 101 F (38.3 C) for several days. The patient's normal caloric intake to meet nutritional needs is 2000 calories per day. Knowing that the metabolic rate increases 7% for each Fahrenheit degree above 100 in body temperature, how many total calories should the patient receive each day?

ANS:

2140 calories

DIF: Cognitive Level: Apply (application) REF: 176

OTHER

1. A patient who has an infected abdominal wound develops a temperature of 104 F (40 C). All the following interventions are included in the patient's plan of care. In which order should the nurse perform the following actions? *(Put a comma and a space between each answer choice [A, B, C, D]).*

- a. Administer IV antibiotics.
- b. Sponge patient with cool water.
- c. Perform wet-to-dry dressing change.
- d. Administer acetaminophen (Tylenol).

ANS:

A, D, B, C

The first action should be to administer the antibiotic because treating the infection that has caused the fever is the most important aspect of fever management. The next priority is to lower the high fever, so the nurse should administer acetaminophen to lower the temperature set point. A cool sponge bath should be done after the acetaminophen is given to lower the temperature further. The wet-to-dry dressing

change will not have an immediate impact on the infection or fever and should be done last.

Chapter 12. Genetics

MULTIPLE CHOICE

1. The sister of a patient diagnosed with *BRCA* gene-related breast cancer asks the nurse, "Do you think I should be tested for the gene?" Which response by the nurse is **most** appropriate?

- a. In most cases, breast cancer is not caused by the *BRCA* gene.
- b. It depends on how you will feel if the test is positive for the *BRCA* gene.
- c. There are many things to consider before deciding to have genetic testing.
- d. You should decide first whether you are willing to have a bilateral mastectomy.

ANS: C

Although presymptomatic testing for genetic disorders allows patients to take action (such as mastectomy) to prevent the development of some genetically caused disorders, patients also need to consider that test results in their medical record may affect insurance, employability, etc. Telling a patient that a decision about mastectomy should be made before testing implies that the nurse has made a judgment about what the patient should do if the test is positive. Although the patient may need to think about her reaction if the test is positive, other issues (e.g., insurance) also should be considered. Although most breast cancers are not related to *BRCA* gene mutations, the patient with a *BRCA* gene mutation has a markedly increased risk for breast cancer.

2. When counseling a couple in which the man has an autosomal recessive disorder and the woman has no gene for the disorder, the nurse uses Punnett squares to show

the couple the probability of their having a child with the disorder. Which statement by the nurse is **most** appropriate?

- a. You should consider adoption.
- b. Your children will be carriers of the disorder.
- c. Your female children will display characteristics of the disorder.
- d. Your first-born child will likely display characteristics of the disorder.

ANS: B

When one parent has an autosomal recessive disorder and the other parent has no genes for the autosomal recessive disorder, the children will not display characteristics of the disorder. However, the children will be carriers of the autosomal recessive disorder.

3. A patient with a family history of cystic fibrosis (CF) asks for information about genetic testing. Which response by the nurse is **most** appropriate?

- a. Refer the patient to a qualified genetic counselor.
- b. Ask the patient why genetic testing is so important.
- c. Remind the patient that genetic testing has many social implications.
- d. Tell the patient that cystic fibrosis is an autosomal recessive disorder.

ANS: A

A genetic counselor is best qualified to address the multiple issues involved in genetic testing for a patient who is considering having children. Although genetic testing does have social implications, the woman will be better served by a genetic counselor who will have more expertise in this area. CF is an autosomal recessive disorder, but the patient might not understand the implications of this statement. Asking why the patient feels genetic testing is important may imply to the patient that the nurse is questioning her value system.

4. A male patient with hemophilia asks the nurse if his children will be hemophiliacs. Which response by the nurse is appropriate?

- a. All of your children will be at risk for hemophilia.
- b. Hemophilia is a multifactorial inherited condition.
- c. Only your male children are at risk for hemophilia.
- d. Your female children will be carriers for hemophilia.

ANS: D

Because hemophilia is caused by a mutation of the X chromosome, all female children of a man with hemophilia are carriers of the disorder and can transmit the mutated gene to their offspring. Sons of a man with hemophilia will not have the disorder. Hemophilia is caused by a single genetic mutation and is not a multifactorial inherited condition.

5. When caring for a young adult patient who has abnormalities in the cytochrome P450 (CYP 450) gene, which action will the nurse include in the patient's plan of care?

- a. Teach that some medications may not work as effectively.
- b. Teach about genetic risk for cystic fibrosis in any children.
- c. Suggest that the patient make heart healthy lifestyle choices.
- d. Discuss the need for screening mammograms starting at age 30.

ANS: A

The CYP 450 gene affects the metabolism of many medications, and they may not work as effectively or may have unexpected toxic effects. The CYP 450 gene does not affect risk for breast cancer, cystic fibrosis, or coronary artery disease.

6. A patient tells the nurse, I would like to use a home genetic test to see if I will develop breast cancer. Which response by the nurse is **best**?

- a. Home genetic testing is very expensive.
- b. Are you concerned about developing breast cancer?
- c. Wont you be depressed if the testing shows a positive result?
- d. Genetic testing can only determine if you are at higher risk for breast cancer.

ANS: B

This response uses the communication technique of clarifying to further assess the patients concerns. The other options accurately indicate information about genetic testing, but the initial response by the nurse should be focused on assessment.

7. The nurse in the outpatient clinic has obtained health histories for these new patients. Which patient may need referral for genetic testing?

- a. 35-year-old patient whose maternal grandparents died after strokes at ages 90 and 96
- b. 18-year-old patient with a positive pregnancy test whose first child has cerebral palsy
- c. 34-year-old patient who has a sibling with newly diagnosed polycystic kidney disease
- d. 50-year-old patient with a history of cigarette smoking who is complaining of dyspnea

ANS: C

The adult form of polycystic kidney disease is an autosomal dominant disorder and frequently it is asymptomatic until the patient is older. Presymptomatic testing will give the patient information that will be useful in guiding lifestyle and childbearing choices. The other patients do not have any indication of genetic disorders or need for genetic testing.

MULTIPLE CHOICE

1. The nurse provides discharge instructions to a patient who has an immune deficiency involving the T lymphocytes. Which screening should the nurse include in the teaching plan for this patient?

- a. Screening for allergies
- b. Screening for malignancy
- c. Antibody deficiency screening
- d. Screening for autoimmune disorders

ANS: B

Cell-mediated immunity is responsible for the recognition and destruction of cancer cells. Allergic reactions, autoimmune disorders, and antibody deficiencies are mediated primarily by B lymphocytes and humoral immunity.

2. A new mother expresses concern about her baby developing allergies and asks what the health care provider meant by passive immunity. Which example should the nurse use to explain this type of immunity?

- a. Early immunization
- b. Bone marrow donation
- c. Breastfeeding her infant
- d. Exposure to communicable diseases

ANS: C

Colostrum provides passive immunity through antibodies from the mother. These antibodies protect the infant for a few months. However, memory cells are not retained, so the protection is not permanent. Active immunity is acquired by being immunized with vaccinations or having an infection. It requires that the infant has an

immune response after exposure to an antigen. Cell-mediated immunity is acquired through T lymphocytes and is a form of active immunity.

3. A patient is being evaluated for possible atopic dermatitis. The nurse expects elevation of which laboratory value?

- a. IgE
- b. IgA
- c. Basophils
- d. Neutrophils

ANS: A

Serum IgE is elevated in an allergic response (type 1 hypersensitivity disorders). The eosinophil level will be elevated rather than neutrophil or basophil counts. IgA is located in body secretions and would not be tested when evaluating a patient who has symptoms of atopic dermatitis.

4. An older adult patient who is having an annual check-up tells the nurse, I feel fine, and I don't want to pay for all these unnecessary cancer screening tests! Which information should the nurse plan to teach this patient?

- a. Consequences of aging on cell-mediated immunity
- b. Decrease in antibody production associated with aging
- c. Impact of poor nutrition on immune function in older people
- d. Incidence of cancer-stimulating infections in older individuals

ANS: A

The primary impact of aging on immune function is on T cells, which are important for immune surveillance and tumor immunity. Antibody function is not affected as much by aging. Poor nutrition can also contribute to decreased immunity, but there is no evidence that it is a contributing factor for this patient. Although some types of

cancer are associated with specific infections, this patient does not have an active infection.

5. A patient who collects honey to earn supplemental income has developed a hypersensitivity to bee stings. Which statement, if made by the patient, would indicate a need for additional teaching?

- a. I need to find another way to earn extra money.
- b. I will get a prescription for epinephrine and learn to self-inject it.
- c. I will plan to take oral antihistamines daily before going to work.
- d. I should wear a Medic-Alert bracelet indicating my allergy to bee stings.

ANS: C

Because the patient is at risk for bee stings and the severity of allergic reactions tends to increase with added exposure to allergen, taking oral antihistamines will not adequately control the patient's hypersensitivity reaction. The other patient statements indicate a good understanding of management of the problem.

6. Which teaching should the nurse provide about intradermal skin testing to a patient with possible allergies?

- a. Do not eat anything for about 6 hours before the testing.
- b. Take an oral antihistamine about an hour before the testing.
- c. Plan to wait in the clinic for 20 to 30 minutes after the testing.
- d. Reaction to the testing will take about 48 to 72 hours to occur.

ANS: C

Allergic reactions usually occur within minutes after injection of an allergen, and the patient will be monitored for at least 20 minutes for anaphylactic reactions after the testing. Medications that might modify the response, such as antihistamines, should be

avoided before allergy testing. There is no reason to be NPO for skin testing. Results with intradermal testing occur within minutes.

7. The nurse, who is reviewing a clinic patient's medical record, notes that the patient missed the previous appointment for weekly immunotherapy. Which action by the nurse is **most** appropriate?

- a. Schedule an additional dose that week.
- b. Administer the usual dosage of the allergen.
- c. Consult with the health care provider about giving a lower allergen dose.
- d. Re-evaluate the patient's sensitivity to the allergen with a repeat skin test.

ANS: C

Because there is an increased risk for adverse reactions after a patient misses a scheduled dose of allergen, the nurse should check with the health care provider before administration of the injection. A skin test is used to identify the allergen and would not be used at this time. An additional dose for the week may increase the risk for a reaction.

8. While obtaining a health history from a patient, the nurse learns that the patient has a history of allergic rhinitis and multiple food allergies. Which action by the nurse is **most** appropriate?

- a. Encourage the patient to carry an epinephrine kit in case a type IV allergic reaction to latex develops.
- b. Advise the patient to use oil-based hand creams to decrease contact with natural proteins in latex gloves.
- c. Document the patient's allergy history and be alert for any clinical manifestations of a type I latex allergy.
- d. Recommend that the patient use vinyl gloves instead of latex gloves in preventing blood-borne pathogen contact.

ANS: C

The patient's allergy history and occupation indicate a risk of developing a latex allergy. The nurse should be prepared to manage any symptoms that may occur. Epinephrine is not an appropriate treatment for contact dermatitis that is caused by a type IV allergic reaction to latex. Oil-based creams will increase the exposure to latex from latex gloves. Vinyl gloves are appropriate to use when exposure to body fluids is unlikely.

9. The nurse teaches a patient diagnosed with systemic lupus erythematosus (SLE) about plasmapheresis. What instructions about plasmapheresis should the nurse include in the teaching plan?

- a. Plasmapheresis will eliminate eosinophils and basophils from blood.
- b. Plasmapheresis will remove antibody-antigen complexes from circulation.
- c. Plasmapheresis will prevent foreign antibodies from damaging various body tissues.
- d. Plasmapheresis will decrease the damage to organs caused by attacking T lymphocytes.

ANS: B

Plasmapheresis is used in SLE to remove antibodies, antibody-antigen complexes, and complement from blood. T lymphocytes, foreign antibodies, eosinophils, and basophils do not directly contribute to the tissue damage in SLE.

10. The nurse is caring for a patient undergoing plasmapheresis. The nurse should assess the patient for which clinical manifestation?

- a. Shortness of breath
- b. High blood pressure
- c. Transfusion reaction
- d. Numbness and tingling

ANS: D

Numbness and tingling may occur as the result of the hypocalcemia caused by the citrate used to prevent coagulation. The other clinical manifestations are not associated with plasmapheresis.

11. Which statement by a patient would alert the nurse to a possible immunodeficiency disorder?

- a. I take one baby aspirin every day to prevent stroke.
- b. I usually eat eggs or meat for at least 2 meals a day.
- c. I had my spleen removed many years ago after a car accident.
- d. I had a chest x-ray 6 months ago when I had walking pneumonia.

ANS: C

Splenectomy increases the risk for septicemia from bacterial infections. The patient's protein intake is good and should improve immune function. Daily aspirin use does not affect immune function. A chest x-ray does not have enough radiation to suppress immune function.

12. Which patient should the nurse assess **first**?

- a. Patient with urticaria after receiving an IV antibiotic
- b. Patient who has graft-versus-host disease and severe diarrhea
- c. Patient who is sneezing after having subcutaneous immunotherapy
- d. Patient with multiple chemical sensitivities who has muscle stiffness

ANS: C

Sneezing after subcutaneous immunotherapy may indicate impending anaphylaxis and assessment and emergency measures should be initiated. The other patients also have findings that need assessment and intervention by the nurse, but do not have evidence of life-threatening complications.

13. Ten days after receiving a bone marrow transplant, a patient develops a skin rash. What would the nurse suspect is the cause of this patient's skin rash?

- a. The donor T cells are attacking the patient's skin cells.
- b. The patient's antibodies are rejecting the donor bone marrow.
- c. The patient is experiencing a delayed hypersensitivity reaction.
- d. The patient will need treatment to prevent hyperacute rejection.

ANS: A

The patient's history and symptoms indicate that the patient is experiencing graft-versus-host disease, in which the donated T cells attack the patient's tissues. The history and symptoms are not consistent with rejection or delayed hypersensitivity.

14. An adolescent patient seeks care in the emergency department after sharing needles for heroin injection with a friend who has hepatitis B. To provide immediate protection from infection, what medication will the nurse administer?

- a. Corticosteroids
- b. Gamma globulin
- c. Hepatitis B vaccine
- d. Fresh frozen plasma

ANS: B

The patient should first receive antibodies for hepatitis B from injection of gamma globulin. The hepatitis B vaccination series should be started to provide active immunity. Fresh frozen plasma and corticosteroids will not be effective in preventing hepatitis B in the patient.

15. The nurse teaches a patient about drug therapy after a kidney transplant. Which statement by the patient would indicate a need for further instructions?

- a. After a couple of years, it is likely that I will be able to stop taking the cyclosporine.
- b. If I develop an acute rejection episode, I will need to have other types of drugs given IV.
- c. I need to be monitored closely because I have a greater chance of developing malignant tumors.
- d. The drugs are given in combination because they inhibit different ways the kidney can be rejected.

ANS: A

Cyclosporine, a calcineurin inhibitor, will need to be continued for life. The other patient statements are accurate and indicate that no further teaching is necessary about those topics.

16. An older adult patient has a prescription for cyclosporine following a kidney transplant. Which information in the patient's health history has the **most** implications for planning patient teaching about the medication at this time?

- a. The patient restricts salt to treat prehypertension.
- b. The patient drinks 3 to 4 quarts of fluids every day.
- c. The patient has many concerns about the effects of cyclosporine.
- d. The patient has a glass of grapefruit juice every day for breakfast.

ANS: D

Grapefruit juice can increase the toxicity of cyclosporine. The patient should be taught to avoid grapefruit juice. High fluid intake will not affect cyclosporine levels or renal function. Cyclosporine may cause hypertension, and the patient's many concerns should be addressed, but these are not potentially life-threatening problems.

17. A patient is admitted to the hospital with acute rejection of a kidney transplant. Which intervention will the nurse prepare for this patient?

- a. Administration of immunosuppressant medications
- b. Insertion of an arteriovenous graft for hemodialysis
- c. Placement of the patient on the transplant waiting list
- d. A blood draw for human leukocyte antigen (HLA) matching

ANS: A

Acute rejection is treated with the administration of additional immunosuppressant drugs such as corticosteroids. Because acute rejection is potentially reversible, there is no indication that the patient will require another transplant or hemodialysis. There is no indication for repeat HLA testing.

18. The charge nurse is assigning rooms for new admissions. Which patient would be the **most** appropriate roommate for a patient who has acute rejection of an organ transplant?

- a. A patient who has viral pneumonia
- b. A patient with second-degree burns
- c. A patient who is recovering from an anaphylactic reaction to a bee sting
- d. A patient with graft-versus-host disease after a recent bone marrow transplant

ANS: C

Treatment for a patient with acute rejection includes administration of additional immunosuppressants, and the patient should not be exposed to increased risk for infection as would occur from patients with viral pneumonia, graft-versus-host disease, and burns. There is no increased exposure to infection from a patient who had an anaphylactic reaction.

19. A patient who has received allergen testing using the cutaneous scratch method has developed itching and swelling at the skin site. Which action should the nurse take **first**?

- a. Administer epinephrine.
- b. Apply topical hydrocortisone.
- c. Monitor the patient for lower extremity edema.
- d. Ask the patient about exposure to any new lotions or soaps.

ANS: A

The initial symptoms of anaphylaxis are itching and edema at the site of the exposure. Hypotension, tachycardia, dilated pupils, and wheezes occur later. Rapid administration of epinephrine when excessive itching or swelling at the skin site is observed can prevent the progression to anaphylaxis. Topical hydrocortisone would not deter an anaphylactic reaction. Exposure to lotions and soaps does not address the immediate concern of a possible anaphylactic reaction. The nurse should not wait and observe for edema. The nurse should act immediately in order to prevent progression to anaphylaxis.

20. A patient who is anxious and has difficulty breathing seeks treatment after being stung by a wasp. What is the nurses **priority** action?

- a. Have the patient lie down.
- b. Assess the patients airway.
- c. Administer high-flow oxygen.
- d. Remove the stinger from the site.

ANS: B

The initial action with any patient with difficulty breathing is to assess and maintain the airway. The other actions also are part of the emergency management protocol for anaphylaxis, but the priority is airway maintenance.

21. Immediately after the nurse administers an intracutaneous injection of an allergen on the forearm, a patient complains of itching at the site and of weakness and dizziness. What action should the nurse take **first**?

- a. Remind the patient to remain calm.
- b. Administer subcutaneous epinephrine.
- c. Apply a tourniquet above the injection site.
- d. Rub a local antiinflammatory cream on the site.

ANS: C

Application of a tourniquet will decrease systemic circulation of the allergen and should be the first reaction. A local antiinflammatory cream may be applied to the site of a cutaneous test if the itching persists. Epinephrine will be needed if the allergic reaction progresses to anaphylaxis. The nurse should assist the patient to remain calm, but this is not an adequate initial nursing action.

22. A clinic patient is experiencing an allergic reaction to an unknown allergen. Which action is **most** appropriate for the registered nurse (RN) to delegate to a licensed practical/vocational nurse (LPN/LVN)?

- a. Perform a focused physical assessment.
- b. Obtain the health history from the patient.
- c. Teach the patient about the various diagnostic studies.
- d. Administer skin testing by the cutaneous scratch method.

ANS: D

LPN/LVNs are educated and licensed to administer medications under the supervision of an RN. RN-level education and the scope of practice include assessment of health history, focused physical assessment, and patient teaching.

23. The health care provider asks the nurse whether a patient's angioedema has responded to prescribed therapies. Which assessment should the nurse perform?

- a. Ask the patient about any clear nasal discharge.
- b. Obtain the patient's blood pressure and heart rate.

- c. Check for swelling of the patients lips and tongue.
- d. Assess the patients extremities for wheal and flare lesions.

ANS: C

Angioedema is characterized by swelling of the eyelids, lips, and tongue. Wheal and flare lesions, clear nasal drainage, and hypotension and tachycardia are characteristic of other allergic reactions.

24. A nurse has obtained donor tissue typing information about a patient who is waiting for a kidney transplant. Which results should be reported to the transplant surgeon?

- a. Patient is Rh positive and donor is Rh negative
- b. Six antigen matches are present in HLA typing
- c. Results of patient-donor cross matching are positive
- d. Panel of reactive antibodies (PRA) percentage is low

ANS: C

Positive crossmatching is an absolute contraindication to kidney transplantation, since a hyperacute rejection will occur after the transplant. The other information indicates that the tissue match between the patient and potential donor is acceptable.

25. A patient who is receiving immunotherapy has just received an allergen injection. Which assessment finding is **most** important to communicate to the health care provider?

- a. The patients IgG level is increased.
- b. The injection site is red and swollen.
- c. The patients allergy symptoms have not improved.
- d. There is a 2-cm wheal at the site of the allergen injection.

ANS: D

A local reaction larger than quarter size may indicate that a decrease in the allergen dose is needed. An increase in IgG indicates that the therapy is effective. Redness and swelling at the site are not unusual. Because immunotherapy usually takes 1 to 2 years to achieve an effect, an improvement in the patients symptoms is not expected after a few months.

OTHER

1. A patient who is receiving an IV antibiotic develops wheezes and dyspnea. In which order should the nurse implement these prescribed actions? (*Put a comma and a space between each answer choice [A, B, C, D, E]*).

- a. Discontinue the antibiotic infusion.
- b. Give diphenhydramine (Benadryl) IV.
- c. Inject epinephrine (Adrenalin) IM or IV.
- d. Prepare an infusion of dopamine (Intropin).
- e. Start 100% oxygen using a nonrebreather mask.

ANS:

A, E, C, B, D

The nurse should initially discontinue the antibiotic because it is the likely cause of the allergic reaction. Next, oxygen delivery should be maximized, followed by treatment of bronchoconstriction with epinephrine administered IM or IV.

Diphenhydramine will work more slowly than epinephrine, but will help prevent progression of the reaction. Because the patient currently does not have evidence of hypotension, the dopamine infusion can be prepared last.

MULTIPLE CHOICE

1. A patient who has vague symptoms of fatigue, headaches, and a positive test for human immunodeficiency virus (HIV) antibodies using an enzyme immunoassay (EIA) test. What instructions should the nurse give to this patient?

- a. The EIA test will need to be repeated to verify the results.
- b. A viral culture will be done to determine the progression of the disease.
- c. It will probably be 10 or more years before you develop acquired immunodeficiency syndrome (AIDS).
- d. The Western blot test will be done to determine whether acquired immunodeficiency syndrome (AIDS) has developed.

ANS: A

After an initial positive EIA test, the EIA is repeated before more specific testing such as the Western blot is done. Viral cultures are not usually part of HIV testing. It is not appropriate for the nurse to predict the time frame for AIDS development. The Western blot tests for HIV antibodies, not for AIDS.

2. A patient who has a positive test for human immunodeficiency virus (HIV) antibodies is admitted to the hospital with *Pneumocystis jiroveci* pneumonia (PCP) and a CD4⁺ T-cell count of less than 200 cells/ μ L. Based on diagnostic criteria established by the Centers for Disease Control and Prevention (CDC), which statement by the nurse is correct?

- a. The patient meets the criteria for a diagnosis of an acute HIV infection.
- b. The patient will be diagnosed with asymptomatic chronic HIV infection.
- c. The patient has developed acquired immunodeficiency syndrome (AIDS).
- d. The patient will develop symptomatic chronic HIV infection in less than a year.

ANS: C

Development of PCP meets the diagnostic criterion for AIDS. The other responses indicate earlier stages of HIV infection than is indicated by the PCP infection.

3. A patient with a positive rapid antibody test result for human immunodeficiency virus (HIV) is anxious and does not appear to hear what the nurse is saying. What action by the nurse is **most** important at this time?

- a. Teach the patient about the medications available for treatment.
- b. Inform the patient how to protect sexual and needle-sharing partners.
- c. Remind the patient about the need to return for retesting to verify the results.
- d. Ask the patient to notify individuals who have had risky contact with the patient.

ANS: C

After an initial positive antibody test, the next step is retesting to confirm the results. A patient who is anxious is not likely to be able to take in new information or be willing to disclose information about HIV status of other individuals.

4. A patient who is diagnosed with acquired immunodeficiency syndrome (AIDS) tells the nurse, I feel obsessed with thoughts about dying. Do you think I am just being morbid? Which response by the nurse is **best**?

- a. Thinking about dying will not improve the course of AIDS.
- b. It is important to focus on the good things about your life now.
- c. Do you think that taking an antidepressant might be helpful to you?
- d. Can you tell me more about the kind of thoughts that you are having?

ANS: D

More assessment of the patients psychosocial status is needed before taking any other action. The statements, Thinking about dying will not improve the course of AIDS and It is important to focus on the good things in life discourage the patient from

sharing any further information with the nurse and decrease the nurses ability to develop a trusting relationship with the patient. Although antidepressants may be helpful, the initial action should be further assessment of the patients feelings.

5. A pregnant woman with a history of asymptomatic chronic human immunodeficiency virus (HIV) infection is seen at the clinic. The patient states, I am very nervous about making my baby sick. Which information will the nurse include when teaching the patient?

- a. The antiretroviral medications used to treat HIV infection are teratogenic.
- b. Most infants born to HIV-positive mothers are not infected with the virus.
- c. Because she is at an early stage of HIV infection, the infant will not contract HIV.
- d. It is likely that her newborn will become infected with HIV unless she uses antiretroviral therapy (ART).

ANS: B

Only 25% of infants born to HIV-positive mothers develop HIV infection, even when the mother does not use ART during pregnancy. The percentage drops to 2% when ART is used. Perinatal transmission can occur at any stage of HIV infection (although it is less likely to occur when the viral load is lower). ART can safely be used in pregnancy, although some ART drugs should be avoided.

6. Which patient exposure by the nurse is **most** likely to require postexposure prophylaxis when the patients human immunodeficiency virus (HIV) status is unknown?

- a. Needle stick with a needle and syringe used to draw blood
- b. Splash into the eyes when emptying a bedpan containing stool
- c. Contamination of open skin lesions with patient vaginal secretions
- d. Needle stick injury with a suture needle during a surgical procedure

ANS: A

Puncture wounds are the most common means for workplace transmission of blood-borne diseases, and a needle with a hollow bore that had been contaminated with the patient's blood would be a high-risk situation. The other situations described would be much less likely to result in transmission of the virus.

7. A young adult female patient who is human immunodeficiency virus (HIV)-positive has a new prescription for efavirenz (Sustiva). Which information is **most** important to include in the medication teaching plan?

- a. Driving is allowed when starting this medication.
- b. Report any bizarre dreams to the health care provider.
- c. Continue to use contraception while on this medication.
- d. Take this medication in the morning on an empty stomach.

ANS: C

Efavirenz can cause fetal anomalies and should not be used in patients who may be pregnant. The drug should not be used during pregnancy because large doses could cause fetal anomalies. Once-a-day doses should be taken at bedtime (at least initially) to help patients cope with the side effects that include dizziness and confusion. Patients should be cautioned about driving when starting this drug. Patients should be informed that many people who use the drug have reported vivid and sometimes bizarre dreams.

8. A patient who is human immunodeficiency virus (HIV)-infected has a CD4⁺ cell count of 400/L. Which factor is **most** important for the nurse to determine before the initiation of antiretroviral therapy (ART) for this patient?

- a. HIV genotype and phenotype
- b. Patient's social support system
- c. Potential medication side effects

- d. Patients ability to comply with ART schedule

ANS: D

Drug resistance develops quickly unless the patient takes ART medications on a strict, regular schedule. In addition, drug resistance endangers both the patient and the community. The other information is also important to consider, but patients who are unable to manage and follow a complex drug treatment regimen should not be considered for ART.

9. The nurse will **most** likely prepare a medication teaching plan about antiretroviral therapy (ART) for which patient?

- a. Patient who is currently HIV negative but has unprotected sex with multiple partners
- b. Patient who was infected with HIV 15 years ago and now has a CD4⁺ count of 840/L
- c. HIV-positive patient with a CD4⁺ count of 160/L who drinks a fifth of whiskey daily
- d. Patient who tested positive for HIV 2 years ago and now has cytomegalovirus (CMV) retinitis

ANS: D

CMV retinitis is an acquired immunodeficiency syndrome (AIDS)-defining illness and indicates that the patient is appropriate for ART even though the HIV infection period is relatively short. An HIV-negative patient would not be offered ART. A patient with a CD4⁺ count in the normal range would not typically be started on ART. A patient who drinks alcohol heavily would be unlikely to be able to manage the complex drug regimen and would not be appropriate for ART despite the low CD4⁺ count.

10. The nurse palpates enlarged cervical lymph nodes on a patient diagnosed with acute human immunodeficiency virus (HIV) infection. Which action would be **most** appropriate for the nurse to take?

- a. Instruct the patient to apply ice to the neck.
- b. Advise the patient that this is probably the flu.
- c. Explain to the patient that this is an expected finding.
- d. Request that an antibiotic be prescribed for the patient.

ANS: C

Persistent generalized lymphadenopathy is common in the early stages of HIV infection. No antibiotic is needed because the enlarged nodes are probably not caused by bacteria. Applying ice to the neck may provide comfort, but the initial action is to reassure the patient this is an expected finding. Lymphadenopathy is common with acute HIV infection and is therefore not likely the flu.

11. Which information would be **most** important to help the nurse determine if the patient needs human immunodeficiency virus (HIV) testing?

- a. Patient age
- b. Patient lifestyle
- c. Patient symptoms
- d. Patient sexual orientation

ANS: A

The current Center for Disease Control (CDC) policy is to offer routine testing for HIV to all individuals age 13 to 64. Although lifestyle, symptoms, and sexual orientation may suggest increased risk for HIV infection, the goal is to test all individuals in this age range.

12. A patient who uses injectable illegal drugs asks the nurse about preventing acquired immunodeficiency syndrome (AIDS). Which response by the nurse is **best**?

- a. Avoid sexual intercourse when using injectable drugs.
- b. It is important to participate in a needle-exchange program.

- c. You should ask those who share equipment to be tested for HIV.
- d. I recommend cleaning drug injection equipment before each use.

ANS: B

Participation in needle-exchange programs has been shown to decrease and control the rate of HIV infection. Cleaning drug equipment before use also reduces risk, but it might not be consistently practiced. HIV antibodies do not appear for several weeks to months after exposure, so testing drug users would not be very effective in reducing risk for HIV exposure. It is difficult to make appropriate decisions about sexual activity when under the influence of drugs.

13. Which nursing action will be **most** useful in assisting a college student to adhere to a newly prescribed antiretroviral therapy (ART) regimen?

- a. Give the patient detailed information about possible medication side effects.
- b. Remind the patient of the importance of taking the medications as scheduled.
- c. Encourage the patient to join a support group for students who are HIV positive.
- d. Check the patient's class schedule to help decide when the drugs should be taken.

ANS: D

The best approach to improve adherence is to learn about important activities in the patient's life and adjust the ART around those activities. The other actions also are useful, but they will not improve adherence as much as individualizing the ART to the patient's schedule.

14. A patient with human immunodeficiency virus (HIV) infection has developed *Mycobacterium avium* complex infection. Which outcome would be appropriate for the nurse to include in the plan of care?

- a. The patient will be free from injury.
- b. The patient will receive immunizations.
- c. The patient will have adequate oxygenation.
- d. The patient will maintain intact perineal skin.

ANS: D

The major manifestation of *M. avium* infection is loose, watery stools, which would increase the risk for perineal skin breakdown. The other outcomes would be appropriate for other complications (pneumonia, dementia, influenza, etc.) associated with HIV infection.

15. A patient treated for human immunodeficiency virus (HIV) infection for 6 years has developed fat redistribution to the trunk, with wasting of the arms, legs, and face. What instructions will the nurse give to the patient?

- a. Review foods that are higher in protein.
- b. Teach about the benefits of daily exercise.
- c. Discuss a change in antiretroviral therapy.
- d. Talk about treatment with antifungal agents.

ANS: C

A frequent first intervention for metabolic disorders is a change in antiretroviral therapy (ART). Treatment with antifungal agents would not be appropriate because there is no indication of fungal infection. Changes in diet or exercise have not proven helpful for this problem.

16. The nurse prepares to administer the following medications to a hospitalized patient with human immunodeficiency (HIV). Which medication is **most** important to administer at the right time?

- a. Oral acyclovir (Zovirax)

- b. Oral saquinavir (Invirase)
- c. Nystatin (Mycostatin) tablet
- d. Aerosolized pentamidine (NebuPent)

ANS: B

It is important that antiretrovirals be taken at the prescribed time every day to avoid developing drug-resistant HIV. The other medications should also be given as close as possible to the correct time, but they are not as essential to receive at the same time every day.

17. To evaluate the effectiveness of antiretroviral therapy (ART), which laboratory test result will the nurse review?

- a. Viral load testing
- b. Enzyme immunoassay
- c. Rapid HIV antibody testing
- d. Immunofluorescence assay

ANS: A

The effectiveness of ART is measured by the decrease in the amount of virus detectable in the blood. The other tests are used to detect HIV antibodies, which remain positive even with effective ART.

18. The nurse cares for a patient who is human immunodeficiency virus (HIV) positive and taking antiretroviral therapy (ART). Which information is **most** important for the nurse to address when planning care?

- a. The patient's blood glucose level is 142 mg/dL.
- b. The patient complains of feeling constantly tired.
- c. The patient is unable to state the side effects of the medications.
- d. The patient states, Sometimes I miss a dose of zidovudine (AZT).

ANS: D

Because missing doses of ART can lead to drug resistance, this patient statement indicates the need for interventions such as teaching or changes in the drug scheduling. Elevated blood glucose and fatigue are common side effects of ART. The nurse should discuss medication side effects with the patient, but this is not as important as addressing the skipped doses of AZT.

19. Eight years after seroconversion, a human immunodeficiency virus (HIV)-infected patient has a CD4⁺ cell count of 800/L and an undetectable viral load. What is the **priority** nursing intervention at this time?

- a. Teach about the effects of antiretroviral agents.
- b. Encourage adequate nutrition, exercise, and sleep.
- c. Discuss likelihood of increased opportunistic infections.
- d. Monitor for symptoms of acquired immunodeficiency syndrome (AIDS).

ANS: B

The CD4⁺ level for this patient is in the normal range, indicating that the patient is the stage of asymptomatic chronic infection, when the body is able to produce enough CD4⁺ cells to maintain a normal CD4⁺ count. AIDS and increased incidence of opportunistic infections typically develop when the CD4⁺ count is much lower than normal. Although the initiation of ART is highly individual, it would not be likely that a patient with a normal CD4⁺ level would receive ART.

20. Which of these patients being seen at the human immunodeficiency virus (HIV) clinic should the nurse assess **first**?

- a. Patient whose latest CD4⁺ count is 250/L
- b. Patient whose rapid HIV-antibody test is positive
- c. Patient who has had 10 liquid stools in the last 24 hours

- d. Patient who has nausea from prescribed antiretroviral drugs

ANS: C

The nurse should assess the patient for dehydration and hypovolemia. The other patients also will require assessment and possible interventions, but do not require immediate action to prevent complications such as hypovolemia and shock.

21. An older adult who takes medications for coronary artery disease has just been diagnosed with asymptomatic chronic human immunodeficiency virus (HIV) infection. Which information will the nurse include in patient teaching?

- a. Many medications have interactions with antiretroviral drugs.
- b. Less frequent CD4⁺ level monitoring is needed in older adults.
- c. Hospice care is available for patients with terminal HIV infection.
- d. Progression of HIV infection occurs more rapidly in older patients.

ANS: A

The nurse will teach the patient about potential interactions between antiretrovirals and the medications that the patient is using for chronic health problems. Treatment and monitoring of HIV infection is not affected by age. A patient with asymptomatic HIV infection is not a candidate for hospice. Progression of HIV is not affected by age, although it may be affected by chronic disease.

22. The registered nurse (RN) caring for an HIV-positive patient admitted with tuberculosis can delegate which action to unlicensed assistive personnel (UAP)?

- a. Teach the patient about how to use tissues to dispose of respiratory secretions.
- b. Stock the patients room with all the necessary personal protective equipment.
- c. Interview the patient to obtain the names of family members and close contacts.

- d. Tell the patients family members the reason for the use of airborne precautions.

ANS: B

A patient diagnosed with tuberculosis would be placed on airborne precautions. Because all health care workers are taught about the various types of infection precautions used in the hospital, the UAP can safely stock the room with personal protective equipment. Obtaining contact information and patient teaching are higher-level skills that require RN education and scope of practice.

23. The nurse designs a program to decrease the incidence of human immunodeficiency virus (HIV) infection in the adolescent and young adult populations. Which information should the nurse assign as the **highest** priority?

- a. Methods to prevent perinatal HIV transmission
- b. Ways to sterilize needles used by injectable drug users
- c. Prevention of HIV transmission between sexual partners
- d. Means to prevent transmission through blood transfusions

ANS: C

Sexual transmission is the most common way that HIV is transmitted. The nurse should also provide teaching about perinatal transmission, needle sterilization, and blood transfusion, but the rate of HIV infection associated with these situations is lower.

MULTIPLE RESPONSE

1. The nurse cares for a patient infected with human immunodeficiency virus (HIV) who has just been diagnosed with asymptomatic chronic HIV infection. Which prophylactic measures will the nurse include in the plan of care (*select all that apply*)?

- a. Hepatitis B vaccine

- b. Pneumococcal vaccine
- c. Influenza virus vaccine
- d. Trimethoprim-sulfamethoxazole
- e. Varicella zoster immune globulin

ANS: A, B, C

Asymptomatic chronic HIV infection is a stage between acute HIV infection and a diagnosis of symptomatic chronic HIV infection. Although called asymptomatic, symptoms (e.g., fatigue, headache, low-grade fever, night sweats) often occur. Prevention of other infections is an important intervention in patients who are HIV positive, and these vaccines are recommended as soon as the HIV infection is diagnosed. Antibiotics and immune globulin are used to prevent and treat infections that occur later in the course of the disease when the CD4⁺ counts have dropped or when infection has occurred.

2. According to the Center for Disease Control (CDC) guidelines, which personal protective equipment will the nurse put on when assessing a patient who is on contact precautions for diarrhea caused by *Clostridium difficile*(select all that apply)?

- a. Mask
- b. Gown
- c. Gloves
- d. Shoe covers
- e. Eye protection

ANS: B, C

Because the nurse will have substantial contact with the patient and bedding when doing an assessment, gloves and gowns are needed. Eye protection and masks are needed for patients in contact precautions only when spraying or splashing is anticipated. Shoe covers are not recommended in the CDC guidelines.

3. The nurse plans a presentation for community members about how to decrease the risk for antibiotic-resistant infections. Which information will the nurse include in the teaching plan (*select all that apply*)?

- a. Continue taking antibiotics until all the medication is gone.
- b. Antibiotics may sometimes be prescribed to prevent infection.
- c. Unused antibiotics that are more than a year old should be discarded.
- d. Antibiotics are effective in treating influenza associated with high fevers.
- e. Hand washing is effective in preventing many viral and bacterial infections.

ANS: A, B, E

All prescribed doses of antibiotics should be taken. In some situations, such as before surgery, antibiotics are prescribed to prevent infection. There should not be any leftover antibiotics because all prescribed doses should be taken. However, if there are leftover antibiotics, they should be discarded immediately because the number left will not be enough to treat a future infection. Hand washing is generally considered the single most effective action in decreasing infection transmission. Antibiotics are ineffective in treating viral infections such as influenza.

Chapter 15. Cancer

MULTIPLE CHOICE

1. A patient who is scheduled for a right breast biopsy asks the nurse the difference between a benign tumor and a malignant tumor. Which answer by the nurse is correct?

- a. Benign tumors do not cause damage to other tissues.
- b. Benign tumors are likely to recur in the same location.
- c. Malignant tumors may spread to other tissues or organs.

- d. Malignant cells reproduce more rapidly than normal cells.

ANS: C

The major difference between benign and malignant tumors is that malignant tumors invade adjacent tissues and spread to distant tissues and benign tumors never metastasize. The other statements are inaccurate. Both types of tumors may cause damage to adjacent tissues. Malignant cells do not reproduce more rapidly than normal cells. Benign tumors do not usually recur.

2. The nurse is caring for a patient receiving intravesical bladder chemotherapy. The nurse should monitor for which adverse effect?

- a. Nausea
- b. Alopecia
- c. Mucositis
- d. Hematuria

ANS: D

The adverse effects of intravesical chemotherapy are confined to the bladder. The other adverse effects are associated with systemic chemotherapy.

3. The nurse is caring for a patient who smokes 2 packs/day. To reduce the patients risk of lung cancer, which action by the nurse is **best**?

- a. Teach the patient about the seven warning signs of cancer.
- b. Plan to monitor the patients carcinoembryonic antigen (CEA) level.
- c. Discuss the risks associated with cigarettes during every patient encounter.
- d. Teach the patient about the use of annual chest x-rays for lung cancer screening.

ANS: C

Teaching about the risks associated with cigarette smoking is recommended at every patient encounter because cigarette smoking is associated with multiple health problems. A tumor must be at least 0.5 cm large before it is detectable by current screening methods and may already have metastasized by that time. Oncofetal antigens such as CEA may be used to monitor therapy or detect tumor reoccurrence, but are not helpful in screening for cancer. The seven warning signs of cancer are actually associated with fairly advanced disease.

4. The nurse should include which food choice when providing dietary teaching for a patient scheduled to receive external beam radiation for abdominal cancer?

- a. Fresh fruit salad
- b. Roasted chicken
- c. Whole wheat toast
- d. Cream of potato soup

ANS: B

To minimize the diarrhea that is commonly associated with bowel radiation, the patient should avoid foods high in roughage, such as fruits and whole grains. Lactose intolerance may develop secondary to radiation, so dairy products should also be avoided.

5. During a routine health examination, a 40-year-old patient tells the nurse about a family history of colon cancer. Which action should the nurse take **next**?

- a. Teach the patient about the need for a colonoscopy at age 50.
- b. Teach the patient how to do home testing for fecal occult blood.
- c. Obtain more information from the patient about the family history.
- d. Schedule a sigmoidoscopy to provide baseline data about the patient.

ANS: C

The patient may be at increased risk for colon cancer, but the nurse's first action should be further assessment. The other actions may be appropriate, depending on the information that is obtained from the patient with further questioning.

6. A patient who is diagnosed with cervical cancer that is classified as Tis, N0, M0 asks the nurse what the letters and numbers mean. Which response by the nurse is **most** appropriate?

- a. The cancer involves only the cervix.
- b. The cancer cells look almost like normal cells.
- c. Further testing is needed to determine the spread of the cancer.
- d. It is difficult to determine the original site of the cervical cancer.

ANS: A

Cancer in situ indicates that the cancer is localized to the cervix and is not invasive at this time. Cell differentiation is not indicated by clinical staging. Because the cancer is in situ, the origin is the cervix. Further testing is not indicated given that the cancer has not spread.

7. The nurse teaches a patient who is scheduled for a prostate needle biopsy about the procedure. Which statement, if made by the patient, indicates that teaching was effective?

- a. The biopsy will remove the cancer in my prostate gland.
- b. The biopsy will determine how much longer I have to live.
- c. The biopsy will help decide the treatment for my enlarged prostate.
- d. The biopsy will indicate whether the cancer has spread to other organs.

ANS: C

A biopsy is used to determine whether the prostate enlargement is benign or malignant, and determines the type of treatment that will be needed. A biopsy does

not give information about metastasis, life expectancy, or the impact of cancer on the patients life.

8. The nurse teaches a postmenopausal patient with stage III breast cancer about the expected outcomes of cancer treatment. Which patient statement indicates that the teaching has been effective?

- a. After cancer has not recurred for 5 years, it is considered cured.
- b. The cancer will be cured if the entire tumor is surgically removed.
- c. Cancer is never considered cured, but the tumor can be controlled with surgery, chemotherapy, and radiation.
- d. I will need to have follow-up examinations for many years after I have treatment before I can be considered cured.

ANS: D

The risk of recurrence varies by the type of cancer. Some cancers are considered cured after a shorter time span or after surgery, but stage III breast cancer will require additional therapies and ongoing follow-up.

9. A patient with a large stomach tumor that is attached to the liver is scheduled to have a debulking procedure. Which information should the nurse teach the patient about the outcome of this procedure?

- a. Pain will be relieved by cutting sensory nerves in the stomach.
- b. Relief of pressure in the stomach will promote better nutrition.
- c. Tumor growth will be controlled by the removal of malignant tissue.
- d. Tumor size will decrease and this will improve the effects of other therapy.

ANS: D

A debulking surgery reduces the size of the tumor and makes radiation and chemotherapy more effective. Debulking surgeries do not control tumor growth. The

tumor is debulked because it is attached to the liver, a vital organ (not to relieve pressure on the stomach). Debulking does not sever the sensory nerves, although pain may be lessened by the reduction in pressure on the abdominal organs.

10. External-beam radiation is planned for a patient with cervical cancer. What instructions should the nurse give to the patient to prevent complications from the effects of the radiation?

- a. Test all stools for the presence of blood.
- b. Maintain a high-residue, high-fiber diet.
- c. Clean the perianal area carefully after every bowel movement.
- d. Inspect the mouth and throat daily for the appearance of thrush.

ANS: C

Radiation to the abdomen will affect organs in the radiation path, such as the bowel, and cause frequent diarrhea. Careful cleaning of this area will help decrease the risk for skin breakdown and infection. Stools are likely to have occult blood from the inflammation associated with radiation, so routine testing of stools for blood is not indicated. Radiation to the abdomen will not cause stomatitis. A low-residue diet is recommended to avoid irritation of the bowel when patients receive abdominal radiation.

11. A patient with Hodgkins lymphoma who is undergoing external radiation therapy tells the nurse, I am so tired I can hardly get out of bed in the morning. Which intervention should the nurse add to the plan of care?

- a. Minimize activity until the treatment is completed.
- b. Establish time to take a short walk almost every day.
- c. Consult with a psychiatrist for treatment of depression.
- d. Arrange for delivery of a hospital bed to the patients home.

ANS: B

Walking programs are used to keep the patient active without excessive fatigue. Having a hospital bed does not necessarily address the fatigue. The better option is to stay as active as possible while combating fatigue. Fatigue is expected during treatment and is not an indication of depression. Minimizing activity may lead to weakness and other complications of immobility.

12. The nurse is caring for a patient with colon cancer who is scheduled for external radiation therapy to the abdomen. Which information obtained by the nurse would indicate a need for patient teaching?

- a. The patient swims a mile 3 days a week.
- b. The patient snacks frequently during the day.
- c. The patient showers everyday with a mild soap.
- d. The patient has a history of dental caries with amalgam fillings.

ANS: A

The patient is instructed to avoid swimming in salt water or chlorinated pools during the treatment period. The patient does not need to change habits of eating frequently or showering with a mild soap. A history of dental caries will not impact the patient who is scheduled for abdominal radiation.

13. A patient undergoing external radiation has developed a dry desquamation of the skin in the treatment area. The nurse teaches the patient about management of the skin reaction. Which statement, if made by the patient, indicates the teaching was effective?

- a. I can buy some aloe vera gel to use on the area.
- b. I will expose the treatment area to a sun lamp daily.
- c. I can use ice packs to relieve itching in the treatment area.
- d. I will scrub the area with warm water to remove the scales.

ANS: A

Aloe vera gel and cream may be used on the radiated skin area. Ice and sunlamps may injure the skin. Treatment areas should be cleaned gently to avoid further injury.

14. A patient with metastatic cancer of the colon experiences severe vomiting following each administration of chemotherapy. Which action, if taken by the nurse, is most appropriate?

- a. Have the patient eat large meals when nausea is not present.
- b. Offer dry crackers and carbonated fluids during chemotherapy.
- c. Administer prescribed antiemetics 1 hour before the treatments.
- d. Give the patient two ounces of a citrus fruit beverage during treatments.

ANS: C

Treatment with antiemetics before chemotherapy may help prevent nausea. The patient should eat small, frequent meals. Offering food and beverages during chemotherapy is likely to cause nausea. The acidity of citrus fruits may be further irritating to the stomach.

15. The nurse administers an IV vesicant chemotherapeutic agent to a patient. Which action is **most** important for the nurse to take?

- a. Infuse the medication over a short period of time.
- b. Stop the infusion if swelling is observed at the site.
- c. Administer the chemotherapy through a small-bore catheter.
- d. Hold the medication unless a central venous line is available.

ANS: B

Swelling at the site may indicate extravasation, and the IV should be stopped immediately. The medication generally should be given slowly to avoid irritation of the vein. The size of the catheter is not as important as administration of vesicants into a running IV line to allow dilution of the chemotherapeutic drug. These medications

can be given through peripheral lines, although central vascular access devices (CVADs) are preferred.

16. A chemotherapy drug that causes alopecia is prescribed for a patient. Which action should the nurse take to maintain the patients self-esteem?

- a. Tell the patient to limit social contacts until regrowth of the hair occurs.
- b. Encourage the patient to purchase a wig or hat and wear it once hair loss begins.
- c. Teach the patient to gently wash hair with a mild shampoo to minimize hair loss.
- d. Inform the patient that hair usually grows back once the chemotherapy is complete.

ANS: B

The patient is taught to anticipate hair loss and to be prepared with wigs, scarves, or hats. Limiting social contacts is not appropriate at a time when the patient is likely to need a good social support system. The damage occurs at the hair follicle and will occur regardless of gentle washing or use of a mild shampoo. The information that the hair will grow back is not immediately helpful in maintaining the patients self-esteem.

17. A patient who has ovarian cancer is crying and tells the nurse, My husband rarely visits. He just doesnt care. The husband indicates to the nurse that he never knows what to say to help his wife. Which nursing diagnosis is most appropriate for the nurse to add to the plan of care?

- a. Compromised family coping related to disruption in lifestyle
- b. Impaired home maintenance related to perceived role changes
- c. Risk for caregiver role strain related to burdens of caregiving responsibilities
- d. Dysfunctional family processes related to effect of illness on family members

ANS: D

The data indicate that this diagnosis is most appropriate because poor communication among the family members is affecting family processes. No data suggest a change in lifestyle or its role as an etiology. The data do not support impairment in home maintenance or a burden caused by caregiving responsibilities.

18. A patient receiving head and neck radiation for larynx cancer has ulcerations over the oral mucosa and tongue and thick, ropey saliva. Which instructions should the nurse give to this patient?

- a. Remove food debris from the teeth and oral mucosa with a stiff toothbrush.
- b. Use cotton-tipped applicators dipped in hydrogen peroxide to clean the teeth.
- c. Gargle and rinse the mouth several times a day with an antiseptic mouthwash.
- d. Rinse the mouth before and after each meal and at bedtime with a saline solution.

ANS: D

The patient should rinse the mouth with a saline solution frequently. A soft toothbrush is used for oral care. Hydrogen peroxide may damage tissues. Antiseptic mouthwashes may irritate the oral mucosa and are not recommended.

19. A patient has been assigned the nursing diagnosis of imbalanced nutrition: less than body requirements related to painful oral ulcers. Which nursing action will be **most** effective in improving oral intake?

- a. Offer the patient frequent small snacks between meals.
- b. Assist the patient to choose favorite foods from the menu.
- c. Provide teaching about the importance of nutritional intake.
- d. Apply the ordered anesthetic gel to oral lesions before meals.

ANS: D

Because the etiology of the patient's poor nutrition is the painful oral ulcers, the best intervention is to apply anesthetic gel to the lesions before the patient eats. The other actions might be helpful for other patients with impaired nutrition, but would not be as helpful for this patient.

20. A widowed mother of four school-age children is hospitalized with metastatic ovarian cancer. The patient is crying and tells the nurse that she does not know what will happen to her children when she dies. Which response by the nurse is **most** appropriate?

- a. Why don't we talk about the options you have for the care of your children?
- b. I'm sure you have friends that will take the children when you can't care for them.
- c. For now you need to concentrate on getting well and not worrying about your children.
- d. Many patients with cancer live for a long time, so there is still time to plan for your children.

ANS: A

This response expresses the nurse's willingness to listen and recognizes the patient's concern. The responses beginning "Many patients with cancer live for a long time and For now you need to concentrate on getting well" close off discussion of the topic and indicate that the nurse is uncomfortable with the topic. In addition, the patient with metastatic ovarian cancer may not have a long time to plan. Although it is possible that the patient's friends will take the children, more assessment information is needed before making plans.

21. A patient who has severe pain associated with terminal pancreatic cancer is being cared for at home by family members. Which finding by the nurse indicates that teaching regarding pain management has been effective?

- a. The patient uses the ordered opioid pain medication whenever the pain is greater than 5 (0 to 10 scale).
- b. The patient agrees to take the medications by the IV route in order to improve analgesic effectiveness.
- c. The patient takes opioids around the clock on a regular schedule and uses additional doses when breakthrough pain occurs.
- d. The patient states that nonopioid analgesics may be used when the maximal dose of the opioid is reached without adequate pain relief.

ANS: C

For chronic cancer pain, analgesics should be taken on a scheduled basis, with additional doses as needed for breakthrough pain. Taking the medications only when pain reaches a certain level does not provide effective pain control. Although nonopioid analgesics also may be used, there is no maximum dose of opioid. Opioids are given until pain control is achieved. The IV route is not more effective than the oral route, and usually the oral route is preferred.

22. Interleukin-2 (IL-2) is used as adjuvant therapy for a patient with metastatic renal cell carcinoma. Which information should the nurse include when explaining the purpose of this therapy to the patient?

- a. IL-2 enhances the immunologic response to tumor cells.
- b. IL-2 stimulates malignant cells in the resting phase to enter mitosis.
- c. IL-2 prevents the bone marrow depression caused by chemotherapy.
- d. IL-2 protects normal cells from the harmful effects of chemotherapy.

ANS: A

IL-2 enhances the ability of the patient's own immune response to suppress tumor cells. IL-2 does not protect normal cells from damage caused by chemotherapy, stimulate malignant cells to enter mitosis, or prevent bone marrow depression.

23. The home health nurse cares for a patient who has been receiving interferon therapy for treatment of cancer. Which statement by the patient indicates a need for further assessment?

- a. I have frequent muscle aches and pains.
- b. I rarely have the energy to get out of bed.
- c. I experience chills after I inject the interferon.
- d. I take acetaminophen (Tylenol) every 4 hours.

ANS: B

Fatigue can be a dose-limiting toxicity for use of biologic therapies. Flu-like symptoms, such as muscle aches and chills, are common side effects with interferon use. Patients are advised to use acetaminophen every 4 hours.

24. A patient with leukemia is considering whether to have hematopoietic stem cell transplantation (HSCT). The nurse will include which information in the patient's teaching plan?

- a. Transplant of the donated cells is painful because of the nerves in the tissue lining the bone.
- b. Donor bone marrow cells are transplanted through an incision into the sternum or hip bone.
- c. The transplant procedure takes place in a sterile operating room to minimize the risk for infection.
- d. Hospitalization will be required for several weeks after the stem cell transplant procedure is performed.

ANS: D

The patient requires strict protective isolation to prevent infection for 2 to 4 weeks after HSCT while waiting for the transplanted marrow to start producing cells. The transplanted cells are infused through an IV line, so the transplant is not painful, nor is an operating room or incision required.

25. The nurse teaches a patient with cancer of the liver about high-protein, high-calorie diet choices. Which snack choice by the patient indicates that the teaching has been effective?

- a. Lime sherbet
- b. Blueberry yogurt
- c. Cream cheese bagel
- d. Fresh strawberries and bananas

ANS: B

Yogurt has high biologic value because of the protein and fat content. Fruit salad does not have high amounts of protein or fat. Lime sherbet is lower in fat and protein than yogurt. Cream cheese is low in protein.

26. A patient with cancer has a nursing diagnosis of imbalanced nutrition: less than body requirements related to altered taste sensation. Which nursing action is **most** appropriate?

- a. Add strained baby meats to foods such as casseroles.
- b. Teach the patient about foods that are high in nutrition.
- c. Avoid giving the patient foods that are strongly disliked.
- d. Add extra spice to enhance the flavor of foods that are served.

ANS: C

The patient will eat more if disliked foods are avoided and foods that the patient likes are included instead. Additional spice is not usually an effective way to enhance taste. Adding baby meats to foods will increase calorie and protein levels, but does not address the issue of taste. The patient's poor intake is not caused by a lack of information about nutrition.

27. During the teaching session for a patient who has a new diagnosis of acute leukemia the patient is restless and is looking away, never making eye contact. After teaching about the complications associated with chemotherapy, the patient asks the nurse to repeat all of the information. Based on this assessment, which nursing diagnosis is **most** appropriate for the patient?

- a. Risk for ineffective adherence to treatment related to denial of need for chemotherapy
- b. Acute confusion related to infiltration of leukemia cells into the central nervous system
- c. Risk for ineffective health maintenance related to anxiety about new leukemia diagnosis
- d. Deficient knowledge: chemotherapy related to a lack of interest in learning about treatment

ANS: C

The patient who has a new cancer diagnosis is likely to have high anxiety, which may impact learning and require that the nurse repeat and reinforce information. The patient's history of a recent diagnosis suggests that infiltration of the leukemia is not a likely cause of the confusion. The patient asks for the information to be repeated, indicating that lack of interest in learning and denial are not etiologic factors.

28. A hospitalized patient who has received chemotherapy for leukemia develops neutropenia. Which observation by the nurse would indicate a need for further teaching?

- a. The patient ambulates several times a day in the room.
- b. The patient's visitors bring in some fresh peaches from home.
- c. The patient cleans with a warm washcloth after having a stool.
- d. The patient uses soap and shampoo to shower every other day.

ANS: B

Fresh, thinned-skin fruits are not permitted in a neutropenic diet because of the risk of bacteria being present. The patient should ambulate in the room rather than the hospital hallway to avoid exposure to other patients or visitors. Because overuse of soap can dry the skin and increase infection risk, showering every other day is acceptable. Careful cleaning after having a bowel movement will help prevent skin breakdown and infection.

29. The nurse is caring for a patient who has been diagnosed with stage I cancer of the colon. When assessing the need for psychologic support, which question by the nurse will provide the **most** information?

- a. How long ago were you diagnosed with this cancer?
- b. Do you have any concerns about body image changes?
- c. Can you tell me what has been helpful to you in the past when coping with stressful events?
- d. Are you familiar with the stages of emotional adjustment to a diagnosis like cancer of the colon?

ANS: C

Information about how the patient has coped with past stressful situations helps the nurse determine usual coping mechanisms and their effectiveness. The length of time since the diagnosis will not provide much information about the patient's need for support. The patient's knowledge of typical stages in adjustment to a critical diagnosis does not provide insight into patient needs for assistance. Because surgical interventions for stage I cancer of the colon may not cause any body image changes, this question is not appropriate at this time.

30. The nurse assesses a patient who is receiving interleukin-2. Which finding should the nurse report immediately to the health care provider?

- a. Generalized muscle aches
- b. Complaints of nausea and anorexia
- c. Oral temperature of 100.6 F (38.1 C)

- d. Crackles heard at the lower scapular border

ANS: D

Capillary leak syndrome and acute pulmonary edema are possible toxic effects of interleukin-2. The patient may need oxygen and the nurse should rapidly notify the health care provider. The other findings are common side effects of interleukin-2.

31. The nurse obtains information about a hospitalized patient who is receiving chemotherapy for colorectal cancer. Which information about the patient alerts the nurse to discuss a possible change in therapy with the health care provider?

- a. Poor oral intake
- b. Frequent loose stools
- c. Complaints of nausea and vomiting
- d. Increase in carcinoembryonic antigen (CEA)

ANS: D

An increase in CEA indicates that the chemotherapy is not effective for the patient's cancer and may need to be modified. The other patient findings are common adverse effects of chemotherapy. The nurse may need to address these, but they would not necessarily indicate a need for a change in therapy.

32. The nurse reviews the laboratory results of a patient who is receiving chemotherapy. Which laboratory result is **most** important to report to the health care provider?

- a. Hematocrit of 30%
- b. Platelets of 95,000/L
- c. Hemoglobin of 10 g/L
- d. White blood cell (WBC) count of 2700/L

ANS: D

The low WBC count places the patient at risk for severe infection and is an indication that the chemotherapy dose may need to be lower or that WBC growth factors such as filgrastim (Neupogen) are needed. Although the other laboratory data indicate decreased levels, they do not indicate any immediate life-threatening adverse effects of the chemotherapy.

33. When caring for a patient who is pancytopenic, which action by unlicensed assistive personnel (UAP) indicates a need for the nurse to intervene?

- a. The UAP assists the patient to use dental floss after eating.
- b. The UAP adds baking soda to the patients saline oral rinses.
- c. The UAP puts fluoride toothpaste on the patients toothbrush.
- d. The UAP has the patient rinse after meals with a saline solution.

ANS: A

Use of dental floss is avoided in patients with pancytopenia because of the risk for infection and bleeding. The other actions are appropriate for oral care of a pancytopenic patient.

34. The nurse supervises the care of a patient with a temporary radioactive cervical implant. Which action by unlicensed assistive personnel (UAP), if observed by the nurse, would require an intervention?

- a. The UAP flushes the toilet once after emptying the patients bedpan.
- b. The UAP stands by the patients bed for 30 minutes talking with the patient.
- c. The UAP places the patients bedding in the laundry container in the hallway.
- d. The UAP gives the patient an alcohol-containing mouthwash to use for oral care.

ANS: B

Because patients with temporary implants emit radioactivity while the implants are in place, exposure to the patient is limited. Laundry and urine/feces do not have any radioactivity and do not require special precautions. Cervical radiation will not affect the oral mucosa, and alcohol-based mouthwash is not contraindicated.

35. The nurse receives change-of-shift report on the oncology unit. Which patient should the nurse assess **first**?

- a. 35-year-old patient who has wet desquamation associated with abdominal radiation
- b. 42-year-old patient who is sobbing after receiving a new diagnosis of ovarian cancer
- c. 24-year-old patient who received neck radiation and has blood oozing from the neck
- d. 56-year-old patient who developed a new pericardial friction rub after chest radiation

ANS: C

Because neck bleeding may indicate possible carotid artery rupture in a patient who is receiving radiation to the neck, this patient should be seen first. The diagnoses and clinical manifestations for the other patients are not immediately life threatening.

36. Which action should the nurse take when caring for a patient who is receiving chemotherapy and complains of problems with concentration?

- a. Teach the patient to rest the brain by avoiding new activities.
- b. Teach that chemo-brain is a short-term effect of chemotherapy.
- c. Report patient symptoms immediately to the health care provider.
- d. Suggest use of a daily planner and encourage adequate rest and sleep.

ANS: D

Use of tools to enhance memory and concentration such as a daily planner and adequate rest are helpful for patients who develop chemo-brain while receiving chemotherapy. Patients should be encouraged to exercise the brain through new activities. Chemo-brain may be short- or long-term. There is no urgent need to report common chemotherapy side effects to the provider.

37. The nurse assesses a patient with non-Hodgkins lymphoma who is receiving an infusion of rituximab (Rituxan). Which assessment finding would require the **most** rapid action by the nurse?

- a. Shortness of breath
- b. Temperature 100.2 F (37.9 C)
- c. Shivering and complaint of chills
- d. Generalized muscle aches and pains

ANS: A

Rituximab (Rituxan) is a monoclonal antibody. Shortness of breath should be investigated rapidly because anaphylaxis is a possible reaction to monoclonal antibody administration. The nurse will need to rapidly take actions such as stopping the infusion, assessing the patient further, and notifying the health care provider. The other findings will also require action by the nurse, but are not indicative of life-threatening complications.

38. A patient who is being treated for stage IV lung cancer tells the nurse about new-onset back pain. Which action should the nurse take **first**?

- a. Give the patient the prescribed PRN opioid.
- b. Assess for sensation and strength in the legs.
- c. Notify the health care provider about the symptoms.
- d. Teach the patient how to use relaxation to reduce pain.

ANS: B

Spinal cord compression, an oncologic emergency, can occur with invasion of tumor into the epidural space. The nurse will need to assess the patient further for symptoms such as decreased leg sensation and strength and then notify the health care provider. Administration of opioids or use of relaxation may be appropriate but only after the nurse has assessed for possible spinal cord compression.

39. The nurse is caring for a patient with left-sided lung cancer. Which finding would be **most** important for the nurse to report to the health care provider?

- a. Hematocrit 32%
- b. Pain with deep inspiration
- c. Serum sodium 126 mEq/L
- d. Decreased breath sounds on left side

ANS: C

Syndrome of inappropriate antidiuretic hormone (and the resulting hyponatremia) is an oncologic metabolic emergency and will require rapid treatment in order to prevent complications such as seizures and coma. The other findings also require intervention, but are common in patients with lung cancer and not immediately life threatening.

40. An older adult patient who has colorectal cancer is receiving IV fluids at 175 mL/hour in conjunction with the prescribed chemotherapy. Which finding by the nurse is **most** important to report to the health care provider?

- a. Patient complains of severe fatigue.
- b. Patient needs to void every hour during the day.
- c. Patient takes only 50% of meals and refuses snacks.
- d. Patient has audible crackles to the midline posterior chest.

ANS: D

Rapid fluid infusions may cause heart failure, especially in older patients. The other findings are common in patients who have cancer and/or are receiving chemotherapy.

41. After change-of-shift report on the oncology unit, which patient should the nurse assess **first**?

- a. Patient who has a platelet count of 82,000/L after chemotherapy
- b. Patient who has xerostomia after receiving head and neck radiation
- c. Patient who is neutropenic and has a temperature of 100.5 F (38.1 C)
- d. Patient who is worried about getting the prescribed long-acting opioid on time

ANS: C

Temperature elevation is an emergency in neutropenic patients because of the risk for rapid progression to severe infections and sepsis. The other patients also require assessments or interventions, but do not need to be assessed as urgently. Patients with thrombocytopenia do not have spontaneous bleeding until the platelets are 20,000/L. Xerostomia does not require immediate intervention. Although breakthrough pain needs to be addressed rapidly, the patient does not appear to have breakthrough pain.

MULTIPLE RESPONSE

1. The nurse at the clinic is interviewing a 64-year-old woman who is 5 feet, 3 inches tall and weighs 125 pounds (57 kg). The patient has not seen a health care provider for 20 years. She walks 5 miles most days and has a glass of wine 2 or 3 times a week. Which topics will the nurse plan to include in patient teaching about cancer screening and decreasing cancer risk (*select all that apply*)?

- a. Pap testing
- b. Tobacco use
- c. Sunscreen use
- d. Mammography

- e. Colorectal screening

ANS: A, C, D, E

The patient's age, gender, and history indicate a need for screening and/or teaching about colorectal cancer, mammography, Pap smears, and sunscreen. The patient does not use excessive alcohol or tobacco, she is physically active, and her body weight is healthy.

2. A patient develops neutropenia after receiving chemotherapy. Which information about ways to prevent infection will the nurse include in the teaching plan (*select all that apply*)?

- a. Cook food thoroughly before eating.
- b. Choose low fiber, low residue foods.
- c. Avoid public transportation such as buses.
- d. Use rectal suppositories if needed for constipation.
- e. Talk to the oncologist before having any dental work done.

ANS: A, C, E

Eating only cooked food and avoiding public transportation will decrease infection risk. A high-fiber diet is recommended for neutropenic patients to decrease constipation. Because bacteria may enter the circulation during dental work or oral surgery, the patient may need to postpone dental work or take antibiotics.

Chapter 16. Fluid, Electrolyte, and Acid-Base Imbalances

MULTIPLE CHOICE

1. The nurse is caring for a patient with a massive burn injury and possible hypovolemia. Which assessment data will be of **most** concern to the nurse?

- a. Blood pressure is 90/40 mm Hg.

- b. Urine output is 30 mL over the last hour.
- c. Oral fluid intake is 100 mL for the last 8 hours.
- d. There is prolonged skin tenting over the sternum.

ANS: A

The blood pressure indicates that the patient may be developing hypovolemic shock as a result of intravascular fluid loss due to the burn injury. This finding will require immediate intervention to prevent the complications associated with systemic hypoperfusion. The poor oral intake, decreased urine output, and skin tenting all indicate the need for increasing the patient's fluid intake but not as urgently as the hypotension.

2. A patient who has a small cell carcinoma of the lung develops syndrome of inappropriate antidiuretic hormone (SIADH). The nurse should notify the health care provider about which assessment finding?

- a. Reported weight gain
- b. Serum hematocrit of 42%
- c. Serum sodium level of 120 mg/dL
- d. Total urinary output of 280 mL during past 8 hours

ANS: C

Hyponatremia is the most important finding to report. SIADH causes water retention and a decrease in serum sodium level. Hyponatremia can cause confusion and other central nervous system effects. A critically low value likely needs to be treated. At least 30 mL/hr of urine output indicates adequate kidney function. The hematocrit level is normal. Weight gain is expected with SIADH because of water retention.

3. A patient is admitted for hypovolemia associated with multiple draining wounds. Which assessment would be the **most** accurate way for the nurse to evaluate fluid balance?

- a. Skin turgor
- b. Daily weight
- c. Presence of edema
- d. Hourly urine output

ANS: B

Daily weight is the most easily obtained and accurate means of assessing volume status. Skin turgor varies considerably with age. Considerable excess fluid volume may be present before fluid moves into the interstitial space and causes edema. Although very important, hourly urine outputs do not take account of fluid intake or of fluid loss through insensible loss, sweating, or loss from the gastrointestinal tract or wounds.

4. The home health nurse cares for an alert and oriented older adult patient with a history of dehydration. Which instructions should the nurse give to this patient related to fluid intake?

- a. Increase fluids if your mouth feels dry.
- b. More fluids are needed if you feel thirsty.
- c. Drink more fluids in the late evening hours.
- d. If you feel lethargic or confused, you need more to drink.

ANS: A

An alert, older patient will be able to self-assess for signs of oral dryness such as thick oral secretions or dry-appearing mucosa. The thirst mechanism decreases with age and is not an accurate indicator of volume depletion. Many older patients prefer to restrict fluids slightly in the evening to improve sleep quality. The patient will not be likely to notice and act appropriately when changes in level of consciousness occur.

5. A patient who is taking a potassium-wasting diuretic for treatment of hypertension complains of generalized weakness. It is **most** appropriate for the nurse to take which action?

- a. Assess for facial muscle spasms.
- b. Ask the patient about loose stools.
- c. Suggest that the patient avoid orange juice with meals.
- d. Ask the health care provider to order a basic metabolic panel.

ANS: D

Generalized weakness is a manifestation of hypokalemia. After the health care provider orders the metabolic panel, the nurse should check the potassium level. Facial muscle spasms might occur with hypocalcemia. Orange juice is high in potassium and would be advisable to drink if the patient was hypokalemic. Loose stools are associated with hyperkalemia.

6. Spironolactone (Aldactone), an aldosterone antagonist, is prescribed for a patient. Which statement by the patient indicates that the teaching about this medication has been effective?

- a. I will try to drink at least 8 glasses of water every day.
- b. I will use a salt substitute to decrease my sodium intake.
- c. I will increase my intake of potassium-containing foods.
- d. I will drink apple juice instead of orange juice for breakfast.

ANS: D

Because spironolactone is a potassium-sparing diuretic, patients should be taught to choose low-potassium foods (e.g., apple juice) rather than foods that have higher levels of potassium (e.g., citrus fruits). Because the patient is using spironolactone as a diuretic, the nurse would not encourage the patient to increase fluid intake. Teach patients to avoid salt substitutes, which are high in potassium.

7. A newly admitted patient is diagnosed with hyponatremia. When making room assignments, the charge nurse should take which action?

- a. Assign the patient to a room near the nurses station.
- b. Place the patient in a room nearest to the water fountain.
- c. Place the patient on telemetry to monitor for peaked T waves.
- d. Assign the patient to a semi-private room and place an order for a low-salt diet.

ANS: A

The patient should be placed near the nurses station if confused in order for the staff to closely monitor the patient. To help improve serum sodium levels, water intake is restricted. Therefore a confused patient should not be placed near a water fountain. Peaked T waves are a sign of hyperkalemia, not hyponatremia. A confused patient could be distracting and disruptive for another patient in a semiprivate room. This patient needs sodium replacement, not restriction.

8. IV potassium chloride (KCl) 60 mEq is prescribed for treatment of a patient with severe hypokalemia. Which action should the nurse take?

- a. Administer the KCl as a rapid IV bolus.
- b. Infuse the KCl at a rate of 10 mEq/hour.
- c. Only give the KCl through a central venous line.
- d. Discontinue cardiac monitoring during the infusion.

ANS: B

IV KCl is administered at a maximal rate of 10 mEq/hr. Rapid IV infusion of KCl can cause cardiac arrest. Although the preferred concentration for KCl is no more than 40 mEq/L, concentrations up to 80 mEq/L may be used for some patients. KCl can cause inflammation of peripheral veins, but it can be administered by this route. Cardiac

monitoring should be continued while patient is receiving potassium because of the risk for dysrhythmias.

9. A postoperative patient who had surgery for a perforated gastric ulcer has been receiving nasogastric suction for 3 days. The patient now has a serum sodium level of 127 mEq/L (127 mmol/L). Which prescribed therapy should the nurse question?

- a. Infuse 5% dextrose in water at 125 mL/hr.
- b. Administer IV morphine sulfate 4 mg every 2 hours PRN.
- c. Give IV metoclopramide (Reglan) 10 mg every 6 hours PRN for nausea.
- d. Administer 3% saline if serum sodium decreases to less than 128 mEq/L.

ANS: A

Because the patient's gastric suction has been depleting electrolytes, the IV solution should include electrolyte replacement. Solutions such as lactated Ringers solution would usually be ordered for this patient. The other orders are appropriate for a postoperative patient with gastric suction.

10. A patient who was involved in a motor vehicle crash has had a tracheostomy placed to allow for continued mechanical ventilation. How should the nurse interpret the following arterial blood gas results: pH 7.48, PaO₂ 85 mm Hg, PaCO₂ 32 mm Hg, and HCO₃ 25 mEq/L?

- a. Metabolic acidosis
- b. Metabolic alkalosis
- c. Respiratory acidosis
- d. Respiratory alkalosis

ANS: D

The pH indicates that the patient has alkalosis and the low PaCO₂ indicates a respiratory cause. The other responses are incorrect based on the pH and the normal HCO₃.

11. The nurse notes that a patient who was admitted with diabetic ketoacidosis has rapid, deep respirations. Which action should the nurse take?

- a. Give the prescribed PRN lorazepam (Ativan).
- b. Start the prescribed PRN oxygen at 2 to 4 L/min.
- c. Administer the prescribed normal saline bolus and insulin.
- d. Encourage the patient to take deep, slow breaths with guided imagery.

ANS: C

The rapid, deep (Kussmaul) respirations indicate a metabolic acidosis and the need for correction of the acidosis with a saline bolus to prevent hypovolemia followed by insulin administration to allow glucose to reenter the cells. Oxygen therapy is not indicated because there is no indication that the increased respiratory rate is related to hypoxemia. The respiratory pattern is compensatory, and the patient will not be able to slow the respiratory rate. Lorazepam administration will slow the respiratory rate and increase the level of acidosis.

12. An older adult patient who is malnourished presents to the emergency department with a serum protein level of 5.2 g/dL. The nurse would expect which clinical manifestation?

- a. Pallor
- b. Edema
- c. Confusion
- d. Restlessness

ANS: B

The normal range for total protein is 6.4 to 8.3 g/dL. Low serum protein levels cause a decrease in plasma oncotic pressure and allow fluid to remain in interstitial tissues, causing edema. Confusion, restlessness, and pallor are not associated with low serum protein levels.

13. A patient receives 3% NaCl solution for correction of hyponatremia. Which assessment is **most** important for the nurse to monitor for while the patient is receiving this infusion?

- a. Lung sounds
- b. Urinary output
- c. Peripheral pulses
- d. Peripheral edema

ANS: A

Hypertonic solutions cause water retention, so the patient should be monitored for symptoms of fluid excess. Crackles in the lungs may indicate the onset of pulmonary edema and are a serious manifestation of fluid excess. Bounding peripheral pulses, peripheral edema, or changes in urine output are also important to monitor when administering hypertonic solutions, but they do not indicate acute respiratory or cardiac decompensation.

14. The long-term care nurse is evaluating the effectiveness of protein supplements for an older resident who has a low serum total protein level. Which assessment finding indicates that the patient's condition has improved?

- a. Hematocrit 28%
- b. Absence of skin tenting
- c. Decreased peripheral edema
- d. Blood pressure 110/72 mm Hg

ANS: C

Edema is caused by low oncotic pressure in individuals with low serum protein levels. The decrease in edema indicates an improvement in the patients protein status. Good skin turgor is an indicator of fluid balance, not protein status. A low hematocrit could be caused by poor protein intake. Blood pressure does not provide a useful clinical tool for monitoring protein status.

15. A patient who is lethargic and exhibits deep, rapid respirations has the following arterial blood gas (ABG) results: pH 7.32, PaO₂ 88 mm Hg, PaCO₂ 37 mm Hg, and HCO₃ 16 mEq/L. How should the nurse interpret these results?

- a. Metabolic acidosis
- b. Metabolic alkalosis
- c. Respiratory acidosis
- d. Respiratory alkalosis

ANS: A

The pH and HCO₃ indicate that the patient has a metabolic acidosis. The ABGs are inconsistent with the other responses.

16. A patient who has been receiving diuretic therapy is admitted to the emergency department with a serum potassium level of 3.0 mEq/L. The nurse should alert the health care provider **immediately** that the patient is on which medication?

- a. Oral digoxin (Lanoxin) 0.25 mg daily
- b. Ibuprofen (Motrin) 400 mg every 6 hours
- c. Metoprolol (Lopressor) 12.5 mg orally daily
- d. Lantus insulin 24 U subcutaneously every evening

ANS: A

Hypokalemia increases the risk for digoxin toxicity, which can cause serious dysrhythmias. The nurse will also need to do more assessment regarding the other medications, but they are not of as much concern with the potassium level.

17. The nurse is caring for a patient who has a calcium level of 12.1 mg/dL. Which nursing action should the nurse include on the care plan?

- a. Maintain the patient on bed rest.
- b. Auscultate lung sounds every 4 hours.
- c. Monitor for Trousseaus and Chvosteks signs.
- d. Encourage fluid intake up to 4000 mL every day.

ANS: D

To decrease the risk for renal calculi, the patient should have a fluid intake of 3000 to 4000 mL daily. Ambulation helps decrease the loss of calcium from bone and is encouraged in patients with hypercalcemia. Trousseaus and Chvosteks signs are monitored when there is a possibility of hypocalcemia. There is no indication that the patient needs frequent assessment of lung sounds, although these would be assessed every shift.

18. When caring for a patient with renal failure on a low phosphate diet, the nurse will inform unlicensed assistive personnel (UAP) to remove which food from the patients food tray?

- a. Grape juice
- b. Milk carton
- c. Mixed green salad
- d. Fried chicken breast

ANS: B

Foods high in phosphate include milk and other dairy products, so these are restricted on low-phosphate diets. Green, leafy vegetables; high-fat foods; and fruits/juices are not high in phosphate and are not restricted.

19. A nurse in the outpatient clinic is caring for a patient who has a magnesium level of 1.3 mg/dL. Which assessment would be **most** important for the nurse to make?

- a. Daily alcohol intake
- b. Intake of dietary protein
- c. Multivitamin/mineral use
- d. Use of over-the-counter (OTC) laxatives

ANS: A

Hypomagnesemia is associated with alcoholism. Protein intake would not have a significant effect on magnesium level. OTC laxatives (such as milk of magnesia) and use of multivitamin/mineral supplements would tend to increase magnesium levels.

20. A patient has a parenteral nutrition infusion of 25% dextrose. A student nurse asks the nurse why a peripherally inserted central catheter was inserted. Which response by the nurse is **most** appropriate?

- a. There is a decreased risk for infection when 25% dextrose is infused through a central line.
- b. The prescribed infusion can be given much more rapidly when the patient has a central line.
- c. The 25% dextrose is hypertonic and will be more rapidly diluted when given through a central line.
- d. The required blood glucose monitoring is more accurate when samples are obtained from a central line.

ANS: C

The 25% dextrose solution is hypertonic. Shrinkage of red blood cells can occur when solutions with dextrose concentrations greater than 10% are administered IV. Blood glucose testing is not more accurate when samples are obtained from a central line. The infection risk is higher with a central catheter than with peripheral IV lines. Hypertonic or concentrated IV solutions are not given rapidly.

21. The nurse is caring for a patient who has a central venous access device (CVAD). Which action by the nurse is appropriate?

- a. Avoid using friction when cleaning around the CVAD insertion site.
- b. Use the push-pause method to flush the CVAD after giving medications.
- c. Obtain an order from the health care provider to change CVAD dressing.
- d. Position the patients face toward the CVAD during injection cap changes.

ANS: B

The push-pause enhances the removal of debris from the CVAD lumen and decreases the risk for clotting. To decrease infection risk, friction should be used when cleaning the CVAD insertion site. The dressing should be changed whenever it becomes damp, loose, or visibly soiled. The patient should turn away from the CVAD during cap changes.

22. An older patient receiving iso-osmolar continuous tube feedings develops restlessness, agitation, and weakness. Which laboratory result should the nurse report to the health care provider **immediately**?

- a. K^+ 3.4 mEq/L (3.4 mmol/L)
- b. Ca^{+2} 7.8 mg/dL (1.95 mmol/L)
- c. Na^+ 154 mEq/L (154 mmol/L)
- d. PO_4^{-3} 4.8 mg/dL (1.55 mmol/L)

ANS: C

The elevated serum sodium level is consistent with the patient's neurologic symptoms and indicates a need for immediate action to prevent further serious complications such as seizures. The potassium and calcium levels vary slightly from normal but do not require immediate action by the nurse. The phosphate level is normal.

23. The nurse assesses a patient who has been hospitalized for 2 days. The patient has been receiving normal saline IV at 100 mL/hr, has a nasogastric tube to low suction, and is NPO. Which assessment finding would be **apriority** for the nurse to report to the health care provider?

- a. Oral temperature of 100.1 F
- b. Serum sodium level of 138 mEq/L (138 mmol/L)
- c. Gradually decreasing level of consciousness (LOC)
- d. Weight gain of 2 pounds (1 kg) above the admission weight

ANS: C

The patient's history and change in LOC could be indicative of fluid and electrolyte disturbances: extracellular fluid (ECF) excess, ECF deficit, hyponatremia, hypernatremia, hypokalemia, or metabolic alkalosis. Further diagnostic information is needed to determine the cause of the change in LOC and the appropriate interventions. The weight gain, elevated temperature, crackles, and serum sodium level also will be reported, but do not indicate a need for rapid action to avoid complications.

24. A nurse is assessing a newly admitted patient with chronic heart failure who forgot to take prescribed medications and seems confused. The patient complains of just blowing up and has peripheral edema and shortness of breath. Which assessment should the nurse complete **first**?

- a. Skin turgor
- b. Heart sounds
- c. Mental status
- d. Capillary refill

ANS: C

Increases in extracellular fluid (ECF) can lead to swelling of cells in the central nervous system, initially causing confusion, which may progress to coma or seizures. Although skin turgor, capillary refill, and heart sounds also may be affected by increases in ECF, these are signs that do not have as immediate impact on patient outcomes as cerebral edema.

25. A patient with renal failure has been taking aluminum hydroxide/magnesium hydroxide suspension (Maalox) at home for indigestion. The patient arrives for outpatient hemodialysis and is unresponsive to questions and has decreased deep tendon reflexes. Which action should the dialysis nurse take **first**?

- a. Notify the patients health care provider.
- b. Obtain an order to draw a potassium level.
- c. Review the magnesium level on the patients chart.
- d. Teach the patient about the risk of magnesium-containing antacids

ANS: A

The health care provider should be notified immediately. The patient has a history and manifestations consistent with hypermagnesemia. The nurse should check the chart for a recent serum magnesium level and make sure that blood is sent to the laboratory for immediate electrolyte and chemistry determinations. Dialysis should correct the high magnesium levels. The patient needs teaching about the risks of taking magnesium-containing antacids. Monitoring of potassium levels also is important for patients with renal failure, but the patients current symptoms are not consistent with hyperkalemia.

26. A patient who had a transverse colectomy for diverticulosis 18 hours ago has nasogastric suction and is complaining of anxiety and incisional pain. The patients respiratory rate is 32 breaths/minute and the arterial blood gases (ABGs) indicate respiratory alkalosis. Which action should the nurse take **first**?

- a. Discontinue the nasogastric suction.
- b. Give the patient the PRN IV morphine sulfate 4 mg.
- c. Notify the health care provider about the ABG results.
- d. Teach the patient how to take slow, deep breaths when anxious.

ANS: B

The patient's respiratory alkalosis is caused by the increased respiratory rate associated with pain and anxiety. The nurse's first action should be to medicate the patient for pain. Although the nasogastric suction may contribute to the alkalosis, it is not appropriate to discontinue the tube when the patient needs gastric suction. The health care provider may be notified about the ABGs but is likely to instruct the nurse to medicate for pain. The patient will not be able to take slow, deep breaths when experiencing pain.

27. Which action can the registered nurse (RN) who is caring for a critically ill patient with multiple IV lines delegate to an experienced licensed practical/vocational nurse (LPN/LVN)?

- a. Administer IV antibiotics through the implantable port.
- b. Monitor the IV sites for redness, swelling, or tenderness.
- c. Remove the patient's nontunneled subclavian central venous catheter.
- d. Adjust the flow rate of the 0.9% normal saline in the peripheral IV line.

ANS: B

An experienced LPN/LVN has the education, experience, and scope of practice to monitor IV sites for signs of infection. Administration of medications, adjustment of infusion rates, and removal of central catheters in critically ill patients require RN level education and scope of practice.

28. A patient has a serum calcium level of 7.0 mEq/L. Which assessment finding is **most** important for the nurse to report to the health care provider?

- a. The patient is experiencing laryngeal stridor.
- b. The patient complains of generalized fatigue.
- c. The patients bowels have not moved for 4 days.
- d. The patient has numbness and tingling of the lips.

ANS: A

Hypocalcemia can cause laryngeal stridor, which may lead to respiratory arrest. Rapid action is required to correct the patients calcium level. The other data are also consistent with hypocalcemia, but do not indicate a need for as immediate action as laryngospasm.

29. Following a thyroidectomy, a patient complains of a tingling feeling around my mouth. Which assessment should the nurse complete **immediately**?

- a. Presence of the Chvosteks sign
- b. Abnormal serum potassium level
- c. Decreased thyroid hormone level
- d. Bleeding on the patients dressing

ANS: A

The patients symptoms indicate possible hypocalcemia, which can occur secondary to parathyroid injury/removal during thyroidectomy. There is no indication of a need to check the potassium level, the thyroid hormone level, or for bleeding.

30. A patient is admitted to the emergency department with severe fatigue and confusion. Laboratory studies are done. Which laboratory value will require the **most** immediate action by the nurse?

- a. Arterial blood pH is 7.32.
- b. Serum calcium is 18 mg/dL.
- c. Serum potassium is 5.1 mEq/L.

- d. Arterial oxygen saturation is 91%.

ANS: B

The serum calcium is well above the normal level and puts the patient at risk for cardiac dysrhythmias. The nurse should initiate cardiac monitoring and notify the health care provider. The potassium, oxygen saturation, and pH are also abnormal, and the nurse should notify the health care provider about these values as well, but they are not immediately life threatening.

31. When assessing a pregnant patient with eclampsia who is receiving IV magnesium sulfate, which finding should the nurse report to the health care provider **immediately**?

- a. The bibasilar breath sounds are decreased.
- b. The patellar and triceps reflexes are absent.
- c. The patient has been sleeping most of the day.
- d. The patient reports feeling sick to my stomach.

ANS: B

The loss of the deep tendon reflexes indicates that the patients magnesium level may be reaching toxic levels. Nausea and lethargy also are side effects associated with magnesium elevation and should be reported, but they are not as significant as the loss of deep tendon reflexes. The decreased breath sounds suggest that the patient needs to cough and deep breathe to prevent atelectasis.

32. A patient is receiving a 3% saline continuous IV infusion for hyponatremia. Which assessment data will require the **most** rapid response by the nurse?

- a. The patients radial pulse is 105 beats/minute.
- b. There is sediment and blood in the patients urine.
- c. The blood pressure increases from 120/80 to 142/94.

- d. There are crackles audible throughout both lung fields.

ANS: D

Crackles throughout both lungs suggest that the patient may be experiencing pulmonary edema, a life-threatening adverse effect of hypertonic solutions. The increased pulse rate and blood pressure and the appearance of the urine also should be reported, but they are not as dangerous as the presence of fluid in the alveoli.

33. The nurse notes a serum calcium level of 7.9 mg/dL for a patient who has chronic malnutrition. Which action should the nurse take **next**?

- a. Monitor ionized calcium level.
- b. Give oral calcium citrate tablets.
- c. Check parathyroid hormone level.
- d. Administer vitamin D supplements.

ANS: A

This patient with chronic malnutrition is likely to have a low serum albumin level, which will affect the total serum calcium. A more accurate reflection of calcium balance is the ionized calcium level. Most of the calcium in the blood is bound to protein (primarily albumin). Alterations in serum albumin levels affect the interpretation of total calcium levels. Low albumin levels result in a drop in the total calcium level, although the level of ionized calcium is not affected. The other actions may be needed if the ionized calcium is also decreased.

34. A patient comes to the clinic complaining of frequent, watery stools for the last 2 days. Which action should the nurse take **first**?

- a. Obtain the baseline weight.
- b. Check the patients blood pressure.
- c. Draw blood for serum electrolyte levels.

- d. Ask about any extremity numbness or tingling.

ANS: B

Because the patient's history suggests that fluid volume deficit may be a problem, assessment for adequate circulation is the highest priority. The other actions are also appropriate, but are not as essential as determining the patient's perfusion status.

35. Which action should the nurse take **first** when a patient complains of acute chest pain and dyspnea soon after insertion of a centrally inserted IV catheter?

- a. Notify the health care provider.
- b. Offer reassurance to the patient.
- c. Auscultate the patient's breath sounds.
- d. Give the prescribed PRN morphine sulfate IV.

ANS: C

The initial action should be to assess the patient further because the history and symptoms are consistent with several possible complications of central line insertion, including embolism and pneumothorax. The other actions may be appropriate, but further assessment of the patient is needed before notifying the health care provider, offering reassurance, or administration of morphine.

36. After receiving change-of-shift report, which patient should the nurse assess **first**?

- a. Patient with serum potassium level of 5.0 mEq/L who is complaining of abdominal cramping
- b. Patient with serum sodium level of 145 mEq/L who has a dry mouth and is asking for a glass of water
- c. Patient with serum magnesium level of 1.1 mEq/L who has tremors and hyperactive deep tendon reflexes
- d. Patient with serum phosphorus level of 4.5 mg/dL who has multiple soft tissue calcium-phosphate precipitates

ANS: C

The low magnesium level and neuromuscular irritability suggest that the patient may be at risk for seizures. The other patients have mild electrolyte disturbances and/or symptoms that require action, but they are not at risk for life-threatening complications.

37. During the admission process, the nurse obtains information about a patient through the physical assessment and diagnostic testing. Based on the data shown in the accompanying figure, which nursing diagnosis is appropriate?

- a. Deficient fluid volume
- b. Impaired gas exchange
- c. Risk for injury: Seizures
- d. Risk for impaired skin integrity

ANS: C

The patient's muscle cramps and low serum calcium level indicate that the patient is at risk for seizures and/or tetany. The other diagnoses are not supported by the data because the skin turgor is good. The lungs are clear, arterial blood gases are normal, and there is no evidence of edema or dehydration that might suggest that the patient is at risk for impaired skin integrity.

Chapter 17. Management: Preoperative Care

MULTIPLE CHOICE

1. A patient scheduled for an elective hysterectomy tells the nurse, I am afraid that I will die in surgery like my mother did! Which response by the nurse is **most** appropriate?

- a. Tell me more about what happened to your mother.
- b. You will receive medications to reduce your anxiety.

- c. You should talk to the doctor again about the surgery.
- d. Surgical techniques have improved a lot in recent years.

ANS: A

The patients statement may indicate an unusually high anxiety level or a family history of problems such as malignant hyperthermia, which will require precautions during surgery. The other statements may also address the patients concerns, but further assessment is needed first.

2. A patient arrives at the ambulatory surgery center for a scheduled laparoscopy procedure in outpatient surgery. Which information is of **most** concern to the nurse?

- a. The patient is planning to drive home after surgery.
- b. The patient had a sip of water 4 hours before arriving.
- c. The patients insurance does not cover outpatient surgery.
- d. The patient has not had surgery using general anesthesia before.

ANS: A

After outpatient surgery, the patient should not drive home and will need assistance with transportation and home care. The patients experience with surgery is assessed, but it does not have as much application to the patients physiologic safety. The patients insurance coverage is important to establish, but this is not usually the nurses role or a priority in nursing care. Having clear liquids a few hours before surgery does not usually increase risk for aspiration.

3. A 38-year-old female is admitted for an elective surgical procedure. Which information obtained by the nurse during the preoperative assessment is **most** important to report to the anesthesiologist before surgery?

- a. The patients lack of knowledge about postoperative pain control measures

- b. The patient's statement that her last menstrual period was 8 weeks previously
- c. The patient's history of a postoperative infection following a prior cholecystectomy
- d. The patient's concern that she will be unable to care for her children postoperatively

ANS: B

This statement suggests that the patient may be pregnant, and pregnancy testing is needed before administration of anesthetic agents. Although the other data may also be communicated with the surgeon and anesthesiologist, they will affect postoperative care and do not indicate a need for further assessment before surgery.

4. A patient who has never had any prior surgeries tells the nurse doing the preoperative assessment about an allergy to bananas and avocados. Which action is **most** important for the nurse to take?

- a. Notify the dietitian about the food allergies.
- b. Alert the surgery center about a possible latex allergy.
- c. Reassure the patient that all allergies are noted on the medical record.
- d. Ask whether the patient uses antihistamines to reduce allergic reactions.

ANS: B

Certain food allergies (e.g., eggs, avocados, bananas, chestnuts, potatoes, peaches) are related to latex allergies. When a patient is allergic to latex, special nonlatex materials are used during surgical procedures, and the staff will need to know about the allergy in advance to obtain appropriate nonlatex materials and have them available during surgery. The other actions also may be appropriate, but prevention of allergic reaction during surgery is the most important action.

5. A patient who is scheduled for a therapeutic abortion tells the nurse, "Having an abortion is not right." Which functional health pattern should the nurse further assess?

- a. Value-belief
- b. Cognitive-perceptual
- c. Sexuality-reproductive
- d. Coping-stress tolerance

ANS: A

The value-belief pattern includes information about conflicts between a patient's values and proposed medical care. In the cognitive-perceptual pattern, the nurse will ask questions about pain and sensory intactness. The sexuality-reproductive pattern includes data about the impact of the surgery on the patient's sexuality. The coping-stress tolerance pattern assessment will elicit information about how the patient feels about the surgery.

6. A patient undergoing an emergency appendectomy has been using St. John's wort to prevent depression. Which complication would the nurse expect in the postanesthesia care unit?

- a. Increased pain
- b. Hypertensive episodes
- c. Longer time to recover from anesthesia
- d. Increased risk for postoperative bleeding

ANS: C

St. John's wort may prolong the effects of anesthetic agents and increase the time to waken completely after surgery. It is not associated with increased bleeding risk, hypertension, or increased pain.

7. The surgical unit nurse has just received a patient with a history of smoking from the postanesthesia care unit. Which action is **most** important at this time?

- a. Auscultate for adventitious breath sounds.

- b. Obtain the patients blood pressure and temperature.
- c. Remind the patient about harmful effects of smoking.
- d. Ask the health care provider about prescribing a nicotine patch.

ANS: A

The nurse should first ensure a patent airway and check for breathing and circulation (airway, breathing, and circulation [ABCs]). Circulation and temperature can be assessed after a patent airway and breathing have been established. The immediate postoperative period is not the optimal time for patient teaching about the harmful effects of surgery. Requesting a nicotine patch may be appropriate, but is not a priority at this time.

8. The nurse obtains a health history from a patient who is scheduled for elective hip surgery in 1 week. The patient reports use of garlic and ginkgo biloba. Which action by the nurse is **most** appropriate?

- a. Ascertain that there will be no interactions with anesthetic agents.
- b. Teach the patient that these products may be continued preoperatively.
- c. Advise the patient to stop the use of all herbs and supplements at this time.
- d. Discuss the herb and supplement use with the patients health care provider.

ANS: D

Both garlic and ginkgo biloba increase a patients risk for bleeding. The nurse should discuss the herb and supplement use with the patients health care provider. The nurse should not advise the patient to stop the supplements or to continue them without consulting with the health care provider. Determining the interactions between the supplements and anesthetics is not within the nurses scope of practice.

9. The nurse is preparing to witness the patient signing the operative consent form when the patient says, I do not really understand what the doctor said. Which action is **best** for the nurse to take?

- a. Provide an explanation of the planned surgical procedure.
- b. Notify the surgeon that the informed consent process is not complete.
- c. Administer the prescribed preoperative antibiotics and withhold any ordered sedative medications.
- d. Notify the operating room staff that the surgeon needs to give a more complete explanation of the procedure.

ANS: B

The surgeon is responsible for explaining the surgery to the patient, and the nurse should wait until the surgeon has clarified the surgery before having the patient sign the consent form. The nurse should communicate directly with the surgeon about the consent form rather than asking other staff to pass on the message. It is not within the nurses legal scope of practice to explain the surgical procedure. No preoperative medications should be administered until the patient understands the surgical procedure and signs the consent form.

10. Which topic is **most** important for the nurse to discuss preoperatively with a patient who is scheduled for abdominal surgery for an open cholecystectomy?

- a. Care for the surgical incision
- b. Medications used during surgery
- c. Deep breathing and coughing techniques
- d. Oral antibiotic therapy after discharge home

ANS: C

Preoperative teaching, demonstration, and redemonstration of deep breathing and coughing are needed on patients having abdominal surgery to prevent postoperative atelectasis. Incisional care and the importance of completing antibiotics are better

discussed after surgery, when the patient will be more likely to retain this information. The patient does not usually need information about medications that are used intraoperatively.

11. Five minutes after receiving the ordered preoperative midazolam (Versed) by IV injection, the patient asks to get up to go to the bathroom to urinate. Which action by the nurse is **most** appropriate?

- a. Assist the patient to the bathroom and stay with the patient to prevent falls.
- b. Offer a urinal or bedpan and position the patient in bed to promote voiding.
- c. Allow the patient up to the bathroom because medication onset is 10 minutes.
- d. Ask the patient to wait because catheterization is performed just before the surgery.

ANS: B

The patient will be at risk for a fall after receiving the sedative, so the best nursing action is to have the patient use a bedpan or urinal. Having the patient get up either with assistance or independently increases the risk for a fall. The patient will be uncomfortable and risk involuntary incontinence if the bladder is full during transport to the operating room.

12. The nurse plans to provide preoperative teaching to an alert older man who has hearing and vision deficits. His wife usually answers most questions that are directed to the patient. Which action should the nurse take when doing the teaching?

- a. Use printed materials for instruction so that the patient will have more time to review the material.
- b. Direct the teaching toward the wife because she is the obvious support and caregiver for the patient.

- c. Provide additional time for the patient to understand preoperative instructions and carry out procedures.
- d. Ask the patient's wife to wait in the hall in order to focus preoperative teaching with the patient himself.

ANS: C

The nurse should allow more time when doing preoperative teaching and preparation for older patients with sensory deficits. Because the patient has visual deficits, he will not be able to use written material for learning. The teaching should be directed toward both the patient and the wife because both will need to understand preoperative procedures and teaching.

13. A patient who has diabetes and uses insulin to control blood glucose has been NPO since midnight before having a knee replacement surgery. Which action should the nurse take?

- a. Withhold the usual scheduled insulin dose because the patient is NPO.
- b. Obtain a blood glucose measurement before any insulin administration.
- c. Give the patient the usual insulin dose because stress will increase the blood glucose.
- d. Administer a lower dose of insulin because there will be no oral intake before surgery.

ANS: B

Preoperative insulin administration is individualized to the patient, and the current blood glucose will provide the most reliable information about insulin needs. It is not possible to predict whether the patient will require no insulin, a lower dose, or a higher dose without blood glucose monitoring.

14. The outpatient surgery nurse reviews the complete blood cell (CBC) count results for a patient who is scheduled for surgery in a few days. The results are white blood

cell (WBC) count $10.2 \times 10^3/\text{L}$; hemoglobin 15 g/dL; hematocrit 45%; platelets $150 \times 10^3/\text{L}$. Which action should the nurse take?

- a. Call the surgeon and anesthesiologist immediately.
- b. Ask the patient about any symptoms of a recent infection.
- c. Discuss the possibility of blood transfusion with the patient.
- d. Send the patient to the holding area when the operating room calls.

ANS: D

The CBC count results are normal. With normal results, the patient can go to the holding area when the operating room is ready for the patient. There is no need to notify the surgeon or anesthesiologist, discuss blood transfusion, or ask about recent infection.

15. As the nurse prepares a patient the morning of surgery, the patient refuses to remove a wedding ring, saying, I have never taken it off since the day I was married. Which response by the nurse is **best**?

- a. Have the patient sign a release and leave the ring on.
- b. Tape the wedding ring securely to the patient's finger.
- c. Tell the patient that the hospital is not liable for loss of the ring.
- d. Suggest that the patient give the ring to a family member to keep.

ANS: D

Jewelry is not allowed to be worn by the patient, especially if electrocautery will be used. There is no need for a release form or to discuss liability with the patient.

16. A patient has received atropine before surgery and complains of dry mouth. Which action by the nurse is **best**?

- a. Check for skin tenting.

- b. Notify the health care provider.
- c. Ask the patient about any dizziness.
- d. Tell the patient dry mouth is an expected side effect.

ANS: D

Anticholinergic medications decrease oral secretions, so the patient is taught that a dry mouth is an expected side effect. The dry mouth is not a symptom of dehydration in this case. Therefore there is no immediate need to check for skin tenting. The health care provider does not need to be notified about an expected side effect. Weakness, forgetfulness, and dizziness are side effects associated with other preoperative medications such as opioids and benzodiazepines.

17. Which statement by a patient scheduled for surgery is **most** important to report to the health care provider?

- a. I had a heart valve replacement last year.
- b. I had bacterial pneumonia 3 months ago.
- c. I have knee pain whenever I walk or jog.
- d. I have a strong family history of breast cancer.

ANS: A

A patient with a history of valve replacement is at risk for endocarditis associated with invasive procedures and may need antibiotic prophylaxis. A current respiratory infection may affect whether the patient should have surgery, but a history of pneumonia is not a reason to postpone surgery. The patient's knee pain is the likely reason for the surgery. A family history of breast cancer does not have any implications for the current surgery.

18. The nurse interviews a patient scheduled to undergo general anesthesia for a hernia repair. Which information is **most** important to communicate to the surgeon and anesthesiologist before surgery?

- a. The patient drinks 3 or 4 cups of coffee every morning before going to work.
- b. The patient takes a baby aspirin daily but stopped taking aspirin 10 days ago.
- c. The patient drank 4 ounces of apple juice 3 hours before coming to the hospital.
- d. The patient's father died after receiving general anesthesia for abdominal surgery.

ANS: D

The information about the patient's father suggests that there may be a family history of malignant hyperthermia and that precautions may need to be taken to prevent this complication. Current research indicates that having clear liquids 3 hours before surgery does not increase the risk for aspiration in most patients. Patients are instructed to discontinue aspirin 1 to 2 weeks before surgery. The patient should be offered caffeinated beverages postoperatively to prevent a caffeine-withdrawal headache, but this does not have preoperative implications.

19. Which information in the preoperative patient's medication history is **most** important to communicate to the health care provider?

- a. The patient uses acetaminophen (Tylenol) occasionally for aches and pains.
- b. The patient takes garlic capsules daily but did not take any on the surgical day.
- c. The patient has a history of cocaine use but quit using the drug over 10 years ago.
- d. The patient took a sedative medication the previous night to assist in falling asleep.

ANS: B

Chronic use of garlic may predispose to intraoperative and postoperative bleeding. The use of a sedative the previous night, occasional acetaminophen use, and a distant history of cocaine use will not usually affect the surgical outcome.

20. A patient who takes a diuretic and a β -blocker to control blood pressure is scheduled for breast reconstruction surgery. Which patient information is **most** important to communicate to the health care provider before surgery?

- a. Hematocrit 36%
- b. Blood pressure 144/82
- c. Pulse rate 58 beats/minute
- d. Serum potassium 3.2 mEq/L

ANS: D

The low potassium level may increase the risk for intraoperative complications such as dysrhythmias. Slightly elevated blood pressure is common before surgery because of anxiety. The lower heart rate would be expected in a patient taking a β -blocker. The hematocrit is in the low normal range but does not require any intervention before surgery.

Chapter 18. Management: Intraoperative Care

MULTIPLE CHOICE

1. The nurse educator facilitates student clinical experiences in the surgical suite. Which action, if performed by a student, would require the nurse educator to intervene?

- a. The student wears a mask at the sink area.
- b. The student wears street clothes in the unrestricted area.
- c. The student wears surgical scrubs in the semirestricted area.
- d. The student covers head and facial hair in the semirestricted area.

ANS: C

The surgical suite is divided into three distinct areas: *unrestricted* staff and others in street clothes can interact with those in surgical attire; *semirestricted* staff must wear surgical attire and cover all head and facial hair; *restricted* includes the operating room, the sink area, and clean core where masks are required in addition to surgical attire.

2. Which statement, if made by a new circulating nurse, is appropriate?

- a. I will assist in preparing the operating room for the patient.
- b. I will remain gloved while performing activities in the sterile field.
- c. I will assist with suturing of incisions and maintaining hemostasis as needed.
- d. I must don full surgical attire and sterile gloves while obtaining items from the unsterile field.

ANS: A

Preparing the operating room for the patient describes the role of a circulating nurse. All other answer options describe specific types of scrub nurses. The circulating nurse performs activities in the unsterile field and is not scrubbed, gowned, or gloved. The scrub nurse follows the designated scrub procedure, is gowned and gloved in sterile attire, and performs activities in the sterile field.

3. Which action **best** describes the role of the certified registered nurse anesthetist (CRNA) on the surgical care team?

- a. Performs the same responsibilities as the anesthesiologist.
- b. Releases or discharges patients from the postanesthesia care area.
- c. Administers intraoperative anesthetics ordered by the anesthesiologist.
- d. Manages a patient's airway under the direct supervision of the anesthesiologist.

ANS: B

A nurse anesthetist is a registered nurse who has graduated from an accredited nurse anesthesia program (minimally a masters degree program) and successfully completed a national certification examination to become a CRNA. The CRNA scope of practice includes, but is not limited to, the following:

1. Performing and documenting a preanesthetic assessment and evaluation
 2. Developing and implementing a plan for delivering anesthesia
 3. Selecting and initiating the planned anesthetic technique
 4. Selecting, obtaining, and administering the anesthesia, adjuvant drugs, and fluids
 5. Selecting, applying, and inserting appropriate noninvasive and invasive monitoring devices
 6. Managing a patients airway and pulmonary status
 7. Managing emergence and recovery from anesthesia
 8. Releasing or discharging patients from a postanesthesia care area
4. Which action **best** describes how the scrub nurse maintains aseptic technique during surgery?
- a. Uses waterproof shoe covers
 - b. Wears personal protective equipment
 - c. Insists that all operating room (OR) staff perform a surgical scrub
 - d. Changes gloves after touching the upper arm of the surgeons gown

ANS: D

The sleeves of a sterile surgical gown are considered sterile only to 2 inches above the elbows, so touching the surgeons upper arm would contaminate the nurses gloves. Shoe covers are not sterile. Personal protective equipment is designed to protect

caregivers, not the patient, and is not part of aseptic technique. Staff members such as the circulating nurse do not have to perform a surgical scrub before entering the OR.

5. Which action **most** effectively demonstrates that a new staff member understands the role of scrub nurse?

- a. Documents all patient care accurately
- b. Labels all specimens to send to the lab
- c. Keeps both hands above the operating table level
- d. Takes the patient to the postanesthesia recovery area

ANS: C

The scrub nurse role includes maintaining asepsis in the operating field. The other actions would be performed by the circulating nurse.

6. Which data identified during the perioperative assessment alert the nurse that special protection techniques should be implemented during surgery?

- a. Stated allergy to cats and dogs
- b. History of spinal and hip arthritis
- c. Verbalization of anxiety by the patient
- d. Having a sip of water 3 hours previously

ANS: B

The patient with arthritis may require special positioning to avoid injury and postoperative discomfort. Preoperative anxiety (unless severe) and having a sip of water 3 hours before surgery are not contraindications to having surgery. An allergy to cats and dogs will not impact the care needed during the intraoperative phase.

7. A patient scheduled to undergo total knee replacement surgery under general anesthesia asks the nurse, Will the doctor put me to sleep with a mask over my face? Which response by the nurse is **most** appropriate?

- a. A drug may be given to you through your IV line first. I will check with the anesthesia care provider.
- b. Only your surgeon can tell you for sure what method of anesthesia will be used. Should I ask your surgeon?
- c. General anesthesia is now given by injecting medication into your veins, so you will not need a mask over your face.
- d. Masks are not used anymore for anesthesia. A tube will be inserted into your throat to deliver a gas that will put you to sleep.

ANS: A

Routine general anesthesia is usually induced by the IV route with a hypnotic, anxiolytic, or dissociative agent. However, general anesthesia may be induced by IV or by inhalation. The nurse should consult with the anesthesia care provider to determine the method selected for this patient. The anesthesia care provider will select the method of anesthesia, not the surgeon. Inhalation agents may be given through an endotracheal tube or a laryngeal mask airway.

8. A patient received inhalation anesthesia during surgery. Postoperatively the nurse should monitor the patient for which complication?

- a. Tachypnea
- b. Myoclonus
- c. Hypertension
- d. Laryngospasm

ANS: D

Possible complications of inhalation anesthetics include coughing, laryngospasm, and increased secretions. Hypertension and tachypnea are not associated with general anesthetics. Myoclonus may occur with nonbarbiturate hypnotics but not with the inhalation agents.

9. Which action should the perioperative nurse take to **best** protect the patient from burn injury during surgery?

- a. Ensure correct placement of the grounding pad.
- b. Check all emergency sprinklers in the operating room.
- c. Verify that a fire extinguisher is available during surgery.
- d. Confirm that all electrosurgical equipment has been properly serviced.

ANS: A

Care must be taken to correctly place the grounding pad and all electrosurgical equipment to prevent injury from burns or fire. It is important to ensure that fire extinguishers are available and that sprinklers protect everyone in the operating room in the event of a fire, but placing the grounding pad will best prevent injury to the patient. Verifying that electrosurgical equipment works properly does not protect the patient unless all equipment and the grounding pad is placed correctly.

10. Monitored anesthesia care (MAC) is going to be used for a closed, manual reduction of a dislocated shoulder. What action does the nurse anticipate?

- a. Securing an airtight fit for the inhalation mask
- b. Starting a 20-gauge IV in the patient's unaffected arm
- c. Obtaining a nonocclusive dressing to place over the administration site
- d. Teaching the patient about epidural patient-controlled anesthesia (PCA) use

ANS: B

For MAC, IV sedatives, such as the benzodiazepines, are administered. Therefore the patient needs IV access. Inhaled, epidural, and topical agents are not included in MAC. An occlusive dressing would be placed over a topical agent such as eutectic mixture of local anesthetics (EMLA) cream.

11. Which action will the nurse take **immediately** after surgery for a patient who received ketamine (Ketalar) as an anesthetic agent?

- a. Administer higher doses of analgesic agents.
- b. Ensure that atropine is available in case of bradycardia.
- c. Question the order for benzodiazepines to be administered.
- d. Provide a quiet environment in the postanesthesia care unit.

ANS: D

Hallucinations are an adverse effect associated with the dissociative anesthetics such as ketamine. Therefore the postoperative environment should be kept quiet to decrease the risk of hallucinations. Because ketamine causes profound analgesia lasting into the postoperative period, higher doses of analgesics are not needed. Ketamine causes an increase in heart rate. Benzodiazepine may be used with ketamine to decrease the incidence of hallucinations and nightmares.

12. While in the holding area, a patient reveals to the nurse that his father had a high fever after surgery. What action by the nurse is a **priority**?

- a. Place a medical alert sticker on the front of the patients chart.
- b. Alert the anesthesia care provider of the family members reaction to surgery.
- c. Reassure the patient that there will be close monitoring during and after surgery.
- d. Administer 650 mg of acetaminophen (Tylenol) per rectum as a preventive measure.

ANS: B

The anesthesia care provider (ACP) needs to be notified and made aware of the patients family history in regards to anesthesia reactions. Malignant hyperthermia (MH) is a valid concern because the patients father appears to have had a reaction to surgery. The ACP needs to be notified immediately, rather than waiting for a sticker

to be noticed on the chart. Administering acetaminophen may not prevent MH. General anesthesia can be administered to patients with MH as long as precautions to avoid MH are taken and preparations are made to treat MH if it does occur.

13. A patient in surgery receives a neuromuscular blocking agent as an adjunct to general anesthesia. While in the postanesthesia care unit (PACU), what assessment finding is **most** important for the nurse to report?

- a. Laryngospasm
- b. Complaint of nausea
- c. Weak chest wall movement
- d. Patient unable to recall the correct date

ANS: C

The most serious adverse effect of the neuromuscular blocking agents is weakness of the respiratory muscles, which can lead to postoperative hypoxemia. Nausea and confusion are possible adverse effects of these drugs, but they are not as great of concern as respiratory depression. Because these medications decrease muscle contraction, laryngospasm is not a concern.

14. A patient is being prepared for a spinal fusion. While in the holding area, which action by a member of the surgical team requires rapid intervention by the charge nurse?

- a. Wearing street clothes into the nursing station
- b. Wearing a surgical mask into the holding room
- c. Walking into the hallway outside an operating room without the hair covered
- d. Putting on a surgical mask, cap, and scrubs before entering the operating room

ANS: C

The corridors outside the operating room (OR) are part of the semirestricted area where personnel must wear surgical attire and head coverings. Surgical masks may be worn in the holding room, although they are not necessary. Street clothes may be worn at the nursing station, which is part of the unrestricted area. Wearing a mask and scrubs is essential when going into the OR.

15. Which nursing action should the operating room (OR) nurse manager delegate to the registered nurse first assistant (RNFA) when caring for a surgical patient?

- a. Adjust the doses of administered anesthetics.
- b. Make surgical incision and suture incisions as needed.
- c. Coordinate transfer of the patient to the operating table.
- d. Provide postoperative teaching about coughing to the patient.

ANS: B

The role of the RNFA includes skills such as making and suturing incisions and maintaining hemostasis. The other actions should be delegated to other staff members such as the circulating nurse, scrub nurse, or surgical technician. The anesthesia care provider should adjust the doses of anesthetics for patients, not the RNFA.

16. Which action included in the perioperative patient plan of care can the charge nurse delegate to a surgical technologist?

- a. Pass sterile instruments and supplies to the surgeon.
- b. Teach the patient about what to expect in the operating room (OR).
- c. Continuously monitor and interpret the patients echocardiogram (ECG) during surgery.
- d. Give the postoperative report to the postanesthesia care unit (PACU) nurse.

ANS: A

The education and certification for a surgical technologist includes the scrub and circulating functions in the OR. Patient teaching, communication with other departments about a patient's condition, and the admission assessment require registered-nurse (RN) level education and scope of practice. A surgical technologist is not usually trained to interpret ECG rhythms.

17. When caring for a patient who has received a general anesthetic, the circulating nurse notes red, raised wheals on the patient's arms. Which action should the nurse take **immediately**?

- a. Apply lotion to the affected areas.
- b. Cover the arms with sterile drapes.
- c. Recheck the patient's arms in 30 minutes.
- d. Notify the anesthesia care practitioner (ACP) immediately.

ANS: D

The presence of wheals indicates a possible allergic or anaphylactic reaction, which may have been caused by latex or by medications administered as part of general anesthesia. Because general anesthesia may mask anaphylaxis, the nurse should report this to the ACP. The other actions are not appropriate at this time.

MULTIPLE RESPONSE

1. Which actions will the nurse include in the surgical time-out procedure before surgery (*select all that apply*)?

- a. Check for placement of IV lines.
- b. Have the surgeon identify the patient.
- c. Have the patient state name and date of birth.
- d. Verify the patient identification band number.
- e. Ask the patient to state the surgical procedure.
- f. Confirm the hospital chart identification number.

ANS: C, D, E, F

These actions are included in surgical time out. IV line placement and identification of the patient by the surgeon are not included in the surgical time-out procedure.

Chapte **MULTIPLE CHOICE**

1. On admission of a patient to the postanesthesia care unit (PACU), the blood pressure (BP) is 122/72. Thirty minutes after admission, the BP falls to 114/62, with a pulse of 74 and warm, dry skin. Which action by the nurse is **most** appropriate?

- a. Increase the IV fluid rate.
- b. Continue to take vital signs every 15 minutes.
- c. Administer oxygen therapy at 100% per mask.
- d. Notify the anesthesia care provider (ACP) immediately.

ANS: B

A slight drop in postoperative BP with a normal pulse and warm, dry skin indicates normal response to the residual effects of anesthesia and requires only ongoing monitoring. Hypotension with tachycardia and/or cool, clammy skin would suggest hypovolemic or hemorrhagic shock and the need for notification of the ACP, increased fluids, and high-concentration oxygen administration.

2. In the postanesthesia care unit (PACU), a patients vital signs are blood pressure 116/72, pulse 74, respirations 12, and SpO₂ 91%. The patient is sleepy but awakens easily. Which action should the nurse take **first**?

- a. Place the patient in a side-lying position.
- b. Encourage the patient to take deep breaths.
- c. Prepare to transfer the patient to a clinical unit.
- d. Increase the rate of the postoperative IV fluids.

ANS: B

The patient's borderline SpO₂ and sleepiness indicate hypoventilation. The nurse should stimulate the patient and remind the patient to take deep breaths. Placing the patient in a lateral position is needed when the patient first arrives in the PACU and is unconscious. The stable blood pressure and pulse indicate that no changes in fluid intake are required. The patient is not fully awake and has a low SpO₂, indicating that transfer from the PACU to a clinical unit is not appropriate.

3. An experienced nurse orients a new nurse to the postanesthesia care unit (PACU). Which action by the new nurse, if observed by the experienced nurse, indicates that the orientation was successful?

- a. The new nurse assists a nauseated patient to a supine position.
- b. The new nurse positions an unconscious patient supine with the head elevated.
- c. The new nurse turns an unconscious patient to the side upon arrival in the PACU.
- d. The new nurse places a patient in the Trendelenburg position when the blood pressure drops.

ANS: C

The patient should initially be positioned in the lateral recovery position to keep the airway open and avoid aspiration. The Trendelenburg position is avoided because it increases the work of breathing. The patient is placed supine with the head elevated after regaining consciousness.

4. An older patient is being discharged from the ambulatory surgical unit following left eye surgery. The patient tells the nurse, I do not know if I can take care of myself with this patch over my eye. Which action by the nurse is **most** appropriate?

- a. Refer the patient for home health care services.
- b. Discuss the specific concerns regarding self-care.

- c. Give the patient written instructions regarding care.
- d. Assess the patients support system for care at home.

ANS: B

The nurses initial action should be to assess exactly the patients concerns about self-care. Referral to home health care and assessment of the patients support system may be appropriate actions but will be based on further assessment of the patients concerns. Written instructions should be given to the patient, but these are unlikely to address the patients stated concern about self-care.

5. The nasogastric (NG) tube is removed on the second postoperative day, and the patient is placed on a clear liquid diet. Four hours later, the patient complains of sharp, cramping gas pains. What action by the nurse is the **most** appropriate?

- a. Reinsert the NG tube.
- b. Give the PRN IV opioid.
- c. Assist the patient to ambulate.
- d. Place the patient on NPO status.

ANS: C

Ambulation encourages peristalsis and the passing of flatus, which will relieve the patients discomfort. If distention persists, the patient may need to be placed on NPO status, but usually this is not necessary. Morphine administration will further decrease intestinal motility. Gas pains are usually caused by trapping of flatus in the colon, and reinsertion of the NG tube will not relieve the pains.

6. A patients T-tube is draining dark green fluid after gallbladder surgery. What action by the nurse is the **most** appropriate?

- a. Notify the patients surgeon.
- b. Place the patient on bed rest.

- c. Document the color and amount of drainage.
- d. Irrigate the T-tube with sterile normal saline.

ANS: C

A T-tube normally drains dark green to bright yellow drainage, so no action other than to document the amount and color of the drainage is needed. The other actions are not necessary.

7. A nurse assists a patient on the first postoperative day to ambulate, cough, deep breathe, and turn. Which action by the nurse is **most** helpful?

- a. Teach the patient to fully exhale into the incentive spirometer.
- b. Administer ordered analgesic medications before these activities.
- c. Ask the patient to state two possible complications of immobility.
- d. Encourage the patient to state the purpose of splinting the incision.

ANS: B

An important nursing action to encourage these postoperative activities is administration of adequate analgesia to allow the patient to accomplish the activities with minimal pain. Even with motivation provided by proper teaching, positive reinforcement, and concern about complications, patients will have difficulty if there is a great deal of pain involved with these activities. When using an incentive spirometer, the patient should be taught to inhale deeply, rather than exhale into the spirometer to promote lung expansion and prevent atelectasis.

8. A postoperative patient has a nursing diagnosis of ineffective airway clearance. The nurse determines that interventions for this nursing diagnosis have been successful if which is observed?

- a. Patient drinks 2 to 3 L of fluid in 24 hours.
- b. Patient uses the spirometer 10 times every hour.

- c. Patients breath sounds are clear to auscultation.
- d. Patients temperature is less than 100.4 F orally.

ANS: C

One characteristic of ineffective airway clearance is the presence of adventitious breath sounds such as rhonchi or crackles, so clear breath sounds are an indication of resolution of the problem. Spirometer use and increased fluid intake are interventions for ineffective airway clearance but may not improve breath sounds in all patients. Elevated temperature may occur with atelectasis, but a normal or near-normal temperature does not always indicate resolution of respiratory problems.

9. A patient who has begun to awaken after 30 minutes in the postanesthesia care unit (PACU) is restless and shouting at the nurse. The patients oxygen saturation is 96%, and recent laboratory results are all normal. Which action by the nurse is **most** appropriate?

- a. Increase the IV fluid rate.
- b. Assess for bladder distention.
- c. Notify the anesthesia care provider (ACP).
- d. Demonstrate the use of the nurse call bell button.

ANS: B

Because the patients assessment indicates physiologic stability, the most likely cause of the patients agitation is emergence delirium, which will resolve as the patient wakes up more fully. The nurse should look for a cause such as bladder distention. Although hypoxemia is the most common cause, the patients oxygen saturation is 96%. Emergence delirium is common in patients recovering from anesthesia, so there is no need to notify the ACP. Orientation of the patient to bed controls is needed, but is not likely to be effective until the effects of anesthesia have resolved more completely.

10. Which action could the postanesthesia care unit (PACU) nurse delegate to unlicensed assistive personnel (UAP) who help with the transfer of a patient to the clinical unit?

- a. Clarify the postoperative orders with the surgeon.
- b. Help with the transfer of the patient onto a stretcher.
- c. Document the appearance of the patients incision in the chart.
- d. Provide hand off communication to the surgical unit charge nurse.

ANS: B

The scope of practice of UAP includes repositioning and moving patients under the supervision of a nurse. Providing report to another nurse, assessing and documenting the wound appearance, and clarifying physician orders with another nurse require registered-nurse (RN) level education and scope of practice.

11. A patient is transferred from the postanesthesia care unit (PACU) to the clinical unit. Which action by the nurse on the clinical unit should be performed **first**?

- a. Assess the patients pain.
- b. Orient the patient to the unit.
- c. Take the patients vital signs.
- d. Read the postoperative orders.

ANS: C

Because the priority concerns after surgery are airway, breathing, and circulation, the vital signs are assessed first. The other actions should take place after the vital signs are obtained and compared with the vital signs before transfer.

12. An older patient who had knee replacement surgery 2 days ago can only tolerate being out of bed with physical therapy twice a day. Which collaborative problem should the nurse identify as a **priority** for this patient?

- a. Potential complication: hypovolemic shock
- b. Potential complication: venous thromboembolism
- c. Potential complication: fluid and electrolyte imbalance
- d. Potential complication: impaired surgical wound healing

ANS: B

The patient is older and relatively immobile, which are two risk factors for development of deep vein thrombosis. The other potential complications are possible postoperative problems, but they are not supported by the data about this patient.

13. A patient who is just waking up after having hip replacement surgery is agitated and confused. Which action should the nurse take **first**?

- a. Administer the ordered opioid.
- b. Check the oxygen (O₂) saturation.
- c. Take the blood pressure and pulse.
- d. Apply wrist restraints to secure IV lines.

ANS: B

Emergence delirium may be caused by a variety of factors. However, the nurse should first assess for hypoxemia. The other actions also may be appropriate, but are not the best initial action.

14. A postoperative patient has not voided for 8 hours after return to the clinical unit. Which action should the nurse take **first**?

- a. Perform a bladder scan.
- b. Encourage increased oral fluid intake.
- c. Assist the patient to ambulate to the bathroom.
- d. Insert a straight catheter as indicated on the PRN order.

ANS: A

The initial action should be to assess the bladder for distention. If the bladder is distended, providing the patient with privacy (by walking with them to the bathroom) will be helpful. Because of the risk for urinary tract infection, catheterization should only be done after other measures have been tried without success. There is no indication to notify the surgeon about this common postoperative problem unless all measures to empty the bladder are unsuccessful.

15. The nurse is caring for a patient the first postoperative day following a laparotomy for a small bowel obstruction. The nurse notices new bright-red drainage about 5 cm in diameter on the dressing. Which action should the nurse take **first**?

- a. Reinforce the dressing.
- b. Apply an abdominal binder.
- c. Take the patients vital signs.
- d. Recheck the dressing in 1 hour for increased drainage.

ANS: C

New bright-red drainage may indicate hemorrhage, and the nurse should initially assess the patients vital signs for tachycardia and hypotension. The surgeon should then be notified of the drainage and the vital signs. The dressing may be changed or reinforced, based on the surgeons orders or institutional policy. The nurse should not wait an hour to recheck the dressing.

16. When caring for a patient the second postoperative day after abdominal surgery for removal of a large pancreatic cyst, the nurse obtains an oral temperature of 100.8 F. Which action should the nurse take **first**?

- a. Have the patient use the incentive spirometer.
- b. Assess the surgical incision for redness and swelling.
- c. Administer the ordered PRN acetaminophen (Tylenol).

- d. Ask the health care provider to prescribe a different antibiotic.

ANS: A

A temperature of 100.8 F in the first 48 hours is usually caused by atelectasis, and the nurse should have the patient cough and deep breathe. This problem may be resolved by nursing intervention, and therefore notifying the health care provider is not necessary. Acetaminophen will reduce the temperature, but it will not resolve the underlying respiratory congestion. Because a wound infection does not usually occur before the third postoperative day, a wound infection is not a likely source of the elevated temperature.

17. The nurse assesses that the oxygen saturation is 89% in an unconscious patient who was transferred from surgery to the postanesthesia care unit (PACU) 15 minutes ago. Which action should the nurse take **first**?

- a. Elevate the patients head.
- b. Suction the patients mouth.
- c. Increase the oxygen flow rate.
- d. Perform the jaw-thrust maneuver.

ANS: D

In an unconscious postoperative patient, a likely cause of hypoxemia is airway obstruction by the tongue, and the first action is to clear the airway by maneuvers such as the jaw thrust or chin lift. Increasing the oxygen flow rate and suctioning are not helpful when the airway is obstructed by the tongue. Elevating the patients head will not be effective in correcting the obstruction but may help with oxygenation after the patient is awake.

18. The nurse assesses a patient who had a total abdominal hysterectomy 2 days ago. Which information about the patient is **most** important to communicate to the health care provider?

- a. The right calf is swollen, warm, and painful.
- b. The patient's temperature is 100.3 F (37.9 C).
- c. The 24-hour oral intake is 600 mL greater than the total output.
- d. The patient complains of abdominal pain at level 6 (0 to 10 scale) when ambulating.

ANS: A

The calf pain, swelling, and warmth suggest that the patient has a deep vein thrombosis, which will require the health care provider to order diagnostic tests and/or anticoagulants. Because the stress response causes fluid retention for the first 2 to 5 days postoperatively, the difference between intake and output is expected. A temperature elevation to 100.3 F on the second postoperative day suggests atelectasis, and the nurse should have the patient deep breathe and cough. Pain with ambulation is normal, and the nurse should administer the ordered analgesic before patient activities.

19. A patient who had knee surgery received intramuscular ketorolac (Toradol) 30 minutes ago and continues to complain of pain at a level of 7 (0 to 10 scale). Which action is **best** for the nurse to take at this time?

- a. Administer the prescribed PRN IV morphine sulfate.
- b. Notify the health care provider about the ongoing knee pain.
- c. Reassure the patient that postoperative pain is expected after knee surgery.
- d. Teach the patient that the effects of ketorolac typically last about 6 to 8 hours.

ANS: A

The priority at this time is pain relief. Concomitant use of opioids and nonsteroidal antiinflammatory drugs (NSAIDs) improves pain control in postoperative patients. Patient teaching and reassurance are appropriate, but should be done after the patient's

pain is relieved. If the patient continues to have pain after the morphine is administered, the health care provider should be notified.

20. The nurse working in the postanesthesia care unit (PACU) notes that a patient who has just been transported from the operating room is shivering and has a temperature of 96.5 F (35.8 C). Which action should the nurse take?

- a. Cover the patient with a warm blanket and put on socks.
- b. Notify the anesthesia care provider about the temperature.
- c. Avoid the use of opioid analgesics until the patient is warmer.
- d. Administer acetaminophen (Tylenol) 650 mg suppository rectally.

ANS: A

The patient assessment indicates the need for active rewarming. There is no indication of a need for acetaminophen. Opioid analgesics may help reduce shivering. Because hypothermia is common in the immediate postoperative period, there is no need to notify the anesthesia care provider, unless the patient continues to be hypothermic after active rewarming.

21. The nurse reviews the laboratory results for a patient on the first postoperative day after a hiatal hernia repair. Which finding would indicate to the nurse that the patient is at increased risk for poor wound healing?

- a. Potassium 3.5 mEq/L
- b. Albumin level 2.2 g/dL
- c. Hemoglobin 11.2 g/dL
- d. White blood cells 11,900/L

ANS: B

Because proteins are needed for an appropriate inflammatory response and wound healing, the low serum albumin level (normal level 3.5 to 5.0 g/dL) indicates a risk for

poor wound healing. The potassium level is normal. Because a small amount of blood loss is expected with surgery, the hemoglobin level is not indicative of an increased risk for wound healing. WBC count is expected to increase after surgery as a part of the normal inflammatory response.

22. The nurse assesses a patient on the second postoperative day after abdominal surgery to repair a perforated duodenal ulcer. Which finding is **most** important for the nurse to report to the surgeon?

- a. Tympanic temperature 99.2 F (37.3 C)
- b. Fine crackles audible at both lung bases
- c. Redness and swelling along the suture line
- d. 200 mL sanguineous fluid in the wound drain

ANS: D

Wound drainage should decrease and change in color from sanguineous to serosanguineous by the second postoperative day. The color and amount of drainage for this patient are abnormal and should be reported. Redness and swelling along the suture line and a slightly elevated temperature are normal signs of postoperative inflammation. Atelectasis is common after surgery. The nurse should have the patient cough and deep breathe, but there is no urgent need to notify the surgeon.

23. After receiving change-of-shift report about these postoperative patients, which patient should the nurse assess **first**?

- a. Obese patient who had abdominal surgery 3 days ago and whose wound edges are separating
- b. Patient who has 30 mL of sanguineous drainage in the wound drain 10 hours after hip replacement surgery
- c. Patient who has bibasilar crackles and a temperature of 100F (37.8C) on the first postoperative day after chest surgery
- d. Patient who continues to have incisional pain 15 minutes after hydrocodone and acetaminophen (Vicodin) administration

ANS: A

The patient's history and assessment suggests possible wound dehiscence, which should be reported immediately to the surgeon. Although the information about the other patients indicates a need for ongoing assessment and/or possible intervention, the data do not suggest any acute complications. Small amounts of red drainage are common in the first postoperative hours. Bibasilar crackles and a slightly elevated temperature are common after surgery, although the nurse will need to have the patient cough and deep breathe. Oral medications typically take more than 15 minutes for effective pain relief.

OTHER

1. While ambulating in the room, a patient complains of feeling dizzy. In what order will the nurse accomplish the following activities? (*Put a comma and a space between each answer choice [A, B, C, D].*)

- a. Have the patient sit down in a chair.
- b. Give the patient something to drink.
- c. Take the patient's blood pressure (BP).
- d. Notify the patient's health care provider.

ANS:

A, C, B, D

The first priority for the patient with syncope is to prevent a fall, so the patient should be assisted to a chair. Assessment of the BP will determine whether the dizziness is due to orthostatic hypotension, which occurs because of hypovolemia. Increasing the fluid intake will help prevent orthostatic dizziness. Because this is a common postoperative problem that is usually resolved through nursing measures such as increasing fluid intake and making position changes more slowly, there is no urgent need to notify the health care provider.

2. A patient's blood pressure in the postanesthesia care unit (PACU) has dropped from an admission blood pressure of 140/86 to 102/60 with a pulse change of 70 to 96. SpO₂ is 92% on 3 L of oxygen. In which order should the nurse take these actions? (Put a comma and a space between each answer choice [A, B, C, D].)

- a. Increase the IV infusion rate.
- b. Assess the patient's dressing.
- c. Increase the oxygen flow rate.
- d. Check the patient's temperature.

ANS:

A, C, B, D

The first nursing action should be to increase the IV infusion rate. Because the most common cause of hypotension is volume loss, the IV rate should be increased. The next action should be to increase the oxygen flow rate to maximize oxygenation of hypoperfused organs. Because hemorrhage is a common cause of postoperative volume loss, the nurse should check the dressing. Finally, the patient's temperature should be assessed to determine the effects of vasodilation caused by rewarming.

Chapter 19. Management: Postoperative Care

MULTIPLE CHOICE

1. On admission of a patient to the postanesthesia care unit (PACU), the blood pressure (BP) is 122/72. Thirty minutes after admission, the BP falls to 114/62, with a pulse of 74 and warm, dry skin. Which action by the nurse is **most** appropriate?

- a. Increase the IV fluid rate.
- b. Continue to take vital signs every 15 minutes.
- c. Administer oxygen therapy at 100% per mask.
- d. Notify the anesthesia care provider (ACP) immediately.

ANS: B

A slight drop in postoperative BP with a normal pulse and warm, dry skin indicates normal response to the residual effects of anesthesia and requires only ongoing monitoring. Hypotension with tachycardia and/or cool, clammy skin would suggest hypovolemic or hemorrhagic shock and the need for notification of the ACP, increased fluids, and high-concentration oxygen administration.

2. In the postanesthesia care unit (PACU), a patient's vital signs are blood pressure 116/72, pulse 74, respirations 12, and SpO₂ 91%. The patient is sleepy but awakens easily. Which action should the nurse take **first**?

- a. Place the patient in a side-lying position.
- b. Encourage the patient to take deep breaths.
- c. Prepare to transfer the patient to a clinical unit.
- d. Increase the rate of the postoperative IV fluids.

ANS: B

The patient's borderline SpO₂ and sleepiness indicate hypoventilation. The nurse should stimulate the patient and remind the patient to take deep breaths. Placing the patient in a lateral position is needed when the patient first arrives in the PACU and is unconscious. The stable blood pressure and pulse indicate that no changes in fluid intake are required. The patient is not fully awake and has a low SpO₂, indicating that transfer from the PACU to a clinical unit is not appropriate.

3. An experienced nurse orients a new nurse to the postanesthesia care unit (PACU). Which action by the new nurse, if observed by the experienced nurse, indicates that the orientation was successful?

- a. The new nurse assists a nauseated patient to a supine position.
- b. The new nurse positions an unconscious patient supine with the head elevated.

- c. The new nurse turns an unconscious patient to the side upon arrival in the PACU.
- d. The new nurse places a patient in the Trendelenburg position when the blood pressure drops.

ANS: C

The patient should initially be positioned in the lateral recovery position to keep the airway open and avoid aspiration. The Trendelenburg position is avoided because it increases the work of breathing. The patient is placed supine with the head elevated after regaining consciousness.

4. An older patient is being discharged from the ambulatory surgical unit following left eye surgery. The patient tells the nurse, I do not know if I can take care of myself with this patch over my eye. Which action by the nurse is **most** appropriate?

- a. Refer the patient for home health care services.
- b. Discuss the specific concerns regarding self-care.
- c. Give the patient written instructions regarding care.
- d. Assess the patients support system for care at home.

ANS: B

The nurses initial action should be to assess exactly the patients concerns about self-care. Referral to home health care and assessment of the patients support system may be appropriate actions but will be based on further assessment of the patients concerns. Written instructions should be given to the patient, but these are unlikely to address the patients stated concern about self-care.

5. The nasogastric (NG) tube is removed on the second postoperative day, and the patient is placed on a clear liquid diet. Four hours later, the patient complains of sharp, cramping gas pains. What action by the nurse is the **most** appropriate?

- a. Reinsert the NG tube.

- b. Give the PRN IV opioid.
- c. Assist the patient to ambulate.
- d. Place the patient on NPO status.

ANS: C

Ambulation encourages peristalsis and the passing of flatus, which will relieve the patient's discomfort. If distention persists, the patient may need to be placed on NPO status, but usually this is not necessary. Morphine administration will further decrease intestinal motility. Gas pains are usually caused by trapping of flatus in the colon, and reinsertion of the NG tube will not relieve the pains.

6. A patient's T-tube is draining dark green fluid after gallbladder surgery. What action by the nurse is the **most** appropriate?

- a. Notify the patient's surgeon.
- b. Place the patient on bed rest.
- c. Document the color and amount of drainage.
- d. Irrigate the T-tube with sterile normal saline.

ANS: C

A T-tube normally drains dark green to bright yellow drainage, so no action other than to document the amount and color of the drainage is needed. The other actions are not necessary.

7. A nurse assists a patient on the first postoperative day to ambulate, cough, deep breathe, and turn. Which action by the nurse is **most** helpful?

- a. Teach the patient to fully exhale into the incentive spirometer.
- b. Administer ordered analgesic medications before these activities.
- c. Ask the patient to state two possible complications of immobility.
- d. Encourage the patient to state the purpose of splinting the incision.

ANS: B

An important nursing action to encourage these postoperative activities is administration of adequate analgesia to allow the patient to accomplish the activities with minimal pain. Even with motivation provided by proper teaching, positive reinforcement, and concern about complications, patients will have difficulty if there is a great deal of pain involved with these activities. When using an incentive spirometer, the patient should be taught to inhale deeply, rather than exhale into the spirometer to promote lung expansion and prevent atelectasis.

8. A postoperative patient has a nursing diagnosis of ineffective airway clearance. The nurse determines that interventions for this nursing diagnosis have been successful if which is observed?

- a. Patient drinks 2 to 3 L of fluid in 24 hours.
- b. Patient uses the spirometer 10 times every hour.
- c. Patients breath sounds are clear to auscultation.
- d. Patients temperature is less than 100.4 F orally.

ANS: C

One characteristic of ineffective airway clearance is the presence of adventitious breath sounds such as rhonchi or crackles, so clear breath sounds are an indication of resolution of the problem. Spirometer use and increased fluid intake are interventions for ineffective airway clearance but may not improve breath sounds in all patients. Elevated temperature may occur with atelectasis, but a normal or near-normal temperature does not always indicate resolution of respiratory problems.

9. A patient who has begun to awaken after 30 minutes in the postanesthesia care unit (PACU) is restless and shouting at the nurse. The patients oxygen saturation is 96%, and recent laboratory results are all normal. Which action by the nurse is **most** appropriate?

- a. Increase the IV fluid rate.

- b. Assess for bladder distention.
- c. Notify the anesthesia care provider (ACP).
- d. Demonstrate the use of the nurse call bell button.

ANS: B

Because the patient's assessment indicates physiologic stability, the most likely cause of the patient's agitation is emergence delirium, which will resolve as the patient wakes up more fully. The nurse should look for a cause such as bladder distention. Although hypoxemia is the most common cause, the patient's oxygen saturation is 96%. Emergence delirium is common in patients recovering from anesthesia, so there is no need to notify the ACP. Orientation of the patient to bed controls is needed, but is not likely to be effective until the effects of anesthesia have resolved more completely.

10. Which action could the postanesthesia care unit (PACU) nurse delegate to unlicensed assistive personnel (UAP) who help with the transfer of a patient to the clinical unit?

- a. Clarify the postoperative orders with the surgeon.
- b. Help with the transfer of the patient onto a stretcher.
- c. Document the appearance of the patient's incision in the chart.
- d. Provide hand off communication to the surgical unit charge nurse.

ANS: B

The scope of practice of UAP includes repositioning and moving patients under the supervision of a nurse. Providing report to another nurse, assessing and documenting the wound appearance, and clarifying physician orders with another nurse require registered-nurse (RN) level education and scope of practice.

11. A patient is transferred from the postanesthesia care unit (PACU) to the clinical unit. Which action by the nurse on the clinical unit should be performed **first**?

- a. Assess the patients pain.
- b. Orient the patient to the unit.
- c. Take the patients vital signs.
- d. Read the postoperative orders.

ANS: C

Because the priority concerns after surgery are airway, breathing, and circulation, the vital signs are assessed first. The other actions should take place after the vital signs are obtained and compared with the vital signs before transfer.

12. An older patient who had knee replacement surgery 2 days ago can only tolerate being out of bed with physical therapy twice a day. Which collaborative problem should the nurse identify as a **priority** for this patient?

- a. Potential complication: hypovolemic shock
- b. Potential complication: venous thromboembolism
- c. Potential complication: fluid and electrolyte imbalance
- d. Potential complication: impaired surgical wound healing

ANS: B

The patient is older and relatively immobile, which are two risk factors for development of deep vein thrombosis. The other potential complications are possible postoperative problems, but they are not supported by the data about this patient.

13. A patient who is just waking up after having hip replacement surgery is agitated and confused. Which action should the nurse take **first**?

- a. Administer the ordered opioid.
- b. Check the oxygen (O₂) saturation.
- c. Take the blood pressure and pulse.

- d. Apply wrist restraints to secure IV lines.

ANS: B

Emergence delirium may be caused by a variety of factors. However, the nurse should first assess for hypoxemia. The other actions also may be appropriate, but are not the best initial action.

14. A postoperative patient has not voided for 8 hours after return to the clinical unit. Which action should the nurse take **first**?

- a. Perform a bladder scan.
- b. Encourage increased oral fluid intake.
- c. Assist the patient to ambulate to the bathroom.
- d. Insert a straight catheter as indicated on the PRN order.

ANS: A

The initial action should be to assess the bladder for distention. If the bladder is distended, providing the patient with privacy (by walking with them to the bathroom) will be helpful. Because of the risk for urinary tract infection, catheterization should only be done after other measures have been tried without success. There is no indication to notify the surgeon about this common postoperative problem unless all measures to empty the bladder are unsuccessful.

15. The nurse is caring for a patient the first postoperative day following a laparotomy for a small bowel obstruction. The nurse notices new bright-red drainage about 5 cm in diameter on the dressing. Which action should the nurse take **first**?

- a. Reinforce the dressing.
- b. Apply an abdominal binder.
- c. Take the patients vital signs.
- d. Recheck the dressing in 1 hour for increased drainage.

ANS: C

New bright-red drainage may indicate hemorrhage, and the nurse should initially assess the patient's vital signs for tachycardia and hypotension. The surgeon should then be notified of the drainage and the vital signs. The dressing may be changed or reinforced, based on the surgeon's orders or institutional policy. The nurse should not wait an hour to recheck the dressing.

16. When caring for a patient the second postoperative day after abdominal surgery for removal of a large pancreatic cyst, the nurse obtains an oral temperature of 100.8 F. Which action should the nurse take **first**?

- a. Have the patient use the incentive spirometer.
- b. Assess the surgical incision for redness and swelling.
- c. Administer the ordered PRN acetaminophen (Tylenol).
- d. Ask the health care provider to prescribe a different antibiotic.

ANS: A

A temperature of 100.8 F in the first 48 hours is usually caused by atelectasis, and the nurse should have the patient cough and deep breathe. This problem may be resolved by nursing intervention, and therefore notifying the health care provider is not necessary. Acetaminophen will reduce the temperature, but it will not resolve the underlying respiratory congestion. Because a wound infection does not usually occur before the third postoperative day, a wound infection is not a likely source of the elevated temperature.

17. The nurse assesses that the oxygen saturation is 89% in an unconscious patient who was transferred from surgery to the postanesthesia care unit (PACU) 15 minutes ago. Which action should the nurse take **first**?

- a. Elevate the patient's head.
- b. Suction the patient's mouth.

- c. Increase the oxygen flow rate.
- d. Perform the jaw-thrust maneuver.

ANS: D

In an unconscious postoperative patient, a likely cause of hypoxemia is airway obstruction by the tongue, and the first action is to clear the airway by maneuvers such as the jaw thrust or chin lift. Increasing the oxygen flow rate and suctioning are not helpful when the airway is obstructed by the tongue. Elevating the patient's head will not be effective in correcting the obstruction but may help with oxygenation after the patient is awake.

18. The nurse assesses a patient who had a total abdominal hysterectomy 2 days ago. Which information about the patient is **most** important to communicate to the health care provider?

- a. The right calf is swollen, warm, and painful.
- b. The patient's temperature is 100.3 F (37.9 C).
- c. The 24-hour oral intake is 600 mL greater than the total output.
- d. The patient complains of abdominal pain at level 6 (0 to 10 scale) when ambulating.

ANS: A

The calf pain, swelling, and warmth suggest that the patient has a deep vein thrombosis, which will require the health care provider to order diagnostic tests and/or anticoagulants. Because the stress response causes fluid retention for the first 2 to 5 days postoperatively, the difference between intake and output is expected. A temperature elevation to 100.3 F on the second postoperative day suggests atelectasis, and the nurse should have the patient deep breathe and cough. Pain with ambulation is normal, and the nurse should administer the ordered analgesic before patient activities.

19. A patient who had knee surgery received intramuscular ketorolac (Toradol) 30 minutes ago and continues to complain of pain at a level of 7 (0 to 10 scale). Which action is **best** for the nurse to take at this time?

- a. Administer the prescribed PRN IV morphine sulfate.
- b. Notify the health care provider about the ongoing knee pain.
- c. Reassure the patient that postoperative pain is expected after knee surgery.
- d. Teach the patient that the effects of ketorolac typically last about 6 to 8 hours.

ANS: A

The priority at this time is pain relief. Concomitant use of opioids and nonsteroidal antiinflammatory drugs (NSAIDs) improves pain control in postoperative patients. Patient teaching and reassurance are appropriate, but should be done after the patient's pain is relieved. If the patient continues to have pain after the morphine is administered, the health care provider should be notified.

20. The nurse working in the postanesthesia care unit (PACU) notes that a patient who has just been transported from the operating room is shivering and has a temperature of 96.5 F (35.8 C). Which action should the nurse take?

- a. Cover the patient with a warm blanket and put on socks.
- b. Notify the anesthesia care provider about the temperature.
- c. Avoid the use of opioid analgesics until the patient is warmer.
- d. Administer acetaminophen (Tylenol) 650 mg suppository rectally.

ANS: A

The patient assessment indicates the need for active rewarming. There is no indication of a need for acetaminophen. Opioid analgesics may help reduce shivering. Because hypothermia is common in the immediate postoperative period, there is no need to

notify the anesthesia care provider, unless the patient continues to be hypothermic after active rewarming.

21. The nurse reviews the laboratory results for a patient on the first postoperative day after a hiatal hernia repair. Which finding would indicate to the nurse that the patient is at increased risk for poor wound healing?

- a. Potassium 3.5 mEq/L
- b. Albumin level 2.2 g/dL
- c. Hemoglobin 11.2 g/dL
- d. White blood cells 11,900/L

ANS: B

Because proteins are needed for an appropriate inflammatory response and wound healing, the low serum albumin level (normal level 3.5 to 5.0 g/dL) indicates a risk for poor wound healing. The potassium level is normal. Because a small amount of blood loss is expected with surgery, the hemoglobin level is not indicative of an increased risk for wound healing. WBC count is expected to increase after surgery as a part of the normal inflammatory response.

22. The nurse assesses a patient on the second postoperative day after abdominal surgery to repair a perforated duodenal ulcer. Which finding is **most** important for the nurse to report to the surgeon?

- a. Tympanic temperature 99.2 F (37.3 C)
- b. Fine crackles audible at both lung bases
- c. Redness and swelling along the suture line
- d. 200 mL sanguineous fluid in the wound drain

ANS: D

Wound drainage should decrease and change in color from sanguineous to serosanguineous by the second postoperative day. The color and amount of drainage for this patient are abnormal and should be reported. Redness and swelling along the suture line and a slightly elevated temperature are normal signs of postoperative inflammation. Atelectasis is common after surgery. The nurse should have the patient cough and deep breathe, but there is no urgent need to notify the surgeon.

23. After receiving change-of-shift report about these postoperative patients, which patient should the nurse assess **first**?

- a. Obese patient who had abdominal surgery 3 days ago and whose wound edges are separating
- b. Patient who has 30 mL of sanguineous drainage in the wound drain 10 hours after hip replacement surgery
- c. Patient who has bibasilar crackles and a temperature of 100F (37.8C) on the first postoperative day after chest surgery
- d. Patient who continues to have incisional pain 15 minutes after hydrocodone and acetaminophen (Vicodin) administration

ANS: A

The patient's history and assessment suggests possible wound dehiscence, which should be reported immediately to the surgeon. Although the information about the other patients indicates a need for ongoing assessment and/or possible intervention, the data do not suggest any acute complications. Small amounts of red drainage are common in the first postoperative hours. Bibasilar crackles and a slightly elevated temperature are common after surgery, although the nurse will need to have the patient cough and deep breathe. Oral medications typically take more than 15 minutes for effective pain relief.

OTHER

1. While ambulating in the room, a patient complains of feeling dizzy. In what order will the nurse accomplish the following activities? (*Put a comma and a space between each answer choice [A, B, C, D].*)

- a. Have the patient sit down in a chair.
- b. Give the patient something to drink.
- c. Take the patients blood pressure (BP).
- d. Notify the patients health care provider.

ANS:

A, C, B, D

The first priority for the patient with syncope is to prevent a fall, so the patient should be assisted to a chair. Assessment of the BP will determine whether the dizziness is due to orthostatic hypotension, which occurs because of hypovolemia. Increasing the fluid intake will help prevent orthostatic dizziness. Because this is a common postoperative problem that is usually resolved through nursing measures such as increasing fluid intake and making position changes more slowly, there is no urgent need to notify the health care provider.

2. A patients blood pressure in the postanesthesia care unit (PACU) has dropped from an admission blood pressure of 140/86 to 102/60 with a pulse change of 70 to 96. SpO₂ is 92% on 3 L of oxygen. In which order should the nurse take these actions? *(Put a comma and a space between each answer choice [A, B, C, D].)*

- a. Increase the IV infusion rate.
- b. Assess the patients dressing.
- c. Increase the oxygen flow rate.
- d. Check the patients temperature.

ANS:

A, C, B, D

The first nursing action should be to increase the IV infusion rate. Because the most common cause of hypotension is volume loss, the IV rate should be increased. The next action should be to increase the oxygen flow rate to maximize oxygenation of hypoperfused organs. Because hemorrhage is a common cause of postoperative volume loss, the nurse should check the dressing. Finally, the patients temperature should be assessed to determine the effects of vasodilation caused by rewarming.

Chapter 20. Assessment and Management: Visual Problems

MULTIPLE CHOICE

1. The nurse is providing health promotion teaching to a group of older adults. Which information will the nurse include when teaching about routine glaucoma testing?

- a. A Tono-pen will be applied to the surface of the eye.
- b. The test involves reading a Snellen chart from 20 feet.
- c. Medications will be used to dilate the pupils for the test.
- d. The examination involves checking the pupils reaction to light.

ANS: A

Glaucoma is caused by an increase in intraocular pressure, which would be measured using the Tono-pen. The other techniques are used in testing for other eye disorders.

2. The nurse is performing an eye examination on a 76-year-old patient. The nurse should refer the patient for a more extensive assessment based on which finding?

- a. The patients sclerae are light yellow.
- b. The patient reports persistent photophobia.
- c. The pupil recovers slowly after responding to a bright light.
- d. There is a whitish gray ring encircling the periphery of the iris.

ANS: B

Photophobia is not a normally occurring change with aging, and would require further assessment. The other assessment data are common gerontologic differences and would not be unusual in a 76-year-old patient.

3. The nurse performing an eye examination will document normal findings for accommodation when

- a. shining a light into the patients eye causes pupil constriction in the opposite eye.
- b. a blink reaction follows touching the patients pupil with a piece of sterile cotton.
- c. covering one eye for 1 minute and noting pupil constriction as the cover is removed.
- d. the pupils constrict while fixating on an object being moved closer to the patients eyes.

ANS: D

Accommodation is defined as the ability of the lens to adjust to various distances. The pupils constrict while fixating on an object being moved far away to near the eyes. The other responses may also be elicited as part of the eye examination, but they do not indicate accommodation.

4. Which assessment finding alerts the nurse to provide patient teaching about cataract development?

- a. History of hyperthyroidism
- b. Unequal pupil size and shape
- c. Blurred vision and light sensitivity
- d. Loss of peripheral vision in both eyes

ANS: C

Classic signs of cataracts include blurred vision and light sensitivity. Thyroid problems are a major cause of exophthalmos. Unequal pupil is indicative of anisocoria, not cataracts. Loss of peripheral vision is a sign of glaucoma.

5. Assessment of a patient's visual acuity reveals that the left eye can see at 20 feet what a person with normal vision can see at 50 feet and the right eye can see at 20 feet what a person with normal vision can see at 40 feet. The nurse records which finding?

- a. OS 20/50; OD 20/40
- b. OU 20/40; OS 50/20
- c. OD 20/40; OS 20/50
- d. OU 40/20; OD 50/20

ANS: A

When documenting visual acuity, the first number indicates the standard (for normal vision) of 20 feet and the second number indicates the line that the patient is able to read when standing 20 feet from the Snellen chart. OS is the abbreviation for left eye and OD is the abbreviation for right eye. The remaining three answers do not correctly describe the patient's visual acuity.

6. When assessing a patient's consensual pupil response, the nurse should

- a. have the patient cover one eye while facing the nurse.
- b. observe for a light reflection in the center of both corneas.
- c. instruct the patient to follow a moving object using only the eyes.
- d. shine a light into one pupil and observe the response of both pupils.

ANS: D

The consensual pupil response is tested by shining a light into one pupil and observing for both pupils to constrict. Observe the corneal light reflex to evaluate for weakness or imbalance of the extraocular muscles. In a darkened room, ask the patient to look

straight ahead while a penlight is shone directly on the cornea. The light reflection should be located in the center of both corneas as the patient faces the light source. To perform confrontation visual field testing, the patient faces the examiner and covers one eye, then counts the number of fingers that the examiner brings into the visual field. Instructing the patient to follow a moving object only with the eyes is testing for visual fields and extraocular movements.

7. The nurse is observing a student who is preparing to perform an ear examination for a 30-year-old patient. The nurse will need to intervene if the student

- a. pulls the auricle of the ear up and posterior.
- b. chooses a speculum larger than the ear canal.
- c. stabilizes the hand holding the otoscope on the patient's head.
- d. stops inserting the otoscope after observing impacted cerumen.

ANS: B

The speculum should be smaller than the ear canal so it can be inserted without damage to the external ear canal. The other actions are appropriate when performing an ear examination.

8. When obtaining a health history from a 49-year-old patient, which patient statement is most important to communicate to the primary health care provider?

- a. My eyes are dry now.
- b. It is hard for me to see at night.
- c. My vision is blurry when I read.
- d. I can't see as far over to the side.

ANS: D

The decrease in peripheral vision may indicate glaucoma, which is not a normal visual change associated with aging and requires rapid treatment. The other patient

statements indicate visual problems (presbyopia, dryness, and lens opacity) that are considered a normal part of aging.

9. A 65-year-old patient is being evaluated for glaucoma. Which information given by the patient has implications for the patient's treatment?

- a. I use aspirin when I have a sinus headache.
- b. I have had frequent episodes of conjunctivitis.
- c. I take metoprolol (Lopressor) daily for angina.
- d. I have not had an eye examination for 10 years.

ANS: C

It is important to note whether the patient takes any β -adrenergic blockers because this classification of medications is also used to treat glaucoma, and there may be an increase in adverse effects. The use of aspirin does not increase intraocular pressure and is safe for patients with glaucoma. Although older patients should have yearly eye examinations, the treatment for this patient will not be affected by the 10-year gap in eye care. Conjunctivitis does not increase the risk for glaucoma.

10. The nurse is testing the visual acuity of a patient in the outpatient clinic. The nurse's instructions for this test include asking the patient to

- a. stand 20 feet from the wall chart.
- b. follow the examiner's finger with the eyes only.
- c. look at an object far away and then near to the eyes.
- d. look straight ahead while a light is shone into the eyes.

ANS: A

When the Snellen chart is used to check visual acuity, the patient should stand 20 feet away. Accommodation is tested by looking at an object at both near and far distances.

Shining a pen light into the eyes tests for pupil response. Following the examiners fingers with the eyes tests extraocular movements.

11. A patient who underwent eye surgery is required to wear an eye patch until the scheduled postoperative clinic visit. Which nursing diagnosis will the nurse include in the plan of care?

- a. Disturbed body image related to eye trauma and eye patch
- b. Risk for falls related to temporary decrease in stereoscopic vision
- c. Ineffective health maintenance related to inability to see surroundings
- d. Ineffective denial related to inability to admit the impact of the eye injury

ANS: B

The loss of stereoscopic vision created by the eye patch impairs the patients ability to see in three dimensions and to judge distances. It also increases the risk for falls. There is no evidence in the assessment data for ineffective health maintenance, disturbed body image, or ineffective denial.

12. Which information will the nurse provide to the patient scheduled for refractometry?

- a. You will need to wear sunglasses for a few hours after the exam.
- b. The surface of your eye will be numb while the doctor does the exam.
- c. You should not take any of your eye medicines before the examination.
- d. The doctor will shine a bright light into your eye during the examination.

ANS: A

The pupils are dilated using cycloplegic medications during refractometry. This effect will last several hours and cause photophobia. The other teaching would not be appropriate for a patient who was having refractometry.

13. The nurse is assessing a 65-year-old patient for presbyopia. Which instruction will the nurse give the patient before the test?

- a. Hold this card and read the print out loud.
- b. Cover one eye at a time while reading the wall chart.
- c. You'll feel a short burst of air directed at your eyeball.
- d. A light will be used to look for a change in your pupils.

ANS: A

The Jaeger card is used to assess near vision problems and presbyopia in persons over 40 years of age. The card should be held 14 inches away from eyes while the patient reads words in various print sizes. Using a penlight to determine pupil change is testing pupil response. A short burst of air may be used to test intraocular pressure but is not used for testing presbyopia. Covering one eye at a time while reading a wall chart at 20 feet describes the Snellen test.

14. A patient arrives in the emergency department complaining of eye itching and pain after sleeping with contact lenses in place. To facilitate further examination of the eye, fluorescein angiography is ordered. The nurse will teach the patient to

- a. hold a card and fixate on the center dot.
- b. report any burning or pain at the IV site.
- c. remain still while the cornea is anesthetized.
- d. let the examiner know when images shown appear clear.

ANS: B

Fluorescein angiography involves injecting IV dye. If extravasation occurs, fluorescein is toxic to the tissues. The patient should be instructed to report any signs of extravasation such as pain or burning. The nurse should closely monitor the IV site as well. The cornea is anesthetized during ultrasonography. Refractometry involves measuring visual acuity and asking the patient to choose lenses that are the sharpest; it

is a painless test. The Amsler grid test involves using a hand held card with grid lines. The patient fixates on the center dot and records any abnormalities of the grid lines.

15. A patient complains of dizziness when bending over and of nausea and dizziness associated with physical activities. The nurse will plan to teach the patient about

- a. tympanometry.
- b. rotary chair testing.
- c. pure-tone audiometry.
- d. bone-conduction testing.

ANS: B

The patient's clinical manifestations of dizziness and nausea suggest a disorder of the labyrinth, which controls balance and contains three semicircular canals and the vestibule. Rotary chair testing is used to test vestibular function. The other tests are used to test for problems with hearing.

16. When the nurse is taking a health history of a new patient at the ear clinic, the patient states, I have to sleep with the television on. Which follow-up question is **most** appropriate to obtain more information about possible hearing problems?

- a. Do you grind your teeth at night?
- b. What time do you usually fall asleep?
- c. Have you noticed ringing in your ears?
- d. Are you ever dizzy when you are lying down?

ANS: C

Patients with tinnitus may use masking techniques, such as playing a radio, to block out the ringing in the ears. The responses Do you grind your teeth at night? and Are you ever dizzy when you are lying down? would be used to obtain information about other ear problems, such as vestibular disorders and referred temporomandibular joint

(TMJ) pain. The response What time do you usually fall asleep? would not be helpful in assessing problems with the patients ears.

17. When the patient turns his head quickly during the admission assessment, the nurse observes nystagmus. What is the indicated nursing action?

- a. Assess the patient with a Rinne test.
- b. Place a fall-risk bracelet on the patient.
- c. Ask the patient to watch the mouths of staff when they are speaking.
- d. Remind unlicensed assistive personnel to speak loudly to the patient.

ANS: B

Problems with balance related to vestibular function may present as nystagmus or vertigo and indicate an increased risk for falls. The Rinne test is used to check hearing. Reading lips and louder speech are compensatory behaviors for decreased hearing.

18. The nurse recording health histories in the outpatient clinic would plan a focused hearing assessment for adult patients taking which medication?

- a. Atenolol (Tenormin) taken to prevent angina
- b. Acetaminophen (Tylenol) taken frequently for headaches
- c. Ibuprofen (Advil) taken for 20 years to treat osteoarthritis
- d. Albuterol (Proventil) taken since childhood to treat asthma

ANS: C

Nonsteroidal antiinflammatory drugs (NSAIDs) are potentially ototoxic. Acetaminophen, atenolol, and albuterol are not associated with hearing loss.

19. The charge nurse must intervene immediately if observing a nurse who is caring for a patient with vestibular disease

- a. speaking slowly to the patient.
- b. facing the patient directly when speaking.
- c. encouraging the patient to ambulate independently.
- d. administering Rinne and Weber tests to the patient.

ANS: C

Vestibular disease affects balance, so the nurse should monitor the patient during activities that require balance. The other actions might be used for patients with hearing disorders.

20. The nurse in the eye clinic is examining a 67-year-old patient who says I see small spots that move around in front of my eyes. Which action will the nurse take **first**?

- a. Immediately have the ophthalmologist evaluate the patient.
- b. Explain that spots and floaters are a normal part of aging.
- c. Inform the patient that these spots may indicate retinal damage.
- d. Use an ophthalmoscope to examine the posterior eye chambers.

ANS: D

Although floaters are usually caused by vitreous liquefaction and are common in aging patients, they can be caused by hemorrhage into the vitreous humor or by retinal tears, so the nurses first action will be to examine the retina and posterior chamber.

Although the ophthalmologist will examine the patient, the presence of spots or floaters in a 65-year-old is not an emergency. The spots may indicate retinal damage, but the nurse should assess the eye further before discussing this with the patient.

21. The nurse should report which assessment finding **immediately** to the health care provider?

- a. The tympanum is blue-tinged.
- b. There is a cone of light visible.

- c. Cerumen is present in the auditory canal.
- d. The skin in the ear canal is dry and scaly.

ANS: A

A bluish-tinged tympanum can occur with acute otitis media, which requires immediate care to prevent perforation of the tympanum. Cerumen in the ear canal may need to be removed before proceeding with the examination but is not unusual or pathologic. The presence of a cone of light on the eardrum is normal. Dry and scaly skin in the ear canal may need further assessment but does not require urgent care.

22. Which equipment will the nurse obtain to perform a Rinne test?

- a. Otoscope
- b. Tuning fork
- c. Audiometer
- d. Ticking watch

ANS: B

Rinne testing is done using a tuning fork. The other equipment is used for other types of ear examinations.

23. Which action should the nurse take when providing patient teaching to a 76-year-old with mild presbycusis?

- a. Use patient education handouts rather than discussion.
- b. Use a higher-pitched tone of voice to provide instructions.
- c. Ask for permission to turn off the television before teaching
- d. Wait until family members have left before initiating teaching.

ANS: C

Normal changes with aging make it more difficult for older patients to filter out unwanted sounds, so a quiet environment should be used for teaching. Loss of sensitivity for high-pitched tones is lost with presbycusis. Because the patient has mild presbycusis, the nurse should use both discussion and handouts. There is no need to wait until family members have left to provide patient teaching.

24. Which action can the nurse working in the emergency department delegate to experienced unlicensed assistive personnel (UAP)?

- a. Ask a patient with decreased visual acuity about medications taken at home.
- b. Perform Snellen testing of visual acuity for a patient with a history of cataracts.
- c. Obtain information from a patient about any history of childhood ear infections.
- d. Inspect a patient's external ear for redness, swelling, or presence of skin lesions.

ANS: B

The Snellen test does not require nursing judgment and is appropriate to delegate to UAP who have been trained to perform it. History taking about infection or medications and assessment are actions that require critical thinking and should be done by the RN.

25. The nurse working in the vision and hearing clinic receives telephone calls from several patients who want appointments in the clinic as soon as possible. Which patient should be seen **first**?

- a. 71-year-old who has noticed increasing loss of peripheral vision
- b. 74-year-old who has difficulty seeing well enough to drive at night
- c. 60-year-old who has difficulty hearing clearly in a noisy environment
- d. 64-year-old who has decreased hearing and ear stuffiness without pain

ANS: A

Increasing loss of peripheral vision is characteristic of glaucoma and the patient should be scheduled for an examination as soon as possible. The other patients have symptoms commonly associated with aging: presbycusis, possible cerumen impaction, and impaired night vision.

Chapter 21. Assessment and Management: Auditory Problems

MULTIPLE CHOICE

1. The nurse evaluates that wearing bifocals improved the patients myopia and presbyopia by assessing for

- a. strength of the eye muscles.
- b. both near and distant vision.
- c. cloudiness in the eye lenses.
- d. intraocular pressure changes.

ANS: B

The lenses are prescribed to correct the patients near and distant vision. The nurse may also assess for cloudiness of the lenses, increased intraocular pressure, and eye movement, but these data do not evaluate whether the patients bifocals are effective.

2. A nurse should instruct a patient with recurrent staphylococcal and seborrheic blepharitis to

- a. irrigate the eyes with saline solution.
- b. apply cool compresses to the eyes three times daily.
- c. use a gentle baby shampoo to clean the lids as needed.
- d. schedule an appointment for surgical removal of the lesion.

ANS: C

Baby shampoo is used to soften and remove crusts associated with blepharitis. The other interventions are not used in treating this disorder.

3. When assisting a blind patient in ambulating to the bathroom, the nurse should

- a. take the patient by the arm and lead the patient slowly to the bathroom.
- b. have the patient place a hand on the nurses shoulder and guide the patient.
- c. stay beside the patient and describe any obstacles on the path to the bathroom.
- d. walk slightly ahead of the patient and allow the patient to hold the nurses elbow.

ANS: D

When using the sighted-guide technique, the nurse walks slightly in front and to the side of the patient and has the patient hold the nurses elbow. The other techniques are not as safe in assisting a blind patient.

4. A nurse should include which instructions when teaching a patient with repeated hordeolum how to prevent further infection?

- a. Apply cold compresses at the first sign of recurrence.
- b. Discard all open or used cosmetics applied near the eyes.
- c. Wash the scalp and eyebrows with an antiseborrheic shampoo.
- d. Be examined for recurrent sexually transmitted infections (STIs).

ANS: B

Hordeolum (styes) are commonly caused by *Staphylococcus aureus*, which may be present in cosmetics that the patient is using. Warm compresses are recommended to treat hordeolum. Antiseborrheic shampoos are recommended for seborrheic

blepharitis. Patients with adult inclusion conjunctivitis, which is caused by *Chlamydia trachomatis*, should be referred for sexually transmitted infection (STI) testing.

5. The nurse developing a teaching plan for a patient with herpes simplex keratitis should include which instruction?

- a. Apply antibiotic drops to the eye several times daily.
- b. Wash hands frequently and avoid touching the eyes.
- c. Apply a new occlusive dressing to the affected eye at bedtime.
- d. Use corticosteroid ophthalmic ointment to decrease inflammation.

ANS: B

The best way to avoid the spread of infection from one eye to another is to avoid rubbing or touching the eyes and to use careful hand washing when touching the eyes is unavoidable. Occlusive dressings are not used for herpes keratitis. Herpes simplex is a virus and antibiotic drops will not be prescribed. Topical corticosteroids are immunosuppressive and typically are not ordered because they can contribute to a longer course of infection and more complications.

6. Which teaching point should the nurse plan to include when caring for a patient whose vision is corrected to 20/200?

- a. How to access audio books
- b. How to use a white cane safely
- c. Where Braille instruction is available
- d. Where to obtain specialized magnifiers

ANS: D

Various types of magnifiers can enhance the remaining vision enough to allow the performance of many tasks and activities of daily living (ADLs). Audio books, Braille instruction, and canes usually are reserved for patients with no functional vision.

7. The nurse is developing a plan of care for an adult patient diagnosed with adult inclusion conjunctivitis (AIC) caused by *Chlamydia trachomatis*. Which action should be included in the plan of care?

- a. Discussing the need for sexually transmitted infection testing
- b. Applying topical corticosteroids to prevent further inflammation
- c. Assisting with applying for community visual rehabilitation services
- d. Educating about the use of antiviral eyedrops to treat the infection

ANS: A

Patients with AIC have a high risk for concurrent genital *Chlamydia* infection and should be referred for sexually transmitted infection (STI) testing. AIC is treated with antibiotics. Antiviral and corticosteroid medications are not appropriate therapies. Although some types of *Chlamydia* infection do cause blindness, AIC does not lead to blindness, so referral for visual rehabilitation is not appropriate.

8. Which topic will the nurse teach after a patient has had outpatient cataract surgery and lens implantation?

- a. Use of oral opioids for pain control
- b. Administration of corticosteroid eye drops
- c. Importance of coughing and deep breathing exercises
- d. Need for bed rest for the first 1 to 2 days after the surgery

ANS: B

Antibiotic and corticosteroid eye drops are commonly prescribed after cataract surgery. The patient should be able to administer them using safe technique. Pain is not expected after cataract surgery and opioids will not be needed. Coughing and deep breathing exercises are not needed because a general anesthetic agent is not used. There is no bed rest restriction after cataract surgery.

9. In reviewing a 55-year-old patient's medical record, the nurse notes that the last eye examination revealed an intraocular pressure of 28 mm Hg. The nurse will plan to assess

- a. visual acuity.
- b. pupil reaction.
- c. color perception.
- d. peripheral vision.

ANS: D

The patient's increased intraocular pressure indicates glaucoma, which decreases peripheral vision. Because central visual acuity is unchanged by glaucoma, assessment of visual acuity could be normal even if the patient has worsening glaucoma. Color perception and pupil reaction to light are not affected by glaucoma.

10. A patient with a right retinal detachment had a pneumatic retinopexy procedure. Which information will be included in the discharge teaching plan?

- a. The purpose of maintaining the head in a prescribed position
- b. The use of eye patches to reduce movement of the operative eye
- c. The need to wear dark glasses to protect the eyes from bright light
- d. The procedure for dressing changes when the eye dressing is saturated

ANS: A

Following pneumatic retinopexy, the patient will need to position the head so the air bubble remains in contact with the retinal tear. The dark lenses and bilateral eye patches are not required after this procedure. Saturation of any eye dressings would not be expected following this procedure.

11. A 72-year-old patient with age-related macular degeneration (AMD) has just had photodynamic therapy. Which statement by the patient indicates that the discharge teaching has been effective?

- a. I will need to use bright lights to read for at least the next week.
- b. I will use drops to keep my pupils dilated until my appointment.
- c. I will not use facial lotions near my eyes during the recovery period.
- d. I will cover up with long-sleeved shirts and pants for the next 5 days.

ANS: D

The photosensitizing drug used for photodynamic therapy is activated by exposure to bright light and can cause burns in areas exposed to light for 5 days after the treatment. There are no restrictions on the use of facial lotions, medications to keep the pupils dilated would not be appropriate, and bright lights would increase the risk for damage caused by the treatment.

12. To determine whether treatment is effective for a patient with primary open-angle glaucoma (POAG), the nurse can evaluate the patient for improvement by

- a. questioning the patient about blurred vision.
- b. noting any changes in the patients visual field.
- c. asking the patient to rate the pain using a 0 to 10 scale.
- d. assessing the patients depth perception when climbing stairs.

ANS: B

POAG develops slowly and without symptoms except for a gradual loss of visual fields. Acute closed-angle glaucoma may present with excruciating pain, colored halos, and blurred vision. Problems with depth perception are not associated with POAG.

13. A patient with glaucoma who has been using timolol (Timoptic) drops for several days tells the nurse that the eye drops cause eye burning and visual blurriness for a short time after administration. The **best** response to the patients statement is

- a. Those symptoms may indicate a need for an increased dosage of the eye drops.
- b. The drops are uncomfortable, but it is important to use them to retain your vision.
- c. These are normal side effects of the drug, which should be less noticeable with time.
- d. Notify your health care provider so that different eye drops can be prescribed for you.

ANS: B

Patients should be instructed that eye discomfort and visual blurring are expected side effects of the ophthalmic drops but that the drops must be used to prevent further visual-field loss. The temporary burning and visual blurriness might not lessen with ongoing use, are not relieved by avoiding systemic absorption, and are not symptoms of glaucoma.

14. The nurse is completing the admission database for a patient admitted with abdominal pain and notes a history of hypertension and glaucoma. Which prescribed medications should the nurse question?

- a. Morphine sulfate 4 mg IV
- b. Diazepam (Valium) 5 mg IV
- c. Betaxolol (Betoptic) 0.25% eyedrops
- d. Scopolamine patch (Transderm Scop) 1.5 mg

ANS: D

Scopolamine is a parasympathetic blocker and will relax the iris, causing blockage of aqueous humor outflow and an increase in intraocular pressure. The other medications are appropriate for this patient.

15. A patient who has bacterial endophthalmitis in the left eye is restless, frequently asking whether the eye is healing, and whether removal of the eye will be necessary. Based on the assessment data, which nursing diagnosis is **most** appropriate at this time?

- a. Grieving related to current loss of functional vision
- b. Anxiety related to the possibility of permanent vision loss
- c. Situational low self-esteem related to loss of visual function
- d. Risk for falls related to inability to see environmental hazards

ANS: B

The patient's restlessness and questioning of the nurse indicate anxiety about the future possible loss of vision. Because the patient can see with the right eye, functional vision is relatively intact. There is no indication of impaired self-esteem at this time.

16. To decrease the risk for future hearing loss, which action should the nurse who is working with college students at the on-campus health clinic implement?

- a. Arrange to include otoscopic examinations for all patients.
- b. Administer influenza immunizations to all students at the clinic.
- c. Discuss the importance of limiting exposure to amplified music.
- d. Perform tympanometry on all patients between the ages of 18 to 24.

ANS: C

The nurse should discuss the impact of amplified music on hearing with young adults and discourage listening to very amplified music, especially for prolonged periods. Tympanometry measures the ability of the eardrum to vibrate and would not help

prevent future hearing loss. Although students are at risk for the influenza virus, being vaccinated does not help prevent future hearing loss. Otoscopic examinations are not necessary for all patients.

17. A patient diagnosed with external otitis is being discharged from the emergency department with an ear wick in place. Which statement by the patient indicates a need for further teaching?

- a. I will apply the eardrops to the cotton wick in the ear canal.
- b. I can use aspirin or acetaminophen (Tylenol) for pain relief.
- c. I will clean the ear canal daily with a cotton-tipped applicator.
- d. I can use warm compresses to the outside of the ear for comfort.

ANS: C

Insertion of instruments such as cotton-tipped applicators into the ear should be avoided. The other patient statements indicate that the teaching has been successful.

18. A patient who has undergone a left tympanoplasty should be instructed to

- a. remain on bed rest.
- b. keep the head elevated.
- c. avoid blowing the nose.
- d. irrigate the left ear canal.

ANS: C

Coughing or blowing the nose increases pressure in the eustachian tube and middle ear cavity and disrupts postoperative healing. There is no postoperative need for prolonged bed rest, elevation of the head, or continuous antibiotic irrigation.

19. The nurse is assessing a patient who has recently been treated with amoxicillin for acute otitis media of the right ear. Which finding is a **priority** to report to the health care provider?

- a. The patient has a temperature of 100.6 F.
- b. The patient complains of popping in the ear.
- c. The patient frequently asks the nurse to repeat information.
- d. The patient states that the right ear has a feeling of fullness.

ANS: A

The fever indicates that the infection may not be resolved and the patient might need further antibiotic therapy. A feeling of fullness, popping of the ear, and decreased hearing are symptoms of otitis media with effusion. These symptoms are normal for weeks to months after an episode of acute otitis media and usually resolve without treatment.

20. A 42-year-old woman with Meniere's disease is admitted with vertigo, nausea, and vomiting. Which nursing intervention will be included in the care plan?

- a. Dim the lights in the patient's room.
- b. Encourage increased oral fluid intake.
- c. Change the patient's position every 2 hours.
- d. Keep the head of the bed elevated 30 degrees.

ANS: A

A darkened, quiet room will decrease the symptoms of the acute attack of Meniere's disease. Because the patient will be nauseated during an acute attack, fluids are administered IV. Position changes will cause vertigo and nausea. The head of the bed can be positioned for patient comfort.

21. Which statement by the patient to the home health nurse indicates a need for more teaching about self-administering eardrops?

- a. I will leave the ear wick in place while administering the drops.
- b. I should lie down before and for 5 minutes after administering the drops.

- c. I will hold the tip of the dropper above the ear while administering the drops.
- d. I should keep the medication refrigerated until I am ready to administer the drops.

ANS: D

Administration of cold eardrops can cause dizziness because of stimulation of the semicircular canals. The other patient actions are appropriate.

22. An 82-year-old patient who is being admitted to the hospital repeatedly asks the nurse to speak up so that I can hear you. Which action should the nurse take?

- a. Overenunciate while speaking.
- b. Speak normally but more slowly.
- c. Increase the volume when speaking.
- d. Use more facial expressions when talking.

ANS: B

Patient understanding of the nurses speech will be enhanced by speaking at a normal tone, but more slowly. Increasing the volume, overenunciating, and exaggerating facial expressions will not improve the patients ability to comprehend the nurse.

23. A 75-year-old patient with presbycusis is fitted with binaural hearing aids. Which information will the nurse include when teaching the patient how to use the hearing aids?

- a. Experiment with volume and hearing ability in a quiet environment initially.
- b. Keep the volume low on the hearing aids for the first week while adjusting to them.
- c. Add a second hearing aid after making the initial adjustment to the first hearing aid.

- d. Wear the hearing aids for about an hour a day at first, gradually increasing the time of use.

ANS: A

Initially the patient should use the hearing aids in a quiet environment like the home, experimenting with increasing and decreasing the volume as needed. There is no need to gradually increase the time of wear. The patient should experiment with the level of volume to find what works well in various situations. Both hearing aids should be used.

24. Which information will the nurse include for a patient contemplating a cochlear implant?

- a. Cochlear implants require training in order to receive the full benefit.
- b. Cochlear implants are not useful for patients with congenital deafness.
- c. Cochlear implants are most helpful as an early intervention for presbycusis.
- d. Cochlear implants improve hearing in patients with conductive hearing loss.

ANS: A

Extensive rehabilitation is required after cochlear implants in order for patients to receive the maximum benefit. Hearing aids, rather than cochlear implants, are used initially for presbycusis. Cochlear implants are used for sensorineural hearing loss and would not be helpful for conductive loss. They are appropriate for some patients with congenital deafness.

25. Which statement by a patient with bacterial conjunctivitis indicates a need for further teaching?

- a. I will wash my hands often during the day.
- b. I will remove my contact lenses at bedtime.

- c. I will not share towels with my friends or family.
- d. I will monitor my family for eye redness or drainage.

ANS: B

Contact lenses should not be used when patients have conjunctivitis because they can further irritate the conjunctiva. Hand washing is the major means to prevent the spread of conjunctivitis. Infection may be spread by sharing towels or other contact. It is common for bacterial conjunctivitis to spread through a family or other group in close contact.

26. Which information will the nurse include when teaching a patient with keratitis caused by herpes simplex type 1?

- a. Correct use of the antifungal eyedrops natamycin (Natacyn)
- b. How to apply corticosteroid ophthalmic ointment to the eyes
- c. Avoidance of nonsteroidal antiinflammatory drugs (NSAIDs)
- d. Importance of taking all of the ordered oral acyclovir (Zovirax)

ANS: D

Oral acyclovir may be ordered for herpes simplex infections. Corticosteroid ointments are usually contraindicated because they prolong the course of the infection. Herpes simplex I is viral, not parasitic, or fungal. Natamycin may be used for *Acanthamoeba* keratitis caused by a parasite. NSAIDs can be used to treat the pain associated with keratitis.

27. The nurse at the outpatient surgery unit obtains the following information about a patient who is scheduled for cataract extraction and implantation of an intraocular lens. Which information is **most** important to report to the health care provider at this time?

- a. The patient has had blurred vision for 3 years.

- b. The patient has not eaten anything for 8 hours.
- c. The patient takes 2 antihypertensive medications.
- d. The patient gets nauseated with general anesthesia.

ANS: C

Mydriatic medications used for pupil dilation are sympathetic nervous system stimulants and may increase heart rate and blood pressure. Using punctal occlusion when administering the mydriatic and monitoring of blood pressure are indicated for this patient. Blurred vision is an expected finding with cataracts. Patients are expected to be NPO for 6 to 8 hours before the surgical procedure. Cataract extraction and intraocular lens implantation are done using local anesthesia.

28. During the preoperative assessment of the patient scheduled for a right cataract extraction and intraocular lens implantation, it is **most** important for the nurse to assess

- a. the visual acuity of the patients left eye.
- b. how long the patient has had the cataract.
- c. for a white pupil in the patients right eye.
- d. for a history of reactions to general anesthetics.

ANS: A

Because it can take several weeks before the maximum improvement in vision occurs in the right eye, patient safety and independence are determined by the vision in the left eye. A white pupil in the operative eye would not be unusual for a patient scheduled for cataract removal and lens implantation. The length of time that the patient has had the cataract will not affect the perioperative care. Cataract surgery is done using local anesthetics rather than general anesthetics.

29. The nurse learns that a newly admitted patient has functional blindness and that the spouse has cared for the patient for many years. During the initial assessment of the patient, it is **most** important for the nurse to

- a. obtain more information about the cause of the patients vision loss.
- b. obtain information from the spouse about the patients special needs.
- c. make eye contact with the patient and ask about any need for assistance.
- d. perform an evaluation of the patients visual acuity using a Snellen chart.

ANS: C

Making eye contact with a partially sighted patient allows the patient to hear the nurse more easily and allows the nurse to assess the patients facial expressions. The patient (rather than the spouse) should be asked about any need for assistance. The information about the cause of the vision loss and assessment of the patients visual acuity are not priorities during the initial assessment.

30. Which action could the registered nurse (RN) who is working in the eye and ear clinic delegate to a licensed practical/vocational nurse (LPN/LVN)?

- a. Evaluate a patients ability to administer eye drops.
- b. Use a Snellen chart to check a patients visual acuity.
- c. Teach a patient with otosclerosis about use of sodium fluoride and vitamin D.
- d. Check the patients external ear for signs of irritation caused by a hearing aid.

ANS: B

Using standardized screening tests such as a Snellen chart to test visual acuity is included in LPN education and scope of practice. Evaluation, assessment, and patient teaching are higher level skills that require RN education and scope of practice.

31. The occupational health nurse is caring for an employee who is complaining of bilateral eye pain after a cleaning solution splashed into the employees eyes. Which action will the nurse take **first**?

- a. Apply ice packs to both eyes.
- b. Flush the eyes with sterile saline.
- c. Apply antiseptic ophthalmic ointment to the eyes.
- d. Cover the eyes with dry sterile patches and shields.

ANS: B

Flushing of the eyes immediately is indicated for chemical exposure. Emergency treatment of a burn or foreign-body injury to the eyes includes protecting the eyes from further injury by covering them with dry sterile dressings and protective shields. Flushing of the eyes immediately is indicated only for chemical exposure. In the case of chemical exposure, the nurse should begin treatment by flushing the eyes until the patient has been assessed by a health care provider and orders are available.

32. Unlicensed assistive personnel (UAP) perform all the following actions when caring for a patient with Mnires disease who is experiencing an acute attack. Which action by UAP indicates that the nurse should intervene **immediately**?

- a. UAP raise the side rails on the bed.
- b. UAP turn on the patients television.
- c. UAP turn the patient to the right side.
- d. UAP place an emesis basin at the bedside.

ANS: B

Watching television may exacerbate the symptoms of an acute attack of Mnires disease. The other actions are appropriate because the patient will be at high fall risk and may suffer from nausea during the acute attack.

33. The nurse at the eye clinic made a follow-up telephone call to a patient who underwent cataract extraction and intraocular lens implantation the previous day. Which information is the **priority** to communicate to the health care provider?

- a. The patient has questions about the ordered eye drops.
- b. The patient has eye pain rated at a 5 (on a 0 to 10 scale).
- c. The patient has poor depth perception when wearing an eye patch.
- d. The patient complains that the vision has not improved very much.

ANS: B

Postoperative cataract surgery patients usually experience little or no pain, so pain at a level 5 on a 10-point pain scale may indicate complications such as hemorrhage, infection, or increased intraocular pressure. The other information given by the patient indicates a need for patient teaching but does not indicate that complications of the surgery may be occurring.

34. Which finding in an emergency department patient who reports being struck in the right eye with a fist is a **priority** for the nurse to communicate to the health care provider?

- a. The patient complains of a right-sided headache.
- b. The sclera on the right eye has broken blood vessels.
- c. The area around the right eye is bruised and tender to the touch.
- d. The patient complains of a curtain over part of the visual field.

ANS: D

The patient's sensation that a curtain is coming across the field of vision suggests retinal detachment and the need for rapid action to prevent blindness. The other findings would be expected with the patient's history of being hit in the eye.

35. The charge nurse observes a newly hired nurse performing all the following interventions for a patient who has just undergone right cataract removal and an intraocular lens implant. Which one requires that the charge nurse intervene?

- a. The nurse leaves the eye shield in place.
- b. The nurse encourages the patient to cough.
- c. The nurse elevates the patients head to 45 degrees.
- d. The nurse applies corticosteroid drops to the right eye.

ANS: B

Because coughing will increase intraocular pressure, patients are generally taught to avoid coughing during the acute postoperative time. The other actions are appropriate for a patient after having this surgery.

36. Which nursing activity is appropriate for the registered nurse (RN) working in the eye clinic to delegate to experienced unlicensed assistive personnel (UAP)?

- a. Instilling antiviral drops for a patient with a corneal ulcer
- b. Application of a warm compress to a patients hordeolum
- c. Instruction about hand washing for a patient with herpes keratitis
- d. Looking for eye irritation in a patient with possible conjunctivitis

ANS: B

Application of cold and warm packs is included in UAP education and the ability to accomplish this safely would be expected for UAP working in an eye clinic.

Medication administration, patient teaching, and assessment are high-level skills appropriate for the education and legal practice level of the RN.

37. A patient with a head injury after a motorcycle crash arrives in the emergency department (ED) complaining of shortness of breath and severe eye pain. Which action will the nurse take **first**?

- a. Administer the ordered analgesic.
- b. Check the patient's oxygen saturation.
- c. Examine the eye for evidence of trauma.
- d. Assess each of the cranial nerve functions.

ANS: B

The priority action for a patient after a head injury is to assess and maintain airway and breathing. Because the patient is complaining of shortness of breath, it is essential that the nurse assess the oxygen saturation. The other actions are also appropriate but are not the first action the nurse will take.

38. Which prescribed medication should the nurse give **first** to a patient who has just been admitted to a hospital with acute angle-closure glaucoma?

- a. Morphine sulfate 4 mg IV
- b. Mannitol (Osmitrol) 100 mg IV
- c. Betaxolol (Betoptic) 1 drop in each eye
- d. Acetazolamide (Diamox) 250 mg orally

ANS: B

The most immediate concern for the patient is to lower intraocular pressure, which will occur most rapidly with IV administration of a hyperosmolar diuretic such as mannitol. The other medications are also appropriate for a patient with glaucoma but would not be the first medication administered.

MULTIPLE CHOICE

1. A 38-year-old female patient states that she is using topical fluorouracil to treat actinic keratoses on her face. Which additional assessment information will be **most** important for the nurse to obtain?

- a. History of sun exposure by the patient
- b. Method of birth control used by the patient
- c. Length of time the patient has used fluorouracil
- d. Appearance of the treated areas on the patients face

ANS: B

Because fluorouracil is teratogenic, it is essential that the patient use a reliable method of birth control. The other information is also important for the nurse to obtain, but lack of reliable birth control has the most potential for serious adverse medication effects.

2. Which integumentary assessment data from an older patient admitted with bacterial pneumonia is of **most** concern for the nurse?

- a. Reports a history of allergic rashes
- b. Scattered macular brown areas on extremities
- c. Skin brown and wrinkled, skin tenting on forearm
- d. Longitudinal nail bed ridges noted; sparse scalp hair

ANS: A

Because the patient will be receiving antibiotics to treat the pneumonia, the nurse should be most concerned about her history of allergic rashes. The nurse needs to do further assessment of possible causes of the allergic rashes and whether she has ever had allergic reactions to any drugs, especially antibiotics. The assessment data in the other response would be normal for an older patient.

3. The nurse assesses a circular, flat, reddened lesion about 5 cm in diameter on a middle-aged patient's ankle. How should the nurse determine if the lesion is related to intradermal bleeding?

- a. Elevate the patient's leg.
- b. Press firmly on the lesion.
- c. Check the temperature of the skin around the lesion.
- d. Palpate the dorsalis pedis and posterior tibial pulses.

ANS: B

If the lesion is caused by intradermal or subcutaneous bleeding or a nonvascular cause, the discoloration will remain when direct pressure is applied to the lesion. If the lesion is caused by blood vessel dilation, blanching will occur with direct pressure. The other assessments will assess circulation to the leg, but will not be helpful in determining the etiology of the lesion.

4. When examining an older patient in the home, the home health nurse notices irregular patterns of bruising at different stages of healing on the patient's body. Which action should the nurse take **first**?

- a. Discourage the use of throw rugs throughout the house.
- b. Ensure the patient has a pair of shoes with non-slip soles.
- c. Talk with the patient alone and ask about what caused the bruising.
- d. Notify the health care provider so that x-rays can be ordered as soon as possible.

ANS: C

The nurse should note irregular patterns of bruising, especially in the shapes of hands or fingers, in different stages of resolution. These may be indications of other health problems or abuse, and should be further investigated. It is important that the nurse interview the patient alone because, if mistreatment is occurring, the patient may not

disclose it in the presence of the person who may be the abuser. Throw rugs and shoes with slippery surfaces may contribute to falls. X-rays may be needed if the patient has fallen recently and also has complaints of pain or decreased mobility. However, the nurses first nursing action is to further assess the patient.

5. A dark-skinned patient has been admitted to the hospital with chronic heart failure. How would the nurse **best** assess this patient for cyanosis?

- a. Assess the skin color of the earlobes.
- b. Apply pressure to the palms of the hands.
- c. Check the lips and oral mucous membranes.
- d. Examine capillary refill time of the nail beds.

ANS: C

Cyanosis in dark-skinned individuals is more easily seen in the mucous membranes. Earlobe color may change in light-skinned individuals, but this change in skin color is difficult to detect on darker skin. Application of pressure to the palms of the hands and nail bed assessment would check for adequate circulation but not for skin color.

6. The nurse prepares to obtain a culture from a patient who has a possible fungal infection on the foot. Which items should the nurse gather for this procedure?

- a. Sterile gloves
- b. Patch test instruments
- c. Cotton-tipped applicators
- d. Local anesthetic, syringe, and intradermal needle

ANS: C

Fungal cultures are obtained by swabbing the affected area of the skin with cotton-tipped applicators. Sterile gloves are not needed because it is not a sterile procedure. Local injection is not needed because the swabbing is not usually painful. The patch

test is done to determine whether a patient is allergic to specific testing material, not for obtaining fungal specimens.

7. When performing a skin assessment, the nurse notes several angiomas on the chest of an older patient. Which action should the nurse take **next**?

- a. Assess the patient for evidence of liver disease.
- b. Discuss the adverse effects of sun exposure on the skin.
- c. Teach the patient about possible skin changes with aging.
- d. Suggest that the patient make an appointment with a dermatologist.

ANS: A

Angiomas are a common occurrence as patients get older, but they may occur with systemic problems such as liver disease. The patient may want to see a dermatologist to have the angiomas removed, but this is not the initial action by the nurse. The nurse may need to teach the patient about the effects of aging on the skin and about the effects of sun exposure, but the initial action should be further assessment.

8. A patient in the dermatology clinic is scheduled for removal of a 15-mm multicolored and irregular mole from the upper back. The nurse should prepare the patient for which type of biopsy?

- a. Shave biopsy
- b. Punch biopsy
- c. Incisional biopsy
- d. Excisional biopsy

ANS: C

An incisional biopsy would remove the entire mole and the tissue borders. The appearance of the mole indicates that it may be malignant. A shave biopsy would not remove the entire mole. The mole is too large to be removed with punch biopsy.

Excisional biopsies are done for smaller lesions and where a good cosmetic effect is desired, such as on the face.

9. During assessment of the patient's skin, the nurse observes a similar pattern of small, raised lesions on the left and right upper back areas. Which term should the nurse use to document these lesions?

- a. Confluent
- b. Zosteriform
- c. Generalized
- d. Symmetric

ANS: D

The description of the lesions indicates that they are grouped. The other terms are inconsistent with the description of the lesions.

10. A patient reports chronic itching of the ankles and continuously scratches the area. Which assessment finding will the nurse expect?

- a. Hypertrophied scars on both ankles
- b. Thickening of the skin around the ankles
- c. Yellowish-brown skin around both ankles
- d. Complete absence of melanin in both ankles

ANS: B

Lichenification is likely to occur in areas where the patient scratches the skin frequently. Lichenification results in thickening of the skin with accentuated normal skin markings. Vitiligo is the complete absence of melanin in the skin. Keloids are hypertrophied scars. Yellowish-brown skin indicates jaundice. Vitiligo, keloids, and jaundice do not usually occur as a result of scratching the skin.

11. Which abnormality on the skin of an older patient is the **priority** to discuss immediately with the health care provider?

- a. Several dry, scaly patches on the face
- b. Numerous varicosities noted on both legs
- c. Dilation of small blood vessels on the face
- d. Petechiae present on the chest and abdomen

ANS: D

Petechiae are caused by pinpoint hemorrhages and are associated with a variety of serious disorders such as meningitis and coagulopathies. The nurse should contact the patient's health care provider about this finding for further diagnostic follow-up. The other skin changes are associated with aging. Although the other changes will also require ongoing monitoring or intervention by the nurse, they do not indicate a need for urgent action.

MULTIPLE RESPONSE

1. When taking the health history of an older adult, the nurse discovers that the patient has worked in the landscaping business for 40 years. The nurse will plan to teach the patient about how to self-assess for which clinical manifestations (*select all that apply*)?

- a. Vitiligo
- b. Alopecia
- c. Intertrigo
- d. Erythema
- e. Actinic keratosis

ANS: D, E

A patient who has worked as a landscaper is at risk for skin lesions caused by sun exposure such as erythema and actinic keratosis. Vitiligo, alopecia, and intertrigo are not associated with excessive sun exposure.

2. Which activities can the nurse working in the outpatient clinic delegate to a licensed practical/vocational nurse (LPN/LVN) (*select all that apply*)?

- a. Administer patch testing to a patient with allergic dermatitis.
- b. Interview a new patient about chronic health problems and allergies.
- c. Apply a sterile dressing after the health care provider excises a mole.
- d. Teach a patient about site care after a punch biopsy of an upper arm lesion.
- e. Explain potassium hydroxide testing to a patient with a superficial skin infection.

ANS: A, C

Skills such as administration of patch testing and sterile dressing technique are included in LPN/LVN education and scope of practice. Obtaining a health history and patient education require more critical thinking and registered nurse (RN) level education and scope of practice.

Chapter 23. Management: Integumentary Problems

MULTIPLE CHOICE

1. Which information should the nurse include when teaching patients about decreasing the risk for sun damage to the skin?

- a. Use a sunscreen with an SPF of at least 8 to 10 for adequate protection.
- b. Water resistant sunscreens will provide good protection when swimming.

- c. Increase sun exposure by no more than 10 minutes a day to avoid skin damage.
- d. Try to stay out of the sun between the hours of 10 AM and 2 PM (regular time).

ANS: D

The risk for skin damage from the sun is highest with exposure between 10 AM and 2 PM. No sunscreen is completely water resistant. Sunscreens classified as water resistant sunscreens still need to be reapplied after swimming. Sunscreen with an SPF of at least 15 is recommended for people at normal risk for skin cancer. Although gradually increasing sun exposure may decrease the risk for burning, the risk for skin cancer is not decreased.

2. Which information should the nurse include when teaching a patient who has just received a prescription for ciprofloxacin (Cipro) to treat a urinary tract infection?

- a. Use a sunscreen with a high SPF when exposed to the sun.
- b. Sun exposure may decrease the effectiveness of the medication.
- c. Photosensitivity may result in an artificial-looking tan appearance.
- d. Wear sunglasses to avoid eye damage while taking this medication.

ANS: A

The patient should stay out of the sun. If that is not possible, teach them to wear sunscreen when taking medications that can cause photosensitivity. The other statements are not accurate.

3. A nurse develops a teaching plan for a patient diagnosed with basal cell carcinoma (BCC). Which information should the nurse include in the teaching plan?

- a. Treatment plans include watchful waiting.
- b. Screening for metastasis will be important.
- c. Low dose systemic chemotherapy is used to treat BCC.

- d. Minimizing sun exposure will reduce risk for future BCC.

ANS: D

BCC is frequently associated with sun exposure and preventive measures should be taken for future sun exposure. BCC spreads locally, and does not metastasize to distant tissues. Since BCC can cause local tissue destruction, treatment is indicated. Local (not systemic) chemotherapy may be used to treat BCC.

4. A patient in the dermatology clinic has a thin, scaly erythematous plaque on the right cheek. Which action should the nurse take?

- a. Prepare the patient for a biopsy.
- b. Teach about the use of corticosteroid creams.
- c. Explain how to apply tretinoin (Retin-A) to the face.
- d. Discuss the need for topical application of antibiotics.

ANS: A

Because the appearance of the lesion suggests actinic keratosis or possible squamous cell carcinoma (SCC), the appropriate treatment would be excision and biopsy. Over-the-counter (OTC) corticosteroids, topical antibiotics, and Retin-A would not be used for this lesion.

5. A patient has the following risk factors for melanoma. Which risk factor should the nurse assign as the **priority** focus of patient teaching?

- a. The patient has multiple dysplastic nevi.
- b. The patient is fair-skinned and has blue eyes.
- c. The patient's mother died of a malignant melanoma.
- d. The patient uses a tanning booth throughout the winter.

ANS: D

Because the only risk factor that the patient can change is the use of a tanning booth, the nurse should focus teaching about melanoma prevention on this factor. The other factors also will contribute to increased risk for melanoma.

6. The health care provider diagnoses impetigo in a patient who has crusty vesicopustular lesions on the lower face. Which instructions should the nurse include in the teaching plan?

- a. Clean the infected areas with soap and water.
- b. Apply alcohol-based cleansers on the lesions.
- c. Avoid use of antibiotic ointments on the lesions.
- d. Use petroleum jelly (Vaseline) to soften crusty areas.

ANS: A

The treatment for impetigo includes softening of the crusts with warm saline soaks and then soap-and-water removal. Alcohol-based cleansers and use of petroleum jelly are not recommended for impetigo. Antibiotic ointments, such as mupirocin (Bactroban), may be applied to the lesions.

7. The nurse notes the presence of white lesions that resemble milk curds in the back of a patient's throat. Which question by the nurse is appropriate at this time?

- a. Do you have a productive cough?
- b. How often do you brush your teeth?
- c. Are you taking any medications at present?
- d. Have you ever had an oral herpes infection?

ANS: C

The appearance of the lesions is consistent with an oral candidiasis (thrush) infection, which can occur in patients who are taking medications such as immunosuppressants.

or antibiotics. Candidiasis is not associated with poor oral hygiene or lower respiratory infections. The lesions do not look like an oral herpes infection.

8. A teenaged male patient who wrestles in high school is examined by the nurse in the clinic. Which assessment finding would prompt the nurse to teach the patient about the importance of not sharing headgear to prevent the spread of pediculosis?

- a. Ringlike rashes with red, scaly borders over the entire scalp
- b. Papular, wheal-like lesions with white deposits on the hair shaft
- c. Patchy areas of alopecia with small vesicles and excoriated areas
- d. Red, hivelike papules and plaques with sharply circumscribed borders

ANS: B

Pediculosis is characterized by wheal-like lesions with parasites that attach eggs to the base of the hair shaft. The other descriptions are more characteristic of other types of skin disorders.

9. The health care provider prescribes topical 5-FU for a patient with actinic keratosis on the left cheek. The nurse should include which statement in the patients instructions?

- a. 5-FU will shrink the lesion so that less scarring occurs once the lesion is excised.
- b. You may develop nausea and anorexia, but good nutrition is important during treatment.
- c. You will need to avoid crowds because of the risk for infection caused by chemotherapy.
- d. Your cheek area will be painful and develop eroded areas that will take weeks to heal.

ANS: D

Topical 5-FU causes an initial reaction of erythema, itching, and erosion that lasts 4 weeks after application of the medication is stopped. The medication is topical, so there are no systemic effects such as increased infection risk, anorexia, or nausea.

10. A patient with atopic dermatitis has been using a high-potency topical corticosteroid ointment for several weeks. The nurse should assess for which adverse effect?

- a. Thinning of the affected skin
- b. Alopecia of the affected areas
- c. Reddish-brown discoloration of the skin
- d. Dryness and scaling in the areas of treatment

ANS: A

Thinning of the skin indicates that atrophy, a possible adverse effect of topical corticosteroids, is occurring. The health care provider should be notified so that the medication can be changed or tapered. Alopecia, red-brown discoloration, and dryness/scaling of the skin are not adverse effects of topical corticosteroid use.

11. A patient is undergoing psoralen plus ultraviolet A light (PUVA) therapy for treatment of psoriasis. What action should the nurse take to prevent adverse effects from this procedure?

- a. Cleanse the skin carefully with an antiseptic soap.
- b. Shield any unaffected areas with lead-lined drapes.
- c. Have the patient use protective eyewear while receiving PUVA.
- d. Apply petroleum jelly to the areas surrounding the psoriatic lesions.

ANS: C

The eyes should be shielded from UV light (UVL) during and after PUVA therapy to prevent the development of cataracts. The patient should be taught about the effects of

UVL on unaffected skin, but lead-lined drapes, use of antiseptic soap, and petroleum jelly are not used to prevent skin damage.

12. A patient with an enlarging, irregular mole that is 7 mm in diameter is scheduled for outpatient treatment. The nurse should plan to prepare the patient for which procedure?

- a. Curettage
- b. Cryosurgery
- c. Punch biopsy
- d. Surgical excision

ANS: D

The description of the mole is consistent with malignancy, so excision and biopsy are indicated. Curettage and cryosurgery are not used if malignancy is suspected. A punch biopsy would not be done for a lesion greater than 5 mm in diameter.

13. Which information will the nurse include when teaching an older patient about skin care?

- a. Dry the skin thoroughly before applying lotions.
- b. Bathe and wash hair daily with soap and shampoo.
- c. Use warm water and a moisturizing soap when bathing.
- d. Use antibacterial soaps when bathing to avoid infection.

ANS: C

Warm water and moisturizing soap will avoid overdrying the skin. Because older patients have dryer skin, daily bathing and shampooing are not necessary and may dry the skin unnecessarily. Antibacterial soaps are not necessary. Lotions should be applied while the skin is still damp to seal moisture in.

14. What is the **best** method to prevent the spread of infection when the nurse is changing the dressing over a wound infected with *Staphylococcus aureus*?

- a. Change the dressing using sterile gloves.
- b. Soak the dressing in sterile normal saline.
- c. Apply antibiotic ointment over the wound.
- d. Wash hands and properly dispose of soiled dressings.

ANS: D

Careful hand washing and the safe disposal of soiled dressings are the best means of preventing the spread of skin problems. Sterile glove and sterile saline use during wound care will not necessarily prevent spread of infection. Applying antibiotic ointment will treat the bacteria but not necessarily prevent the spread of infection.

15. The nurse is interviewing a patient with contact dermatitis. Which finding indicates a need for patient teaching?

- a. The patient applies corticosteroid cream to pruritic areas.
- b. The patient uses Neosporin ointment on minor cuts or abrasions.
- c. The patient adds oilated oatmeal (Aveeno) to the bath water every day.
- d. The patient takes diphenhydramine (Benadryl) at night if itching occurs.

ANS: B

Neosporin can cause contact dermatitis. The other medications are being used appropriately by the patient.

16. The nurse notes darker skin pigmentation in the skinfolds of a middle-aged patient who has a body mass index of 40 kg/m². What is the nurses **best** action?

- a. Teach the patient about the treatment of fungal infection.
- b. Discuss the use of drying agents to minimize infection risk.

- c. Instruct the patient about the use of mild soap to clean skinfolds.
- d. Ask the patient about type 2 diabetes or if there is a family history of it.

ANS: D

The presence of acanthosis nigricans in skinfolds suggests either having type 2 diabetes or being at an increased risk for it. The description of the patients skin does not indicate problems with fungal infection, poor hygiene, or the need to dry the skinfolds better.

17. When assessing a new patient at the outpatient clinic, the nurse notes dry, scaly skin; thin hair; and thick, brittle nails. What is the nurses **best** action?

- a. Instruct the patient about the importance of nutrition in skin health.
- b. Make a referral to a podiatrist so that the nails can be safely trimmed.
- c. Consult with the health care provider about the need for further diagnostic testing.
- d. Teach the patient about using moisturizing creams and lotions to decrease dry skin.

ANS: C

The patient has clinical manifestations that could be caused by systemic problems such as malnutrition or hypothyroidism, so further diagnostic evaluation is indicated. Patient teaching about nutrition, addressing the patients dry skin, and referral to a podiatrist may also be needed, but the priority is to rule out underlying disease that may be causing these manifestations.

18. An older adult patient with a squamous cell carcinoma (SCC) on the lower arm has a Mohs procedure in the dermatology clinic. Which nursing action will be included in the postoperative plan of care?

- a. Describe the use of topical fluorouracil on the incision.
- b. Teach how to use sterile technique to clean the suture line.

- c. Schedule daily appointments for wet-to-dry dressing changes.
- d. Teach about the use of cold packs to reduce bruising and swelling.

ANS: D

Application of cold packs to the incision after the surgery will help decrease bruising and swelling at the site. Since the Mohs procedure results in complete excision of the lesion, topical fluorouracil is not needed after surgery. After the Mohs procedure the edges of the wound can be left open to heal or the edges can be approximated and sutured together. The suture line can be cleaned with tap water. No debridement with wet-to-dry dressings is indicated.

19. A patient with atopic dermatitis has a new prescription for pimecrolimus (Elidel). After teaching the patient about the medication, which statement by the patient indicates that further teaching is needed?

- a. After I apply the medication, I can go ahead and get dressed as usual.
- b. I will need to minimize my time in the sun while I am using the Elidel.
- c. I will rub the medication gently onto the skin every morning and night.
- d. If the medication burns when I apply it, I will wipe it off and call the doctor.

ANS: D

The patient should be taught that transient burning at the application site is an expected effect of pimecrolimus and that the medication should be left in place. The other statements by the patient are accurate and indicate that patient teaching has been effective.

20. The nurse instructs a patient about application of corticosteroid cream to an area of contact dermatitis on the right leg. Which patient action indicates that further teaching is needed?

- a. The patient takes a tepid bath before applying the cream.

- b. The patient spreads the cream using a downward motion.
- c. The patient applies a thick layer of the cream to the affected skin.
- d. The patient covers the area with a dressing after applying the cream.

ANS: C

Creams and ointments should be applied in a thin layer to avoid wasting the medication. The other actions by the patient indicate that the teaching has been successful.

21. The nurse is caring for a patient diagnosed with furunculosis. Which nursing action could the nurse delegate to unlicensed assistive personnel (UAP)?

- a. Applying antibiotic cream to the groin.
- b. Obtaining cultures from ruptured lesions.
- c. Evaluating the patient's personal hygiene.
- d. Cleaning the skin with antimicrobial soap.

ANS: D

Cleaning the skin is within the education and scope of practice for UAP.

Administration of medication, obtaining cultures, and evaluation are higher-level skills that require the education and scope of practice of licensed nursing personnel.

22. The nurse assesses a patient who has just arrived in the postanesthesia recovery area (PACU) after a blepharoplasty. Which assessment data should be reported to the surgeon **immediately**?

- a. The patient complains of incisional pain.
- b. The patient's heart rate is 110 beats/minute.
- c. The patient is unable to detect when the eyelids are touched.
- d. The skin around the incision is pale and cold when palpated.

ANS: D

Pale, cool skin indicates a possible decrease in circulation, so the surgeon should be notified immediately. The other assessment data indicate a need for ongoing assessment or nursing action. A heart rate of 110 beats/minute may be related to the stress associated with surgery. Assessment of other vital signs and continued monitoring are appropriate. Because local anesthesia would be used for the procedure, numbness of the incisional area is expected immediately after surgery. The nurse should monitor for return of feeling.

23. A patient who has severe refractory psoriasis on the face, neck, and extremities is socially withdrawn because of the appearance of the lesions. Which action should the nurse take **first**?

- a. Discuss the possibility of enrolling in a worker-retraining program.
- b. Encourage the patient to volunteer to work on community projects.
- c. Suggest that the patient use cosmetics to cover the psoriatic lesions.
- d. Ask the patient to describe the impact of psoriasis on quality of life.

ANS: D

The nurses initial actions should be to assess the impact of the disease on the patients life and to allow the patient to verbalize feelings about the psoriasis. Depending on the assessment findings, other actions may be appropriate.

24. The nurse working in the dermatology clinic assesses a young adult female patient who is taking isotretinoin (Accutane) to treat severe cystic acne. Which assessment finding is **most** indicative of a need for further questioning of the patient?

- a. The patient recently had an intrauterine device removed.
- b. The patient already has some acne scarring on her forehead.
- c. The patient has also used topical antibiotics to treat the acne.
- d. The patient has a strong family history of rheumatoid arthritis.

ANS: A

Because isotretinoin is teratogenic, contraception is required for women who are using this medication. The nurse will need to determine whether the patient is using other birth control methods. More information about the other patient data may also be needed, but the other data do not indicate contraindications to isotretinoin use.

25. There is one opening in the schedule at the dermatology clinic, and 4 patients are seeking appointments today. Which patient will the nurse schedule for the available opening?

- a. 38-year old with a 7-mm nevus on the face that has recently become darker
- b. 62-year-old with multiple small, soft, pedunculated papules in both axillary areas
- c. 42-year-old with complaints of itching after using topical fluorouracil on the nose
- d. 50-year-old with concerns about skin redness after having a chemical peel 3 days ago

ANS: A

The description of the lesion is consistent with possible malignant melanoma. This patient should be assessed as soon as possible by the health care provider. Itching is common after using topical fluorouracil and redness is an expected finding a few days after a chemical peel. Skin tags are common, benign lesions after midlife.

MULTIPLE RESPONSE

1. A nurse is teaching a patient with contact dermatitis of the arms and legs about ways to decrease pruritus. Which information should the nurse include in the teaching plan (*select all that apply*)?

- a. Cool, wet cloths or dressings can be used to reduce itching.
- b. Take cool or tepid baths several times daily to decrease itching.

- c. Add oil to your bath water to aid in moisturizing the affected skin.
- d. Rub yourself dry with a towel after bathing to prevent skin maceration.
- e. Use of an over-the-counter (OTC) antihistamine can reduce scratching.

ANS: A, B, E

Cool or tepid baths, cool dressings, and OTC antihistamines all help reduce pruritus and scratching. Adding oil to bath water is not recommended because of the increased risk for falls. The patient should use the towel to pat (not rub) the skin dry.

Chapter 24. Management: Burns

MULTIPLE CHOICE

1. When assessing a patient who spilled hot oil on the right leg and foot, the nurse notes that the skin is dry, pale, hard skin. The patient states that the burn is not painful. What term would the nurse use to document the burn depth?

- a. First-degree skin destruction
- b. Full-thickness skin destruction
- c. Deep partial-thickness skin destruction
- d. Superficial partial-thickness skin destruction

ANS: B

With full-thickness skin destruction, the appearance is pale and dry or leathery and the area is painless because of the associated nerve destruction. Erythema, swelling, and blisters point to a deep partial-thickness burn. With superficial partial-thickness burns, the area is red, but no blisters are present. First-degree burns exhibit erythema, blanching, and pain.

2. On admission to the burn unit, a patient with an approximate 25% total body surface area (TBSA) burn has the following initial laboratory results: Hct 58%, Hgb

18.2 mg/dL (172 g/L), serum K⁺ 4.9 mEq/L (4.8 mmol/L), and serum Na⁺ 135 mEq/L (135 mmol/L). Which action will the nurse anticipate taking **now**?

- a. Monitor urine output every 4 hours.
- b. Continue to monitor the laboratory results.
- c. Increase the rate of the ordered IV solution.
- d. Type and crossmatch for a blood transfusion.

ANS: C

The patients laboratory data show hemoconcentration, which may lead to a decrease in blood flow to the microcirculation unless fluid intake is increased. Because the hematocrit and hemoglobin are elevated, a transfusion is inappropriate, although transfusions may be needed after the emergent phase once the patients fluid balance has been restored. On admission to a burn unit, the urine output would be monitored more often than every 4 hours; likely every 1 hour.

3. A patient is admitted to the burn unit with burns to the head, face, and hands. Initially, wheezes are heard, but an hour later, the lung sounds are decreased and no wheezes are audible. What is the **best** action for the nurse to take?

- a. Encourage the patient to cough and auscultate the lungs again.
- b. Notify the health care provider and prepare for endotracheal intubation.
- c. Document the results and continue to monitor the patients respiratory rate.
- d. Reposition the patient in high-Fowlers position and reassess breath sounds.

ANS: B

The patients history and clinical manifestations suggest airway edema and the health care provider should be notified immediately, so that intubation can be done rapidly. Placing the patient in a more upright position or having the patient cough will not

address the problem of airway edema. Continuing to monitor is inappropriate because immediate action should occur.

4. A patient with severe burns has crystalloid fluid replacement ordered using the Parkland formula. The initial volume of fluid to be administered in the first 24 hours is 30,000 mL. The initial rate of administration is 1875 mL/hr. After the first 8 hours, what rate should the nurse infuse the IV fluids?

- a. 350 mL/hour
- b. 523 mL/hour
- c. 938 mL/hour
- d. 1250 mL/hour

ANS: C

Half of the fluid replacement using the Parkland formula is administered in the first 8 hours and the other half over the next 16 hours. In this case, the patient should receive half of the initial rate, or 938 mL/hr.

5. During the emergent phase of burn care, which assessment will be **most** useful in determining whether the patient is receiving adequate fluid infusion?

- a. Check skin turgor.
- b. Monitor daily weight.
- c. Assess mucous membranes.
- d. Measure hourly urine output.

ANS: D

When fluid intake is adequate, the urine output will be at least 0.5 to 1 mL/kg/hour. The patient's weight is not useful in this situation because of the effects of third spacing and evaporative fluid loss. Mucous membrane assessment and skin turgor also

may be used, but they are not as adequate in determining that fluid infusions are maintaining adequate perfusion.

6. A patient has just been admitted with a 40% total body surface area (TBSA) burn injury. To maintain adequate nutrition, the nurse should plan to take which action?

- a. Insert a feeding tube and initiate enteral feedings.
- b. Infuse total parenteral nutrition via a central catheter.
- c. Encourage an oral intake of at least 5000 kcal per day.
- d. Administer multiple vitamins and minerals in the IV solution.

ANS: A

Enteral feedings can usually be initiated during the emergent phase at low rates and increased over 24 to 48 hours to the goal rate. During the emergent phase, the patient will be unable to eat enough calories to meet nutritional needs and may have a paralytic ileus that prevents adequate nutrient absorption. Vitamins and minerals may be administered during the emergent phase, but these will not assist in meeting the patients caloric needs. Parenteral nutrition increases the infection risk, does not help preserve gastrointestinal function, and is not routinely used in burn patients.

7. While the patients fullthickness burn wounds to the face are exposed, what is the **best** nursing action to prevent cross contamination?

- a. Use sterile gloves when removing old dressings.
- b. Wear gowns, caps, masks, and gloves during all care of the patient.
- c. Administer IV antibiotics to prevent bacterial colonization of wounds.
- d. Turn the room temperature up to at least 70 F (20 C) during dressing changes.

ANS: B

Use of gowns, caps, masks, and gloves during all patient care will decrease the possibility of wound contamination for a patient whose burns are not covered. When

removing contaminated dressings and washing the dirty wound, use nonsterile, disposable gloves. The room temperature should be kept at approximately 85 F for patients with open burn wounds to prevent shivering. Systemic antibiotics are not well absorbed into deep burns because of the lack of circulation.

8. A nurse is caring for a patient who has burns of the ears, head, neck, and right arm and hand. The nurse should place the patient in which position?

- a. Place the right arm and hand flexed in a position of comfort.
- b. Elevate the right arm and hand on pillows and extend the fingers.
- c. Assist the patient to a supine position with a small pillow under the head.
- d. Position the patient in a side-lying position with rolled towel under the neck.

ANS: B

The right hand and arm should be elevated to reduce swelling and the fingers extended to avoid flexion contractures (even though this position may not be comfortable for the patient). The patient with burns of the ears should not use a pillow for the head because this will put pressure on the ears, and the pillow may stick to the ears. Patients with neck burns should not use a pillow because the head should be maintained in an extended position in order to avoid contractures.

DIF:

9. A patient with circumferential burns of both legs develops a decrease in dorsalis pedis pulse strength and numbness in the toes. Which action should the nurse take?

- a. Notify the health care provider.
- b. Monitor the pulses every 2 hours.
- c. Elevate both legs above heart level with pillows.
- d. Encourage the patient to flex and extend the toes on both feet.

ANS: A

The decrease in pulse in a patient with circumferential burns indicates decreased circulation to the legs and the need for an escharotomy. Monitoring the pulses is not an adequate response to the decrease in circulation. Elevating the legs or increasing toe movement will not improve the patients circulation.

10. Esomeprazole (Nexium) is prescribed for a patient who incurred extensive burn injuries 5 days ago. Which nursing assessment would **best** evaluate the effectiveness of the medication?

- a. Bowel sounds
- b. Stool frequency
- c. Abdominal distention
- d. Stools for occult blood

ANS: D

H₂ blockers and proton pump inhibitors are given to prevent Curlings ulcer in the patient who has suffered burn injuries. Proton pump inhibitors usually do not affect bowel sounds, stool frequency, or appetite.

11. The nurse is reviewing the medication administration record (MAR) on a patient with partial-thickness burns. Which medication is **best** for the nurse to administer before scheduled wound debridement?

- a. Ketorolac (Toradol)
- b. Lorazepam (Ativan)
- c. Gabapentin (Neurontin)
- d. Hydromorphone (Dilaudid)

ANS: D

Opioid pain medications are the best choice for pain control. The other medications are used as adjuvants to enhance the effects of opioids.

12. A young adult patient who is in the rehabilitation phase after having deep partial-thickness face and neck burns has a nursing diagnosis of disturbed body image. Which statement by the patient indicates that the problem is resolving?

- a. I'm glad the scars are only temporary.
- b. I will avoid using a pillow, so my neck will be OK.
- c. I bet my boyfriend won't even want to look at me anymore.
- d. Do you think dark beige makeup foundation would cover this scar on my cheek?

ANS: D

The willingness to use strategies to enhance appearance is an indication that the disturbed body image is resolving. Expressing feelings about the scars indicates a willingness to discuss appearance, but not resolution of the problem. Because deep partial-thickness burns leave permanent scars, a statement that the scars are temporary indicates denial rather than resolution of the problem. Avoiding using a pillow will help prevent contractures, but it does not address the problem of disturbed body image.

13. The nurse caring for a patient admitted with burns over 30% of the body surface assesses that urine output has dramatically increased. Which action by the nurse would **best** ensure adequate kidney function?

- a. Continue to monitor the urine output.
- b. Monitor for increased white blood cells (WBCs).
- c. Assess that blisters and edema have subsided.
- d. Prepare the patient for discharge from the burn unit.

ANS: A

The patient's urine output indicates that the patient is entering the acute phase of the burn injury and moving on from the emergent stage. At the end of the emergent phase, capillary permeability normalizes and the patient begins to diurese large amounts of urine with a low specific gravity. Although this may occur at about 48 hours, it may be longer in some patients. Blisters and edema begin to resolve, but this process requires more time. White blood cells may increase or decrease, based on the patient's immune status and any infectious processes. The WBC count does not indicate kidney function. The patient will likely remain in the burn unit during the acute stage of burn injury.

14. A patient with burns covering 40% total body surface area (TBSA) is in the acute phase of burn treatment. Which snack would be **best** for the nurse to offer to this patient?

- a. Bananas
- b. Orange gelatin
- c. Vanilla milkshake
- d. Whole grain bagel

ANS: C

A patient with a burn injury needs high protein and calorie food intake, and the milkshake is the highest in these nutrients. The other choices are not as nutrient-dense as the milkshake. Gelatin is likely high in sugar. The bagel is a good carbohydrate choice, but low in protein. Bananas are a good source of potassium, but are not high in protein and calories.

15. A patient has just arrived in the emergency department after an electrical burn from exposure to a high-voltage current. What is the **priority** nursing assessment?

- a. Oral temperature
- b. Peripheral pulses
- c. Extremity movement

- d. Pupil reaction to light

ANS: C

All patients with electrical burns should be considered at risk for cervical spine injury, and assessments of extremity movement will provide baseline data. The other assessment data are also necessary but not as essential as determining the cervical spine status.

16. An employee spills industrial acids on both arms and legs at work. What is the **priority** action that the occupational health nurse at the facility should take?

- a. Remove nonadherent clothing and watch.
- b. Apply an alkaline solution to the affected area.
- c. Place cool compresses on the area of exposure.
- d. Cover the affected area with dry, sterile dressings.

ANS: A

With chemical burns, the initial action is to remove the chemical from contact with the skin as quickly as possible. Remove nonadherent clothing, shoes, watches, jewelry, glasses, or contact lenses (if face was exposed). Flush chemical from wound and surrounding area with copious amounts of saline solution or water. Covering the affected area or placing cool compresses on the area will leave the chemical in contact with the skin. Application of an alkaline solution is not recommended.

17. A patient who has burns on the arms, legs, and chest from a house fire has become agitated and restless 8 hours after being admitted to the hospital. Which action should the nurse take **first**?

- a. Stay at the bedside and reassure the patient.
- b. Administer the ordered morphine sulfate IV.
- c. Assess orientation and level of consciousness.

- d. Use pulse oximetry to check the oxygen saturation.

ANS: D

Agitation in a patient who may have suffered inhalation injury might indicate hypoxia, and this should be assessed by the nurse first. Administration of morphine may be indicated if the nurse determines that the agitation is caused by pain. Assessing level of consciousness and orientation is also appropriate but not as essential as determining whether the patient is hypoxemic. Reassurance is not helpful to reduce agitation in a hypoxemic patient.

18. A patient arrives in the emergency department with facial and chest burns caused by a house fire. Which action should the nurse take **first**?

- a. Auscultate the patients lung sounds.
- b. Determine the extent and depth of the burns.
- c. Infuse the ordered lactated Ringers solution.
- d. Administer the ordered hydromorphone (Dilaudid).

ANS: A

A patient with facial and chest burns is at risk for inhalation injury, and assessment of airway and breathing is the priority. The other actions will be completed after airway management is assured.

19. A patient with extensive electrical burn injuries is admitted to the emergency department. Which prescribed intervention should the nurse implement **first**?

- a. Assess oral temperature.
- b. Check a potassium level.
- c. Place on cardiac monitor.
- d. Assess for pain at contact points.

ANS: C

After an electrical burn, the patient is at risk for fatal dysrhythmias and should be placed on a cardiac monitor. Assessing the oral temperature is not as important as assessing for cardiac dysrhythmias. Checking the potassium level is important. However, it will take time before the laboratory results are back. The first intervention is to place the patient on a cardiac monitor and assess for dysrhythmias, so that they can be treated if occurring. A decreased or increased potassium level will alert the nurse to the possibility of dysrhythmias. The cardiac monitor will alert the nurse immediately of any dysrhythmias. Assessing for pain is important, but the patient can endure pain until the cardiac monitor is attached. Cardiac dysrhythmias can be lethal.

20. Eight hours after a thermal burn covering 50% of a patient's total body surface area (TBSA) the nurse assesses the patient. Which information would be a **priority** to communicate to the health care provider?

- a. Blood pressure is 95/48 per arterial line.
- b. Serous exudate is leaking from the burns.
- c. Cardiac monitor shows a pulse rate of 108.
- d. Urine output is 20 mL per hour for the past 2 hours.

ANS: D

The urine output should be at least 0.5 to 1.0 mL/kg/hr during the emergent phase, when the patient is at great risk for hypovolemic shock. The nurse should notify the health care provider because a higher IV fluid rate is needed. BP during the emergent phase should be greater than 90 systolic, and the pulse rate should be less than 120. Serous exudate from the burns is expected during the emergent phase.

21. Which patient should the nurse assess **first**?

- a. A patient with smoke inhalation who has wheezes and altered mental status

- b. A patient with full-thickness leg burns who has a dressing change scheduled
- c. A patient with abdominal burns who is complaining of level 8 (0 to 10 scale) pain
- d. A patient with 40% total body surface area (TBSA) burns who is receiving IV fluids at 500 mL/hour

ANS: A

This patient has evidence of lower airway injury and hypoxemia and should be assessed immediately to determine the need for oxygen or intubation. The other patients should also be assessed as rapidly as possible, but they do not have evidence of life-threatening complications.

22. Which patient is **most** appropriate for the burn unit charge nurse to assign to a registered nurse (RN) who has floated from the hospital medical unit?

- a. A 34-year-old patient who has a weight loss of 15% from admission and requires enteral feedings.
- b. A 67-year-old patient who has blebs under an autograft on the thigh and has an order for bleb aspiration
- c. A 46-year-old patient who has just come back to the unit after having a cultured epithelial autograft to the chest
- d. A 65-year-old patient who has twice-daily burn debridements and dressing changes to partial-thickness facial burns

ANS: A

An RN from a medical unit would be familiar with malnutrition and with administration and evaluation of response to enteral feedings. The other patients require burn assessment and care that is more appropriate for staff who regularly care for burned patients.

23. A patient who was found unconscious in a burning house is brought to the emergency department by ambulance. The nurse notes that the patients skin color is bright red. Which action should the nurse take **first**?

- a. Insert two large-bore IV lines.
- b. Check the patients orientation.
- c. Assess for singed nasal hair and dark oral mucous membranes.
- d. Place the patient on 100% oxygen using a non-rebreather mask.

ANS: D

The patients history and skin color suggest carbon monoxide poisoning, which should be treated by rapidly starting oxygen at 100%. The other actions can be taken after the action to correct gas exchange.

24. The nurse is reviewing laboratory results on a patient who had a large burn 48 hours ago. Which result requires **priority** action by the nurse?

- a. Hematocrit 53%
- b. Serum sodium 147 mEq/L
- c. Serum potassium 6.1 mEq/L
- d. Blood urea nitrogen 37 mg/dL

ANS: C

Hyperkalemia can lead to fatal dysrhythmias and indicates that the patient requires cardiac monitoring and immediate treatment to lower the potassium level. The other laboratory values are also abnormal and require changes in treatment, but they are not as immediately life threatening as the elevated potassium level.

1. A patient with acute shortness of breath is admitted to the hospital. Which action should the nurse take during the **initial** assessment of the patient?

- a. Ask the patient to lie down to complete a full physical assessment.
- b. Briefly ask specific questions about this episode of respiratory distress.
- c. Complete the admission database to check for allergies before treatment.
- d. Delay the physical assessment to first complete pulmonary function tests.

ANS: B

When a patient has severe respiratory distress, only information pertinent to the current episode is obtained, and a more thorough assessment is deferred until later. Obtaining a comprehensive health history or full physical examination is unnecessary until the acute distress has resolved. Brief questioning and a focused physical assessment should be done rapidly to help determine the cause of the distress and suggest treatment. Checking for allergies is important, but it is not appropriate to complete the entire admission database at this time. The initial respiratory assessment must be completed before any diagnostic tests or interventions can be ordered.

2. The nurse prepares a patient with a left-sided pleural effusion for a thoracentesis. How should the nurse position the patient?

- a. Supine with the head of the bed elevated 30 degrees
- b. In a high-Fowlers position with the left arm extended
- c. On the right side with the left arm extended above the head
- d. Sitting upright with the arms supported on an over bed table

ANS: D

The upright position with the arms supported increases lung expansion, allows fluid to collect at the lung bases, and expands the intercostal space so that access to the pleural space is easier. The other positions would increase the work of breathing for the

patient and make it more difficult for the health care provider performing the thoracentesis.

3. A diabetic patient's arterial blood gas (ABG) results are pH 7.28; PaCO₂ 34 mm Hg; PaO₂ 85 mm Hg; HCO₃ 18 mEq/L. The nurse would expect which finding?

- a. Intercostal retractions
- b. Kussmaul respirations
- c. Low oxygen saturation (SpO₂)
- d. Decreased venous O₂ pressure

ANS: B

Kussmaul (deep and rapid) respirations are a compensatory mechanism for metabolic acidosis. The low pH and low bicarbonate result indicate metabolic acidosis. Intercostal retractions, a low oxygen saturation rate, and a decrease in venous O₂ pressure would not be caused by acidosis.

4. On auscultation of a patient's lungs, the nurse hears low-pitched, bubbling sounds during inhalation in the lower third of both lungs. How should the nurse document this finding?

- a. Inspiratory crackles at the bases
- b. Expiratory wheezes in both lungs
- c. Abnormal lung sounds in the apices of both lungs
- d. Pleural friction rub in the right and left lower lobes

ANS: A

Crackles are low-pitched, bubbling sounds usually heard on inspiration. Wheezes are high-pitched sounds. They can be heard during the expiratory or inspiratory phase of the respiratory cycle. The lower third of both lungs are the bases, not apices. Pleural

friction rubs are grating sounds that are usually heard during both inspiration and expiration.

5. The nurse palpates the posterior chest while the patient says 99 and notes absent fremitus. Which action should the nurse take next?

- a. Palpate the anterior chest and observe for barrel chest.
- b. Encourage the patient to turn, cough, and deep breathe.
- c. Review the chest x-ray report for evidence of pneumonia.
- d. Auscultate anterior and posterior breath sounds bilaterally.

ANS: D

To assess for tactile fremitus, the nurse should use the palms of the hands to assess for vibration when the patient repeats a word or phrase such as 99. After noting absent fremitus, the nurse should then auscultate the lungs to assess for the presence or absence of breath sounds. Absent fremitus may be noted with pneumothorax or atelectasis. The vibration is increased in conditions such as pneumonia, lung tumors, thick bronchial secretions, and pleural effusion. Turning, coughing, and deep breathing is an appropriate intervention for atelectasis, but the nurse needs to first assess breath sounds. Fremitus is decreased if the hand is farther from the lung or the lung is hyperinflated (barrel chest). The anterior of the chest is more difficult to palpate for fremitus because of the presence of large muscles and breast tissue.

6. A patient with a chronic cough has a bronchoscopy. After the procedure, which intervention by the nurse is **most** appropriate?

- a. Elevate the head of the bed to 80 to 90 degrees.
- b. Keep the patient NPO until the gag reflex returns.
- c. Place on bed rest for at least 4 hours after bronchoscopy.
- d. Notify the health care provider about blood-tinged mucus.

ANS: B

Risk for aspiration and maintaining an open airway is the priority. Because a local anesthetic is used to suppress the gag/cough reflexes during bronchoscopy, the nurse should monitor for the return of these reflexes before allowing the patient to take oral fluids or food. Blood-tinged mucus is not uncommon after bronchoscopy. The patient does not need to be on bed rest, and the head of the bed does not need to be in the high-Fowlers position.

7. The nurse completes a shift assessment on a patient admitted in the early phase of heart failure. When auscultating the patients lungs, which finding would the nurse **most** likely hear?

- a. Continuous rumbling, snoring, or rattling sounds mainly on expiration
- b. Continuous high-pitched musical sounds on inspiration and expiration
- c. Discontinuous, high-pitched sounds of short duration heard on inspiration
- d. A series of long-duration, discontinuous, low-pitched sounds during inspiration

ANS: C

Fine crackles are likely to be heard in the early phase of heart failure. Fine crackles are discontinuous, high-pitched sounds of short duration heard on inspiration. Rhonchi are continuous rumbling, snoring, or rattling sounds mainly on expiration. Course crackles are a series of long-duration, discontinuous, low-pitched sounds during inspiration. Wheezes are continuous high-pitched musical sounds on inspiration and expiration.

8. While caring for a patient with respiratory disease, the nurse observes that the patients SpO₂ drops from 93% to 88% while the patient is ambulating in the hallway. What is the **priority** action of the nurse?

- a. Notify the health care provider.
- b. Document the response to exercise.
- c. Administer the PRN supplemental O₂.

- d. Encourage the patient to pace activity.

ANS: C

The drop in SpO₂ to 85% indicates that the patient is hypoxemic and needs supplemental oxygen when exercising. The other actions are also important, but the first action should be to correct the hypoxemia.

9. The nurse teaches a patient about pulmonary function testing (PFT). Which statement, if made by the patient, indicates teaching was effective?

- a. I will use my inhaler right before the test.
- b. I won't eat or drink anything 8 hours before the test.
- c. I should inhale deeply and blow out as hard as I can during the test.
- d. My blood pressure and pulse will be checked every 15 minutes after the test.

ANS: C

For PFT, the patient should inhale deeply and exhale as long, hard, and fast as possible. The other actions are not needed with PFT. The administration of inhaled bronchodilators should be avoided 6 hours before the procedure.

10. The nurse observes a student who is listening to a patient's lungs who is having no problems with breathing. Which action by the student indicates a need to review respiratory assessment skills?

- a. The student starts at the apices of the lungs and moves to the bases.
- b. The student compares breath sounds from side to side avoiding bony areas.
- c. The student places the stethoscope over the posterior chest and listens during inspiration.
- d. The student instructs the patient to breathe slowly and a little more deeply than normal through the mouth.

ANS: C

Listening only during inspiration indicates the student needs a review of respiratory assessment skills. At each placement of the stethoscope, listen to at least one cycle of inspiration and expiration. During chest auscultation, instruct the patient to breathe slowly and a little deeper than normal through the mouth. Auscultation should proceed from the lung apices to the bases, comparing opposite areas of the chest, unless the patient is in respiratory distress or will tire easily. If so, start at the bases (see Fig. 26-7). Place the stethoscope over lung tissue, not over bony prominences.

11. A patient who has a history of chronic obstructive pulmonary disease (COPD) was hospitalized for increasing shortness of breath and chronic hypoxemia (SaO_2 levels of 89% to 90%). In planning for discharge, which action by the nurse will be **most** effective in improving compliance with discharge teaching?

- a. Start giving the patient discharge teaching on the day of admission.
- b. Have the patient repeat the instructions immediately after teaching.
- c. Accomplish the patient teaching just before the scheduled discharge.
- d. Arrange for the patients caregiver to be present during the teaching.

ANS: D

Hypoxemia interferes with the patients ability to learn and retain information, so having the patients caregiver present will increase the likelihood that discharge instructions will be followed. Having the patient repeat the instructions will indicate that the information is understood at the time, but it does not guarantee retention of the information. Because the patient is likely to be distracted just before discharge, giving discharge instructions just before discharge is not ideal. The patient is likely to be anxious and even more hypoxemic than usual on the day of admission, so teaching about discharge should be postponed.

12. A patient is admitted to the emergency department complaining of sudden onset shortness of breath and is diagnosed with a possible pulmonary embolus. How should the nurse prepare the patient for diagnostic testing to confirm the diagnosis?

- a. Start an IV so contrast media may be given.
- b. Ensure that the patient has been NPO for at least 6 hours.
- c. Inform radiology that radioactive glucose preparation is needed.
- d. Instruct the patient to undress to the waist and remove any metal objects.

ANS: A

Spiral computed tomography (CT) scans are the most commonly used test to diagnose pulmonary emboli, and contrast media may be given IV. A chest x-ray may be ordered but will not be diagnostic for a pulmonary embolus. Preparation for a chest x-ray includes undressing and removing any metal. Bronchoscopy is used to detect changes in the bronchial tree, not to assess for vascular changes, and the patient should be NPO 6 to 12 hours before the procedure. Positron emission tomography (PET) scans are most useful in determining the presence of malignancy, and a radioactive glucose preparation is used.

13. The nurse admits a patient who has a diagnosis of an acute asthma attack. Which statement indicates that the patient may need teaching regarding medication use?

- a. I have not had any acute asthma attacks during the last year.
- b. I became short of breath an hour before coming to the hospital.
- c. I've been taking Tylenol 650 mg every 6 hours for chest-wall pain.
- d. I've been using my albuterol inhaler more frequently over the last 4 days.

ANS: D

The increased need for a rapid-acting bronchodilator should alert the patient that an acute attack may be imminent and that a change in therapy may be needed. The patient should be taught to contact a health care provider if this occurs. The other data do not indicate any need for additional teaching.

14. A patient with acute dyspnea is scheduled for a spiral computed tomography (CT) scan. Which information obtained by the nurse is a **priority** to communicate to the health care provider before the CT?

- a. Allergy to shellfish
- b. Apical pulse of 104
- c. Respiratory rate of 30
- d. Oxygen saturation of 90%

ANS: A

Because iodine-based contrast media is used during a spiral CT, the patient may need to have the CT scan without contrast or be premedicated before injection of the contrast media. The increased pulse, low oxygen saturation, and tachypnea all indicate a need for further assessment or intervention but do not indicate a need to modify the CT procedure.

15. The nurse analyzes the results of a patients arterial blood gases (ABGs). Which finding would require **immediate** action?

- a. The bicarbonate level (HCO_3) is 31 mEq/L.
- b. The arterial oxygen saturation (SaO_2) is 92%.
- c. The partial pressure of CO_2 in arterial blood (PaCO_2) is 31 mm Hg.
- d. The partial pressure of oxygen in arterial blood (PaO_2) is 59 mm Hg.

ANS: D

All the values are abnormal, but the low PaO_2 indicates that the patient is at the point on the oxyhemoglobin dissociation curve where a small change in the PaO_2 will cause a large drop in the O_2 saturation and a decrease in tissue oxygenation. The nurse should intervene immediately to improve the patients oxygenation.

16. When assessing the respiratory system of an older patient, which finding indicates that the nurse should take **immediate** action?

- a. Weak cough effort
- b. Barrel-shaped chest
- c. Dry mucous membranes
- d. Bilateral crackles at lung bases

ANS: D

Crackles in the lower half of the lungs indicate that the patient may have an acute problem such as heart failure. The nurse should immediately accomplish further assessments, such as oxygen saturation, and notify the health care provider. A barrel-shaped chest, hyperresonance to percussion, and a weak cough effort are associated with aging. Further evaluation may be needed, but immediate action is not indicated. An older patient has a less forceful cough and fewer and less functional cilia. Mucous membranes tend to be drier.

17. A patient in metabolic alkalosis is admitted to the emergency department, and pulse oximetry (SpO_2) indicates that the O_2 saturation is 94%. Which action should the nurse take **next**?

- a. Administer bicarbonate.
- b. Complete a head-to-toe assessment.
- c. Place the patient on high-flow oxygen.
- d. Obtain repeat arterial blood gases (ABGs).

ANS: C

Although the O_2 saturation is adequate, the left shift in the oxyhemoglobin dissociation curve will decrease the amount of oxygen delivered to tissues, so high oxygen concentrations should be given. Bicarbonate would worsen the patients

condition. A head-to-toe assessment and repeat ABGs may be implemented. However, the priority intervention is to give high-flow oxygen.

18. After the nurse has received change-of-shift report, which patient should the nurse assess **first**?

- a. A patient with pneumonia who has crackles in the right lung base
- b. A patient with possible lung cancer who has just returned after bronchoscopy
- c. A patient with hemoptysis and a 16-mm induration with tuberculin skin testing
- d. A patient with chronic obstructive pulmonary disease (COPD) and pulmonary function testing (PFT) that indicates low forced vital capacity

ANS: B

Because the cough and gag are decreased after bronchoscopy, this patient should be assessed for airway patency. The other patients do not have clinical manifestations or procedures that require immediate assessment by the nurse.

19. The laboratory has just called with the arterial blood gas (ABG) results on four patients. Which result is **most** important for the nurse to report **immediately** to the health care provider?

- a. pH 7.34, PaO₂ 82 mm Hg, PaCO₂ 40 mm Hg, and O₂ sat 97%
- b. pH 7.35, PaO₂ 85 mm Hg, PaCO₂ 45 mm Hg, and O₂ sat 95%
- c. pH 7.46, PaO₂ 90 mm Hg, PaCO₂ 32 mm Hg, and O₂ sat 98%
- d. pH 7.31, PaO₂ 91 mm Hg, PaCO₂ 50 mm Hg, and O₂ sat 96%

ANS: D

These ABGs indicate uncompensated respiratory acidosis and should be reported to the health care provider. The other values are normal or close to normal.

20. The nurse assesses a patient with chronic obstructive pulmonary disease (COPD) who has been admitted with increasing dyspnea over the last 3 days. Which finding is **most** important for the nurse to report to the health care provider?

- a. Respirations are 36 breaths/minute.
- b. Anterior-posterior chest ratio is 1:1.
- c. Lung expansion is decreased bilaterally.
- d. Hyperresonance to percussion is present.

ANS: A

The increase in respiratory rate indicates respiratory distress and a need for rapid interventions such as administration of oxygen or medications. The other findings are common chronic changes occurring in patients with COPD.

21. Using the illustrated technique, the nurse is assessing for which finding in a patient with chronic obstructive pulmonary disease (COPD)?

- a. Hyperresonance
- b. Tripod positioning
- c. Accessory muscle use
- d. Reduced chest expansion

ANS: D

The technique for palpation for chest expansion is shown in the illustrated technique. Reduced chest movement would be noted on palpation of a patient's chest with COPD. Hyperresonance would be assessed through percussion. Accessory muscle use and tripod positioning would be assessed by inspection.

22. Which action is appropriate for the nurse to delegate to unlicensed assistive personnel (UAP)?

- a. Listen to a patient's lung sounds for wheezes or rhonchi.
- b. Label specimens obtained during percutaneous lung biopsy.
- c. Instruct a patient about how to use home spirometry testing.
- d. Measure induration at the site of a patient's intradermal skin test.

ANS: B

Labeling of specimens is within the scope of practice of UAP. The other actions require nursing judgment and should be done by licensed nursing personnel.

MULTIPLE RESPONSE

1. A patient is scheduled for a computed tomography (CT) of the chest with contrast media. Which assessment findings should the nurse **immediately** report to the health care provider (*select all that apply*)?

- a. Patient is claustrophobic.
- b. Patient is allergic to shellfish.
- c. Patient recently used a bronchodilator inhaler.
- d. Patient is not able to remove a wedding band.
- e. Blood urea nitrogen (BUN) and serum creatinine levels are elevated.

ANS: B, E

Because the contrast media is iodine-based and may cause dehydration and decreased renal blood flow, asking about iodine allergies (such as allergy to shellfish) and monitoring renal function before the CT scan are necessary. The other actions are not contraindications for CT of the chest, although they may be for other diagnostic tests, such as magnetic resonance imaging (MRI) or pulmonary function testing (PFT).

MULTIPLE CHOICE

1. A 53-year-old male patient with deep partial-thickness burns from a chemical spill in the workplace experiences severe pain followed by nausea during dressing changes. Which action will be **most** useful in decreasing the patients nausea?

- a. Keep the patient NPO for 2 hours before and after dressing changes.
- b. Avoid performing dressing changes close to the patients mealtimes.
- c. Administer the prescribed morphine sulfate before dressing changes.
- d. Give the ordered prochlorperazine (Compazine) before dressing changes.

ANS: C

Because the patients nausea is associated with severe pain, it is likely that it is precipitated by stress and pain. The best treatment will be to provide adequate pain medication before dressing changes. The nurse should avoid doing painful procedures close to mealtimes, but nausea/vomiting that occur at other times also should be addressed. Keeping the patient NPO does not address the reason for the nausea and vomiting and will have an adverse effect on the patients nutrition. Administration of antiemetics is not the best choice for a patient with nausea caused by pain.

2. Which item should the nurse offer to the patient who is to restart oral intake after being NPO due to nausea and vomiting?

- a. Glass of orange juice
- b. Dish of lemon gelatin
- c. Cup of coffee with cream
- d. Bowl of hot chicken broth

ANS: B

Clear cool liquids are usually the first foods started after a patient has been nauseated. Acidic foods such as orange juice, very hot foods, and coffee are poorly tolerated when patients have been nauseated.

3. A 38-year old woman receiving chemotherapy for breast cancer develops a *Candida albicans* oral infection. The nurse will anticipate the need for

- a. hydrogen peroxide rinses.
- b. the use of antiviral agents.
- c. administration of nystatin (Mycostatin) tablets.
- d. referral to a dentist for professional tooth cleaning.

ANS: C

Candida albicans is treated with an antifungal such as nystatin. Oral saltwater rinses may be used but will not cure the infection. Antiviral agents are used for viral infections such as herpes simplex. Referral to a dentist is indicated for gingivitis but not for *Candida* infection.

4. Which finding in the mouth of a patient who uses smokeless tobacco is suggestive of oral cancer?

- a. Bleeding during tooth brushing
- b. Painful blisters at the lip border
- c. Red, velvety patches on the buccal mucosa
- d. White, curdlike plaques on the posterior tongue

ANS: C

A red, velvety patch suggests erythroplasia, which has a high incidence (greater than 50%) of progression to squamous cell carcinoma. The other lesions are suggestive of acute processes (e.g., gingivitis, oral candidiasis, herpes simplex).

5. Which information will the nurse include when teaching adults to decrease the risk for cancers of the tongue and buccal mucosa?

- a. Avoid use of cigarettes and smokeless tobacco.
- b. Use sunscreen when outside even on cloudy days.
- c. Complete antibiotic courses used to treat throat infections.
- d. Use antivirals to treat herpes simplex virus (HSV) infections.

ANS: A

Tobacco use greatly increases the risk for oral cancer. Acute throat infections do not increase the risk for oral cancer, although chronic irritation of the oral mucosa does increase risk. Sun exposure does not increase the risk for cancers of the buccal mucosa. Human papillomavirus (HPV) infection is associated with an increased risk, but HSV infection is not a risk factor for oral cancer.

6. A 46-year-old female with gastroesophageal reflux disease (GERD) is experiencing increasing discomfort. Which patient statement indicates that additional teaching about GERD is needed?

- a. I take antacids between meals and at bedtime each night.
- b. I sleep with the head of the bed elevated on 4-inch blocks.
- c. I eat small meals during the day and have a bedtime snack.
- d. I quit smoking several years ago, but I still chew a lot of gum.

ANS: C

GERD is exacerbated by eating late at night, and the nurse should plan to teach the patient to avoid eating at bedtime. The other patient actions are appropriate to control symptoms of GERD.

7. A 68-year-old male patient with a stroke is unconscious and unresponsive to stimuli. After learning that the patient has a history of gastroesophageal reflux disease (GERD), the nurse will plan to do frequent assessments of the patients

- a. apical pulse.
- b. bowel sounds.
- c. breath sounds.
- d. abdominal girth.

ANS: C

Because GERD may cause aspiration, the unconscious patient is at risk for developing aspiration pneumonia. Bowel sounds, abdominal girth, and apical pulse will not be affected by the patients stroke or GERD and do not require more frequent monitoring than the routine.

8. The nurse explaining esomeprazole (Nexium) to a patient with recurring heartburn describes that the medication

- a. reduces gastroesophageal reflux by increasing the rate of gastric emptying.
- b. neutralizes stomach acid and provides relief of symptoms in a few minutes.
- c. coats and protects the lining of the stomach and esophagus from gastric acid.
- d. treats gastroesophageal reflux disease by decreasing stomach acid production.

ANS: D

The proton pump inhibitors decrease the rate of gastric acid secretion. Promotility drugs such as metoclopramide (Reglan) increase the rate of gastric emptying. Cryoprotective medications such as sucralfate (Carafate) protect the stomach. Antacids neutralize stomach acid and work rapidly.

9. Which patient choice for a snack 2 hours before bedtime indicates that the nurses teaching about gastroesophageal reflux disease (GERD) has been effective?

- a. Chocolate pudding
- b. Glass of low-fat milk
- c. Cherry gelatin with fruit
- d. Peanut butter and jelly sandwich

ANS: C

Gelatin and fruit are low fat and will not decrease lower esophageal sphincter (LES) pressure. Foods such as chocolate are avoided because they lower LES pressure. Milk products increase gastric acid secretion. High-fat foods such as peanut butter decrease both gastric emptying and LES pressure.

10. The nurse will anticipate teaching a patient experiencing frequent heartburn about

- a. a barium swallow.
- b. radionuclide tests.
- c. endoscopy procedures.
- d. proton pump inhibitors.

ANS: D

Because diagnostic testing for heartburn that is probably caused by gastroesophageal reflux disease (GERD) is expensive and uncomfortable, proton pump inhibitors are frequently used for a short period as the first step in the diagnosis of GERD. The other tests may be used but are not usually the first step in diagnosis.

11. A 58-year-old woman who recently has been diagnosed with esophageal cancer tells the nurse, I do not feel ready to die yet. Which response by the nurse is **most** appropriate?

- a. You may have quite a few years still left to live.
- b. Thinking about dying will only make you feel worse.
- c. Having this new diagnosis must be very hard for you.
- d. It is important that you be realistic about your prognosis.

ANS: C

This response is open-ended and will encourage the patient to further discuss feelings of anxiety or sadness about the diagnosis. Patients with esophageal cancer have only a low survival rate, so the response You may have quite a few years still left to live is misleading. The response beginning, Thinking about dying indicates that the nurse is not open to discussing the patient's fears of dying. The response beginning, It is important that you be realistic, discourages the patient from feeling hopeful, which is important to patients with any life-threatening diagnosis.

12. Which information will the nurse include for a patient with newly diagnosed gastroesophageal reflux disease (GERD)?

- a. Peppermint tea may reduce your symptoms.
- b. Keep the head of your bed elevated on blocks.
- c. You should avoid eating between meals to reduce acid secretion.
- d. Vigorous physical activities may increase the incidence of reflux.

ANS: B

Elevating the head of the bed will reduce the incidence of reflux while the patient is sleeping. Peppermint will decrease lower esophageal sphincter (LES) pressure and increase the chance for reflux. Small, frequent meals are recommended to avoid abdominal distention. There is no need to make changes in physical activities because of GERD.

13. Which nursing action should be included in the postoperative plan of care for a patient after a laparoscopic esophagectomy?

- a. Notify the doctor about bloody nasogastric (NG) drainage.
- b. Elevate the head of the bed to at least 30 degrees.
- c. Reposition the NG tube if drainage stops.
- d. Start oral fluids when the patient has active bowel sounds.

ANS: B

Elevation of the head of the bed decreases the risk for reflux and aspiration of gastric secretions. The NG tube should not be repositioned without consulting with the health care provider. Bloody NG drainage is expected for the first 8 to 12 hours. A swallowing study is needed before oral fluids are started.

14. When a 72-year-old patient is diagnosed with achalasia, the nurse will teach the patient that

- a. lying down after meals is recommended.
- b. a liquid or blenderized diet will be necessary.
- c. drinking fluids with meals should be avoided.
- d. treatment may include endoscopic procedures.

ANS: D

Endoscopic and laparoscopic procedures are the most effective therapy for improving symptoms caused by achalasia. Keeping the head elevated after eating will improve esophageal emptying. A semisoft diet is recommended to improve esophageal emptying. Patients are advised to drink fluid with meals.

15. A 50-year-old man vomiting blood-streaked fluid is admitted to the hospital with acute gastritis. To determine possible risk factors for gastritis, the nurse will ask the patient about

- a. the amount of saturated fat in the diet.
- b. any family history of gastric or colon cancer.

- c. a history of a large recent weight gain or loss.
- d. use of nonsteroidal antiinflammatory drugs (NSAIDs).

ANS: D

Use of an NSAID is associated with damage to the gastric mucosa, which can result in acute gastritis. Family history, recent weight gain or loss, and fatty foods are not risk factors for acute gastritis.

16. The nurse determines that teaching regarding cobalamin injections has been effective when the patient with chronic atrophic gastritis states which of the following?

- a. The cobalamin injections will prevent gastric inflammation.
- b. The cobalamin injections will prevent me from becoming anemic.
- c. These injections will increase the hydrochloric acid in my stomach.
- d. These injections will decrease my risk for developing stomach cancer.

ANS: B

Cobalamin supplementation prevents the development of pernicious anemia. Chronic gastritis may cause achlorhydria, but cobalamin does not correct this. The loss of intrinsic factor secretion with chronic gastritis is permanent, and the patient will need lifelong supplementation with cobalamin. The incidence of stomach cancer is higher in patients with chronic gastritis, but cobalamin does not reduce the risk for stomach cancer.

17. Which medications will the nurse teach the patient about whose peptic ulcer disease is associated with *Helicobacter pylori*?

- a. Sucralfate (Carafate), nystatin (Mycostatin), and bismuth (Pepto-Bismol)
- b. Amoxicillin (Amoxil), clarithromycin (Biaxon), and omeprazole (Prilosec)

- c. Famotidine (Pepcid), magnesium hydroxide (Mylanta), and pantoprazole (Protonix)
- d. Metoclopramide (Reglan), bethanechol (Urecholine), and promethazine (Phenergan)

ANS: B

The drugs used in triple drug therapy include a proton pump inhibitor such as omeprazole and the antibiotics amoxicillin and clarithromycin. The other combinations listed are not included in the protocol for *H. pylori* infection.

18. Which action should the nurse in the emergency department anticipate for a 23-year-old patient who has had several episodes of bloody diarrhea?

- a. Obtain a stool specimen for culture.
- b. Administer antidiarrheal medication.
- c. Provide teaching about antibiotic therapy.
- d. Teach about adverse effects of acetaminophen (Tylenol).

ANS: A

Patients with bloody diarrhea should have a stool culture for *E. coli* O157:H7.

Antidiarrheal medications are usually avoided for possible infectious diarrhea to avoid prolonging the infection. Antibiotic therapy in the treatment of infectious diarrhea is controversial because it may precipitate kidney complications. Acetaminophen does not cause bloody diarrhea.

19. The nurse will anticipate preparing a 71-year-old female patient who is vomiting coffee-ground emesis for

- a. endoscopy.
- b. angiography.
- c. barium studies.

- d. gastric analysis.

ANS: A

Endoscopy is the primary tool for visualization and diagnosis of upper gastrointestinal (GI) bleeding. Angiography is used only when endoscopy cannot be done because it is more invasive and has more possible complications. Barium studies are helpful in determining the presence of gastric lesions, but not whether the lesions are actively bleeding. Gastric analysis testing may help with determining the cause of gastric irritation, but it is not used for acute GI bleeding.

20. A 57-year-old man with *Escherichia coli* O157:H7 food poisoning is admitted to the hospital with bloody diarrhea and dehydration. Which order will the nurse question?

- a. Infuse lactated Ringers solution at 250 mL/hr.
- b. Monitor blood urea nitrogen and creatinine daily.
- c. Administer loperamide (Imodium) after each stool.
- d. Provide a clear liquid diet and progress diet as tolerated.

ANS: C

Use of antidiarrheal agents is avoided with this type of food poisoning. The other orders are appropriate.

21. Which information will the nurse include when teaching a patient with peptic ulcer disease about the effect of ranitidine (Zantac)?

- a. Ranitidine absorbs the gastric acid.
- b. Ranitidine decreases gastric acid secretion.
- c. Ranitidine constricts the blood vessels near the ulcer.
- d. Ranitidine covers the ulcer with a protective material.

ANS: B

Ranitidine is a histamine-2 (H_2) receptor blocker, which decreases the secretion of gastric acid. The response beginning, Ranitidine constricts the blood vessels describes the effect of vasopressin. The response Ranitidine absorbs the gastric acid describes the effect of antacids. The response beginning Ranitidine covers the ulcer describes the action of sucralfate (Carafate).

22. A family member of a 28-year-old patient who has suffered massive abdominal trauma in an automobile accident asks the nurse why the patient is receiving famotidine (Pepcid). The nurse will explain that the medication will

- a. decrease nausea and vomiting.
- b. inhibit development of stress ulcers.
- c. lower the risk for *H. pylori* infection.
- d. prevent aspiration of gastric contents.

ANS: B

Famotidine is administered to prevent the development of physiologic stress ulcers, which are associated with a major physiologic insult such as massive trauma. Famotidine does not decrease nausea or vomiting, prevent aspiration, or prevent *H. pylori* infection.

23. A 68-year-old patient with a bleeding duodenal ulcer has a nasogastric (NG) tube in place, and the health care provider orders 30 mL of aluminum hydroxide/magnesium hydroxide (Maalox) to be instilled through the tube every hour. To evaluate the effectiveness of this treatment, the nurse

- a. monitors arterial blood gas values daily.
- b. periodically aspirates and tests gastric pH.
- c. checks each stool for the presence of occult blood.
- d. measures the volume of residual stomach contents.

ANS: B

The purpose for antacids is to increase gastric pH. Checking gastric pH is the most direct way of evaluating the effectiveness of the medication. Arterial blood gases may change slightly, but this does not directly reflect the effect of antacids on gastric pH. Because the patient has upper gastrointestinal (GI) bleeding, occult blood in the stools will appear even after the acute bleeding has stopped. The amount of residual stomach contents is not a reflection of resolution of bleeding or of gastric pH.

24. A 44-year-old man admitted with a peptic ulcer has a nasogastric (NG) tube in place. When the patient develops sudden, severe upper abdominal pain, diaphoresis, and a firm abdomen, which action should the nurse take?

- a. Irrigate the NG tube.
- b. Check the vital signs.
- c. Give the ordered antacid.
- d. Elevate the foot of the bed.

ANS: B

The patient's symptoms suggest acute perforation, and the nurse should assess for signs of hypovolemic shock. Irrigation of the NG tube, administration of antacids, or both would be contraindicated because any material in the stomach will increase the spillage into the peritoneal cavity. Elevating the foot of the bed may increase abdominal pressure and discomfort, as well as making it more difficult for the patient to breathe.

25. A 50-year-old patient who underwent a gastroduodenostomy (Billroth I) earlier today complains of increasing abdominal pain. The patient has no bowel sounds and 200 mL of bright red nasogastric (NG) drainage in the last hour. The **highest** priority action by the nurse is to

- a. contact the surgeon.
- b. irrigate the NG tube.

- c. monitor the NG drainage.
- d. administer the prescribed morphine.

ANS: A

Increased pain and 200 mL of bright red NG drainage 12 hours after surgery indicate possible postoperative hemorrhage, and immediate actions such as blood transfusion and/or return to surgery are needed. Because the NG is draining, there is no indication that irrigation is needed. Continuing to monitor the NG drainage is not an adequate response. The patient may need morphine, but this is not the highest priority action.

26. Which patient statement indicates that the nurses teaching following a gastroduodenostomy has been effective?

- a. Vitamin supplements may prevent anemia.
- b. Persistent heartburn is common after surgery.
- c. I will try to drink more liquids with my meals.
- d. I will need to choose high carbohydrate foods.

ANS: A

Cobalamin deficiency may occur after partial gastrectomy, and the patient may need to receive cobalamin via injections or nasal spray. Although peptic ulcer disease may recur, persistent heartburn is not expected after surgery and the patient should call the health care provider if this occurs. Ingestion of liquids with meals is avoided to prevent dumping syndrome. Foods that have moderate fat and low carbohydrate should be chosen to prevent dumping syndrome.

27. At his first postoperative checkup appointment after a gastrojejunostomy (Billroth II), a patient reports that dizziness, weakness, and palpitations occur about 20 minutes after each meal. The nurse will teach the patient to

- a. increase the amount of fluid with meals.

- b. eat foods that are higher in carbohydrates.
- c. lie down for about 30 minutes after eating.
- d. drink sugared fluids or eat candy after meals.

ANS: C

The patient is experiencing symptoms of dumping syndrome, which may be reduced by lying down after eating. Increasing fluid intake and choosing high carbohydrate foods will increase the risk for dumping syndrome. Having a sweet drink or hard candy will correct the hypoglycemia that is associated with dumping syndrome but will not prevent dumping syndrome.

28. A 62-year-old man patient who requires daily use of a nonsteroidal antiinflammatory drug (NSAID) for the management of severe rheumatoid arthritis has recently developed melena. The nurse will anticipate teaching the patient about

- a. substitution of acetaminophen (Tylenol) for the NSAID.
- b. use of enteric-coated NSAIDs to reduce gastric irritation.
- c. reasons for using corticosteroids to treat the rheumatoid arthritis.
- d. misoprostol (Cytotec) to protect the gastrointestinal (GI) mucosa.

ANS: D

Misoprostol, a prostaglandin analog, reduces acid secretion and the incidence of upper GI bleeding associated with NSAID use. Enteric coating of NSAIDs does not reduce the risk for GI bleeding. Corticosteroids increase the risk for ulcer development, and will not be substituted for NSAIDs for this patient. Acetaminophen will not be effective in treating the patients rheumatoid arthritis.

29. The health care provider prescribes antacids and sucralfate (Carafate) for treatment of a patients peptic ulcer. The nurse will teach the patient to take

- a. sucralfate at bedtime and antacids before each meal.

- b. sucralfate and antacids together 30 minutes before meals.
- c. antacids 30 minutes before each dose of sucralfate is taken.
- d. antacids after meals and sucralfate 30 minutes before meals.

ANS: D

Sucralfate is most effective when the pH is low and should not be given with or soon after

antacids. Antacids are most effective when taken after eating. Administration of sucralfate 30

minutes before eating and antacids just after eating will ensure that both drugs can be most effective. The other regimens will decrease the effectiveness of the medications.

30. Which information about dietary management should the nurse include when teaching a patient with peptic ulcer disease (PUD)?

- a. You will need to remain on a bland diet.
- b. Avoid foods that cause pain after you eat them.
- c. High-protein foods are least likely to cause you pain.
- d. You should avoid eating any raw fruits and vegetables.

ANS: B

The best information is that each individual should choose foods that are not associated with postprandial discomfort. Raw fruits and vegetables may irritate the gastric mucosa, but chewing well seems to decrease this problem and some patients may tolerate these foods well. High-protein foods help neutralize acid, but they also stimulate hydrochloric (HCl) acid secretion and may increase discomfort for some patients. Bland diets may be recommended during an acute exacerbation of PUD, but there is little scientific evidence to support their use.

31. A 73-year-old patient is diagnosed with stomach cancer after an unintended 20-pound weight loss. Which nursing action will be included in the plan of care?

- a. Refer the patient for hospice services.
- b. Infuse IV fluids through a central line.
- c. Teach the patient about antiemetic therapy.
- d. Offer supplemental feedings between meals.

ANS: D

The patient data indicate a poor nutritional state and improvement in nutrition will be helpful in improving the response to therapies such as surgery, chemotherapy, or radiation. Nausea and vomiting are not common clinical manifestations of stomach cancer. There is no indication that the patient requires hospice or IV fluid infusions.

32. A 26-year-old patient with a family history of stomach cancer asks the nurse about ways to decrease the risk for developing stomach cancer. The nurse will teach the patient to avoid

- a. emotionally stressful situations.
- b. smoked foods such as ham and bacon.
- c. foods that cause distention or bloating.
- d. chronic use of H₂ blocking medications.

ANS: B

Smoked foods such as bacon, ham, and smoked sausage increase the risk for stomach cancer. Stressful situations, abdominal distention, and use of H₂ blockers are not associated with an increased incidence of stomach cancer.

33. The nurse is assessing a patient who had a total gastrectomy 8 hours ago. What information is **most** important to report to the health care provider?

- a. Absent bowel sounds
- b. Complaints of incisional pain
- c. Temperature 102.1 F (38.9 C)
- d. Scant nasogastric (NG) tube drainage

ANS: C

An elevation in temperature may indicate leakage at the anastomosis, which may require return to surgery or keeping the patient NPO. The other findings are expected in the immediate postoperative period for patients who have this surgery.

34. A 58-year-old patient has just been admitted to the emergency department with nausea and vomiting. Which information requires the **most** rapid intervention by the nurse?

- a. The patient has been vomiting for 4 days.
- b. The patient takes antacids 8 to 10 times a day.
- c. The patient is lethargic and difficult to arouse.
- d. The patient has undergone a small intestinal resection.

ANS: C

A lethargic patient is at risk for aspiration, and the nurse will need to position the patient to decrease aspiration risk. The other information is also important to collect, but it does not require as quick action as the risk for aspiration.

35. A 26-year-old woman has been admitted to the emergency department with nausea and vomiting. Which action could the RN delegate to unlicensed assistive personnel (UAP)?

- a. Auscultate the bowel sounds.
- b. Assess for signs of dehydration.
- c. Assist the patient with oral care.

- d. Ask the patient about the nausea.

ANS: C

Oral care is included in UAP education and scope of practice. The other actions are all assessments that require more education and a higher scope of nursing practice.

36. A 49-year-old man has been admitted with hypotension and dehydration after 3 days of nausea and vomiting. Which order from the health care provider will the nurse implement **first**?

- a. Insert a nasogastric (NG) tube.
- b. Infuse normal saline at 250 mL/hr.
- c. Administer IV ondansetron (Zofran).
- d. Provide oral care with moistened swabs.

ANS: B

Because the patient has severe dehydration, rehydration with IV fluids is the priority. The other orders should be accomplished as quickly as possible after the IV fluids are initiated.

37. Which patient should the nurse assess **first** after receiving change-of-shift report?

- a. A patient with nausea who has a dose of metoclopramide (Reglan) due
- b. A patient who is crying after receiving a diagnosis of esophageal cancer
- c. A patient with esophageal varices who has a blood pressure of 92/58 mm Hg
- d. A patient admitted yesterday with gastrointestinal (GI) bleeding who has melena

ANS: C

The patient's history and blood pressure indicate possible hemodynamic instability caused by GI bleeding. The data about the other patients do not indicate acutely life-threatening complications.

38. A patient returned from a laparoscopic Nissen fundoplication for hiatal hernia 4 hours ago. Which assessment finding is **most** important for the nurse to address immediately?

- a. The patient is experiencing intermittent waves of nausea.
- b. The patient complains of 7/10 (0 to 10 scale) abdominal pain.
- c. The patient has absent breath sounds in the left anterior chest.
- d. The patient has hypoactive bowel sounds in all four quadrants.

ANS: C

Decreased breath sounds on one side may indicate a pneumothorax, which requires rapid diagnosis and treatment. The nausea and abdominal pain should also be addressed but they are not as high priority as the patient's respiratory status. The patient's decreased bowel sounds are expected after surgery and require ongoing monitoring but no other action.

39. Which assessment should the nurse perform **first** for a patient who just vomited bright red blood?

- a. Measuring the quantity of emesis
- b. Palpating the abdomen for distention
- c. Auscultating the chest for breath sounds
- d. Taking the blood pressure (BP) and pulse

ANS: D

The nurse is concerned about blood loss and possible hypovolemic shock in a patient with acute gastrointestinal (GI) bleeding. BP and pulse are the best indicators of these

complications. The other information is important to obtain, but BP and pulse rate are the best indicators for assessing intravascular volume.

40. Which order from the health care provider will the nurse implement **first** for a patient who has vomited 1200 mL of blood?

- a. Give an IV H₂ receptor antagonist.
- b. Draw blood for typing and crossmatching.
- c. Administer 1000 mL of lactated Ringers solution.
- d. Insert a nasogastric (NG) tube and connect to suction.

ANS: C

Because the patient has vomited a large amount of blood, correction of hypovolemia and prevention of hypovolemic shock are the priorities. The other actions also are important to implement quickly but are not the highest priorities.

41. The nurse is administering IV fluid boluses and nasogastric irrigation to a patient with acute gastrointestinal (GI) bleeding. Which assessment finding is **most** important for the nurse to communicate to the health care provider?

- a. The bowel sounds are hyperactive in all four quadrants.
- b. The patients lungs have crackles audible to the midchest.
- c. The nasogastric (NG) suction is returning coffee-ground material.
- d. The patients blood pressure (BP) has increased to 142/84 mm Hg.

ANS: B

The patients lung sounds indicate that pulmonary edema may be developing as a result of the rapid infusion of IV fluid and that the fluid infusion rate should be slowed. The return of coffee-ground material in an NG tube is expected for a patient with upper GI bleeding. The BP is slightly elevated but would not be an indication to

contact the health care provider immediately. Hyperactive bowel sounds are common when a patient has GI bleeding.

42. After the nurse has completed teaching a patient with newly diagnosed eosinophilic esophagitis about the management of the disease, which patient action indicates that the teaching has been effective?

- a. Patient orders nonfat milk for each meal.
- b. Patient uses the prescribed corticosteroid inhaler.
- c. Patient schedules an appointment for allergy testing.
- d. Patient takes ibuprofen (Advil) to control throat pain.

ANS: C

Eosinophilic esophagitis is frequently associated with environmental allergens, so allergy testing is used to determine possible triggers. Corticosteroid therapy may be prescribed, but the medication will be swallowed, not inhaled. Milk is a frequent trigger for attacks. NSAIDs are not used for eosinophilic esophagitis.

43. An 80-year-old who is hospitalized with peptic ulcer disease develops new-onset auditory hallucinations. Which prescribed medication will the nurse discuss with the health care provider before administration?

- a. Sucralfate (Carafate)
- b. Omeprazole (Prilosec)
- c. Metoclopramide (Reglan)
- d. Aluminum hydroxide (Amphojel)

ANS: C

Metoclopramide can cause central nervous system (CNS) side effects ranging from anxiety to hallucinations. Hallucinations are not a side effect of proton-pump inhibitors, mucosal protectants, or antacids.

44. The nurse and a licensed practical/vocational nurse (LPN/LVN) are working together to care for a patient who had an esophagectomy 2 days ago. Which action by the LPN/LVN requires that the nurse intervene?

- a. The LPN/LVN uses soft swabs to provide for oral care.
- b. The LPN/LVN positions the head of the bed in the flat position.
- c. The LPN/LVN encourages the patient to use pain medications before coughing.
- d. The LPN/LVN includes the enteral feeding volume when calculating intake and output.

ANS: B

The patient's bed should be in Fowler's position to prevent reflux and aspiration of gastric contents. The other actions by the LPN/LVN are appropriate.

45. After change-of-shift report, which patient should the nurse assess **first**?

- a. 42-year-old who has acute gastritis and ongoing epigastric pain
- b. 70-year-old with a hiatal hernia who experiences frequent heartburn
- c. 53-year-old who has dumping syndrome after a recent partial gastrectomy
- d. 60-year-old with nausea and vomiting who has dry oral mucosa and lethargy

ANS: D

This older patient is at high risk for problems such as aspiration, dehydration, and fluid and electrolyte disturbances. The other patients will also need to be assessed, but the information about them indicates symptoms that are typical for their diagnoses and are not life threatening.

SHORT ANSWER

1. Vasopressin (Pitressin) 0.2 units/min infusion is prescribed for a patient with acute arterial gastrointestinal (GI) bleeding. The vasopressin label states vasopressin 100 units/250 mL normal saline. How many mL/hr will the nurse infuse?

ANS:

30

There are 0.4 units/1 mL. An infusion of 30 mL/hr will result in the patient receiving 0.2 units/min as prescribed.

REF: 955

OTHER

1. In which order will the nurse take the following actions when caring for a patient who develops watery diarrhea and a fever after prolonged omeprazole (Prilosec) therapy? (*Put a comma and a space between each answer choice [A, B, C, D].*)

- a. Contact the health care provider.
- b. Assess blood pressure and heart rate.
- c. Give the PRN acetaminophen (Tylenol).
- d. Place the patient on contact precautions.

ANS:

D, B, A, C

Proton pump inhibitors including omeprazole (Prilosec) may increase the risk of *Clostridium difficile* associated colitis. Because the patient's history and symptoms are consistent with *C. difficile* infection, the initial action should be initiation of infection control measures to protect other patients. Assessment of blood pressure and pulse is needed to determine whether the patient has symptoms of hypovolemia and/or shock. The health care provider should be notified so that actions such as obtaining stool

specimens and antibiotic therapy can be started. Tylenol may be administered, but is the lowest priority of the actions.

Chapter 27. Management: Lower Respiratory Problems

MULTIPLE CHOICE

1. Following assessment of a patient with pneumonia, the nurse identifies a nursing diagnosis of ineffective airway clearance. Which assessment data **best** supports this diagnosis?

- a. Weak, nonproductive cough effort
- b. Large amounts of greenish sputum
- c. Respiratory rate of 28 breaths/minute
- d. Resting pulse oximetry (SpO₂) of 85%

ANS: A

The weak, nonproductive cough indicates that the patient is unable to clear the airway effectively. The other data would be used to support diagnoses such as impaired gas exchange and ineffective breathing pattern.

2. The nurse assesses the chest of a patient with pneumococcal pneumonia. Which finding would the nurse expect?

- a. Increased tactile fremitus
- b. Dry, nonproductive cough
- c. Hyperresonance to percussion
- d. A grating sound on auscultation

ANS: A

Increased tactile fremitus over the area of pulmonary consolidation is expected with bacterial pneumonias. Dullness to percussion would be expected. Pneumococcal pneumonia typically presents with a loose, productive cough. Adventitious breath sounds such as crackles and wheezes are typical. A grating sound is more representative of a pleural friction rub rather than pneumonia.

3. A patient with bacterial pneumonia has rhonchi and thick sputum. What is the nurses **most** appropriate action to promote airway clearance?

- a. Assist the patient to splint the chest when coughing.
- b. Teach the patient about the need for fluid restrictions.
- c. Encourage the patient to wear the nasal oxygen cannula.
- d. Instruct the patient on the pursed lip breathing technique.

ANS: A

Coughing is less painful and more likely to be effective when the patient splints the chest during coughing. Fluids should be encouraged to help liquefy secretions. Nasal oxygen will improve gas exchange, but will not improve airway clearance. Pursed lip breathing is used to improve gas exchange in patients with COPD, but will not improve airway clearance.

4. The nurse provides discharge instructions to a patient who was hospitalized for pneumonia. Which statement, if made by the patient, indicates a good understanding of the instructions?

- a. I will call the doctor if I still feel tired after a week.
- b. I will continue to do the deep breathing and coughing exercises at home.
- c. I will schedule two appointments for the pneumonia and influenza vaccines.
- d. I'll cancel my chest x-ray appointment if I'm feeling better in a couple weeks.

ANS: B

Patients should continue to cough and deep breathe after discharge. Fatigue is expected for several weeks. The Pneumovax and influenza vaccines can be given at the same time in different arms. Explain that a follow-up chest x-ray needs to be done in 6 to 8 weeks to evaluate resolution of pneumonia.

5. The nurse develops a plan of care to prevent aspiration in a high-risk patient. Which nursing action will be **most** effective?

- a. Turn and reposition immobile patients at least every 2 hours.
- b. Place patients with altered consciousness in side-lying positions.
- c. Monitor for respiratory symptoms in patients who are immunosuppressed.
- d. Insert nasogastric tube for feedings for patients with swallowing problems.

ANS: B

The risk for aspiration is decreased when patients with a decreased level of consciousness are placed in a side-lying or upright position. Frequent turning prevents pooling of secretions in immobilized patients but will not decrease the risk for aspiration in patients at risk. Monitoring of parameters such as breath sounds and oxygen saturation will help detect pneumonia in immunocompromised patients, but it will not decrease the risk for aspiration. Conditions that increase the risk of aspiration include decreased level of consciousness (e.g., seizure, anesthesia, head injury, stroke, alcohol intake), difficulty swallowing, and nasogastric intubation with or without tube feeding. With loss of consciousness, the gag and cough reflexes are depressed, and aspiration is more likely to occur. Other high-risk groups are those who are seriously ill, have poor dentition, or are receiving acid-reducing medications.

6. A patient with right lower-lobe pneumonia has been treated with IV antibiotics for 3 days. Which assessment data obtained by the nurse indicates that the treatment has been effective?

- a. Bronchial breath sounds are heard at the right base.

- b. The patient coughs up small amounts of green mucus.
- c. The patient's white blood cell (WBC) count is 9000/L.
- d. Increased tactile fremitus is palpable over the right chest.

ANS: C

The normal WBC count indicates that the antibiotics have been effective. All the other data suggest that a change in treatment is needed.

7. The health care provider writes an order for bacteriologic testing for a patient who has a positive tuberculosis skin test. Which action should the nurse take?

- a. Teach about the reason for the blood tests.
- b. Schedule an appointment for a chest x-ray.
- c. Teach about the need to get sputum specimens for 2 to 3 consecutive days.
- d. Instruct the patient to expectorate three specimens as soon as possible.

ANS: C

Sputum specimens are obtained on 2 to 3 consecutive days for bacteriologic testing for *M. tuberculosis*. The patient should not provide all the specimens at once. Blood cultures are not used for tuberculosis testing. A chest x-ray is not bacteriologic testing. Although the findings on chest x-ray examination are important, it is not possible to make a diagnosis of TB solely based on chest x-ray findings because other diseases can mimic the appearance of TB.

8. A patient is admitted with active tuberculosis (TB). The nurse should question a health care provider's order to discontinue airborne precautions unless which assessment finding is documented?

- a. Chest x-ray shows no upper lobe infiltrates.
- b. TB medications have been taken for 6 months.

- c. Mantoux testing shows an induration of 10 mm.
- d. Three sputum smears for acid-fast bacilli are negative.

ANS: D

Negative sputum smears indicate that *Mycobacterium tuberculosis* is not present in the sputum, and the patient cannot transmit the bacteria by the airborne route. Chest x-rays are not used to determine whether treatment has been successful. Taking medications for 6 months is necessary, but the multidrug-resistant forms of the disease might not be eradicated after 6 months of therapy. Repeat Mantoux testing would not be done because the result will not change even with effective treatment.

9. The nurse teaches a patient about the transmission of pulmonary tuberculosis (TB). Which statement, if made by the patient, indicates that teaching was effective?

- a. I will avoid being outdoors whenever possible.
- b. My husband will be sleeping in the guest bedroom.
- c. I will take the bus instead of driving to visit my friends.
- d. I will keep the windows closed at home to contain the germs.

ANS: B

Teach the patient how to minimize exposure to close contacts and household members. Homes should be well ventilated, especially the areas where the infected person spends a lot of time. While still infectious, the patient should sleep alone, spend as much time as possible outdoors, and minimize time in congregate settings or on public transportation.

10. A patient who is taking rifampin (Rifadin) for tuberculosis calls the clinic and reports having orange discolored urine and tears. Which is the **best** response by the nurse?

- a. Ask if the patient is experiencing shortness of breath, hives, or itching.

- b. Ask the patient about any visual abnormalities such as red-green color discrimination.
- c. Explain that orange discolored urine and tears are normal while taking this medication.
- d. Advise the patient to stop the drug and report the symptoms to the health care provider.

ANS: C

Orange-colored body secretions are a side effect of rifampin. The patient does not have to stop taking the medication. The findings are not indicative of an allergic reaction. Alterations in red-green color discrimination commonly occurs when taking ethambutol (Myambutol), which is a different TB medication.

11. An older patient is receiving standard multidrug therapy for tuberculosis (TB). The nurse should notify the health care provider if the patient exhibits which finding?

- a. Yellow-tinged skin
- b. Orange-colored sputum
- c. Thickening of the fingernails
- d. Difficulty hearing high-pitched voices

ANS: A

Noninfectious hepatitis is a toxic effect of isoniazid (INH), rifampin, and pyrazinamide, and patients who develop hepatotoxicity will need to use other medications. Changes in hearing and nail thickening are not expected with the four medications used for initial TB drug therapy. Presbycusis is an expected finding in the older adult patient. Orange discoloration of body fluids is an expected side effect of rifampin and not an indication to call the health care provider.

12. An alcoholic and homeless patient is diagnosed with active tuberculosis (TB). Which intervention by the nurse will be **most** effective in ensuring adherence with the treatment regimen?

- a. Arrange for a friend to administer the medication on schedule.
- b. Give the patient written instructions about how to take the medications.
- c. Teach the patient about the high risk for infecting others unless treatment is followed.
- d. Arrange for a daily noon meal at a community center where the drug will be administered.

ANS: D

Directly observed therapy is the most effective means for ensuring compliance with the treatment regimen, and arranging a daily meal will help ensure that the patient is available to receive the medication. The other nursing interventions may be appropriate for some patients but are not likely to be as helpful for this patient.

13. After 2 months of tuberculosis (TB) treatment with isoniazid (INH), rifampin (Rifadin), pyrazinamide (PZA), and ethambutol, a patient continues to have positive sputum smears for acid-fast bacilli (AFB). Which action should the nurse take **next**?

- a. Teach about treatment for drug-resistant TB treatment.
- b. Ask the patient whether medications have been taken as directed.
- c. Schedule the patient for directly observed therapy three times weekly.
- d. Discuss with the health care provider the need for the patient to use an injectable antibiotic.

ANS: B

The first action should be to determine whether the patient has been compliant with drug therapy because negative sputum smears would be expected if the TB bacillus is susceptible to the medications and if the medications have been taken correctly.

Assessment is the first step in the nursing process. Depending on whether the patient has been compliant or not, different medications or directly observed therapy may be indicated. The other options are interventions based on assumptions until an assessment has been completed.

14. Employee health test results reveal a tuberculosis (TB) skin test of 16-mm induration and a negative chest x-ray for a staff nurse working on the pulmonary unit. The nurse has no symptoms of TB. Which information should the occupational health nurse plan to teach the staff nurse?

- a. Standard four-drug therapy for TB
- b. Need for annual repeat TB skin testing
- c. Use and side effects of isoniazid (INH)
- d. Bacille Calmette-Gurin (BCG) vaccine

ANS: C

The nurse is considered to have a latent TB infection and should be treated with INH daily for 6 to 9 months. The four-drug therapy would be appropriate if the nurse had active TB. TB skin testing is not done for individuals who have already had a positive skin test. BCG vaccine is not used in the United States for TB and would not be helpful for this individual, who already has a TB infection.

15. When caring for a patient who is hospitalized with active tuberculosis (TB), the nurse observes a student nurse who is assigned to take care of a patient. Which action, if performed by the student nurse, would require an intervention by the nurse?

- a. The patient is offered a tissue from the box at the bedside.
- b. A surgical face mask is applied before visiting the patient.
- c. A snack is brought to the patient from the unit refrigerator.
- d. Hand washing is performed before entering the patients room.

ANS: B

A high-efficiency particulate-absorbing (HEPA) mask, rather than a standard surgical mask, should be used when entering the patients room because the HEPA mask can filter out 100% of small airborne particles. Hand washing before entering the patients room is appropriate. Because anorexia and weight loss are frequent problems in

patients with TB, bringing food to the patient is appropriate. The student nurse should perform hand washing after handling a tissue that the patient has used, but no precautions are necessary when giving the patient an unused tissue.

16. An occupational health nurse works at a manufacturing plant where there is potential exposure to inhaled dust. Which action, if recommended by the nurse, will be **most** helpful in reducing the incidence of lung disease?

- a. Treat workers with pulmonary fibrosis.
- b. Teach about symptoms of lung disease.
- c. Require the use of protective equipment.
- d. Monitor workers for coughing and wheezing.

ANS: C

Prevention of lung disease requires the use of appropriate protective equipment such as masks. The other actions will help in recognition or early treatment of lung disease but will not be effective in prevention of lung damage. Repeated exposure eventually results in diffuse pulmonary fibrosis. Fibrosis is the result of tissue repair after inflammation.

17. The clinic nurse teaches a patient with a 42 pack-year history of cigarette smoking about lung disease. Which information will be **most** important for the nurse to include?

- a. Options for smoking cessation
- b. Reasons for annual sputum cytology testing
- c. Erlotinib (Tarceva) therapy to prevent tumor risk
- d. Computed tomography (CT) screening for lung cancer

ANS: A

Because smoking is the major cause of lung cancer, the most important role for the nurse is teaching patients about the benefits of and means of smoking cessation. CT scanning is currently being investigated as a screening test for high-risk patients. However, if there is a positive finding, the person already has lung cancer. Erlotinib may be used in patients who have lung cancer, but it is not used to reduce the risk of developing cancer.

18. A lobectomy is scheduled for a patient with stage I nonsmall cell lung cancer. The patient tells the nurse, I would rather have chemotherapy than surgery. Which response by the nurse is **most** appropriate?

- a. Are you afraid that the surgery will be very painful?
- b. Did you have bad experiences with previous surgeries?
- c. Surgery is the treatment of choice for stage I lung cancer.
- d. Tell me what you know about the various treatments available.

ANS: D

More assessment of the patients concerns about surgery is indicated. An open-ended response will elicit the most information from the patient. The answer beginning, Surgery is the treatment of choice is accurate, but it discourages the patient from sharing concerns about surgery. The remaining two answers indicate that the nurse has jumped to conclusions about the patients reasons for not wanting surgery. Chemotherapy is the primary treatment for small cell lung cancer. In nonsmall cell lung cancer, chemotherapy may be used in the treatment of nonresectable tumors or as adjuvant therapy to surgery.

19. An hour after a thoracotomy, a patient complains of incisional pain at a level 7 (based on 0 to 10 scale) and has decreased left-sided breath sounds. The pleural drainage system has 100 mL of bloody drainage and a large air leak. Which action is best for the nurse to take **next**?

- a. Milk the chest tube gently to remove any clots.

- b. Clamp the chest tube momentarily to check for the origin of the air leak.
- c. Assist the patient to deep breathe, cough, and use the incentive spirometer.
- d. Set up the patient controlled analgesia (PCA) and administer the loading dose of morphine.

ANS: D

The patient is unlikely to take deep breaths or cough until the pain level is lower. A chest tube output of 100 mL is not unusual in the first hour after thoracotomy and would not require milking of the chest tube. An air leak is expected in the initial postoperative period after thoracotomy.

20. A patient with newly diagnosed lung cancer tells the nurse, I dont think Im going to live to see my next birthday. Which response by the nurse is **best**?

- a. Would you like to talk to the hospital chaplain about your feelings?
- b. Can you tell me what it is that makes you think you will die so soon?
- c. Are you afraid that the treatment for your cancer will not be effective?
- d. Do you think that taking an antidepressant medication would be helpful?

ANS: B

The nurses initial response should be to collect more assessment data about the patients statement. The answer beginning Can you tell me what it is is the most open-ended question and will offer the best opportunity for obtaining more data. The answer beginning, Are you afraid implies that the patient thinks that the cancer will be immediately fatal, although the patients statement may not be related to the cancer diagnosis. The remaining two answers offer interventions that may be helpful to the patient, but more assessment is needed to determine whether these interventions are appropriate.

21. The nurse monitors a patient after chest tube placement for a hemopneumothorax. The nurse is **most** concerned if which assessment finding is observed?

- a. A large air leak in the water-seal chamber
- b. 400 mL of blood in the collection chamber
- c. Complaint of pain with each deep inspiration
- d. Subcutaneous emphysema at the insertion site

ANS: B

The large amount of blood may indicate that the patient is in danger of developing hypovolemic shock. An air leak would be expected immediately after chest tube placement for a pneumothorax. Initially, brisk bubbling of air occurs in this chamber when a pneumothorax is evacuated. The pain should be treated but is not as urgent a concern as the possibility of continued hemorrhage. Subcutaneous emphysema should be monitored but is not unusual in a patient with pneumothorax. A small amount of subcutaneous air is harmless and will be reabsorbed.

22. A patient experiences a chest wall contusion as a result of being struck in the chest with a baseball bat. The emergency department nurse would be **most** concerned if which finding is observed during the initial assessment?

- a. Paradoxical chest movement
- b. Complaint of chest wall pain
- c. Heart rate of 110 beats/minute
- d. Large bruised area on the chest

ANS: A

Paradoxical chest movement indicates that the patient may have flail chest, which can severely compromise gas exchange and can rapidly lead to hypoxemia. Chest wall pain, a slightly elevated pulse rate, and chest bruising all require further assessment or intervention, but the priority concern is poor gas exchange.

23. When assessing a patient who has just arrived after an automobile accident, the emergency department nurse notes tachycardia and absent breath sounds over the right lung. For which intervention will the nurse prepare the patient?

- a. Emergency pericardiocentesis
- b. Stabilization of the chest wall with tape
- c. Administration of an inhaled bronchodilator
- d. Insertion of a chest tube with a chest drainage system

ANS: D

The patient's history and absent breath sounds suggest a right-sided pneumothorax or hemothorax, which will require treatment with a chest tube and drainage. The other therapies would be appropriate for an acute asthma attack, flail chest, or cardiac tamponade, but the patient's clinical manifestations are not consistent with these problems.

24. A patient who has a right-sided chest tube following a thoracotomy has continuous bubbling in the suction-control chamber of the collection device. Which action by the nurse is **most** appropriate?

- a. Document the presence of a large air leak.
- b. Notify the surgeon of a possible pneumothorax.
- c. Take no further action with the collection device.
- d. Adjust the dial on the wall regulator to decrease suction.

ANS: C

Continuous bubbling is expected in the suction-control chamber and indicates that the suction-control chamber is connected to suction. An air leak would be detected in the water-seal chamber. There is no evidence of pneumothorax. Increasing or decreasing the vacuum source will not adjust the suction pressure. The amount of suction applied

is regulated by the amount of water in this chamber and not by the amount of suction applied to the system.

25. The nurse provides preoperative instruction for a patient scheduled for a left pneumonectomy for cancer of the lung. Which information should the nurse include about the patients postoperative care?

- a. Positioning on the right side
- b. Bed rest for the first 24 hours
- c. Frequent use of an incentive spirometer
- d. Chest tube placement with continuous drainage

ANS: C

Frequent deep breathing and coughing are needed after chest surgery to prevent atelectasis. To promote gas exchange, patients after pneumonectomy are positioned on the surgical side. Early mobilization decreases the risk for postoperative complications such as pneumonia and deep vein thrombosis. In a pneumonectomy, chest tubes may or may not be placed in the space from which the lung was removed. If a chest tube is used, it is clamped and only released by the surgeon to adjust the volume of serosanguineous fluid that will fill the space vacated by the lung. If the cavity overfills, it could compress the remaining lung and compromise the cardiovascular and pulmonary function. Daily chest x-rays can be used to assess the volume and space.

26. The nurse administers prescribed therapies for a patient with cor pulmonale and right-sided heart failure. Which assessment would **best** evaluate the effectiveness of the therapies?

- a. Observe for distended neck veins.
- b. Auscultate for crackles in the lungs.
- c. Palpate for heaves or thrills over the heart.
- d. Review hemoglobin and hematocrit values.

ANS: A

Cor pulmonale is right ventricular failure caused by pulmonary hypertension, so clinical manifestations of right ventricular failure such as peripheral edema, jugular venous distention, and right upper-quadrant abdominal tenderness would be expected. Crackles in the lungs are likely to be heard with left-sided heart failure. Findings in cor pulmonale include evidence of right ventricular hypertrophy on electrocardiogram (ECG) and an increase in intensity of the second heart sound. Heaves or thrills are not common with cor pulmonale. Chronic hypoxemia leads to polycythemia and increased total blood volume and viscosity of the blood. The hemoglobin and hematocrit values are more likely to be elevated with cor pulmonale than decreased.

27. A patient with idiopathic pulmonary arterial hypertension (IPAH) is receiving nifedipine (Procardia). Which assessment would **best** indicate to the nurse that the patient's condition is improving?

- a. Blood pressure (BP) is less than 140/90 mm Hg.
- b. Patient reports decreased exertional dyspnea.
- c. Heart rate is between 60 and 100 beats/minute.
- d. Patient's chest x-ray indicates clear lung fields.

ANS: B

Because a major symptom of IPAH is exertional dyspnea, an improvement in this symptom would indicate that the medication was effective. Nifedipine will affect BP and heart rate, but these parameters would not be used to monitor the effectiveness of therapy for a patient with IPAH. The chest x-ray will show clear lung fields even if the therapy is not effective.

28. A patient with a pleural effusion is scheduled for a thoracentesis. Which action should the nurse take to prepare the patient for the procedure?

- a. Start a peripheral IV line to administer the necessary sedative drugs.

- b. Position the patient sitting upright on the edge of the bed and leaning forward.
- c. Obtain a large collection device to hold 2 to 3 liters of pleural fluid at one time.
- d. Remove the water pitcher and remind the patient not to eat or drink anything for 6 hours.

ANS: B

When the patient is sitting up, fluid accumulates in the pleural space at the lung bases and can more easily be located and removed. The patient does not usually require sedation for the procedure, and there are no restrictions on oral intake because the patient is not sedated or unconscious. Usually only 1000 to 1200 mL of pleural fluid is removed at one time. Rapid removal of a large volume can result in hypotension, hypoxemia, or pulmonary edema.

29. The nurse completes discharge teaching for a patient who has had a lung transplant. The nurse evaluates that the teaching has been effective if the patient makes which statement?

- a. I will make an appointment to see the doctor every year.
- b. I will stop taking the prednisone if I experience a dry cough.
- c. I will not worry if I feel a little short of breath with exercise.
- d. I will call the health care provider right away if I develop a fever.

ANS: D

Low-grade fever may indicate infection or acute rejection so the patient should notify the health care provider immediately if the temperature is elevated. Patients require frequent follow-up visits with the transplant team. Annual health care provider visits would not be sufficient. Home oxygen use is not an expectation after lung transplant. Shortness of breath should be reported. Low-grade fever, fatigue, dyspnea, dry cough, and oxygen desaturation are signs of rejection. Immunosuppressive therapy, including prednisone, needs to be continued to prevent rejection.

30. A patient has just been admitted with probable bacterial pneumonia and sepsis. Which order should the nurse implement **first**?

- a. Chest x-ray via stretcher
- b. Blood cultures from two sites
- c. Ciprofloxacin (Cipro) 400 mg IV
- d. Acetaminophen (Tylenol) rectal suppository

ANS: B

Initiating antibiotic therapy rapidly is essential, but it is important that the cultures be obtained before antibiotic administration. The chest x-ray and acetaminophen administration can be done last.

31. The nurse cares for a patient who has just had a thoracentesis. Which assessment information obtained by the nurse is a **priority** to communicate to the health care provider?

- a. Oxygen saturation is 88%.
- b. Blood pressure is 145/90 mm Hg.
- c. Respiratory rate is 22 breaths/minute when lying flat.
- d. Pain level is 5 (on 0 to 10 scale) with a deep breath.

ANS: A

Oxygen saturation would be expected to improve after a thoracentesis. A saturation of 88% indicates that a complication such as pneumothorax may be occurring. The other assessment data also indicate a need for ongoing assessment or intervention, but the low oxygen saturation is the priority.

32. A patient who has just been admitted with community-acquired pneumococcal pneumonia has a temperature of 101.6 F with a frequent cough and is complaining of severe pleuritic chest pain. Which prescribed medication should the nurse give **first**?

- a. Codeine
- b. Guaifenesin (Robitussin)
- c. Acetaminophen (Tylenol)
- d. Piperacillin/tazobactam (Zosyn)

ANS: D

Early initiation of antibiotic therapy has been demonstrated to reduce mortality. The other medications are also appropriate and should be given as soon as possible, but the priority is to start antibiotic therapy.

33. A patient is diagnosed with both human immunodeficiency virus (HIV) and active tuberculosis (TB) disease. Which information obtained by the nurse is **most** important to communicate to the health care provider?

- a. The Mantoux test had an induration of 7 mm.
- b. The chest-x-ray showed infiltrates in the lower lobes.
- c. The patient is being treated with antiretrovirals for HIV infection.
- d. The patient has a cough that is productive of blood-tinged mucus.

ANS: C

Drug interactions can occur between the antiretrovirals used to treat HIV infection and the medications used to treat TB. The other data are expected in a patient with HIV and TB.

34. A patient with pneumonia has a fever of 101.4 F (38.6 C), a nonproductive cough, and an oxygen saturation of 88%. The patient complains of weakness, fatigue, and needs assistance to get out of bed. Which nursing diagnosis should the nurse assign as the highest **priority**?

- a. Hyperthermia related to infectious illness
- b. Impaired transfer ability related to weakness

- c. Ineffective airway clearance related to thick secretions
- d. Impaired gas exchange related to respiratory congestion

ANS: D

All these nursing diagnoses are appropriate for the patient, but the patient's oxygen saturation indicates that all body tissues are at risk for hypoxia unless the gas exchange is improved.

35. The nurse supervises unlicensed assistive personnel (UAP) who are providing care for a patient with right lower lobe pneumonia. The nurse should intervene if which action by UAP is observed?

- a. UAP splint the patient's chest during coughing.
- b. UAP assist the patient to ambulate to the bathroom.
- c. UAP help the patient to a bedside chair for meals.
- d. UAP lower the head of the patient's bed to 15 degrees.

ANS: D

Positioning the patient with the head of the bed lowered will decrease ventilation. The other actions are appropriate for a patient with pneumonia.

36. A patient with a possible pulmonary embolism complains of chest pain and difficulty breathing. The nurse finds a heart rate of 142 beats/minute, blood pressure of 100/60 mmHg, and respirations of 42 breaths/minute. Which action should the nurse take **first**?

- a. Administer anticoagulant drug therapy.
- b. Notify the patient's health care provider.
- c. Prepare patient for a spiral computed tomography (CT).
- d. Elevate the head of the bed to a semi-Fowlers position.

ANS: D

The patient has symptoms consistent with a pulmonary embolism (PE). Elevating the head of the bed will improve ventilation and gas exchange. The other actions can be accomplished after the head is elevated (and oxygen is started). A spiral CT may be ordered by the health care provider to identify PE. Anticoagulants may be ordered after confirmation of the diagnosis of PE.

37. The nurse receives change-of-shift report on the following four patients. Which patient should the nurse assess **first**?

- a. A 23-year-old patient with cystic fibrosis who has pulmonary function testing scheduled
- b. A 46-year-old patient on bed rest who is complaining of sudden onset of shortness of breath
- c. A 77-year-old patient with tuberculosis (TB) who has four antitubercular medications due in 15 minutes
- d. A 35-year-old patient who was admitted the previous day with pneumonia and has a temperature of 100.2 F (37.8 C)

ANS: B

Patients on bed rest who are immobile are at high risk for deep vein thrombosis (DVT). Sudden onset of shortness of breath in a patient with a DVT suggests a pulmonary embolism and requires immediate assessment and action such as oxygen administration. The other patients should also be assessed as soon as possible, but there is no indication that they may need immediate action to prevent clinical deterioration.

38. The nurse is performing tuberculosis (TB) skin tests in a clinic that has many patients who have immigrated to the United States. Which question is **most** important for the nurse to ask before the skin test?

- a. Is there any family history of TB?

- b. How long have you lived in the United States?
- c. Do you take any over-the-counter (OTC) medications?
- d. Have you received the bacille Calmette-Gurin (BCG) vaccine for TB?

ANS: D

Patients who have received the BCG vaccine will have a positive Mantoux test. Another method for screening (such as a chest x-ray) will need to be used in determining whether the patient has a TB infection. The other information also may be valuable but is not as pertinent to the decision about doing TB skin testing.

39. A patient is admitted to the emergency department with an open stab wound to the left chest. What is the **first** action that the nurse should take?

- a. Position the patient so that the left chest is dependent.
- b. Tape a nonporous dressing on three sides over the chest wound.
- c. Cover the sucking chest wound firmly with an occlusive dressing.
- d. Keep the head of the patients bed at no more than 30 degrees elevation.

ANS: B

The dressing taped on three sides will allow air to escape when intrapleural pressure increases during expiration, but it will prevent air from moving into the pleural space during inspiration. Placing the patient on the left side or covering the chest wound with an occlusive dressing will allow trapped air in the pleural space and cause tension pneumothorax. The head of the bed should be elevated to 30 to 45 degrees to facilitate breathing.

40. The nurse notes that a patient has incisional pain, a poor cough effort, and scattered rhonchi after a thoracotomy. Which action should the nurse take **first**?

- a. Assist the patient to sit upright in a chair.
- b. Splint the patients chest during coughing.

- c. Medicate the patient with prescribed morphine.
- d. Observe the patient use the incentive spirometer.

ANS: C

A major reason for atelectasis and poor airway clearance in patients after chest surgery is incisional pain (which increases with deep breathing and coughing). The first action by the nurse should be to medicate the patient to minimize incisional pain. The other actions are all appropriate ways to improve airway clearance but should be done after the morphine is given.

41. The nurse is caring for a patient with idiopathic pulmonary arterial hypertension (IPAH) who is receiving epoprostenol (Flolan). Which assessment information requires the **most immediate** action by the nurse?

- a. The oxygen saturation is 94%.
- b. The blood pressure is 98/56 mm Hg.
- c. The patient's central IV line is disconnected.
- d. The international normalized ratio (INR) is prolonged.

ANS: C

The half-life of this drug is 6 minutes, so the nurse will need to restart the infusion as soon as possible to prevent rapid clinical deterioration. The other data also indicate a need for ongoing monitoring or intervention, but the priority action is to reconnect the infusion.

42. A patient who was admitted the previous day with pneumonia complains of a sharp pain of 7 (based on 0 to 10 scale) whenever I take a deep breath. Which action will the nurse take **next**?

- a. Auscultate breath sounds.
- b. Administer the PRN morphine.

- c. Have the patient cough forcefully.
- d. Notify the patients health care provider.

ANS: A

The patients statement indicates that pleurisy or a pleural effusion may have developed and the nurse will need to listen for a pleural friction rub and/or decreased breath sounds. Assessment should occur before administration of pain medications. The patient is unlikely to be able to cough forcefully until pain medication has been administered. The nurse will want to obtain more assessment data before calling the health care provider.

43. A patient has acute bronchitis with a nonproductive cough and wheezes. Which topic should the nurse plan to include in the teaching plan?

- a. Purpose of antibiotic therapy
- b. Ways to limit oral fluid intake
- c. Appropriate use of cough suppressants
- d. Safety concerns with home oxygen therapy

ANS: C

Cough suppressants are frequently prescribed for acute bronchitis. Because most acute bronchitis is viral in origin, antibiotics are not prescribed unless there are systemic symptoms. Fluid intake is encouraged. Home oxygen is not prescribed for acute bronchitis, although it may be used for chronic bronchitis.

44. Which action by the nurse will be **most** effective in decreasing the spread of pertussis in a community setting?

- a. Providing supportive care to patients diagnosed with pertussis
- b. Teaching family members about the need for careful hand washing
- c. Teaching patients about the need for adult pertussis immunizations

- d. Encouraging patients to complete the prescribed course of antibiotics

ANS: C

The increased rate of pertussis in adults is thought to be due to decreasing immunity after childhood immunization. Immunization is the most effective method of protecting communities from infectious diseases. Hand washing should be taught, but pertussis is spread by droplets and contact with secretions. Supportive care does not shorten the course of the disease or the risk for transmission. Taking antibiotics as prescribed does assist with decreased transmission, but patients are likely to have already transmitted the disease by the time the diagnosis is made.

45. An experienced nurse instructs a new nurse about how to care for a patient with dyspnea caused by a pulmonary fungal infection. Which action by the new nurse indicates a need for further teaching?

- a. Listening to the patients lung sounds several times during the shift
- b. Placing the patient on droplet precautions and in a private hospital room
- c. Increasing the oxygen flow rate to keep the oxygen saturation above 90%
- d. Monitoring patient serology results to identify the specific infecting organism

ANS: B

Fungal infections are not transmitted from person to person. Therefore no isolation procedures are necessary. The other actions by the new nurse are appropriate.

MULTIPLE CHOICE

1. The nurse is caring for a patient who is being discharged after an emergency splenectomy following an automobile accident. Which instructions should the nurse include in the discharge teaching?

- a. Watch for excess bruising.
- b. Check for swollen lymph nodes.
- c. Take iron supplements to prevent anemia.
- d. Wash hands and avoid persons who are ill.

ANS: D

Splenectomy increases the risk for infection, especially with gram-positive bacteria. The risks for lymphedema, bleeding, and anemia are not increased after a person has a splenectomy.

2. The nurse assesses a patient who has numerous petechiae on both arms. Which question should the nurse ask the patient?

- a. Do you take salicylates?
- b. Are you taking any oral contraceptives?
- c. Have you been prescribed antiseizure drugs?
- d. How long have you taken antihypertensive drugs?

ANS: A

Salicylates interfere with platelet function and can lead to petechiae and ecchymoses. Antiseizure drugs may cause anemia, but not clotting disorders or bleeding. Oral contraceptives increase a person's clotting risk. Antihypertensives do not usually cause problems with decreased clotting.

3. A nurse reviews the laboratory data for an older patient. The nurse would be **most** concerned about which finding?

- a. Hematocrit of 35%
- b. Hemoglobin of 11.8 g/dL
- c. Platelet count of 400,000/L
- d. White blood cell (WBC) count of 2800/L

ANS: D

Because the total WBC count is not usually affected by aging, the low WBC count in this patient would indicate that the patient's immune function may be compromised and the underlying cause of the problem needs to be investigated. The platelet count is normal. The slight decrease in hemoglobin and hematocrit are not unusual for an older patient.

4. A patient with pancytopenia has a bone marrow aspiration from the left posterior iliac crest. Which action would be important for the nurse to take after the procedure?

- a. Elevate the head of the bed to 45 degrees.
- b. Apply a sterile 2-inch gauze dressing to the site.
- c. Use a half-inch sterile gauze to pack the wound.
- d. Have the patient lie on the left side for 1 hour.

ANS: D

To decrease the risk for bleeding, the patient should lie on the left side for 30 to 60 minutes. After a bone marrow biopsy, the wound is small and will not be packed with gauze. A pressure dressing is used to cover the aspiration site. There is no indication to elevate the patient's head.

5. The nurse assesses a patient with pernicious anemia. Which assessment finding would the nurse expect?

- a. Yellow-tinged sclerae
- b. Shiny, smooth tongue

- c. Numbness of the extremities
- d. Gum bleeding and tenderness

ANS: C

Extremity numbness is associated with cobalamin (vitamin B₁₂) deficiency or pernicious anemia. Loss of the papillae of the tongue occurs with chronic iron deficiency. Yellow-tinged sclera is associated with hemolytic anemia and the resulting jaundice. Gum bleeding and tenderness occur with thrombocytopenia or neutropenia.

6. A patient's complete blood count (CBC) shows a hemoglobin of 19 g/dL and a hematocrit of 54%. Which question should the nurse ask to determine possible causes of this finding?

- a. Have you had a recent weight loss?
- b. Do you have any history of lung disease?
- c. Have you noticed any dark or bloody stools?
- d. What is your dietary intake of meats and protein?

ANS: B

The hemoglobin and hematocrit results indicate polycythemia, which can be associated with chronic obstructive pulmonary disease (COPD). The other questions would be appropriate for patients who are anemic.

7. The nurse is reviewing laboratory results and notes an aPTT level of 28 seconds. The nurse should notify the health care provider in anticipation of adjusting which medication?

- a. Aspirin
- b. Heparin
- c. Warfarin
- d. Erythropoietin

ANS: B

Activated partial thromboplastin time (aPTT) assesses intrinsic coagulation by measuring factors I, II, V, VIII, IX, X, XI, XII. aPTT is increased (prolonged) in heparin administration.

aPTT is used to monitor whether heparin is at a therapeutic level (needs to be greater than the normal range of 25 to 35 sec). Prothrombin time (PT) and international normalized ratio (INR) are most commonly used to test for therapeutic levels of warfarin (Coumadin). Aspirin affects platelet function. Erythropoietin is used to stimulate red blood cell production.

8. When assessing a newly admitted patient, the nurse notes pallor of the skin and nail beds. The nurse should ensure that which laboratory test has been ordered?

- a. Platelet count
- b. Neutrophil count
- c. White blood cell count
- d. Hemoglobin (Hgb) level

ANS: D

Pallor of the skin or nail beds is indicative of anemia, which would be indicated by a low Hgb level. Platelet counts indicate a person's clotting ability. A neutrophil is a type of white blood cell that helps to fight infection.

9. The nurse examines the lymph nodes of a patient during a physical assessment. Which assessment finding would be of **most** concern to the nurse?

- a. A 2-cm nontender supraclavicular node
- b. A 1-cm mobile and nontender axillary node
- c. An inability to palpate any superficial lymph nodes
- d. Firm inguinal nodes in a patient with an infected foot

ANS: A

Enlarged and nontender nodes are suggestive of malignancies such as lymphoma. Firm nodes are an expected finding in an area of infection. The superficial lymph nodes are usually not palpable in adults, but if they are palpable, they are normally 0.5 to 1 cm and nontender.

10. A patient who had a total hip replacement had an intraoperative hemorrhage 14 hours ago. Which laboratory result would the nurse expect to find?

- a. Hematocrit of 46%
- b. Hemoglobin of 13.8 g/dL
- c. Elevated reticulocyte count
- d. Decreased white blood cell (WBC) count

ANS: C

Hemorrhage causes the release of reticulocytes (immature red blood cells) from the bone marrow into circulation. The hematocrit and hemoglobin levels are normal. The WBC count is not affected by bleeding.

11. The complete blood count (CBC) indicates that a patient is thrombocytopenic. Which action should the nurse include in the plan of care?

- a. Avoid intramuscular injections.
- b. Encourage increased oral fluids.
- c. Check temperature every 4 hours.
- d. Increase intake of iron-rich foods.

ANS: A

Thrombocytopenia is a decreased number of platelets, which places the patient at high risk for bleeding. Neutropenic patients are at high risk for infection and sepsis and

should be monitored frequently for signs of infection. Encouraging fluid intake and iron-rich food intake is not indicated in a patient with thrombocytopenia.

12. The health care providers progress note for a patient states that the complete blood count (CBC) shows a shift to the left. Which assessment finding will the nurse expect?

- a. Cool extremities
- b. Pallor and weakness
- c. Elevated temperature
- d. Low oxygen saturation

ANS: C

The term *shift to the left* indicates that the number of immature polymorphonuclear neutrophils (bands) is elevated and that finding is a sign of infection. There is no indication that the patient is at risk for hypoxemia, pallor/weakness, or cool extremities.

13. The health care provider orders a liver/spleen scan for a patient who has been in a motor vehicle accident. Which action should the nurse take before this procedure?

- a. Check for any iodine allergy.
- b. Insert a large-bore IV catheter.
- c. Place the patient on NPO status.
- d. Assist the patient to a flat position.

ANS: D

During a liver/spleen scan, a radioactive isotope is injected IV and images from the radioactive emission are used to evaluate the structure of the spleen and liver. An indwelling IV catheter is not needed. The patient is placed in a flat position before the scan.

14. A patient with pancytopenia of unknown origin is scheduled for the following diagnostic tests. The nurse will provide a consent form to sign for which test?

- a. ABO blood typing
- b. Bone marrow biopsy
- c. Abdominal ultrasound
- d. Complete blood count (CBC)

ANS: B

A bone marrow biopsy is a minor surgical procedure that requires the patient or guardian to sign a surgical consent form. The other procedures do not require a signed consent by the patient or guardian.

15. The nurse reviews the complete blood count (CBC) and white blood cell (WBC) differential of a patient admitted with abdominal pain. Which information will be **most** important for the nurse to communicate to the health care provider?

- a. Monocytes 4%
- b. Hemoglobin 13.6 g/dL
- c. Platelet count 168,000/L
- d. White blood cells (WBCs) 15,500/L

ANS: D

The elevation in WBCs indicates that the patient has an inflammatory or infectious process ongoing, which may be the cause of the patient's pain, and that further diagnostic testing is needed. The monocytes are at a normal level. The hemoglobin and platelet counts are normal.

MSC: NCLEX: Physiological Integrity

16. Which information shown in the accompanying figure about a patient who has just arrived in the emergency department is **most** urgent for the nurse to communicate to the health care provider?

- a. Platelet count
- b. White blood cell count
- c. History of abdominal pain
- d. Blood pressure and heart rate

ANS: A

The platelet count is severely decreased and places the patient at risk for spontaneous bleeding. The other information is also pertinent, but not as indicative of the need for rapid treatment as the platelet count.

Chapter 30. Management: Hematologic Problems

MULTIPLE CHOICE

1. A 62-year old man with chronic anemia is experiencing increased fatigue and occasional palpitations at rest. The nurse would expect the patients laboratory findings to include

- a. a hematocrit (Hct) of 38%.
- b. an RBC count of 4,500,000/ μ L.
- c. normal red blood cell (RBC) indices.
- d. a hemoglobin (Hgb) of 8.6 g/dL (86 g/L).

ANS: D

The patients clinical manifestations indicate moderate anemia, which is consistent with a Hgb of 6 to 10 g/dL. The other values are all within the range of normal.

2. Which menu choice indicates that the patient understands the nurses teaching about **best** dietary choices for iron-deficiency anemia?

- a. Omelet and whole wheat toast
- b. Cantaloupe and cottage cheese
- c. Strawberry and banana fruit plate
- d. Cornmeal muffin and orange juice

ANS: A

Eggs and whole grain breads are high in iron. The other choices are appropriate for other nutritional deficiencies but are not the best choice for a patient with iron-deficiency anemia.

3. A patient who is receiving methotrexate for severe rheumatoid arthritis develops a megaloblastic anemia. The nurse will anticipate teaching the patient about increasing oral intake of

- a. iron.
- b. folic acid.
- c. cobalamin (vitamin B₁₂).
- d. ascorbic acid (vitamin C).

ANS: B

Methotrexate use can lead to folic acid deficiency. Supplementation with oral folic acid supplements is the usual treatment. The other nutrients would not correct folic acid deficiency, although they would be used to treat other types of anemia.

4. A 52-year-old patient has a new diagnosis of pernicious anemia. The nurse determines that the patient understands the teaching about the disorder when the patient states, I

- a. need to start eating more red meat and liver.
- b. will stop having a glass of wine with dinner.
- c. could choose nasal spray rather than injections of vitamin B₁₂.
- d. will need to take a proton pump inhibitor like omeprazole (Prilosec).

ANS: C

Because pernicious anemia prevents the absorption of vitamin B₁₂, this patient requires injections or intranasal administration of cobalamin. Alcohol use does not cause cobalamin deficiency. Proton pump inhibitors decrease the absorption of vitamin B₁₂. Eating more foods rich in vitamin B₁₂ is not helpful because the lack of intrinsic factor prevents absorption of the vitamin.

5. An appropriate nursing intervention for a hospitalized patient with severe hemolytic anemia is to

- a. provide a diet high in vitamin K.
- b. alternate periods of rest and activity.
- c. teach the patient how to avoid injury.
- d. place the patient on protective isolation.

ANS: B

Nursing care for patients with anemia should alternate periods of rest and activity to encourage activity without causing undue fatigue. There is no indication that the patient has a bleeding disorder, so a diet high in vitamin K or teaching about how to avoid injury is not needed. Protective isolation might be used for a patient with aplastic anemia, but it is not indicated for hemolytic anemia.

6. Which patient statement to the nurse indicates a need for additional instruction about taking oral ferrous sulfate?

- a. I will call my health care provider if my stools turn black.

- b. I will take a stool softener if I feel constipated occasionally.
- c. I should take the iron with orange juice about an hour before eating.
- d. I should increase my fluid and fiber intake while I am taking iron tablets.

ANS: A

It is normal for the stools to appear black when a patient is taking iron, and the patient should not call the doctor about this. The other patient statements are correct.

7. Which collaborative problem will the nurse include in a care plan for a patient admitted to the hospital with idiopathic aplastic anemia?

- a. Potential complication: seizures
- b. Potential complication: infection
- c. Potential complication: neurogenic shock
- d. Potential complication: pulmonary edema

ANS: B

Because the patient with aplastic anemia has pancytopenia, the patient is at risk for infection and bleeding. There is no increased risk for seizures, neurogenic shock, or pulmonary edema.

8. It is important for the nurse providing care for a patient with sickle cell crisis to

- a. limit the patient's intake of oral and IV fluids.
- b. evaluate the effectiveness of opioid analgesics.
- c. encourage the patient to ambulate as much as tolerated.
- d. teach the patient about high-protein, high-calorie foods.

ANS: B

Pain is the most common clinical manifestation of a crisis and usually requires large doses of continuous opioids for control. Fluid intake should be increased to reduce blood viscosity and improve perfusion. Rest is usually ordered to decrease metabolic requirements. Patients are instructed about the need for dietary folic acid, but high-protein, high-calorie diets are not emphasized.

9. Which statement by a patient indicates good understanding of the nurses teaching about prevention of sickle cell crisis?

- a. Home oxygen therapy is frequently used to decrease sickling.
- b. There are no effective medications that can help prevent sickling.
- c. Routine continuous dosage narcotics are prescribed to prevent a crisis.
- d. Risk for a crisis is decreased by having an annual influenza vaccination.

ANS: D

Because infection is the most common cause of a sickle cell crisis, influenza, *Haemophilus influenzae*, pneumococcal pneumonia, and hepatitis immunizations should be administered. Although continuous dose opioids and oxygen may be administered during a crisis, patients do not receive these therapies to prevent crisis. Hydroxyurea (Hydrea) is a medication used to decrease the number of sickle cell crises.

10. Which instruction will the nurse plan to include in discharge teaching for the patient admitted with a sickle cell crisis?

- a. Take a daily multivitamin with iron.
- b. Limit fluids to 2 to 3 quarts per day.
- c. Avoid exposure to crowds when possible.
- d. Drink only two caffeinated beverages daily.

ANS: C

Exposure to crowds increases the patients risk for infection, the most common cause of sickle cell crisis. There is no restriction on caffeine use. Iron supplementation is generally not recommended. A high-fluid intake is recommended.

11. The nurse notes scleral jaundice in a patient being admitted with hemolytic anemia. The nurse will plan to check the laboratory results for the

- a. Schilling test.
- b. bilirubin level.
- c. stool occult blood test.
- d. gastric analysis testing.

ANS: B

Jaundice is caused by the elevation of bilirubin level associated with red blood cell (RBC) hemolysis. The other tests would not be helpful in monitoring or treating a hemolytic anemia.

12. A patient who has been receiving a heparin infusion and warfarin (Coumadin) for a deep vein thrombosis (DVT) is diagnosed with heparin-induced thrombocytopenia (HIT) when her platelet level drops to 110,000/L. Which action will the nurse include in the plan of care?

- a. Use low-molecular-weight heparin (LMWH) only.
- b. Administer the warfarin (Coumadin) at the scheduled time.
- c. Teach the patient about the purpose of platelet transfusions.
- d. Discontinue heparin and flush intermittent IV lines using normal saline.

ANS: D

All heparin is discontinued when the HIT is diagnosed. The patient should be instructed to never receive heparin or LMWH. Warfarin is usually not given until the platelet count has returned to 150,000/L. The platelet count does not drop low enough

in HIT for a platelet transfusion, and platelet transfusions increase the risk for thrombosis.

13. A **critical** action by the nurse caring for a patient with an acute exacerbation of polycythemia vera is to

- a. place the patient on bed rest.
- b. administer iron supplements.
- c. avoid use of aspirin products.
- d. monitor fluid intake and output.

ANS: D

Monitoring hydration status is important during an acute exacerbation because the patient is at risk for fluid overload or underhydration. Aspirin therapy is used to decrease risk for thrombosis. The patient should be encouraged to ambulate to prevent deep vein thrombosis (DVT). Iron is contraindicated in patients with polycythemia vera.

14. Which intervention will be included in the nursing care plan for a patient with immune thrombocytopenic purpura (ITP)?

- a. Assign the patient to a private room.
- b. Avoid intramuscular (IM) injections.
- c. Use rinses rather than a soft toothbrush for oral care.
- d. Restrict activity to passive and active range of motion.

ANS: B

IM or subcutaneous injections should be avoided because of the risk for bleeding. A soft toothbrush can be used for oral care. There is no need to restrict activity or place the patient in a private room.

15. Which laboratory result will the nurse expect to show a decreased value if a patient develops heparin-induced thrombocytopenia (HIT)?

- a. Prothrombin time
- b. Erythrocyte count
- c. Fibrinogen degradation products
- d. Activated partial thromboplastin time

ANS: D

Platelet aggregation in HIT causes neutralization of heparin, so that the activated partial thromboplastin time will be shorter and more heparin will be needed to maintain therapeutic levels. The other data will not be affected by HIT.

16. The nurse caring for a patient with type A hemophilia being admitted to the hospital with severe pain and swelling in the right knee will

- a. immobilize the joint.
- b. apply heat to the knee.
- c. assist the patient with light weight bearing.
- d. perform passive range of motion to the knee.

ANS: A

The initial action should be total rest of the knee to minimize bleeding. Ice packs are used to decrease bleeding. Range of motion (ROM) and weight-bearing exercise are contraindicated initially, but after the bleeding stops, ROM and physical therapy are

17. A 28-year-old man with von Willebrand disease is admitted to the hospital for minor knee surgery. The nurse will review the coagulation survey to check the

- a. platelet count.
- b. bleeding time.

- c. thrombin time.
- d. prothrombin time.

ANS: B

The bleeding time is affected by von Willebrand disease. Platelet count, prothrombin time, and thrombin time are normal in von Willebrand disease.

18. A routine complete blood count indicates that an active 80-year-old man may have myelodysplastic syndrome. The nurse will plan to teach the patient about

- a. blood transfusion
- b. bone marrow biopsy.
- c. filgrastim (Neupogen) administration.
- d. erythropoietin (Epogen) administration.

ANS: B

Bone marrow biopsy is needed to make the diagnosis and determine the specific type of myelodysplastic syndrome. The other treatments may be necessary if there is progression of the myelodysplastic syndrome, but the initial action for this asymptomatic patient will be a bone marrow biopsy.

19. Which action will the admitting nurse include in the care plan for a 30-year old woman who is neutropenic?

- a. Avoid any injections.
- b. Check temperature every 4 hours.
- c. Omit fruits or vegetables from the diet.
- d. Place a No Visitors sign on the door.

ANS: B

The earliest sign of infection in a neutropenic patient is an elevation in temperature. Although unpeeled fresh fruits and vegetables should be avoided, fruits and vegetables that are peeled or cooked are acceptable. Injections may be required for administration of medications such as filgrastim (Neupogen). The number of visitors may be limited and visitors with communicable diseases should be avoided, but a no visitors policy is not needed.

20. Which laboratory test will the nurse use to determine whether filgrastim (Neupogen) is effective for a patient with acute lymphocytic leukemia who is receiving chemotherapy?

- a. Platelet count
- b. Reticulocyte count
- c. Total lymphocyte count
- d. Absolute neutrophil count

ANS: D

Filgrastim increases the neutrophil count and function in neutropenic patients. Although total lymphocyte, platelet, and reticulocyte counts also are important to monitor in this patient, the absolute neutrophil count is used to evaluate the effects of filgrastim.

21. A 68-year-old woman with acute myelogenous leukemia (AML) asks the nurse whether the planned chemotherapy will be worth undergoing. Which response by the nurse is appropriate?

- a. If you do not want to have chemotherapy, other treatment options include stem cell transplantation.
- b. The side effects of chemotherapy are difficult, but AML frequently goes into remission with chemotherapy.
- c. The decision about treatment is one that you and the doctor need to make rather than asking what I would do.

- d. You don't need to make a decision about treatment right now because leukemias in adults tend to progress quite slowly.

ANS: B

This response uses therapeutic communication by addressing the patient's question and giving accurate information. The other responses either give inaccurate information or fail to address the patient's question, which will discourage the patient from asking the nurse for information.

22. A patient with a history of a transfusion-related acute lung injury (TRALI) is to receive a transfusion of packed red blood cells (PRBCs). Which action by the nurse will decrease the risk for TRALI for this patient?

- a. Infuse the PRBCs slowly over 4 hours.
- b. Transfuse only leukocyte-reduced PRBCs.
- c. Administer the scheduled diuretic before the transfusion.
- d. Give the PRN dose of antihistamine before the transfusion.

ANS: B

TRALI is caused by a reaction between the donor and the patient leukocytes that causes pulmonary inflammation and capillary leaking. The other actions may help prevent respiratory problems caused by circulatory overload or by allergic reactions, but they will not prevent TRALI.

23. A 54-year-old woman with acute myelogenous leukemia (AML) is considering treatment with a hematopoietic stem cell transplant (HSCT). The best approach for the nurse to assist the patient with a treatment decision is to

- a. emphasize the positive outcomes of a bone marrow transplant.
- b. discuss the need for adequate insurance to cover post-HSCT care.
- c. ask the patient whether there are any questions or concerns about HSCT.

- d. explain that a cure is not possible with any other treatment except HSCT.

ANS: C

Offering the patient an opportunity to ask questions or discuss concerns about HSCT will encourage the patient to voice concerns about this treatment and also will allow the nurse to assess whether the patient needs more information about the procedure. Treatment of AML using chemotherapy is another option for the patient. It is not appropriate for the nurse to ask the patient to consider insurance needs in making this decision.

24. Which action will the nurse include in the plan of care for a 72-year-old woman admitted with multiple myeloma?

- a. Monitor fluid intake and output.
- b. Administer calcium supplements.
- c. Assess lymph nodes for enlargement.
- d. Limit weight bearing and ambulation.

ANS: A

A high fluid intake and urine output helps prevent the complications of kidney stones caused by hypercalcemia and renal failure caused by deposition of Bence-Jones protein in the renal tubules. Weight bearing and ambulation are encouraged to help bone retain calcium. Lymph nodes are not enlarged with multiple myeloma. Calcium supplements will further increase the patient's calcium level and are not used.

25. An appropriate nursing intervention for a patient with non-Hodgkins lymphoma whose platelet count drops to 18,000/L during chemotherapy is to

- a. check all stools for occult blood.
- b. encourage fluids to 3000 mL/day.
- c. provide oral hygiene every 2 hours.

- d. check the temperature every 4 hours.

ANS: A

Because the patient is at risk for spontaneous bleeding, the nurse should check stools for occult blood. A low platelet count does not require an increased fluid intake. Oral hygiene is important, but it is not necessary to provide oral care every 2 hours. The low platelet count does not increase risk for infection, so frequent temperature monitoring is not indicated.

26. A 30-year-old man with acute myelogenous leukemia develops an absolute neutrophil count of 850/L while receiving outpatient chemotherapy. Which action by the outpatient clinic nurse is most appropriate?

- a. Discuss the need for hospital admission to treat the neutropenia.
- b. Teach the patient to administer filgrastim (Neupogen) injections.
- c. Plan to discontinue the chemotherapy until the neutropenia resolves.
- d. Order a high-efficiency particulate air (HEPA) filter for the patients home.

ANS: B

The patient may be taught to self-administer filgrastim injections. Although chemotherapy may be stopped with severe neutropenia (neutrophil count less than 500/L), administration of filgrastim usually allows the chemotherapy to continue. Patients with neutropenia are at higher risk for infection when exposed to other patients in the hospital. HEPA filters are expensive and are used in the hospital, where the number of pathogens is much higher than in the patients home environment.

Chapter 31. Assessment: Cardiovascular System

MULTIPLE CHOICE

1. After noting a pulse deficit when assessing a 74-year-old patient who has just arrived in the emergency department, the nurse will anticipate that the patient may require

- a. emergent cardioversion.
- b. a cardiac catheterization.
- c. hourly blood pressure (BP) checks.
- d. electrocardiographic (ECG) monitoring.

ANS: D

Pulse deficit is a difference between simultaneously obtained apical and radial pulses. It indicates that there may be a cardiac dysrhythmia that would best be detected with ECG monitoring. Frequent BP monitoring, cardiac catheterization, and emergent cardioversion are used for diagnosis and/or treatment of cardiovascular disorders but would not be as helpful in determining the immediate reason for the pulse deficit.

2. When reviewing the 12-lead electrocardiograph (ECG) for a healthy 79-year-old patient who is having an annual physical examination, what will be of **most** concern to the nurse?

- a. The PR interval is 0.21 seconds.
- b. The QRS duration is 0.13 seconds.
- c. There is a right bundle-branch block.
- d. The heart rate (HR) is 42 beats/minute.

ANS: D

The resting HR does not change with aging, so the decrease in HR requires further investigation. Bundle-branch block and slight increases in PR interval or QRS duration are common in older individuals because of increases in conduction time through the AV node, bundle of His, and bundle branches.

3. During a physical examination of a 74-year-old patient, the nurse palpates the point of maximal impulse (PMI) in the sixth intercostal space lateral to the left midclavicular line. The **most** appropriate action for the nurse to take next will be to

- a. ask the patient about risk factors for atherosclerosis.
- b. document that the PMI is in the normal anatomic location.
- c. auscultate both the carotid arteries for the presence of a bruit.
- d. assess the patient for symptoms of left ventricular hypertrophy.

ANS: D

The PMI should be felt at the intersection of the fifth intercostal space and the left midclavicular line. A PMI located outside these landmarks indicates possible cardiac enlargement, such as with left ventricular hypertrophy. Cardiac enlargement is not necessarily associated with atherosclerosis or carotid artery disease.

4. To auscultate for S3 or S4 gallops in the mitral area, the nurse listens with the

- a. bell of the stethoscope with the patient in the left lateral position.
- b. diaphragm of the stethoscope with the patient in a supine position.
- c. bell of the stethoscope with the patient sitting and leaning forward.
- d. diaphragm of the stethoscope with the patient lying flat on the left side.

ANS: A

Gallop rhythms generate low-pitched sounds and are most easily heard with the bell of the stethoscope. Sounds associated with the mitral valve are accentuated by turning the patient to the left side, which brings the heart closer to the chest wall. The diaphragm of the stethoscope is best to use for the higher-pitched sounds such as S1 and S2.

5. To determine the effects of therapy for a patient who is being treated for heart failure, which laboratory result will the nurse plan to review?

- a. Troponin
- b. Homocysteine (Hcy)
- c. Low-density lipoprotein (LDL)
- d. B-type natriuretic peptide (BNP)

ANS: D

Increased levels of BNP are a marker for heart failure. The other laboratory results would be used to assess for myocardial infarction (troponin) or risk for coronary artery disease (Hcy and LDL).

6. While doing the admission assessment for a thin 76-year-old patient, the nurse observes pulsation of the abdominal aorta in the epigastric area. Which action should the nurse take?

- a. Teach the patient about aneurysms.
- b. Notify the hospital rapid response team.
- c. Instruct the patient to remain on bed rest.
- d. Document the finding in the patient chart.

ANS: D

Visible pulsation of the abdominal aorta is commonly observed in the epigastric area for thin individuals. The nurse should simply document the finding in the admission assessment. Unless there are other abnormal findings (such as a bruit, pain, or hyper/hypotension) associated with the pulsation, the other actions are not necessary.

7. A patient is scheduled for a cardiac catheterization with coronary angiography. Before the test, the nurse informs the patient that

- a. it will be important to lie completely still during the procedure.
- b. a flushed feeling may be noted when the contrast dye is injected.
- c. monitored anesthesia care will be provided during the procedure.

- d. arterial pressure monitoring will be required for 24 hours after the test.

ANS: B

A sensation of warmth or flushing is common when the contrast material is injected, which can be anxiety-producing unless it has been discussed with the patient. The patient may receive a sedative drug before the procedure, but monitored anesthesia care is not used. Arterial pressure monitoring is not routinely used after the procedure to monitor blood pressure. The patient is not immobile during cardiac catheterization and may be asked to cough or take deep breaths.

8. While assessing a patient who was admitted with heart failure, the nurse notes that the patient has jugular venous distention (JVD) when lying flat in bed. Which action should the nurse take **next**?

- a. Document this finding in the patients record.
- b. Obtain vital signs, including oxygen saturation.
- c. Have the patient perform the Valsalva maneuver.
- d. Observe for JVD with the patient upright at 45 degrees.

ANS: D

When the patient is lying flat, the jugular veins are at the level of the right atrium, so JVD is a common (but not a clinically significant) finding. Obtaining vital signs and oxygen saturation is not warranted at this point. JVD is an expected finding when a patient performs the Valsalva maneuver because right atrial pressure increases. JVD that persists when the patient is sitting at a 30- to 45-degree angle or greater is significant. The nurse will document the JVD in the medical record if it persists when the head is elevated.

9. The nurse teaches the patient being evaluated for rhythm disturbances with a Holter monitor to

- a. connect the recorder to a computer once daily.

- b. exercise more than usual while the monitor is in place.
- c. remove the electrodes when taking a shower or tub bath.
- d. keep a diary of daily activities while the monitor is worn.

ANS: D

The patient is instructed to keep a diary describing daily activities while Holter monitoring is being accomplished to help correlate any rhythm disturbances with patient activities. Patients are taught that they should not take a shower or bath during Holter monitoring and that they should continue with their usual daily activities. The recorder stores the information about the patients rhythm until the end of the testing, when it is removed and the data are analyzed.

10. When auscultating over the patients abdominal aorta, the nurse hears a humming sound. The nurse documents this finding as a

- a. thrill.
- b. bruit.
- c. murmur.
- d. normal finding.

ANS: B

A bruit is the sound created by turbulent blood flow in an artery. Thrills are palpable vibrations felt when there is turbulent blood flow through the heart or in a blood vessel. A murmur is the sound caused by turbulent blood flow through the heart. Auscultating a bruit in an artery is not normal and indicates pathology.

11. The nurse has received the laboratory results for a patient who developed chest pain 4 hours ago and may be having a myocardial infarction. The **most** important laboratory result to review will be

- a. myoglobin.

- b. low-density lipoprotein (LDL) cholesterol.
- c. troponins T and I.
- d. creatine kinase-MB (CK-MB).

ANS: C

Cardiac troponins start to elevate 4 to 6 hours after myocardial injury and are highly specific to myocardium. They are the preferred diagnostic marker for myocardial infarction. Myoglobin rises in response to myocardial injury within 30 to 60 minutes. It is rapidly cleared from the body, thus limiting its use in the diagnosis of myocardial infarction. LDL cholesterol is useful in assessing cardiovascular risk but is not helpful in determining whether a patient is having an acute myocardial infarction. Creatine kinase (CK-MB) is specific to myocardial injury and infarction and increases 4 to 6 hours after the infarction occurs. It is often trended with troponin levels.

12. When assessing a newly admitted patient, the nurse notes a murmur along the left sternal border. To document more information about the murmur, which action will the nurse take **next**?

- a. Find the point of maximal impulse.
- b. Determine the timing of the murmur.
- c. Compare the apical and radial pulse rates.
- d. Palpate the quality of the peripheral pulses.

ANS: B

Murmurs are caused by turbulent blood flow, such as occurs when blood flows through a damaged valve. Relevant information includes the position in which the murmur is heard best (e.g., sitting and leaning forward), the timing of the murmur in relation to the cardiac cycle (e.g., systole, diastole), and where on the thorax the murmur is heard best. The other information is also important in the cardiac assessment but will not provide information that is relevant to the murmur.

13. The nurse hears a murmur between the S1 and S2 heart sounds at the patient's left fifth intercostal space and midclavicular line. How will the nurse record this information?

- a. Systolic murmur heard at mitral area
- b. Systolic murmur heard at Erb's point
- c. Diastolic murmur heard at aortic area
- d. Diastolic murmur heard at the point of maximal impulse

ANS: A

The S1 signifies the onset of ventricular systole. S2 signifies the onset of diastole. A murmur occurring between these two sounds is a systolic murmur. The mitral area is the intersection of the left fifth intercostal space and the midclavicular line. The other responses describe murmurs heard at different landmarks on the chest and/or during the diastolic phase of the cardiac cycle.

14. A registered nurse (RN) is observing a student nurse who is doing a physical assessment on a patient. The RN will need to intervene immediately if the student nurse

- a. presses on the skin over the tibia for 10 seconds to check for edema.
- b. palpates both carotid arteries simultaneously to compare pulse quality.
- c. documents a murmur heard along the right sternal border as a pulmonic murmur.
- d. places the patient in the left lateral position to check for the point of maximal impulse.

ANS: B

The carotid pulses should never be palpated at the same time to avoid vagal stimulation, dysrhythmias, and decreased cerebral blood flow. The other assessment techniques also need to be corrected. However, they are not dangerous to the patient.

15. Which action will the nurse implement for a patient who arrives for a calcium-scoring CT scan?

- a. Insert an IV catheter.
- b. Administer oral sedative medications.
- c. Teach the patient about the procedure.
- d. Confirm that the patient has been fasting.

ANS: C

The nurse will need to teach the patient that the procedure is rapid and involves little risk. None of the other actions are necessary.

16. Which information obtained by the nurse who is admitting the patient for magnetic resonance imaging (MRI) will be **most** important to report to the health care provider before the MRI?

- a. The patient has an allergy to shellfish.
- b. The patient has a history of atherosclerosis.
- c. The patient has a permanent ventricular pacemaker.
- d. The patient took all the prescribed cardiac medications today.

ANS: C

MRI is contraindicated for patients with implanted metallic devices such as pacemakers. The other information also will be reported to the health care provider but does not impact on whether or not the patient can have an MRI.

17. When the nurse is monitoring a patient who is undergoing exercise (stress) testing on a treadmill, which assessment finding requires the **most** rapid action by the nurse?

- a. Patient complaint of feeling tired
- b. Pulse change from 87 to 101 beats/minute

- c. Blood pressure (BP) increase from 134/68 to 150/80 mm Hg
- d. Newly inverted T waves on the electrocardiogram

ANS: D

ECG changes associated with coronary ischemia (such as T-wave inversions and ST segment depression) indicate that the myocardium is not getting adequate oxygen delivery and that the exercise test should be terminated immediately. Increases in BP and heart rate (HR) are normal responses to aerobic exercise. Feeling tired is also normal as the intensity of exercise increases during the stress testing.

18. The standard policy on the cardiac unit states, Notify the health care provider for mean arterial pressure (MAP) less than 70 mm Hg. The nurse will need to call the health care provider about the

- a. postoperative patient with a BP of 116/42.
- b. newly admitted patient with a BP of 150/87.
- c. patient with left ventricular failure who has a BP of 110/70.
- d. patient with a myocardial infarction who has a BP of 140/86.

ANS: A

The mean arterial pressure (MAP) is calculated using the formula $MAP = (\text{systolic BP} + 2 \text{ diastolic BP}) / 3$. The MAP for the postoperative patient in answer 3 is 67. The MAP in the other three patients is higher than 70 mm Hg.

19. When admitting a patient for a cardiac catheterization and coronary angiogram, which information about the patient is **most** important for the nurse to communicate to the health care provider?

- a. The patient's pedal pulses are +1.
- b. The patient is allergic to shellfish.
- c. The patient had a heart attack a year ago.

- d. The patient has not eaten anything today.

ANS: B

The contrast dye used for the procedure is iodine based, so patients who have shellfish allergies will require treatment with medications such as corticosteroids and antihistamines before the angiogram. The other information is also communicated to the health care provider but will not require a change in the usual precardiac catheterization orders or medications.

20. A transesophageal echocardiogram (TEE) is ordered for a patient with possible endocarditis. Which action included in the standard TEE orders will the nurse need to accomplish **first**?

- a. Start an IV line.
- b. Place the patient on NPO status.
- c. Administer O₂ per nasal cannula.
- d. Give lorazepam (Ativan) 1 mg IV.

ANS: B

The patient will need to be NPO for 6 hours preceding the TEE, so the nurse should place the patient on NPO status as soon as the order is received. The other actions also will need to be accomplished but not until just before or during the procedure.

21. The nurse and unlicensed assistive personnel (UAP) on the telemetry unit are caring for four patients. Which nursing action can be delegated to the UAP?

- a. Teaching a patient scheduled for exercise electrocardiography about the procedure
- b. Placing electrodes in the correct position for a patient who is to receive ECG monitoring
- c. Checking the catheter insertion site for a patient who is recovering from a coronary angiogram

- d. Monitoring a patient who has just returned to the unit after a transesophageal echocardiogram

ANS: B

UAP can be educated in standardized lead placement for ECG monitoring. Assessment of patients who have had procedures where airway maintenance (transesophageal echocardiography) or bleeding (coronary angiogram) is a concern must be done by the registered nurse (RN). Patient teaching requires RN level education and scope of practice.

22. The nurse is reviewing the laboratory results for newly admitted patients on the cardiovascular unit. Which patient laboratory result is **most** important to communicate as soon as possible to the health care provider?

- a. Patient whose triglyceride level is high
- b. Patient who has very low homocysteine level
- c. Patient with increase in troponin T and troponin I level
- d. Patient with elevated high-sensitivity C-reactive protein level

ANS: C

The elevation in troponin T and I indicates that the patient has had an acute myocardial infarction. Further assessment and interventions are indicated. The other laboratory results are indicative of increased risk for coronary artery disease but are not associated with acute cardiac problems that need immediate intervention.

23. When the nurse is screening patients for possible peripheral arterial disease, indicate where the posterior tibial artery will be palpated.

- a. 1
- b. 2
- c. 3

d. 4

ANS: C

The posterior tibial site is located behind the medial malleolus of the tibia.

Chapter 32. Management: Hypertension

MULTIPLE CHOICE

1. Which action will the nurse in the hypertension clinic take in order to obtain an accurate baseline blood pressure (BP) for a new patient?

- a. Deflate the BP cuff at a rate of 5 to 10 mm Hg per second.
- b. Have the patient sit in a chair with the feet flat on the floor.
- c. Assist the patient to the supine position for BP measurements.
- d. Obtain two BP readings in the dominant arm and average the results.

ANS: B

The patient should be seated with the feet flat on the floor. The BP is obtained in both arms, and the results of the two arms are not averaged. The patient does not need to be in the supine position. The cuff should be deflated at 2 to 3 mm Hg per second.

2. The nurse obtains the following information from a patient newly diagnosed with prehypertension. Which finding is **most** important to address with the patient?

- a. Low dietary fiber intake
- b. No regular aerobic exercise
- c. Weight 5 pounds above ideal weight
- d. Drinks a beer with dinner on most nights

ANS: B

The recommendations for preventing hypertension include exercising aerobically for 30 minutes most days of the week. A weight that is 5 pounds over the ideal body weight is not a risk factor for hypertension. The Dietary Approaches to Stop Hypertension (DASH) diet is high in fiber, but increasing fiber alone will not prevent hypertension from developing. The patient's alcohol intake is within guidelines and will not increase the hypertension risk.

3. Which action should the nurse take when administering the initial dose of oral labetalol (Normodyne) to a patient with hypertension?

- a. Encourage the use of hard candy to prevent dry mouth.
- b. Instruct the patient to ask for help if heart palpitations occur.
- c. Ask the patient to request assistance when getting out of bed.
- d. Teach the patient that headaches may occur with this medication.

ANS: C

Labetalol decreases sympathetic nervous system activity by blocking both α - and β -adrenergic receptors, leading to vasodilation and a decrease in heart rate, which can cause severe orthostatic hypotension. Heart palpitations, dry mouth, dehydration, and headaches are possible side effects of other antihypertensives.

4. After the nurse teaches the patient with stage 1 hypertension about diet modifications that should be implemented, which diet choice indicates that the teaching has been effective?

- a. The patient avoids eating nuts or nut butters.
- b. The patient restricts intake of chicken and fish.
- c. The patient has two cups of coffee in the morning.
- d. The patient has a glass of low-fat milk with each meal.

ANS: D

For the prevention of hypertension, the Dietary Approaches to Stop Hypertension (DASH) recommendations include increasing the intake of calcium-rich foods. Caffeine restriction and decreased protein intake are not included in the recommendations. Nuts are high in beneficial nutrients and 4 to 5 servings weekly are recommended in the DASH diet.

5. A patient has just been diagnosed with hypertension and has been started on captopril (Capoten). Which information is important to include when teaching the patient about this medication?

- a. Check blood pressure (BP) in both arms before taking the medication.
- b. Increase fluid intake if dryness of the mouth is a problem.
- c. Include high-potassium foods such as bananas in the diet.
- d. Change position slowly to help prevent dizziness and falls.

ANS: D

The angiotensin-converting enzyme (ACE) inhibitors frequently cause orthostatic hypotension, and patients should be taught to change position slowly to allow the vascular system time to compensate for the position change. Increasing fluid intake may counteract the effect of the medication, and the patient is taught to use gum or hard candy to relieve dry mouth. The BP should be taken in the nondominant arm by newly diagnosed patients in the morning, before taking the medication, and in the evening. Because ACE inhibitors cause potassium retention, increased intake of high-potassium foods is inappropriate.

6. Propranolol (Inderal) is prescribed for a patient diagnosed with hypertension. The nurse should consult with the health care provider before giving this medication when the patient reveals a history of

- a. asthma.
- b. daily alcohol use.
- c. peptic ulcer disease.

- d. myocardial infarction (MI).

ANS: A

Nonselective β -blockers block β_1 and β_2 -adrenergic receptors and can cause bronchospasm, especially in patients with a history of asthma. β -Blockers will have no effect on the patient's peptic ulcer disease or alcohol use. β -Blocker therapy is recommended after MI.

7. A 56-year-old patient who has no previous history of hypertension or other health problems suddenly develops a blood pressure (BP) of 198/110 mm Hg. After reconfirming the BP, it is appropriate for the nurse to tell the patient that

- a. a BP recheck should be scheduled in a few weeks.
- b. dietary sodium and fat content should be decreased.
- c. there is an immediate danger of a stroke and hospitalization will be required.
- d. diagnosis of a possible cause, treatment, and ongoing monitoring will be needed.

ANS: D

A sudden increase in BP in a patient over age 50 with no previous hypertension history or risk factors indicates that the hypertension may be secondary to some other problem. The BP will need treatment and ongoing monitoring. If the patient has no other risk factors, a stroke in the immediate future is unlikely. There is no indication that dietary salt or fat intake have contributed to this sudden increase in BP, and reducing intake of salt and fat alone will not be adequate to reduce this BP to an acceptable level.

8. Which action will be included in the plan of care when the nurse is caring for a patient who is receiving nicardipine (Cardene) to treat a hypertensive emergency?

- a. Keep the patient NPO to prevent aspiration caused by nausea and possible vomiting.

- b. Organize nursing activities so that the patient has undisturbed sleep for 6 to 8 hours at night.
- c. Assist the patient up in the chair for meals to avoid complications associated with immobility.
- d. Use an automated noninvasive blood pressure machine to obtain frequent blood pressure (BP) measurements.

ANS: D

Frequent monitoring of BP is needed when the patient is receiving rapid-acting IV antihypertensive medications. This can be most easily accomplished with an automated BP machine or arterial line. The patient will require frequent assessments, so allowing 6 to 8 hours of undisturbed sleep is not appropriate. When patients are receiving IV vasodilators, bed rest is maintained to prevent decreased cerebral perfusion and fainting. There is no indication that this patient is nauseated or at risk for aspiration, so an NPO status is unnecessary.

9. The nurse has just finished teaching a hypertensive patient about the newly prescribed ramipril (Altace). Which patient statement indicates that more teaching is needed?

- a. A little swelling around my lips and face is okay.
- b. The medication may not work as well if I take any aspirin.
- c. The doctor may order a blood potassium level occasionally.
- d. I will call the doctor if I notice that I have a frequent cough.

ANS: A

Angioedema occurring with angiotensin-converting enzyme (ACE) inhibitor therapy is an indication that the ACE inhibitor should be discontinued. The patient should be taught that if any swelling of the face or oral mucosa occurs, the health care provider should be immediately notified because this could be life threatening. The other patient statements indicate that the patient has an accurate understanding of ACE inhibitor therapy.

10. During change-of-shift report, the nurse obtains the following information about a hypertensive patient who received the first dose of nadolol (Corgard) during the previous shift. Which information indicates that the patient needs **immediate** intervention?

- a. The patient's most recent blood pressure (BP) reading is 158/91 mm Hg.
- b. The patient's pulse has dropped from 68 to 57 beats/minute.
- c. The patient has developed wheezes throughout the lung fields.
- d. The patient complains that the fingers and toes feel quite cold.

ANS: C

The most urgent concern for this patient is the wheezes, which indicate that bronchospasm (a common adverse effect of the noncardioselective β -blockers) is occurring. The nurse should immediately obtain an oxygen saturation measurement, apply supplemental oxygen, and notify the health care provider. The mild decrease in heart rate and complaint of cold fingers and toes are associated with β -receptor blockade but do not require any change in therapy. The BP reading may indicate that a change in medication type or dose may be indicated. However, this is not as urgently needed as addressing the bronchospasm.

11. An older patient has been diagnosed with possible white coat hypertension. Which action will the nurse plan to take **next**?

- a. Schedule the patient for regular blood pressure (BP) checks in the clinic.
- b. Instruct the patient about the need to decrease stress levels.
- c. Tell the patient how to self-monitor and record BPs at home.
- d. Inform the patient that ambulatory blood pressure monitoring will be needed.

ANS: C

Having the patient self-monitor BPs at home will provide a reliable indication about whether the patient has hypertension. Regular BP checks in the clinic are likely to be high in a patient with white coat hypertension. Ambulatory blood pressure monitoring may be used if the data from self-monitoring are unclear. Although elevated stress levels may contribute to hypertension, instructing the patient about this is unlikely to reduce BP.

12. Which blood pressure (BP) finding by the nurse indicates that no changes in therapy are needed for a patient with stage 1 hypertension who has a history of diabetes mellitus?

- a. 102/60 mm Hg
- b. 128/76 mm Hg
- c. 139/90 mm Hg
- d. 136/82 mm Hg

ANS: B

The goal for antihypertensive therapy for a patient with hypertension and diabetes mellitus is a BP <130/80 mm Hg. The BP of 102/60 may indicate overtreatment of the hypertension and an increased risk for adverse drug effects. The other two blood pressures indicate a need for modifications in the patients treatment.

13. Which information should the nurse include when teaching a patient with newly diagnosed hypertension?

- a. Increasing physical activity will control blood pressure (BP) for most patients.
- b. Most patients are able to control BP through dietary changes.
- c. Annual BP checks are needed to monitor treatment effectiveness.
- d. Hypertension is usually asymptomatic until target organ damage occurs.

ANS: D

Hypertension is usually asymptomatic until target organ damage has occurred. Lifestyle changes (e.g., physical activity, dietary changes) are used to help manage blood pressure, but drugs are needed for most patients. Home BP monitoring should be taught to the patient and findings checked by the health care provider frequently when starting treatment for hypertension and then every 3 months once stable.

14. The nurse on the intermediate care unit received change-of-shift report on four patients with hypertension. Which patient should the nurse assess **first**?

- a. 43-year-old with a (blood pressure (BP) of 160/92 who is complaining of chest pain
- b. 52-year-old with a BP of 212/90 who has intermittent claudication
- c. 50-year-old with a BP of 190/104 who has a creatinine of 1.7 mg/dL
- d. 48-year-old with a BP of 172/98 whose urine shows microalbuminuria

ANS: A

The patient with chest pain may be experiencing acute myocardial infarction, and rapid assessment and intervention are needed. The symptoms of the other patients also show target organ damage but are not indicative of acute processes.

15. The nurse is reviewing the laboratory test results for a patient who has recently been diagnosed with hypertension. Which result is **most** important to communicate to the health care provider?

- a. Serum creatinine of 2.8 mg/dL
- b. Serum potassium of 4.5 mEq/L
- c. Serum hemoglobin of 14.7 g/dL
- d. Blood glucose level of 96 mg/dL

ANS: A

The elevated creatinine indicates renal damage caused by the hypertension. The other laboratory results are normal.

16. A patient with a history of hypertension treated with a diuretic and an angiotensin-converting enzyme (ACE) inhibitor arrives in the emergency department complaining of a severe headache and nausea and has a blood pressure (BP) of 238/118 mm Hg. Which question should the nurse ask **first**?

- a. Did you take any acetaminophen (Tylenol) today?
- b. Have you been consistently taking your medications?
- c. Have there been any recent stressful events in your life?
- d. Have you recently taken any antihistamine medications?

ANS: B

Sudden withdrawal of antihypertensive medications can cause rebound hypertension and hypertensive crisis. Although many over-the-counter medications can cause hypertension, antihistamines and acetaminophen do not increase BP. Stressful events will increase BP but not usually to the level seen in this patient.

17. The nurse is assessing a patient who has been admitted to the intensive care unit (ICU) with a hypertensive emergency. Which finding is **most** important to report to the health care provider?

- a. Urine output over 8 hours is 250 mL less than the fluid intake.
- b. The patient cannot move the left arm and leg when asked to do so.
- c. Tremors are noted in the fingers when the patient extends the arms.
- d. The patient complains of a headache with pain at level 8/10 (0 to 10 scale).

ANS: B

The patient's inability to move the left arm and leg indicates that a hemorrhagic stroke may be occurring and will require immediate action to prevent further neurologic damage. The other clinical manifestations are also likely caused by the hypertension.

and will require rapid nursing actions, but they do not require action as urgently as the neurologic changes.

18. A patient with hypertension who has just started taking atenolol (Tenormin) returns to the health clinic after 2 weeks for a follow-up visit. The blood pressure (BP) is unchanged from the previous visit. Which action should the nurse take **first**?

- a. Inform the patient about the reasons for a possible change in drug dosage.
- b. Question the patient about whether the medication is actually being taken.
- c. Inform the patient that multiple drugs are often needed to treat hypertension.
- d. Question the patient regarding any lifestyle changes made to help control BP.

ANS: B

Because noncompliance with antihypertensive therapy is common, the nurses initial action should be to determine whether the patient is taking the atenolol as prescribed. The other actions also may be implemented, but these would be done after assessing patient compliance with the prescribed therapy.

19. The registered nurse (RN) is caring for a patient with a hypertensive crisis who is receiving sodium nitroprusside (Nipride). Which nursing action can the nurse delegate to an experienced licensed practical/vocational nurse (LPN/LVN)?

- a. Titrate nitroprusside to decrease mean arterial pressure (MAP) to 115 mm Hg.
- b. Evaluate effectiveness of nitroprusside therapy on blood pressure (BP).
- c. Set up the automatic blood pressure machine to take BP every 15 minutes.
- d. Assess the patients environment for adverse stimuli that might increase BP.

ANS: C

LPN/LVN education and scope of practice include the correct use of common equipment such as automatic blood pressure machines. The other actions require advanced nursing judgment and education, and should be done by RNs.

20. The charge nurse observes a new registered nurse (RN) doing discharge teaching for a patient with hypertension who has a new prescription for enalapril (Vasotec). The charge nurse will need to intervene if the new RN tells the patient to

- a. increase the dietary intake of high-potassium foods.
- b. make an appointment with the dietitian for teaching.
- c. check the blood pressure (BP) with a home BP monitor at least once a day.
- d. move slowly when moving from lying to sitting to standing.

ANS: A

The ACE inhibitors cause retention of potassium by the kidney, so hyperkalemia is a possible adverse effect. The other teaching by the new RN is appropriate for a patient with newly diagnosed hypertension who has just started therapy with enalapril.

21. Which assessment finding for a patient who is receiving IV furosemide (Lasix) to treat stage 2 hypertension is **most** important to report to the health care provider?

- a. Blood glucose level of 175 mg/dL
- b. Blood potassium level of 3.0 mEq/L
- c. Most recent blood pressure (BP) reading of 168/94 mm Hg
- d. Orthostatic systolic BP decrease of 12 mm Hg

ANS: B

Hypokalemia is a frequent adverse effect of the loop diuretics and can cause life-threatening dysrhythmias. The health care provider should be notified of the

potassium level immediately and administration of potassium supplements initiated. The elevated blood glucose and BP also indicate a need for collaborative interventions but will not require action as urgently as the hypokalemia. An orthostatic drop of 12 mm Hg is common and will require intervention only if the patient is symptomatic.

22. Which nursing action should the nurse take **first** in order to assist a patient with newly diagnosed stage 1 hypertension in making needed dietary changes?

- a. Collect a detailed diet history.
- b. Provide a list of low-sodium foods.
- c. Help the patient make an appointment with a dietitian.
- d. Teach the patient about foods that are high in potassium.

ANS: A

The initial nursing action should be assessment of the patient's baseline dietary intake through a thorough diet history. The other actions may be appropriate, but assessment of the patient's baseline should occur first.

23. The nurse is caring for a 70-year-old who uses hydrochlorothiazide (HydroDIURIL) and enalapril (Norvasc), but whose self-monitored blood pressure (BP) continues to be elevated. Which patient information may indicate a need for a change?

- a. Patient takes a daily multivitamin tablet.
- b. Patient checks BP daily just after getting up.
- c. Patient drinks wine three to four times a week.
- d. Patient uses ibuprofen (Motrin) daily to treat osteoarthritis.

ANS: D

Because use of nonsteroidal antiinflammatory drugs (NSAIDs) can prevent adequate BP control, the patient may need to avoid the use of ibuprofen. A multivitamin tablet

will help supply vitamin D, which may help lower BP. BP decreases while sleeping, so self-monitoring early in the morning will result in obtaining pressures that are at their lowest. The patients alcohol intake is not excessive.

SHORT ANSWER

1. The nurse obtains a blood pressure of 176/83 mm Hg for a patient. What is the patients mean arterial pressure (MAP)?

ANS:

114 mm Hg

$$\text{MAP} = (\text{SBP} + 2 \text{ DBP})/3$$

Chapter 33. Management: Coronary Artery Disease and Acute Coronary Syndrome

MULTIPLE CHOICE

1. When developing a teaching plan for a 61-year-old man with the following risk factors for coronary artery disease (CAD), the nurse should focus on the

- a. family history of coronary artery disease.
- b. increased risk associated with the patients gender.
- c. increased risk of cardiovascular disease as people age.
- d. elevation of the patients low-density lipoprotein (LDL) level.

ANS: D

Because family history, gender, and age are nonmodifiable risk factors, the nurse should focus on the patients LDL level. Decreases in LDL will help reduce the patients risk for developing CAD.

2. Which nursing intervention will be most effective when assisting the patient with coronary artery disease (CAD) to make appropriate dietary changes?

- a. Give the patient a list of low-sodium, low-cholesterol foods that should be included in the diet.
- b. Emphasize the increased risk for heart problems unless the patient makes the dietary changes.
- c. Help the patient modify favorite high-fat recipes by using monosaturated oils when possible.
- d. Inform the patient that a diet containing no saturated fat and minimal salt will be necessary.

ANS: C

Lifestyle changes are more likely to be successful when consideration is given to the patient's values and preferences. The highest percentage of calories from fat should come from monosaturated fats. Although low-sodium and low-cholesterol foods are appropriate, providing the patient with a list alone is not likely to be successful in making dietary changes. Completely removing saturated fat from the diet is not a realistic expectation. Up to 7% of calories in the therapeutic lifestyle changes (TLC) diet can come from saturated fat. Telling the patient about the increased risk without assisting further with strategies for dietary change is unlikely to be successful.

3. Which assessment data collected by the nurse who is admitting a patient with chest pain suggest that the pain is caused by an acute myocardial infarction (AMI)?
- a. The pain increases with deep breathing.
 - b. The pain has lasted longer than 30 minutes.
 - c. The pain is relieved after the patient takes nitroglycerin.
 - d. The pain is reproducible when the patient raises the arms.

ANS: B

Chest pain that lasts for 20 minutes or more is characteristic of AMI. Changes in pain that occur with raising the arms or with deep breathing are more typical of musculoskeletal pain or pericarditis. Stable angina is usually relieved when the patient takes nitroglycerin.

4. Which information given by a patient admitted with chronic stable angina will help the nurse confirm this diagnosis?

- a. The patient states that the pain wakes me up at night.
- b. The patient rates the pain at a level 3 to 5 (0 to 10 scale).
- c. The patient states that the pain has increased in frequency over the last week.
- d. The patient states that the pain goes away with one sublingual nitroglycerin tablet.

ANS: D

Chronic stable angina is typically relieved by rest or nitroglycerin administration. The level of pain is not a consistent indicator of the type of angina. Pain occurring at rest or with increased frequency is typical of unstable angina.

5. After the nurse has finished teaching a patient about the use of sublingual nitroglycerin (Nitrostat), which patient statement indicates that the teaching has been effective?

- a. I can expect some nausea as a side effect of nitroglycerin.
- b. I should only take the nitroglycerin if I start to have chest pain.
- c. I will call an ambulance if I still have pain after taking 3 nitroglycerin 5 minutes apart.
- d. Nitroglycerin helps prevent a clot from forming and blocking blood flow to my heart.

ANS: C

The emergency medical services (EMS) system should be activated when chest pain or other symptoms are not completely relieved after 3 sublingual nitroglycerin tablets taken 5 minutes apart. Nitroglycerin can be taken to prevent chest pain or other symptoms from developing (e.g., before intercourse). Gastric upset (e.g., nausea) is

not an expected side effect of nitroglycerin. Nitroglycerin does not impact the underlying pathophysiology of coronary artery atherosclerosis.

6. Which statement made by a patient with coronary artery disease after the nurse has completed teaching about therapeutic lifestyle changes (TLC) diet indicates that further teaching is needed?

- a. I will switch from whole milk to 1% milk.
- b. I like salmon and I will plan to eat it more often.
- c. I can have a glass of wine with dinner if I want one.
- d. I will miss being able to eat peanut butter sandwiches.

ANS: D

Although only 30% of the daily calories should come from fats, most of the fat in the TLC diet should come from monosaturated fats such as are found in nuts, olive oil, and canola oil. The patient can include peanut butter sandwiches as part of the TLC diet. The other patient comments indicate a good understanding of the TLC diet.

7. After the nurse teaches the patient about the use of carvedilol (Coreg) in preventing anginal episodes, which statement by a patient indicates that the teaching has been effective?

- a. Carvedilol will help my heart muscle work harder.
- b. It is important not to suddenly stop taking the carvedilol.
- c. I can expect to feel short of breath when taking carvedilol.
- d. Carvedilol will increase the blood flow to my heart muscle.

ANS: B

Patients who have been taking β -adrenergic blockers can develop intense and frequent angina if the medication is suddenly discontinued. Carvedilol (Coreg) decreases myocardial contractility. Shortness of breath that occurs when taking β -adrenergic

blockers for angina may be due to bronchospasm and should be reported to the health care provider. Carvedilol works by decreasing myocardial oxygen demand, not by increasing blood flow to the coronary arteries.

8. A patient who has had chest pain for several hours is admitted with a diagnosis of rule out acute myocardial infarction (AMI). Which laboratory test should the nurse monitor to help determine whether the patient has had an AMI?

- a. Myoglobin
- b. Homocysteine
- c. C-reactive protein
- d. Cardiac-specific troponin

ANS: D

Troponin levels increase about 4 to 6 hours after the onset of myocardial infarction (MI) and are highly specific indicators for MI. Myoglobin is released within 2 hours of MI, but it lacks specificity and its use is limited. The other laboratory data are useful in determining the patient's risk for developing coronary artery disease (CAD) but are not helpful in determining whether an acute MI is in progress.

9. Diltiazem (Cardizem) is ordered for a patient with newly diagnosed Prinzmetals (variant) angina. When teaching the patient, the nurse will include the information that diltiazem will

- a. reduce heart palpitations.
- b. decrease spasm of the coronary arteries.
- c. increase the force of the heart contractions.
- d. help prevent plaque from forming in the coronary arteries.

ANS: B

Prinzmetals angina is caused by coronary artery spasm. Calcium channel blockers (e.g., diltiazem, amlodipine [Norvasc]) are a first-line therapy for this type of angina. Lipid-lowering drugs help reduce atherosclerosis (i.e., plaque formation), and β -adrenergic blockers decrease sympathetic stimulation of the heart (i.e., palpitations). Medications or activities that increase myocardial contractility will increase the incidence of angina by increasing oxygen demand.

10. The nurse will suspect that the patient with stable angina is experiencing a side effect of the prescribed metoprolol (Lopressor) if the

- a. patient is restless and agitated.
- b. blood pressure is 90/54 mm Hg.
- c. patient complains about feeling anxious.
- d. cardiac monitor shows a heart rate of 61 beats/minute.

ANS: B

Patients taking β -adrenergic blockers should be monitored for hypotension and bradycardia. Because this class of medication inhibits the sympathetic nervous system, restlessness, agitation, hypertension, and anxiety will not be side effects.

11. Nadolol (Corgard) is prescribed for a patient with chronic stable angina and left ventricular dysfunction. To determine whether the drug is effective, the nurse will monitor for

- a. decreased blood pressure and heart rate.
- b. fewer complaints of having cold hands and feet.
- c. improvement in the strength of the distal pulses.
- d. the ability to do daily activities without chest pain.

ANS: D

Because the medication is ordered to improve the patient's angina, effectiveness is indicated if the patient is able to accomplish daily activities without chest pain. Blood pressure and heart rate may decrease, but these data do not indicate that the goal of decreased angina has been met. The noncardioselective β -adrenergic blockers can cause peripheral vasoconstriction, so the nurse would not expect an improvement in distal pulse quality or skin temperature.

12. Heparin is ordered for a patient with a nonST-segment-elevation myocardial infarction (NSTEMI). What is the purpose of the heparin?

- a. Heparin enhances platelet aggregation.
- b. Heparin decreases coronary artery plaque size.
- c. Heparin prevents the development of new clots in the coronary arteries.
- d. Heparin dissolves clots that are blocking blood flow in the coronary arteries.

ANS: C

Heparin helps prevent the conversion of fibrinogen to fibrin and decreases coronary artery thrombosis. It does not change coronary artery plaque, dissolve already formed clots, or enhance platelet aggregation.

13. When titrating IV nitroglycerin (Tridil) for a patient with a myocardial infarction (MI), which action will the nurse take to evaluate the effectiveness of the medication?

- a. Monitor heart rate.
- b. Ask about chest pain.
- c. Check blood pressure.
- d. Observe for dysrhythmias.

ANS: B

The goal of IV nitroglycerin administration in MI is relief of chest pain by improving the balance between myocardial oxygen supply and demand. The nurse also will

monitor heart rate and blood pressure (BP) and observe for dysrhythmias, but these parameters will not indicate whether the medication is effective.

14. A patient with ST-segment elevation in three contiguous electrocardiographic (ECG) leads is admitted to the emergency department (ED) and diagnosed as having an ST-segment-elevation myocardial infarction (STEMI). Which question should the nurse ask to determine whether the patient is a candidate for thrombolytic therapy?

- a. Do you have any allergies?
- b. Do you take aspirin on a daily basis?
- c. What time did your chest pain begin?
- d. Can you rate your chest pain using a 0 to 10 scale?

ANS: C

Thrombolytic therapy should be started within 6 hours of the onset of the myocardial infarction (MI), so the time at which the chest pain started is a major determinant of the appropriateness of this treatment. The other information will also be needed, but it will not be a factor in the decision about thrombolytic therapy.

15. Following an acute myocardial infarction (AMI), a patient ambulates in the hospital hallway. When the nurse is evaluating the patient's response to the activity, which assessment data would indicate that the exercise level should be decreased?

- a. Blood pressure (BP) changes from 118/60 to 126/68 mm Hg.
- b. Oxygen saturation drops from 99% to 95%.
- c. Heart rate increases from 66 to 92 beats/minute.
- d. Respiratory rate goes from 14 to 20 breaths/minute.

ANS: C

A change in heart rate of more than 20 beats over the resting heart rate indicates that the patient should stop and rest. The increases in BP and respiratory rate, and the slight decrease in oxygen saturation, are normal responses to exercise.

16. During the administration of the thrombolytic agent to a patient with an acute myocardial infarction (AMI), the nurse should stop the drug infusion if the patient experiences

- a. bleeding from the gums.
- b. increase in blood pressure.
- c. a decrease in level of consciousness.
- d. a nonsustained episode of ventricular tachycardia.

ANS: C

The change in level of consciousness indicates that the patient may be experiencing intracranial bleeding, a possible complication of thrombolytic therapy. Some bleeding of the gums is an expected side effect of the therapy but not an indication to stop infusion of the thrombolytic medication. A decrease in blood pressure could indicate internal bleeding. A nonsustained episode of ventricular tachycardia is a common reperfusion dysrhythmia and may indicate that the therapy is effective.

17. A patient is recovering from a myocardial infarction (MI) and develops chest pain on day 3 that increases when taking a deep breath and is relieved by leaning forward. Which action should the nurse take **next**?

- a. Assess the feet for pedal edema.
- b. Palpate the radial pulses bilaterally.
- c. Auscultate for a pericardial friction rub.
- d. Check the heart monitor for dysrhythmias.

ANS: C

The patients symptoms are consistent with the development of pericarditis, a possible complication of MI. The other assessments listed are not consistent with the description of the patients symptoms.

18. In preparation for discharge, the nurse teaches a patient with chronic stable angina how to use the prescribed short-acting and long-acting nitrates. Which patient statement indicates that the teaching has been effective?

- a. I will check my pulse rate before I take any nitroglycerin tablets.
- b. I will put the nitroglycerin patch on as soon as I get any chest pain.
- c. I will stop what I am doing and sit down before I put the nitroglycerin under my tongue.
- d. I will be sure to remove the nitroglycerin patch before taking any sublingual nitroglycerin.

ANS: C

The patient should sit down before taking the nitroglycerin to decrease cardiac workload and prevent orthostatic hypotension. Transdermal nitrates are used prophylactically rather than to treat acute pain and can be used concurrently with sublingual nitroglycerin. Although the nurse should check blood pressure before giving nitroglycerin, patients do not need to check the pulse rate before taking nitrates.

19. Three days after experiencing a myocardial infarction (MI), a patient who is scheduled for discharge asks for assistance with hygiene activities, saying, I am too nervous to take care of myself. Based on this information, which nursing diagnosis is appropriate?

- a. Ineffective coping related to anxiety
- b. Activity intolerance related to weakness
- c. Denial related to lack of acceptance of the MI
- d. Disturbed personal identity related to understanding of illness

ANS: A

The patient data indicate that ineffective coping after the MI caused by anxiety about the impact of the MI is a concern. The other nursing diagnoses may be appropriate for some patients after an MI, but the data for this patient do not support denial, activity intolerance, or disturbed personal identity.

20. When caring for a patient who is recovering from a sudden cardiac death (SCD) event and has no evidence of an acute myocardial infarction (AMI), the nurse will anticipate teaching the patient that

- a. sudden cardiac death events rarely reoccur.
- b. additional diagnostic testing will be required.
- c. long-term anticoagulation therapy will be needed.
- d. limited physical activity after discharge will be needed to prevent future events.

ANS: B

Diagnostic testing (e.g., stress test, Holter monitor, electrophysiologic studies, cardiac catheterization) is used to determine the possible cause of the SCD and treatment options. SCD is likely to recur. Anticoagulation therapy will not have any effect on the incidence of SCD, and SCD can occur even when the patient is resting.

21. A few days after experiencing a myocardial infarction (MI) and successful percutaneous coronary intervention, the patient states, I just had a little chest pain. As soon as I get out of here, Im going for my vacation as planned. Which reply would be **most** appropriate for the nurse to make?

- a. What do you think caused your chest pain?
- b. Where are you planning to go for your vacation?
- c. Sometimes plans need to change after a heart attack.
- d. Recovery from a heart attack takes at least a few weeks.

ANS: A

When the patient is experiencing denial, the nurse should assist the patient in testing reality until the patient has progressed beyond this step of the emotional adjustment to MI. Asking the patient about vacation plans reinforces the patient's plan, which is not appropriate in the immediate post-MI period. Reminding the patient in denial about the MI is likely to make the patient angry and lead to distrust of the nursing staff.

22. When evaluating the effectiveness of preoperative teaching with a patient scheduled for coronary artery bypass graft (CABG) surgery using the internal mammary artery, the nurse determines that additional teaching is needed when the patient says which of the following?

- a. They will circulate my blood with a machine during the surgery.
- b. I will have small incisions in my leg where they will remove the vein.
- c. They will use an artery near my heart to go around the area that is blocked.
- d. I will need to take an aspirin every day after the surgery to keep the graft open.

ANS: B

When the internal mammary artery is used there is no need to have a saphenous vein removed from the leg. The other statements by the patient are accurate and indicate that the teaching has been effective.

23. A patient who is recovering from an acute myocardial infarction (AMI) asks the nurse about when sexual intercourse can be resumed. Which response by the nurse is **best**?

- a. Most patients are able to enjoy intercourse without any complications.
- b. Sexual activity uses about as much energy as climbing two flights of stairs.

- c. The doctor will provide sexual guidelines when your heart is strong enough.
- d. Holding and cuddling are good ways to maintain intimacy after a heart attack.

ANS: B

Sexual activity places about as much physical stress on the cardiovascular system as most moderate-energy activities such as climbing two flights of stairs. The other responses do not directly address the patient's question or may not be accurate for this patient.

24. A patient with hyperlipidemia has a new order for colesevelam (Welchol). Which nursing action is **most** appropriate when giving the medication?

- a. Have the patient take this medication with an aspirin.
- b. Administer the medication at the patient's usual bedtime.
- c. Have the patient take the colesevelam with a sip of water.
- d. Give the patient's other medications 2 hours after the colesevelam.

ANS: D

The bile acid sequestrants interfere with the absorption of many other drugs, and giving other medications at the same time should be avoided. Taking an aspirin concurrently with the colesevelam may increase the incidence of gastrointestinal side effects such as heartburn. An increased fluid intake is encouraged for patients taking the bile acid sequestrants to reduce the risk for constipation. For maximum effect, colesevelam should be administered with meals.

25. The nurse is caring for a patient who was admitted to the coronary care unit following an acute myocardial infarction (AMI) and percutaneous coronary intervention the previous day. Teaching for this patient would include

- a. when cardiac rehabilitation will begin.

- b. the typical emotional responses to AMI.
- c. information regarding discharge medications.
- d. the pathophysiology of coronary artery disease.

ANS: A

Early after an AMI, the patient will want to know when resumption of usual activities can be expected. At this time, the patient's anxiety level or denial will interfere with good understanding of complex information such as the pathophysiology of coronary artery disease (CAD). Teaching about discharge medications should be done closer to discharge. The nurse should support the patient by decreasing anxiety rather than discussing the typical emotional responses to myocardial infarction (MI).

26. A patient who has recently started taking pravastatin (Pravachol) and niacin (Nicobid) reports the following symptoms to the nurse. Which is **most** important to communicate to the health care provider?

- a. Generalized muscle aches and pains
- b. Dizziness when changing positions quickly
- c. Nausea when taking the drugs before eating
- d. Flushing and pruritus after taking the medications

ANS: A

Muscle aches and pains may indicate myopathy and rhabdomyolysis, which have caused acute kidney injury and death in some patients who have taken the statin medications. These symptoms indicate that the pravastatin may need to be discontinued. The other symptoms are common side effects when taking niacin, and although the nurse should follow-up with the health care provider, they do not indicate that a change in medication is needed.

27. A patient who is being admitted to the emergency department with intermittent chest pain gives the following list of medications to the nurse. Which medication has the **most** immediate implications for the patients care?

- a. Sildenafil (Viagra)
- b. Furosemide (Lasix)
- c. Captopril (Capoten)
- d. Warfarin (Coumadin)

ANS: A

The nurse will need to avoid giving nitrates to the patient because nitrate administration is contraindicated in patients who are using sildenafil because of the risk of severe hypotension caused by vasodilation. The other home medications also should be documented and reported to the health care provider but do not have as immediate an impact on decisions about the patients treatment.

28. Which assessment finding by the nurse caring for a patient who has had coronary artery bypass grafting using a right radial artery graft is **most** important to communicate to the health care provider?

- a. Complaints of incisional chest pain
- b. Pallor and weakness of the right hand
- c. Fine crackles heard at both lung bases
- d. Redness on both sides of the sternal incision

ANS: B

The changes in the right hand indicate compromised blood flow, which requires immediate evaluation and actions such as prescribed calcium channel blockers or surgery. The other changes are expected and/or require nursing interventions.

29. When caring for a patient who has just arrived on the medical-surgical unit after having cardiac catheterization, which nursing intervention should the nurse delegate to a licensed practical/vocational nurse (LPN/LVN)?

- a. Give the scheduled aspirin and lipid-lowering medication.
- b. Perform the initial assessment of the catheter insertion site.
- c. Teach the patient about the usual postprocedure plan of care.
- d. Titrate the heparin infusion according to the agency protocol.

ANS: A

Administration of oral medications is within the scope of practice for LPNs/LVNs. The initial assessment of the patient, patient teaching, and titration of IV anticoagulant medications should be done by the registered nurse (RN).

30. Which electrocardiographic (ECG) change is **most** important for the nurse to report to the health care provider when caring for a patient with chest pain?

- a. Inverted P wave
- b. Sinus tachycardia
- c. ST-segment elevation
- d. First-degree atrioventricular block

ANS: C

The patient is likely to be experiencing an ST-segment-elevation myocardial infarction (STEMI). Immediate therapy with percutaneous coronary intervention (PCI) or thrombolytic medication is indicated to minimize myocardial damage. The other ECG changes may also suggest a need for therapy, but not as rapidly.

31. When caring for a patient with acute coronary syndrome who has returned to the coronary care unit after having angioplasty with stent placement, the nurse obtains the

following assessment data. Which data indicate the need for **immediate** action by the nurse?

- a. Heart rate 102 beats/min
- b. Pedal pulses 1+ bilaterally
- c. Blood pressure 103/54 mm Hg
- d. Chest pain level 7 on a 0 to 10 point scale

ANS: D

The patient's chest pain indicates that restenosis of the coronary artery may be occurring and requires immediate actions, such as administration of oxygen and nitroglycerin, by the nurse. The other information indicates a need for ongoing assessments by the nurse.

32. A patient admitted to the coronary care unit (CCU) with an ST-segment-elevation myocardial infarction (STEMI) is restless and anxious. The blood pressure is 86/40 and heart rate is 123. Based on this information, which nursing diagnosis is a **priority** for the patient?

- a. Acute pain related to myocardial infarction
- b. Anxiety related to perceived threat of death
- c. Stress overload related to acute change in health
- d. Decreased cardiac output related to cardiogenic shock

ANS: C

All the nursing diagnoses may be appropriate for this patient, but the hypotension and tachycardia indicate decreased cardiac output and shock from the damaged myocardium. This will result in decreased perfusion to all vital organs (e.g., brain, kidney, heart) and is a priority.

33. When admitting a patient with a nonST-segment-elevation myocardial infarction (NSTEMI) to the intensive care unit, which action should the nurse perform **first**?

- a. Obtain the blood pressure.
- b. Attach the cardiac monitor.
- c. Assess the peripheral pulses.
- d. Auscultate the breath sounds.

ANS: B

Because dysrhythmias are the most common complication of myocardial infarction (MI), the first action should be to place the patient on a cardiac monitor. The other actions also are important and should be accomplished as quickly as possible.

Chapter 34. Management: Heart Failure

MULTIPLE CHOICE

1. While assessing a 68-year-old with ascites, the nurse also notes jugular venous distention (JVD) with the head of the patient's bed elevated 45 degrees. The nurse knows this finding indicates

- a. decreased fluid volume.
- b. jugular vein atherosclerosis.
- c. increased right atrial pressure.
- d. incompetent jugular vein valves.

ANS: C

The jugular veins empty into the superior vena cava and then into the right atrium, so JVD with the patient sitting at a 45-degree angle reflects increased right atrial pressure. JVD is an indicator of excessive fluid volume (increased preload), not

decreased fluid volume. JVD is not caused by incompetent jugular vein valves or atherosclerosis.

2. The nurse is caring for a patient who is receiving IV furosemide (Lasix) and morphine for the treatment of acute decompensated heart failure (ADHF) with severe orthopnea. Which clinical finding is the **best** indicator that the treatment has been effective?

- a. Weight loss of 2 pounds in 24 hours
- b. Hourly urine output greater than 60 mL
- c. Reduction in patient complaints of chest pain
- d. Reduced dyspnea with the head of bed at 30 degrees

ANS: D

Because the patient's major clinical manifestation of ADHF is orthopnea (caused by the presence of fluid in the alveoli), the best indicator that the medications are effective is a decrease in dyspnea with the head of the bed at 30 degrees. The other assessment data also may indicate that diuresis or improvement in cardiac output has occurred, but are not as specific to evaluating this patient's response.

3. Which topic will the nurse plan to include in discharge teaching for a patient with systolic heart failure and an ejection fraction of 33%?

- a. Need to begin an aerobic exercise program several times weekly
- b. Use of salt substitutes to replace table salt when cooking and at the table
- c. Benefits and side effects of angiotensin-converting enzyme (ACE) inhibitors
- d. Importance of making an annual appointment with the primary care provider

ANS: C

The core measures for the treatment of heart failure established by The Joint Commission indicate that patients with an ejection fraction (EF) <40% receive an ACE inhibitor to decrease the progression of heart failure. Aerobic exercise may not be appropriate for a patient with this level of heart failure, salt substitutes are not usually recommended because of the risk of hyperkalemia, and the patient will need to see the primary care provider more frequently than annually.

4. IV sodium nitroprusside (Nipride) is ordered for a patient with acute pulmonary edema. During the first hours of administration, the nurse will need to titrate the nitroprusside rate if the patient develops

- a. ventricular ectopy.
- b. a dry, hacking cough.
- c. a systolic BP <90 mm Hg.
- d. a heart rate <50 beats/minute.

ANS: C

Sodium nitroprusside is a potent vasodilator, and the major adverse effect is severe hypotension. Coughing and bradycardia are not adverse effects of this medication. Nitroprusside does not cause increased ventricular ectopy.

5. A patient who has chronic heart failure tells the nurse, I was fine when I went to bed, but I woke up in the middle of the night feeling like I was suffocating! The nurse will document this assessment finding as

- a. orthopnea.
- b. pulsus alternans.
- c. paroxysmal nocturnal dyspnea.
- d. acute bilateral pleural effusion.

ANS: C

Paroxysmal nocturnal dyspnea is caused by the reabsorption of fluid from dependent body areas when the patient is sleeping and is characterized by waking up suddenly with the feeling of suffocation. Pulsus alternans is the alternation of strong and weak peripheral pulses during palpation. Orthopnea indicates that the patient is unable to lie flat because of dyspnea. Pleural effusions develop over a longer time period.

6. During a visit to a 78-year-old with chronic heart failure, the home care nurse finds that the patient has ankle edema, a 2-kg weight gain over the past 2 days, and complains of feeling too tired to get out of bed. Based on these data, the **best** nursing diagnosis for the patient is

- a. activity intolerance related to fatigue.
- b. disturbed body image related to weight gain.
- c. impaired skin integrity related to ankle edema.
- d. impaired gas exchange related to dyspnea on exertion.

ANS: A

The patient's statement supports the diagnosis of activity intolerance. There are no data to support the other diagnoses, although the nurse will need to assess for other patient problems.

7. The nurse working on the heart failure unit knows that teaching an older female patient with newly diagnosed heart failure is effective when the patient states that

- a. she will take furosemide (Lasix) every day at bedtime.
- b. the nitroglycerin patch is applied when any chest pain develops.
- c. she will call the clinic if her weight goes from 124 to 128 pounds in a week.
- d. an additional pillow can help her sleep if she is feeling short of breath at night.

ANS: C

Teaching for a patient with heart failure includes information about the need to weigh daily and notify the health care provider about an increase of 3 pounds in 2 days or 3 to 5 pounds in a week. Nitroglycerin patches are used primarily to reduce preload (not to prevent chest pain) in patients with heart failure and should be used daily, not on an as needed basis. Diuretics should be taken earlier in the day to avoid nocturia and sleep disturbance. The patient should call the clinic if increased orthopnea develops, rather than just compensating by further elevating the head of the bed.

8. When teaching the patient with newly diagnosed heart failure about a 2000-mg sodium diet, the nurse explains that foods to be restricted include

- a. canned and frozen fruits.
- b. fresh or frozen vegetables.
- c. eggs and other high-protein foods.
- d. milk, yogurt, and other milk products.

ANS: D

Milk and yogurt naturally contain a significant amount of sodium, and intake of these should be limited for patients on a diet that limits sodium to 2000 mg daily. Other milk products, such as processed cheeses, have very high levels of sodium and are not appropriate for a 2000-mg sodium diet. The other foods listed have minimal levels of sodium and can be eaten without restriction.

9. The nurse plans discharge teaching for a patient with chronic heart failure who has prescriptions for digoxin (Lanoxin) and hydrochlorothiazide (HydroDIURIL).

Appropriate instructions for the patient include

- a. limit dietary sources of potassium.
- b. take the hydrochlorothiazide before bedtime.
- c. notify the health care provider if nausea develops.
- d. skip the digoxin if the pulse is below 60 beats/minute.

ANS: C

Nausea is an indication of digoxin toxicity and should be reported so that the provider can assess the patient for toxicity and adjust the digoxin dose, if necessary. The patient will need to include potassium-containing foods in the diet to avoid hypokalemia. Patients should be taught to check their pulse daily before taking the digoxin and if the pulse is less than 60, to call their provider before taking the digoxin. Diuretics should be taken early in the day to avoid sleep disruption.

10. While admitting an 82-year-old with acute decompensated heart failure to the hospital, the nurse learns that the patient lives alone and sometimes confuses the water pill with the heart pill. When planning for the patient's discharge the nurse will facilitate a

- a. consult with a psychologist.
- b. transfer to a long-term care facility.
- c. referral to a home health care agency.
- d. arrangements for around-the-clock care.

ANS: C

The data about the patient suggest that assistance in developing a system for taking medications correctly at home is needed. A home health nurse will assess the patient's home situation and help the patient develop a method for taking the two medications as directed. There is no evidence that the patient requires services such as a psychologist consult, long-term care, or around-the-clock home care.

11. Following an acute myocardial infarction, a previously healthy 63-year-old develops clinical manifestations of heart failure. The nurse anticipates discharge teaching will include information about

- a. digitalis preparations.
- b. β -adrenergic blockers.

- c. calcium channel blockers.
- d. angiotensin-converting enzyme (ACE) inhibitors.

ANS: D

ACE inhibitor therapy is currently recommended to prevent the development of heart failure in patients who have had a myocardial infarction and as a first-line therapy for patients with chronic heart failure. Digoxin therapy for heart failure is no longer considered a first-line measure, and digoxin is added to the treatment protocol when therapy with other medications such as ACE-inhibitors, diuretics, and β -adrenergic blockers is insufficient. Calcium channel blockers are not generally used in the treatment of heart failure. The β -adrenergic blockers are not used as initial therapy for new onset heart failure.

12. A 53-year-old patient with Stage D heart failure and type 2 diabetes asks the nurse whether heart transplant is a possible therapy. Which response by the nurse is **most** appropriate?

- a. Because you have diabetes, you would not be a candidate for a heart transplant.
- b. The choice of a patient for a heart transplant depends on many different factors.
- c. Your heart failure has not reached the stage in which heart transplants are needed.
- d. People who have heart transplants are at risk for multiple complications after surgery.

ANS: B

Indications for a heart transplant include end-stage heart failure (Stage D), but other factors such as coping skills, family support, and patient motivation to follow the rigorous posttransplant regimen are also considered. Diabetic patients who have well-controlled blood glucose levels may be candidates for heart transplant. Although heart

transplants can be associated with many complications, this response does not address the patient's question.

13. Which diagnostic test will be **most** useful to the nurse in determining whether a patient admitted with acute shortness of breath has heart failure?

- a. Serum troponin
- b. Arterial blood gases
- c. B-type natriuretic peptide
- d. 12-lead electrocardiogram

ANS: C

B-type natriuretic peptide (BNP) is secreted when ventricular pressures increase, as they do with heart failure. Elevated BNP indicates a probable or very probable diagnosis of heart failure. A twelve-lead electrocardiogram, arterial blood gases, and troponin may also be used in determining the causes or effects of heart failure but are not as clearly diagnostic of heart failure as BNP.

14. Which action should the nurse include in the plan of care when caring for a patient admitted with acute decompensated heart failure (ADHF) who is receiving nesiritide (Natrekor)?

- a. Monitor blood pressure frequently.
- b. Encourage patient to ambulate in room.
- c. Titrate nesiritide slowly before stopping.
- d. Teach patient about home use of the drug.

ANS: A

Nesiritide is a potent arterial and venous dilator, and the major adverse effect is hypotension. Because the patient is likely to have orthostatic hypotension, the patient

should not be encouraged to ambulate. Nesiritide does not require titration and is used for ADHF but not in a home setting.

15. A patient with heart failure has a new order for captopril (Capoten) 12.5 mg PO. After administering the first dose and teaching the patient about the drug, which statement by the patient indicates that teaching has been effective?

- a. I will be sure to take the medication with food.
- b. I will need to eat more potassium-rich foods in my diet.
- c. I will call for help when I need to get up to use the bathroom.
- d. I will expect to feel more short of breath for the next few days.

ANS: C

Captopril can cause hypotension, especially after the initial dose, so it is important that the patient not get up out of bed without assistance until the nurse has had a chance to evaluate the effect of the first dose. The angiotensin-converting enzyme (ACE) inhibitors are potassium sparing, and the nurse should not teach the patient to purposely increase sources of dietary potassium. Increased shortness of breath is expected with the initiation of β -adrenergic blocker therapy for heart failure, not for ACE inhibitor therapy. ACE inhibitors are best absorbed when taken an hour before eating.

16. A patient who has just been admitted with pulmonary edema is scheduled to receive the following medications. Which medication should the nurse question before giving?

- a. Furosemide (Lasix) 60 mg
- b. Captopril (Capoten) 25 mg
- c. Digoxin (Lanoxin) 0.125 mg
- d. Carvedilol (Coreg) 3.125 mg

ANS: D

Although carvedilol is appropriate for the treatment of chronic heart failure, it is not used for patients with acute decompensated heart failure (ADHF) because of the risk of worsening the heart failure. The other medications are appropriate for the patient with ADHF.

17. A patient with a history of chronic heart failure is admitted to the emergency department (ED) with severe dyspnea and a dry, hacking cough. Which action should the nurse do **first**?

- a. Auscultate the abdomen.
- b. Check the capillary refill.
- c. Auscultate the breath sounds.
- d. Assess the level of orientation.

ANS: C

This patient's severe dyspnea and cough indicate that acute decompensated heart failure (ADHF) is occurring. ADHF usually manifests as pulmonary edema, which should be detected and treated immediately to prevent ongoing hypoxemia and cardiac/respiratory arrest. The other assessments will provide useful data about the patient's volume status and also should be accomplished rapidly, but detection (and treatment) of pulmonary complications is the priority.

18. A patient with chronic heart failure who is taking a diuretic and an angiotensin-converting enzyme (ACE) inhibitor and who is on a low-sodium diet tells the home health nurse about a 5-pound weight gain in the last 3 days. The nurse's priority action will be to

- a. have the patient recall the dietary intake for the last 3 days.
- b. ask the patient about the use of the prescribed medications.
- c. assess the patient for clinical manifestations of acute heart failure.
- d. teach the patient about the importance of restricting dietary sodium.

ANS: C

The 5-pound weight gain over 3 days indicates that the patient's chronic heart failure may be worsening. It is important that the patient be assessed immediately for other clinical manifestations of decompensation, such as lung crackles. A dietary recall to detect hidden sodium in the diet, reinforcement of sodium restrictions, and assessment of medication compliance may be appropriate interventions but are not the first nursing actions indicated.

19. A patient in the intensive care unit with acute decompensated heart failure (ADHF) complains of severe dyspnea and is anxious, tachypneic, and tachycardic. All of the following medications have been ordered for the patient. The nurse's **priority** action will be to

- a. give IV morphine sulfate 4 mg.
- b. give IV diazepam (Valium) 2.5 mg.
- c. increase nitroglycerin (Tridil) infusion by 5 mcg/min.
- d. increase dopamine (Intropin) infusion by 2 mcg/kg/min.

ANS: A

Morphine improves alveolar gas exchange, improves cardiac output by reducing ventricular preload and afterload, decreases anxiety, and assists in reducing the subjective feeling of dyspnea. Diazepam may decrease patient anxiety, but it will not improve the cardiac output or gas exchange. Increasing the dopamine may improve cardiac output, but it will also increase the heart rate and myocardial oxygen consumption. Nitroglycerin will improve cardiac output and may be appropriate for this patient, but it will not directly reduce anxiety and will not act as quickly as morphine to decrease dyspnea.

20. After receiving change-of-shift report on a heart failure unit, which patient should the nurse assess **first**?

- a. A patient who is cool and clammy, with new-onset confusion and restlessness
- b. A patient who has crackles bilaterally in the lung bases and is receiving oxygen.
- c. A patient who had dizziness after receiving the first dose of captopril (Capoten)
- d. A patient who is receiving IV nesiritide (Natreacor) and has a blood pressure of 100/62

ANS: A

The patient who has wet-cold clinical manifestations of heart failure is perfusing inadequately and needs rapid assessment and changes in management. The other patients also should be assessed as quickly as possible but do not have indications of severe decreases in tissue perfusion.

21. Which assessment finding in a patient admitted with acute decompensated heart failure (ADHF) requires the most **immediate** action by the nurse?

- a. Oxygen saturation of 88%
- b. Weight gain of 1 kg (2.2 lb)
- c. Heart rate of 106 beats/minute
- d. Urine output of 50 mL over 2 hours

ANS: A

A decrease in oxygen saturation to less than 92% indicates hypoxemia. The nurse should administer supplemental oxygen immediately to the patient. An increase in apical pulse rate, 1-kg weight gain, and decreases in urine output also indicate worsening heart failure and require nursing actions, but the low oxygen saturation rate requires the most immediate nursing action.

22. A patient has recently started on digoxin (Lanoxin) in addition to furosemide (Lasix) and captopril (Capoten) for the management of heart failure. Which

assessment finding by the home health nurse is a **priority** to communicate to the health care provider?

- a. Presence of 1 to 2+ edema in the feet and ankles
- b. Palpable liver edge 2 cm below the ribs on the right side
- c. Serum potassium level 3.0 mEq/L after 1 week of therapy
- d. Weight increase from 120 pounds to 122 pounds over 3 days

ANS: C

Hypokalemia can predispose the patient to life-threatening dysrhythmias (e.g., premature ventricular contractions), and potentiate the actions of digoxin and increase the risk for digoxin toxicity, which can also cause life-threatening dysrhythmias. The other data indicate that the patient's heart failure requires more effective therapies, but they do not require nursing action as rapidly as the low serum potassium level.

23. An outpatient who has chronic heart failure returns to the clinic after 2 weeks of therapy with metoprolol (Toprol XL). Which assessment finding is **most** important for the nurse to report to the health care provider?

- a. 2+ pedal edema
- b. Heart rate of 56 beats/minute
- c. Blood pressure (BP) of 88/42 mm Hg
- d. Complaints of fatigue

ANS: C

The patient's BP indicates that the dose of metoprolol may need to be decreased because of hypotension. Bradycardia is a frequent adverse effect of β -adrenergic blockade, but the rate of 56 is not unusual with β -adrenergic blocker therapy. β -Adrenergic blockade initially will worsen symptoms of heart failure in many patients, and patients should be taught that some increase in symptoms, such as fatigue and edema, is expected during the initiation of therapy with this class of drugs.

24. A patient who is receiving dobutamine (Dobutrex) for the treatment of acute decompensated heart failure (ADHF) has the following nursing interventions included in the plan of care. Which action will be **most** appropriate for the registered nurse (RN) to delegate to an experienced licensed practical/vocational nurse (LPN/LVN)?

- a. Assess the IV insertion site for signs of extravasation.
- b. Teach the patient the reasons for remaining on bed rest.
- c. Monitor the patient's blood pressure and heart rate every hour.
- d. Titrate the rate to keep the systolic blood pressure >90 mm Hg.

ANS: C

An experienced LPN/LVN would be able to monitor BP and heart rate and would know to report significant changes to the RN. Teaching patients, making adjustments to the drip rate for vasoactive medications, and monitoring for serious complications such as extravasation require RN level education and scope of practice.

25. After receiving change-of-shift report on a heart failure unit, which patient should the nurse assess **first**?

- a. Patient who is taking carvedilol (Coreg) and has a heart rate of 58
- b. Patient who is taking digoxin and has a potassium level of 3.1 mEq/L
- c. Patient who is taking isosorbide dinitrate/hydralazine (BiDil) and has a headache
- d. Patient who is taking captopril (Capoten) and has a frequent nonproductive cough

ANS: B

The patient's low potassium level increases the risk for digoxin toxicity and potentially fatal dysrhythmias. The nurse should assess the patient for other signs of digoxin toxicity and then notify the health care provider about the potassium level. The other patients also have side effects of their medications, but their symptoms do not indicate potentially life-threatening complications.

MULTIPLE RESPONSE

1. Based on the Joint Commission Core Measures for patients with heart failure, which topics should the nurse include in the discharge teaching plan for a patient who has been hospitalized with chronic heart failure (*select all that apply*)?

- a. How to take and record daily weight
- b. Importance of limiting aerobic exercise
- c. Date and time of follow-up appointment
- d. Symptoms indicating worsening heart failure
- e. Actions and side effects of prescribed medications

ANS: A, C, D, E

The Joint Commission Core Measures state that patients should be taught about prescribed medications, follow-up appointments, weight monitoring, and actions to take for worsening symptoms. Patients with heart failure are encouraged to begin or continue aerobic exercises such as walking, while self-monitoring to avoid excessive fatigue.

Chapter 35. Management: Dysrhythmias

MULTIPLE CHOICE

1. To determine whether there is a delay in impulse conduction through the atria, the nurse will measure the duration of the patients

- a. P wave.
- b. Q wave.
- c. P-R interval.
- d. QRS complex.

ANS: A

The P wave represents the depolarization of the atria. The P-R interval represents depolarization of the atria, atrioventricular (AV) node, bundle of His, bundle branches, and the Purkinje fibers. The QRS represents ventricular depolarization. The Q wave is the first negative deflection following the P wave and should be narrow and short.

2. The nurse needs to quickly estimate the heart rate for a patient with a regular heart rhythm. Which method will be **best** to use?

- a. Count the number of large squares in the R-R interval and divide by 300.
- b. Print a 1-minute electrocardiogram (ECG) strip and count the number of QRS complexes.
- c. Calculate the number of small squares between one QRS complex and the next and divide into 1500.
- d. Use the 3-second markers to count the number of QRS complexes in 6 seconds and multiply by 10.

ANS: D

This is the quickest way to determine the ventricular rate for a patient with a regular rhythm. All the other methods are accurate, but take longer.

3. A patient has a junctional escape rhythm on the monitor. The nurse will expect the patient to have a heart rate of _____ beats/minute.

- a. 15 to 20
- b. 20 to 40
- c. 40 to 60
- d. 60 to 100

ANS: C

If the sinoatrial (SA) node fails to discharge, the atrioventricular (AV) node will automatically discharge at the normal rate of 40 to 60 beats/minute. The slower rates are typical of the bundle of His and the Purkinje system and may be seen with failure of both the SA and AV node to discharge. The normal SA node rate is 60 to 100 beats/minute.

4. The nurse obtains a rhythm strip on a patient who has had a myocardial infarction and makes the following analysis: no visible P waves, P-R interval not measurable, ventricular rate 162, R-R interval regular, and QRS complex wide and distorted, QRS duration 0.18 second. The nurse interprets the patient's cardiac rhythm as

- a. atrial flutter.
- b. sinus tachycardia.
- c. ventricular fibrillation.
- d. ventricular tachycardia.

ANS: D

The absence of P waves, wide QRS, rate >150 beats/minute, and the regularity of the rhythm indicate ventricular tachycardia. Atrial flutter is usually regular, has a narrow QRS configuration, and has flutter waves present representing atrial activity. Sinus tachycardia has P waves. Ventricular fibrillation is irregular and does not have a consistent QRS duration.

5. The nurse notes that a patient's cardiac monitor shows that every other beat is earlier than expected, has no visible P wave, and has a QRS complex that is wide and bizarre in shape. How will the nurse document the rhythm?

- a. Ventricular couplets
- b. Ventricular bigeminy
- c. Ventricular R-on-T phenomenon
- d. Multifocal premature ventricular contractions

ANS: B

Ventricular bigeminy describes a rhythm in which every other QRS complex is wide and bizarre looking. Pairs of wide QRS complexes are described as ventricular couplets. There is no indication that the premature ventricular contractions (PVCs) are multifocal or that the R-on-T phenomenon is occurring.

6. A patient has a normal cardiac rhythm and a heart rate of 72 beats/minute. The nurse determines that the P-R interval is 0.24 seconds. The **most** appropriate intervention by the nurse would be to

- a. notify the health care provider immediately.
- b. give atropine per agency dysrhythmia protocol.
- c. prepare the patient for temporary pacemaker insertion.
- d. document the finding and continue to monitor the patient.

ANS: D

First-degree atrioventricular (AV) block is asymptomatic and requires ongoing monitoring because it may progress to more serious forms of heart block. The rate is normal, so there is no indication that atropine is needed. Immediate notification of the health care provider about an asymptomatic rhythm is not necessary.

7. A patient who was admitted with a myocardial infarction experiences a 45-second episode of ventricular tachycardia, then converts to sinus rhythm with a heart rate of 98 beats/minute. Which of the following actions should the nurse take **next**?

- a. Immediately notify the health care provider.
- b. Document the rhythm and continue to monitor the patient.
- c. Perform synchronized cardioversion per agency dysrhythmia protocol.
- d. Prepare to give IV amiodarone (Cordarone) per agency dysrhythmia protocol.

ANS: D

The burst of sustained ventricular tachycardia indicates that the patient has significant ventricular irritability, and antidysrhythmic medication administration is needed to prevent further episodes. The nurse should notify the health care provider after the medication is started. Defibrillation is not indicated given that the patient is currently in a sinus rhythm. Documentation and continued monitoring are not adequate responses to this situation.

8. After the nurse gives IV atropine to a patient with symptomatic type 1, second-degree atrioventricular (AV) block, which finding indicates that the medication has been effective?

- a. Increase in the patient's heart rate
- b. Increase in strength of peripheral pulses
- c. Decrease in premature atrial contractions
- d. Decrease in premature ventricular contractions

ANS: A

Atropine will increase the heart rate and conduction through the AV node. Because the medication increases electrical conduction, not cardiac contractility, the quality of the peripheral pulses is not used to evaluate the drug effectiveness. The patient does not have premature atrial or ventricular contractions.

9. A patient with dilated cardiomyopathy has new onset atrial fibrillation that has been unresponsive to drug therapy for several days. The **priority** teaching needed for this patient would include information about

- a. anticoagulant therapy.
- b. permanent pacemakers.
- c. electrical cardioversion.
- d. IV adenosine (Adenocard).

ANS: A

Atrial fibrillation therapy that has persisted for more than 48 hours requires anticoagulant treatment for 3 weeks before attempting cardioversion. This is done to prevent embolization of clots from the atria. Cardioversion may be done after several weeks of anticoagulation therapy. Adenosine is not used to treat atrial fibrillation. Pacemakers are routinely used for patients with bradydysrhythmias. Information does not indicate that the patient has a slow heart rate.

10. Which information will the nurse include when teaching a patient who is scheduled for a radiofrequency catheter ablation for treatment of atrial flutter?

- a. The procedure will prevent or minimize the risk for sudden cardiac death.
- b. The procedure will use cold therapy to stop the formation of the flutter waves.
- c. The procedure will use electrical energy to destroy areas of the conduction system.
- d. The procedure will stimulate the growth of new conduction pathways between the atria.

ANS: C

Radiofrequency catheter ablation therapy uses electrical energy to burn or ablate areas of the conduction system as definitive treatment of atrial flutter (i.e., restore normal sinus rhythm) and tachydysrhythmias. All other statements regarding the procedure are incorrect.

11. After providing a patient with discharge instructions on the management of a new permanent pacemaker, the nurse knows that teaching has been effective when the patient states

- a. I will avoid cooking with a microwave oven or being near one in use.
- b. It will be 1 month before I can take a bath or return to my usual activities.

- c. I will notify the airlines when I make a reservation that I have a pacemaker.
- d. I won't lift the arm on the pacemaker side up very high until I see the doctor.

ANS: D

The patient is instructed to avoid lifting the arm on the pacemaker side above the shoulder to avoid displacing the pacemaker leads. The patient should notify airport security about the presence of a pacemaker before going through the metal detector, but there is no need to notify the airlines when making a reservation. Microwave oven use does not affect the pacemaker. The insertion procedure involves minor surgery that will have a short recovery period.

12. Which intervention by a new nurse who is caring for a patient who has just had an implantable cardioverter-defibrillator (ICD) inserted indicates a need for more education about care of patients with ICDs?

- a. The nurse assists the patient to do active range of motion exercises for all extremities.
- b. The nurse assists the patient to fill out the application for obtaining a Medic Alert ID.
- c. The nurse gives amiodarone (Cordarone) to the patient without first consulting with the health care provider.
- d. The nurse teaches the patient that sexual activity usually can be resumed once the surgical incision is healed.

ANS: A

The patient should avoid moving the arm on the ICD insertion site until healing has occurred in order to prevent displacement of the ICD leads. The other actions by the new nurse are appropriate for this patient.

13. Which action should the nurse perform when preparing a patient with supraventricular tachycardia for cardioversion who is alert and has a blood pressure of 110/66 mm Hg?

- a. Turn the synchronizer switch to the off position.
- b. Give a sedative before cardioversion is implemented.
- c. Set the defibrillator/cardioverter energy to 360 joules.
- d. Provide assisted ventilations with a bag-valve-mask device.

ANS: B

When a patient has a nonemergency cardioversion, sedation is used just before the procedure. The synchronizer switch is turned on for cardioversion. The initial level of joules for cardioversion is low (e.g., 50). Assisted ventilations are not indicated for this patient.

14. A 20-year-old has a mandatory electrocardiogram (ECG) before participating on a college soccer team and is found to have sinus bradycardia, rate 52. Blood pressure (BP) is 114/54, and the student denies any health problems. What action by the nurse is **most** appropriate?

- a. Allow the student to participate on the soccer team.
- b. Refer the student to a cardiologist for further diagnostic testing.
- c. Tell the student to stop playing immediately if any dyspnea occurs.
- d. Obtain more detailed information about the students family health history.

ANS: A

In an aerobically trained individual, sinus bradycardia is normal. The students normal BP and negative health history indicate that there is no need for a cardiology referral or for more detailed information about the familys health history. Dyspnea during an aerobic activity such as soccer is normal.

15. When analyzing the rhythm of a patient's electrocardiogram (ECG), the nurse will need to investigate further upon finding a(n)

- a. isoelectric ST segment.
- b. P-R interval of 0.18 second.
- c. Q-T interval of 0.38 second.
- d. QRS interval of 0.14 second.

ANS: D

Because the normal QRS interval is 0.04 to 0.10 seconds, the patient's QRS interval of 0.14 seconds indicates that the conduction through the ventricular conduction system is prolonged. The P-R interval and Q-T interval are within normal range, and ST segment should be isoelectric (flat).

16. A patient has ST segment changes that support an acute inferior wall myocardial infarction. Which lead would be **best** for monitoring the patient?

- a. I
- b. II
- c. V₂
- d. V₆

ANS: B

Leads II, III, and AVF reflect the inferior area of the heart and the ST segment changes. Lead II will best capture any electrocardiographic (ECG) changes that indicate further damage to the myocardium. The other leads do not reflect the inferior part of the myocardial wall and will not provide data about further ischemic changes in that area.

17. Which laboratory result for a patient with multifocal premature ventricular contractions (PVCs) is **most** important for the nurse to communicate to the health care provider?

- a. Blood glucose 243 mg/dL
- b. Serum chloride 92 mEq/L
- c. Serum sodium 134 mEq/L
- d. Serum potassium 2.9 mEq/L

ANS: D

Hypokalemia increases the risk for ventricular dysrhythmias such as PVCs, ventricular tachycardia, and ventricular fibrillation. The health care provider will need to prescribe a potassium infusion to correct this abnormality. Although the other laboratory values also are abnormal, they are not likely to be the etiology of the patients PVCs and do not require immediate correction.

18. A patients cardiac monitor shows a pattern of undulations of varying contours and amplitude with no measurable ECG pattern. The patient is unconscious and pulseless. Which action should the nurse take **first**?

- a. Perform immediate defibrillation.
- b. Give epinephrine (Adrenalin) IV.
- c. Prepare for endotracheal intubation.
- d. Give ventilations with a bag-valve-mask device.

ANS: A

The patients rhythm and assessment indicate ventricular fibrillation and cardiac arrest; the initial action should be to defibrillate. If a defibrillator is not immediately available or is unsuccessful in converting the patient to a better rhythm, the other actions may be appropriate.

19. A patient's cardiac monitor shows sinus rhythm, rate 64. The P-R interval is 0.18 seconds at 1:00 AM, 0.22 seconds at 2:30 PM, and 0.28 seconds at 4:00 PM. Which action should the nurse take **next**?

- a. Place the transcutaneous pacemaker pads on the patient.
- b. Administer atropine sulfate 1 mg IV per agency dysrhythmia protocol.
- c. Document the patient's rhythm and assess the patient's response to the rhythm.
- d. Call the health care provider before giving the next dose of metoprolol (Lopressor).

ANS: D

The patient has progressive first-degree atrioventricular (AV) block, and the β -blocker should be held until discussing the medication with the health care provider.

Documentation and assessment are appropriate but not fully adequate responses. The patient with first-degree AV block usually is asymptomatic, and a pacemaker is not indicated. Atropine is sometimes used for symptomatic bradycardia, but there is no indication that this patient is symptomatic.

20. A patient develops sinus bradycardia at a rate of 32 beats/minute, has a blood pressure (BP) of 80/42 mm Hg, and is complaining of feeling faint. Which actions should the nurse take **next**?

- a. Recheck the heart rhythm and BP in 5 minutes.
- b. Have the patient perform the Valsalva maneuver.
- c. Give the scheduled dose of diltiazem (Cardizem).
- d. Apply the transcutaneous pacemaker (TCP) pads.

ANS: D

The patient is experiencing symptomatic bradycardia, and treatment with TCP is appropriate. Continued monitoring of the rhythm and BP is an inadequate response.

Calcium channel blockers will further decrease the heart rate, and the diltiazem should be held. The Valsalva maneuver will further decrease the rate.

21. A 19-year-old student comes to the student health center at the end of the semester complaining that, My heart is skipping beats. An electrocardiogram (ECG) shows occasional premature ventricular contractions (PVCs). What action should the nurse take **next**?

- a. Start supplemental O₂ at 2 to 3 L/min via nasal cannula.
- b. Ask the patient about current stress level and caffeine use.
- c. Ask the patient about any history of coronary artery disease.
- d. Have the patient taken to the hospital emergency department (ED).

ANS: B

In a patient with a normal heart, occasional PVCs are a benign finding. The timing of the PVCs suggests stress or caffeine as possible etiologic factors. It is unlikely that the patient has coronary artery disease, and this should not be the first question the nurse asks. The patient is hemodynamically stable, so there is no indication that the patient needs to be seen in the ED or that oxygen needs to be administered.

22. The nurse has received change-of-shift report about the following patients on the progressive care unit. Which patient should the nurse see **first**?

- a. A patient who is in a sinus rhythm, rate 98, after having electrical cardioversion 2 hours ago
- b. A patient with new onset atrial fibrillation, rate 88, who has a first dose of warfarin (Coumadin) due
- c. A patient with second-degree atrioventricular (AV) block, type 1, rate 60, who is dizzy when ambulating
- d. A patient whose implantable cardioverter-defibrillator (ICD) fired two times today who has a dose of amiodarone (Cordarone) due

ANS: D

The frequent firing of the ICD indicates that the patient's ventricles are very irritable, and the priority is to assess the patient and administer the amiodarone. The other patients may be seen after the amiodarone is administered.

23. A patient who is on the progressive care unit develops atrial flutter, rate 150, with associated dyspnea and chest pain. Which action that is included in the hospital dysrhythmia protocol should the nurse do **first**?

- a. Obtain a 12-lead electrocardiogram (ECG).
- b. Notify the health care provider of the change in rhythm.
- c. Give supplemental O₂ at 2 to 3 L/min via nasal cannula.
- d. Assess the patient's vital signs including oxygen saturation.

ANS: C

Because this patient has dyspnea and chest pain in association with the new rhythm, the nurse's initial actions should be to address the patient's airway, breathing, and circulation (ABC) by starting with oxygen administration. The other actions also are important and should be implemented rapidly.

24. A patient whose heart monitor shows sinus tachycardia, rate 132, is apneic and has no palpable pulses. What is the **first** action that the nurse should take?

- a. Perform synchronized cardioversion.
- b. Start cardiopulmonary resuscitation (CPR).
- c. Administer atropine per agency dysrhythmia protocol.
- d. Provide supplemental oxygen via non-rebreather mask.

ANS: B

The patient's clinical manifestations indicate pulseless electrical activity and the nurse should immediately start CPR. The other actions would not be of benefit to this patient.

25. Which action will the nurse include in the plan of care for a patient who was admitted with syncopal episodes of unknown origin?

- a. Instruct the patient to call for assistance before getting out of bed.
- b. Explain the association between various dysrhythmias and syncope.
- c. Educate the patient about the need to avoid caffeine and other stimulants.
- d. Tell the patient about the benefits of implantable cardioverter-defibrillators.

ANS: A

A patient with fainting episodes is at risk for falls. The nurse will plan to minimize the risk by having assistance whenever the patient up. The other actions may be needed if dysrhythmias are found to be the cause of the patients syncope, but are not appropriate for syncope of unknown origin.

26. Which nursing action can the registered nurse (RN) delegate to experienced unlicensed assistive personnel (UAP) working as a telemetry technician on the cardiac care unit?

- a. Decide whether a patients heart rate of 116 requires urgent treatment.
- b. Monitor a patients level of consciousness during synchronized cardioversion.
- c. Observe cardiac rhythms for multiple patients who have telemetry monitoring.
- d. Select the best lead for monitoring a patient admitted with acute coronary syndrome.

ANS: C

UAP serving as telemetry technicians can monitor cardiac rhythms for individuals or groups of patients. Nursing actions such as assessment and choice of the most

appropriate lead based on ST segment elevation location require RN-level education and scope of practice.

27. Which action by a new registered nurse (RN) who is orienting to the progressive care unit indicates a good understanding of the treatment of cardiac dysrhythmias?

- a. Injects IV adenosine (Adenocard) over 2 seconds to a patient with supraventricular tachycardia
- b. Obtains the defibrillator and quickly brings it to the bedside of a patient whose monitor shows asystole
- c. Turns the synchronizer switch to the on position before defibrillating a patient with ventricular fibrillation
- d. Gives the prescribed dose of diltiazem (Cardizem) to a patient with new-onset type II second degree AV block

ANS: A

Adenosine must be given over 1 to 2 seconds to be effective. The other actions indicate a need for more education about treatment of cardiac dysrhythmias. The RN should hold the diltiazem until talking to the health care provider. The treatment for asystole is immediate CPR. The synchronizer switch should be off when defibrillating.

28. A patient reports dizziness and shortness of breath for several days. During cardiac monitoring in the emergency department (ED), the nurse obtains the following electrocardiographic (ECG) tracing.

The nurse interprets this heart rhythm as

- a. junctional escape rhythm.
- b. accelerated idioventricular rhythm.
- c. third-degree atrioventricular (AV) block.
- d. sinus rhythm with premature atrial contractions (PACs).

ANS: C

The inconsistency between the atrial and ventricular rates and the variable P-R interval indicate that the rhythm is third-degree AV block. Sinus rhythm with PACs will have a normal rate and consistent P-R intervals with occasional PACs. An accelerated idioventricular rhythm will not have visible P waves.

29. A patient who is complaining of a racing heart and feeling anxious comes to the emergency department. The nurse places the patient on a heart monitor and obtains the following electrocardiographic (ECG) tracing.

Which action should the nurse take **next**?

- a. Prepare to perform electrical cardioversion.
- b. Have the patient perform the Valsalva maneuver.
- c. Obtain the patients vital signs including oxygen saturation.
- d. Prepare to give a β -blocker medication to slow the heart rate.

ANS: C

The patient has sinus tachycardia, which may have multiple etiologies such as pain, dehydration, anxiety, and myocardial ischemia. Further assessment is needed before determining the treatment. Vagal stimulation or β -blockade may be used after further assessment of the patient. Electrical cardioversion is used for some tachydysrhythmias, but would not be used for sinus tachycardia.

COMPLETION

1. When analyzing an electrocardiographic (ECG) rhythm strip of a patient with a regular heart rhythm, the nurse counts 30 small blocks from one R wave to the next. The nurse calculates the patients heart rate as ____.

ANS:

There are 1500 small blocks in a minute, and the nurse will divide 1500 by 30.

OTHER

1. When preparing to defibrillate a patient. In which order will the nurse perform the following steps? (*Put a comma and a space between each answer choice [A, B, C, D, E].*)

- a. Turn the defibrillator on.
- b. Deliver the electrical charge.
- c. Select the appropriate energy level.
- d. Place the paddles on the patients chest.
- e. Check the location of other staff and call out all clear.

ANS:

A, C, D, E, B

Chapter 36. Management: Inflammatory and Structural Heart Disorders

MULTIPLE CHOICE

1. The nurse obtains a health history from a 65-year-old patient with a prosthetic mitral valve who has symptoms of infective endocarditis (IE). Which question by the nurse is **most** appropriate?

- a. Do you have a history of a heart attack?
- b. Is there a family history of endocarditis?
- c. Have you had any recent immunizations?
- d. Have you had dental work done recently?

ANS: D

Dental procedures place the patient with a prosthetic mitral valve at risk for infective endocarditis (IE). Myocardial infarction (MI), immunizations, and a family history of endocarditis are not risk factors for IE.

2. During the assessment of a 25-year-old patient with infective endocarditis (IE), the nurse would expect to find

- a. substernal chest pressure.
- b. a new regurgitant murmur.
- c. a pruritic rash on the chest.
- d. involuntary muscle movement.

ANS: B

New regurgitant murmurs occur in IE because vegetations on the valves prevent valve closure. Substernal chest discomfort, rashes, and involuntary muscle movement are clinical manifestations of other cardiac disorders such as angina and rheumatic fever.

3. The nurse identifies the nursing diagnosis of decreased cardiac output related to valvular insufficiency for the patient with infective endocarditis (IE) based on which assessment finding(s)?

- a. Fever, chills, and diaphoresis
- b. Urine output less than 30 mL/hr
- c. Petechiae on the inside of the mouth and conjunctiva
- d. Increase in heart rate of 15 beats/minute with walking

ANS: B

Decreased renal perfusion caused by inadequate cardiac output will lead to decreased urine output. Petechiae, fever, chills, and diaphoresis are symptoms of IE, but are not

caused by decreased cardiac output. An increase in pulse rate of 15 beats/minute is normal with exercise.

4. When planning care for a patient hospitalized with a streptococcal infective endocarditis (IE), which intervention is a **priority** for the nurse to include?

- a. Monitor labs for streptococcal antibodies.
- b. Arrange for placement of a long-term IV catheter.
- c. Teach the importance of completing all oral antibiotics.
- d. Encourage the patient to begin regular aerobic exercise.

ANS: B

Treatment for IE involves 4 to 6 weeks of IV antibiotic therapy in order to eradicate the bacteria, which will require a long-term IV catheter such as a peripherally inserted central catheter (PICC) line. Rest periods and limiting physical activity to a moderate level are recommended during the treatment for IE. Oral antibiotics are not effective in eradicating the infective bacteria that cause IE. Blood cultures, rather than antibody levels, are used to monitor the effectiveness of antibiotic therapy.

5. A patient is admitted to the hospital with possible acute pericarditis. The nurse should plan to teach the patient about the purpose of

- a. echocardiography.
- b. daily blood cultures.
- c. cardiac catheterization.
- d. 24-hour Holter monitor.

ANS: A

Echocardiograms are useful in detecting the presence of the pericardial effusions associated with pericarditis. Blood cultures are not indicated unless the patient has

evidence of sepsis. Cardiac catheterization and 24-hour Holter monitor is not a diagnostic procedure for pericarditis.

6. To assess the patient with pericarditis for evidence of a pericardial friction rub, the nurse should

- a. listen for a rumbling, low-pitched, systolic murmur over the left anterior chest.
- b. auscultate by placing the diaphragm of the stethoscope on the lower left sternal border.
- c. ask the patient to cough during auscultation to distinguish the sound from a pleural friction rub.
- d. feel the precordial area with the palm of the hand to detect vibrations with cardiac contraction.

ANS: B

Pericardial friction rubs are heard best with the diaphragm at the lower left sternal border. The nurse should ask the patient to hold his or her breath during auscultation to distinguish the sounds from a pleural friction rub. Friction rubs are not typically low pitched or rumbling and are not confined to systole. Rubs are not assessed by palpation.

7. The nurse suspects cardiac tamponade in a patient who has acute pericarditis. To assess for the presence of pulsus paradoxus, the nurse should

- a. note when Korotkoff sounds are auscultated during both inspiration and expiration.
- b. subtract the diastolic blood pressure (DBP) from the systolic blood pressure (SBP).
- c. check the electrocardiogram (ECG) for variations in rate during the respiratory cycle.
- d. listen for a pericardial friction rub that persists when the patient is instructed to stop breathing.

ANS: A

Pulsus paradoxus exists when there is a gap of greater than 10 mm Hg between when Korotkoff sounds can be heard during only expiration and when they can be heard throughout the respiratory cycle. The other methods described would not be useful in determining the presence of pulsus paradoxus.

8. The nurse has identified a nursing diagnosis of acute pain related to inflammatory process for a patient with acute pericarditis. The **priority** intervention by the nurse for this problem is to

- a. teach the patient to take deep, slow breaths to control the pain.
- b. force fluids to 3000 mL/day to decrease fever and inflammation.
- c. remind the patient to request opioid pain medication every 4 hours.
- d. place the patient in Fowlers position, leaning forward on the overbed table.

ANS: D

Sitting upright and leaning forward frequently will decrease the pain associated with pericarditis. Forcing fluids will not decrease the inflammation or pain. Taking deep breaths will tend to increase pericardial pain. Opioids are not very effective at controlling pain caused by acute inflammatory conditions and are usually ordered PRN. The patient would receive scheduled doses of a nonsteroidal antiinflammatory drug (NSAID).

9. The nurse is admitting a patient with possible rheumatic fever. Which question on the admission health history will be **most** pertinent to ask?

- a. Do you use any illegal IV drugs?
- b. Have you had a recent sore throat?
- c. Have you injured your chest in the last few weeks?
- d. Do you have a family history of congenital heart disease?

ANS: B

Rheumatic fever occurs as a result of an abnormal immune response to a streptococcal infection. Although illicit IV drug use should be discussed with the patient before discharge, it is not a risk factor for rheumatic fever, and would not be as pertinent when admitting the patient. Family history is not a risk factor for rheumatic fever. Chest injury would cause musculoskeletal chest pain rather than rheumatic fever.

10. A patient with rheumatic fever has subcutaneous nodules, erythema marginatum, and polyarthritis. Based on these findings, which nursing diagnosis would be **most** appropriate?

- a. Pain related to permanent joint fixation
- b. Activity intolerance related to arthralgia
- c. Risk for infection related to open skin lesions
- d. Risk for impaired skin integrity related to pruritus

ANS: B

The patient's joint pain will lead to difficulty with activity. The skin lesions seen in rheumatic fever are not open or pruritic. Although acute joint pain will be a problem for this patient, joint inflammation is a temporary clinical manifestation of rheumatic fever and is not associated with permanent joint changes.

11. The nurse establishes the nursing diagnosis of ineffective health maintenance related to lack of knowledge regarding long-term management of rheumatic fever when a 30-year-old recovering from rheumatic fever without carditis says which of the following?

- a. I will need prophylactic antibiotic therapy for 5 years.
- b. I will need to take aspirin or ibuprofen (Motrin) to relieve my joint pain.
- c. I will call the doctor if I develop excessive fatigue or difficulty breathing.

- d. I will be immune to further episodes of rheumatic fever after this infection.

ANS: D

Patients with a history of rheumatic fever are more susceptible to a second episode. Patients with rheumatic fever without carditis require prophylaxis until age 20 and for a minimum of 5 years. The other patient statements are correct and would not support the nursing diagnosis of ineffective health maintenance.

12. When developing a community health program to decrease the incidence of rheumatic fever, which action would be most important for the community health nurse to include?

- a. Vaccinate high-risk groups in the community with streptococcal vaccine.
- b. Teach community members to seek treatment for streptococcal pharyngitis.
- c. Teach about the importance of monitoring temperature when sore throats occur.
- d. Teach about prophylactic antibiotics to those with a family history of rheumatic fever.

ANS: B

The incidence of rheumatic fever is decreased by treatment of streptococcal infections with antibiotics. Family history is not a risk factor for rheumatic fever. There is no immunization that is effective in decreasing the incidence of rheumatic fever. Teaching about monitoring temperature will not decrease the incidence of rheumatic fever.

13. When caring for a patient with mitral valve stenosis, it is most important that the nurse assess for

- a. diastolic murmur.

- b. peripheral edema.
- c. shortness of breath on exertion.
- d. right upper quadrant tenderness.

ANS: C

The pressure gradient changes in mitral stenosis lead to fluid backup into the lungs, resulting in hypoxemia and dyspnea. The other findings also may be associated with mitral valve disease but are not indicators of possible hypoxemia.

14. A 21-year-old woman is scheduled for percutaneous transluminal balloon valvuloplasty to treat mitral stenosis. Which information should the nurse include when explaining the advantages of valvuloplasty over valve replacement to the patient?

- a. Biologic valves will require immunosuppressive drugs after surgery.
- b. Mechanical mitral valves need to be replaced sooner than biologic valves.
- c. Lifelong anticoagulant therapy will be needed after mechanical valve replacement.
- d. Ongoing cardiac care by a health care provider is not necessary after valvuloplasty.

ANS: C

Long-term anticoagulation therapy is needed after mechanical valve replacement, and this would restrict decisions about career and childbearing in this patient. Mechanical valves are durable and last longer than biologic valves. All valve repair procedures are palliative, not curative, and require lifelong health care. Biologic valves do not activate the immune system, and immunosuppressive therapy is not needed.

15. While caring for a 23-year-old patient with mitral valve prolapse (MVP) without valvular regurgitation, the nurse determines that discharge teaching has been effective when the patient states that it will be necessary to

- a. take antibiotics before any dental appointments.
- b. limit physical activity to avoid stressing the heart.
- c. take an aspirin a day to prevent clots from forming on the valve.
- d. avoid use of over-the-counter (OTC) medications that contain stimulant drugs.

ANS: D

Use of stimulant medications should be avoided by patients with MVP because these may exacerbate symptoms. Daily aspirin and restricted physical activity are not needed by patients with mild MVP. Antibiotic prophylaxis is needed for patients with MVP with regurgitation but will not be necessary for this patient.

16. While caring for a patient with aortic stenosis, the nurse identifies a nursing diagnosis of acute pain related to decreased coronary blood flow. A priority nursing intervention for this patient would be to

- a. promote rest to decrease myocardial oxygen demand.
- b. teach the patient about the need for anticoagulant therapy.
- c. teach the patient to use sublingual nitroglycerin for chest pain.
- d. raise the head of the bed 60 degrees to decrease venous return.

ANS: A

Rest is recommended to balance myocardial oxygen supply and demand and to decrease chest pain. The patient with aortic stenosis requires higher preload to maintain cardiac output, so nitroglycerin and measures to decrease venous return are contraindicated. Anticoagulation is not recommended unless the patient has atrial fibrillation.

17. During discharge teaching with a 68-year-old patient who had a mitral valve replacement with a mechanical valve, the nurse instructs the patient on the

- a. use of daily aspirin for anticoagulation.
- b. correct method for taking the radial pulse.
- c. need for frequent laboratory blood testing.
- d. need to avoid any physical activity for 1 month.

ANS: C

Anticoagulation with warfarin (Coumadin) is needed for a patient with mechanical valves to prevent clotting on the valve. This will require frequent international normalized ratio (INR) testing. Daily aspirin use will not be effective in reducing the risk for clots on the valve. Monitoring of the radial pulse is not necessary after valve replacement. Patients should resume activities of daily living as tolerated.

18. A patient recovering from heart surgery develops pericarditis and complains of level 6 (0 to 10 scale) chest pain with deep breathing. Which ordered PRN medication will be the most appropriate for the nurse to give?

- a. Fentanyl 1 mg IV
- b. IV morphine sulfate 4 mg
- c. Oral ibuprofen (Motrin) 600 mg
- d. Oral acetaminophen (Tylenol) 650 mg

ANS: C

The pain associated with pericarditis is caused by inflammation, so nonsteroidal antiinflammatory drugs (NSAIDs) (e.g., ibuprofen) are most effective. Opioid analgesics are usually not used for the pain associated with pericarditis.

19. When caring for a patient with infective endocarditis of the tricuspid valve, the nurse should monitor the patient for the development of

- a. flank pain.
- b. splenomegaly.

- c. shortness of breath.
- d. mental status changes.

ANS: C

Embolization from the tricuspid valve would cause symptoms of pulmonary embolus. Flank pain, changes in mental status, and splenomegaly would be associated with embolization from the left-sided valves.

20. A patient admitted with acute dyspnea is newly diagnosed with dilated cardiomyopathy. Which information will the nurse plan to teach the patient about managing this disorder?

- a. A heart transplant should be scheduled as soon as possible.
- b. Elevating the legs above the heart will help relieve dyspnea.
- c. Careful compliance with diet and medications will prevent heart failure.
- d. Notify the doctor about any symptoms of heart failure such as shortness of breath.

ANS: D

The patient should be instructed to notify the health care provider about any worsening of heart failure symptoms. Because dilated cardiomyopathy does not respond well to therapy, even patients with good compliance with therapy may have recurrent episodes of heart failure. Elevation of the legs above the heart will worsen symptoms (although this approach is appropriate for a patient with hypertrophic cardiomyopathy). The patient with terminal or end-stage cardiomyopathy may consider heart transplantation.

21. The nurse is obtaining a health history from a 24-year-old patient with hypertrophic cardiomyopathy (HC). Which information obtained by the nurse is most important?

- a. The patient has a history of a recent upper respiratory infection.

- b. The patient has a family history of coronary artery disease (CAD).
- c. The patient reports using cocaine a couple of times as a teenager.
- d. The patients 29-year-old brother died from a sudden cardiac arrest.

ANS: D

About half of all cases of HC have a genetic basis, and it is the most common cause of sudden cardiac death in otherwise healthy young people. The information about the patients brother will be helpful in planning care (such as an automatic implantable cardioverter-defibrillator [AICD]) for the patient and in counseling other family members. The patient should be counseled against the use of stimulant drugs, but the limited past history indicates that the patient is not at current risk for cocaine use. Viral infections and CAD are risk factors for dilated cardiomyopathy, but not for HC.

22. The nurse will plan discharge teaching about the need for prophylactic antibiotics when having dental procedures for which patient?

- a. Patient admitted with a large acute myocardial infarction.
- b. Patient being discharged after an exacerbation of heart failure.
- c. Patient who had a mitral valve replacement with a mechanical valve.
- d. Patient being treated for rheumatic fever after a streptococcal infection.

ANS: C

Current American Heart Association guidelines recommend the use of prophylactic antibiotics before dental procedures for patients with prosthetic valves to prevent infective endocarditis (IE). The other patients are not at risk for IE.

23. Which admission order written by the health care provider for a patient admitted with infective endocarditis (IE) and a fever would be a **priority** for the nurse to implement?

- a. Administer ceftriaxone (Rocephin) 1 g IV.

- b. Order blood cultures drawn from two sites.
- c. Give acetaminophen (Tylenol) PRN for fever.
- d. Arrange for a transesophageal echocardiogram.

ANS: B

Treatment of the IE with antibiotics should be started as quickly as possible, but it is essential to obtain blood cultures before initiating antibiotic therapy to obtain accurate sensitivity results. The echocardiogram and acetaminophen administration also should be implemented rapidly, but the blood cultures (and then administration of the antibiotic) have the highest priority.

24. Which assessment finding in a patient who is admitted with infective endocarditis (IE) is **most** important to communicate to the health care provider?

- a. Generalized muscle aching
- b. Sudden onset right flank pain
- c. Janeways lesions on the palms
- d. Temperature 100.7 F (38.1 C)

ANS: B

Sudden onset of flank pain indicates possible embolization to the kidney and may require diagnostic testing such as a renal arteriogram and interventions to improve renal perfusion. The other findings are typically found in IE, but do not require any new interventions.

25. Which assessment finding obtained by the nurse when assessing a patient with acute pericarditis should be reported **immediately** to the health care provider?

- a. Pulsus paradoxus 8 mm Hg
- b. Blood pressure (BP) of 168/94
- c. Jugular venous distention (JVD) to jaw level

- d. Level 6 (0 to 10 scale) chest pain with a deep breath

ANS: C

The JVD indicates that the patient may have developed cardiac tamponade and may need rapid intervention to maintain adequate cardiac output. Hypertension would not be associated with complications of pericarditis, and the BP is not high enough to indicate that there is any immediate need to call the health care provider. A pulsus paradoxus of 8 mm Hg is normal. Level 6/10 chest pain should be treated but is not unusual with pericarditis.

26. The nurse is caring for a 78-year-old patient with aortic stenosis. Which assessment data obtained by the nurse would be **most** important to report to the health care provider?

- a. The patient complains of chest pressure when ambulating.
- b. A loud systolic murmur is heard along the right sternal border.
- c. A thrill is palpated at the second intercostal space, right sternal border.
- d. The point of maximum impulse (PMI) is at the left midclavicular line.

ANS: A

Chest pressure (or pain) occurring with aortic stenosis is caused by cardiac ischemia, and reporting this information would be a priority. A systolic murmur and thrill are expected in a patient with aortic stenosis. A PMI at the left midclavicular line is normal.

27. Two days after an acute myocardial infarction (MI), a patient complains of stabbing chest pain that increases with a deep breath. Which action will the nurse take **first**?

- a. Auscultate the heart sounds.
- b. Check the patient's temperature.

- c. Notify the patients health care provider.
- d. Give the PRN acetaminophen (Tylenol).

ANS: A

The patients clinical manifestations and history are consistent with pericarditis, and the first action by the nurse should be to listen for a pericardial friction rub. Checking the temperature and notifying the health care provider are also appropriate actions but would not be done before listening for a rub. It is not stated for what symptom (e.g., headache) or finding (e.g., increased temperature) the PRN acetaminophen (Tylenol) is ordered.

Chapter 37. Management: Vascular Disorders

MULTIPLE CHOICE

1. The nurse obtains a health history from a 65-year-old patient with a prosthetic mitral valve who has symptoms of infective endocarditis (IE). Which question by the nurse is **most** appropriate?

- a. Do you have a history of a heart attack?
- b. Is there a family history of endocarditis?
- c. Have you had any recent immunizations?
- d. Have you had dental work done recently?

ANS: D

Dental procedures place the patient with a prosthetic mitral valve at risk for infective endocarditis (IE). Myocardial infarction (MI), immunizations, and a family history of endocarditis are not risk factors for IE.

2. During the assessment of a 25-year-old patient with infective endocarditis (IE), the nurse would expect to find

- a. substernal chest pressure.
- b. a new regurgitant murmur.
- c. a pruritic rash on the chest.
- d. involuntary muscle movement.

ANS: B

New regurgitant murmurs occur in IE because vegetations on the valves prevent valve closure. Substernal chest discomfort, rashes, and involuntary muscle movement are clinical manifestations of other cardiac disorders such as angina and rheumatic fever.

3. The nurse identifies the nursing diagnosis of decreased cardiac output related to valvular insufficiency for the patient with infective endocarditis (IE) based on which assessment finding(s)?

- a. Fever, chills, and diaphoresis
- b. Urine output less than 30 mL/hr
- c. Petechiae on the inside of the mouth and conjunctiva
- d. Increase in heart rate of 15 beats/minute with walking

ANS: B

Decreased renal perfusion caused by inadequate cardiac output will lead to decreased urine output. Petechiae, fever, chills, and diaphoresis are symptoms of IE, but are not caused by decreased cardiac output. An increase in pulse rate of 15 beats/minute is normal with exercise.

4. When planning care for a patient hospitalized with a streptococcal infective endocarditis (IE), which intervention is a **priority** for the nurse to include?

- a. Monitor labs for streptococcal antibodies.
- b. Arrange for placement of a long-term IV catheter.
- c. Teach the importance of completing all oral antibiotics.

- d. Encourage the patient to begin regular aerobic exercise.

ANS: B

Treatment for IE involves 4 to 6 weeks of IV antibiotic therapy in order to eradicate the bacteria, which will require a long-term IV catheter such as a peripherally inserted central catheter (PICC) line. Rest periods and limiting physical activity to a moderate level are recommended during the treatment for IE. Oral antibiotics are not effective in eradicating the infective bacteria that cause IE. Blood cultures, rather than antibody levels, are used to monitor the effectiveness of antibiotic therapy.

5. A patient is admitted to the hospital with possible acute pericarditis. The nurse should plan to teach the patient about the purpose of

- a. echocardiography.
- b. daily blood cultures.
- c. cardiac catheterization.
- d. 24-hour Holter monitor.

ANS: A

Echocardiograms are useful in detecting the presence of the pericardial effusions associated with pericarditis. Blood cultures are not indicated unless the patient has evidence of sepsis. Cardiac catheterization and 24-hour Holter monitor is not a diagnostic procedure for pericarditis.

6. To assess the patient with pericarditis for evidence of a pericardial friction rub, the nurse should

- a. listen for a rumbling, low-pitched, systolic murmur over the left anterior chest.
- b. auscultate by placing the diaphragm of the stethoscope on the lower left sternal border.

- c. ask the patient to cough during auscultation to distinguish the sound from a pleural friction rub.
- d. feel the precordial area with the palm of the hand to detect vibrations with cardiac contraction.

ANS: B

Pericardial friction rubs are heard best with the diaphragm at the lower left sternal border. The nurse should ask the patient to hold his or her breath during auscultation to distinguish the sounds from a pleural friction rub. Friction rubs are not typically low pitched or rumbling and are not confined to systole. Rubs are not assessed by palpation.

7. The nurse suspects cardiac tamponade in a patient who has acute pericarditis. To assess for the presence of pulsus paradoxus, the nurse should

- a. note when Korotkoff sounds are auscultated during both inspiration and expiration.
- b. subtract the diastolic blood pressure (DBP) from the systolic blood pressure (SBP).
- c. check the electrocardiogram (ECG) for variations in rate during the respiratory cycle.
- d. listen for a pericardial friction rub that persists when the patient is instructed to stop breathing.

ANS: A

Pulsus paradoxus exists when there is a gap of greater than 10 mm Hg between when Korotkoff sounds can be heard during only expiration and when they can be heard throughout the respiratory cycle. The other methods described would not be useful in determining the presence of pulsus paradoxus.

8. The nurse has identified a nursing diagnosis of acute pain related to inflammatory process for a patient with acute pericarditis. The **priority** intervention by the nurse for this problem is to

- a. teach the patient to take deep, slow breaths to control the pain.
- b. force fluids to 3000 mL/day to decrease fever and inflammation.
- c. remind the patient to request opioid pain medication every 4 hours.
- d. place the patient in Fowlers position, leaning forward on the overbed table.

ANS: D

Sitting upright and leaning forward frequently will decrease the pain associated with pericarditis. Forcing fluids will not decrease the inflammation or pain. Taking deep breaths will tend to increase pericardial pain. Opioids are not very effective at controlling pain caused by acute inflammatory conditions and are usually ordered PRN. The patient would receive scheduled doses of a nonsteroidal antiinflammatory drug (NSAID).

9. The nurse is admitting a patient with possible rheumatic fever. Which question on the admission health history will be **most** pertinent to ask?

- a. Do you use any illegal IV drugs?
- b. Have you had a recent sore throat?
- c. Have you injured your chest in the last few weeks?
- d. Do you have a family history of congenital heart disease?

ANS: B

Rheumatic fever occurs as a result of an abnormal immune response to a streptococcal infection. Although illicit IV drug use should be discussed with the patient before discharge, it is not a risk factor for rheumatic fever, and would not be as pertinent when admitting the patient. Family history is not a risk factor for rheumatic fever. Chest injury would cause musculoskeletal chest pain rather than rheumatic fever.

10. A patient with rheumatic fever has subcutaneous nodules, erythema marginatum, and polyarthritis. Based on these findings, which nursing diagnosis would be **most** appropriate?

- a. Pain related to permanent joint fixation
- b. Activity intolerance related to arthralgia
- c. Risk for infection related to open skin lesions
- d. Risk for impaired skin integrity related to pruritus

ANS: B

The patient's joint pain will lead to difficulty with activity. The skin lesions seen in rheumatic fever are not open or pruritic. Although acute joint pain will be a problem for this patient, joint inflammation is a temporary clinical manifestation of rheumatic fever and is not associated with permanent joint changes.

11. The nurse establishes the nursing diagnosis of ineffective health maintenance related to lack of knowledge regarding long-term management of rheumatic fever when a 30-year-old recovering from rheumatic fever without carditis says which of the following?

- a. I will need prophylactic antibiotic therapy for 5 years.
- b. I will need to take aspirin or ibuprofen (Motrin) to relieve my joint pain.
- c. I will call the doctor if I develop excessive fatigue or difficulty breathing.
- d. I will be immune to further episodes of rheumatic fever after this infection.

ANS: D

Patients with a history of rheumatic fever are more susceptible to a second episode. Patients with rheumatic fever without carditis require prophylaxis until age 20 and for a minimum of 5 years. The other patient statements are correct and would not support the nursing diagnosis of ineffective health maintenance.

12. When developing a community health program to decrease the incidence of rheumatic fever, which action would be most important for the community health nurse to include?

- a. Vaccinate high-risk groups in the community with streptococcal vaccine.
- b. Teach community members to seek treatment for streptococcal pharyngitis.
- c. Teach about the importance of monitoring temperature when sore throats occur.
- d. Teach about prophylactic antibiotics to those with a family history of rheumatic fever.

ANS: B

The incidence of rheumatic fever is decreased by treatment of streptococcal infections with antibiotics. Family history is not a risk factor for rheumatic fever. There is no immunization that is effective in decreasing the incidence of rheumatic fever. Teaching about monitoring temperature will not decrease the incidence of rheumatic fever.

13. When caring for a patient with mitral valve stenosis, it is most important that the nurse assess for

- a. diastolic murmur.
- b. peripheral edema.
- c. shortness of breath on exertion.
- d. right upper quadrant tenderness.

ANS: C

The pressure gradient changes in mitral stenosis lead to fluid backup into the lungs, resulting in hypoxemia and dyspnea. The other findings also may be associated with mitral valve disease but are not indicators of possible hypoxemia.

14. A 21-year-old woman is scheduled for percutaneous transluminal balloon valvuloplasty to treat mitral stenosis. Which information should the nurse include when explaining the advantages of valvuloplasty over valve replacement to the patient?

- a. Biologic valves will require immunosuppressive drugs after surgery.
- b. Mechanical mitral valves need to be replaced sooner than biologic valves.
- c. Lifelong anticoagulant therapy will be needed after mechanical valve replacement.
- d. Ongoing cardiac care by a health care provider is not necessary after valvuloplasty.

ANS: C

Long-term anticoagulation therapy is needed after mechanical valve replacement, and this would restrict decisions about career and childbearing in this patient. Mechanical valves are durable and last longer than biologic valves. All valve repair procedures are palliative, not curative, and require lifelong health care. Biologic valves do not activate the immune system, and immunosuppressive therapy is not needed.

15. While caring for a 23-year-old patient with mitral valve prolapse (MVP) without valvular regurgitation, the nurse determines that discharge teaching has been effective when the patient states that it will be necessary to

- a. take antibiotics before any dental appointments.
- b. limit physical activity to avoid stressing the heart.
- c. take an aspirin a day to prevent clots from forming on the valve.
- d. avoid use of over-the-counter (OTC) medications that contain stimulant drugs.

ANS: D

Use of stimulant medications should be avoided by patients with MVP because these may exacerbate symptoms. Daily aspirin and restricted physical activity are not needed by patients with mild MVP. Antibiotic prophylaxis is needed for patients with MVP with regurgitation but will not be necessary for this patient.

16. While caring for a patient with aortic stenosis, the nurse identifies a nursing diagnosis of acute pain related to decreased coronary blood flow. A priority nursing intervention for this patient would be to

- a. promote rest to decrease myocardial oxygen demand.
- b. teach the patient about the need for anticoagulant therapy.
- c. teach the patient to use sublingual nitroglycerin for chest pain.
- d. raise the head of the bed 60 degrees to decrease venous return.

ANS: A

Rest is recommended to balance myocardial oxygen supply and demand and to decrease chest pain. The patient with aortic stenosis requires higher preload to maintain cardiac output, so nitroglycerin and measures to decrease venous return are contraindicated. Anticoagulation is not recommended unless the patient has atrial fibrillation.

17. During discharge teaching with a 68-year-old patient who had a mitral valve replacement with a mechanical valve, the nurse instructs the patient on the

- a. use of daily aspirin for anticoagulation.
- b. correct method for taking the radial pulse.
- c. need for frequent laboratory blood testing.
- d. need to avoid any physical activity for 1 month.

ANS: C

Anticoagulation with warfarin (Coumadin) is needed for a patient with mechanical valves to prevent clotting on the valve. This will require frequent international normalized ratio (INR) testing. Daily aspirin use will not be effective in reducing the risk for clots on the valve. Monitoring of the radial pulse is not necessary after valve replacement. Patients should resume activities of daily living as tolerated.

18. A patient recovering from heart surgery develops pericarditis and complains of level 6 (0 to 10 scale) chest pain with deep breathing. Which ordered PRN medication will be the most appropriate for the nurse to give?

- a. Fentanyl 1 mg IV
- b. IV morphine sulfate 4 mg
- c. Oral ibuprofen (Motrin) 600 mg
- d. Oral acetaminophen (Tylenol) 650 mg

ANS: C

The pain associated with pericarditis is caused by inflammation, so nonsteroidal antiinflammatory drugs (NSAIDs) (e.g., ibuprofen) are most effective. Opioid analgesics are usually not used for the pain associated with pericarditis.

19. When caring for a patient with infective endocarditis of the tricuspid valve, the nurse should monitor the patient for the development of

- a. flank pain.
- b. splenomegaly.
- c. shortness of breath.
- d. mental status changes.

ANS: C

Embolization from the tricuspid valve would cause symptoms of pulmonary embolus. Flank pain, changes in mental status, and splenomegaly would be associated with embolization from the left-sided valves.

20. A patient admitted with acute dyspnea is newly diagnosed with dilated cardiomyopathy. Which information will the nurse plan to teach the patient about managing this disorder?

- a. A heart transplant should be scheduled as soon as possible.
- b. Elevating the legs above the heart will help relieve dyspnea.
- c. Careful compliance with diet and medications will prevent heart failure.
- d. Notify the doctor about any symptoms of heart failure such as shortness of breath.

ANS: D

The patient should be instructed to notify the health care provider about any worsening of heart failure symptoms. Because dilated cardiomyopathy does not respond well to therapy, even patients with good compliance with therapy may have recurrent episodes of heart failure. Elevation of the legs above the heart will worsen symptoms (although this approach is appropriate for a patient with hypertrophic cardiomyopathy). The patient with terminal or end-stage cardiomyopathy may consider heart transplantation.

21. The nurse is obtaining a health history from a 24-year-old patient with hypertrophic cardiomyopathy (HC). Which information obtained by the nurse is most important?

- a. The patient has a history of a recent upper respiratory infection.
- b. The patient has a family history of coronary artery disease (CAD).
- c. The patient reports using cocaine a couple of times as a teenager.
- d. The patient's 29-year-old brother died from a sudden cardiac arrest.

ANS: D

About half of all cases of HC have a genetic basis, and it is the most common cause of sudden cardiac death in otherwise healthy young people. The information about the patient's brother will be helpful in planning care (such as an automatic implantable cardioverter-defibrillator [AICD]) for the patient and in counseling other family members. The patient should be counseled against the use of stimulant drugs, but the limited past history indicates that the patient is not at current risk for cocaine use. Viral infections and CAD are risk factors for dilated cardiomyopathy, but not for HC.

22. The nurse will plan discharge teaching about the need for prophylactic antibiotics when having dental procedures for which patient?

- a. Patient admitted with a large acute myocardial infarction.
- b. Patient being discharged after an exacerbation of heart failure.
- c. Patient who had a mitral valve replacement with a mechanical valve.
- d. Patient being treated for rheumatic fever after a streptococcal infection.

ANS: C

Current American Heart Association guidelines recommend the use of prophylactic antibiotics before dental procedures for patients with prosthetic valves to prevent infective endocarditis (IE). The other patients are not at risk for IE.

23. Which admission order written by the health care provider for a patient admitted with infective endocarditis (IE) and a fever would be a **priority** for the nurse to implement?

- a. Administer ceftriaxone (Rocephin) 1 g IV.
- b. Order blood cultures drawn from two sites.
- c. Give acetaminophen (Tylenol) PRN for fever.
- d. Arrange for a transesophageal echocardiogram.

ANS: B

Treatment of the IE with antibiotics should be started as quickly as possible, but it is essential to obtain blood cultures before initiating antibiotic therapy to obtain accurate sensitivity results. The echocardiogram and acetaminophen administration also should be implemented rapidly, but the blood cultures (and then administration of the antibiotic) have the highest priority.

24. Which assessment finding in a patient who is admitted with infective endocarditis (IE) is **most** important to communicate to the health care provider?

- a. Generalized muscle aching
- b. Sudden onset right flank pain
- c. Janeways lesions on the palms
- d. Temperature 100.7 F (38.1 C)

ANS: B

Sudden onset of flank pain indicates possible embolization to the kidney and may require diagnostic testing such as a renal arteriogram and interventions to improve renal perfusion. The other findings are typically found in IE, but do not require any new interventions.

25. Which assessment finding obtained by the nurse when assessing a patient with acute pericarditis should be reported **immediately** to the health care provider?

- a. Pulsus paradoxus 8 mm Hg
- b. Blood pressure (BP) of 168/94
- c. Jugular venous distention (JVD) to jaw level
- d. Level 6 (0 to 10 scale) chest pain with a deep breath

ANS: C

The JVD indicates that the patient may have developed cardiac tamponade and may need rapid intervention to maintain adequate cardiac output. Hypertension would not be associated with complications of pericarditis, and the BP is not high enough to indicate that there is any immediate need to call the health care provider. A pulsus paradoxus of 8 mm Hg is normal. Level 6/10 chest pain should be treated but is not unusual with pericarditis.

26. The nurse is caring for a 78-year-old patient with aortic stenosis. Which assessment data obtained by the nurse would be **most** important to report to the health care provider?

- a. The patient complains of chest pressure when ambulating.
- b. A loud systolic murmur is heard along the right sternal border.
- c. A thrill is palpated at the second intercostal space, right sternal border.
- d. The point of maximum impulse (PMI) is at the left midclavicular line.

ANS: A

Chest pressure (or pain) occurring with aortic stenosis is caused by cardiac ischemia, and reporting this information would be a priority. A systolic murmur and thrill are expected in a patient with aortic stenosis. A PMI at the left midclavicular line is normal.

27. Two days after an acute myocardial infarction (MI), a patient complains of stabbing chest pain that increases with a deep breath. Which action will the nurse take **first**?

- a. Auscultate the heart sounds.
- b. Check the patient's temperature.
- c. Notify the patient's health care provider.
- d. Give the PRN acetaminophen (Tylenol).

ANS: A

The patient's clinical manifestations and history are consistent with pericarditis, and the first action by the nurse should be to listen for a pericardial friction rub. Checking the temperature and notifying the health care provider are also appropriate actions but would not be done before listening for a rub. It is not stated for what symptom (e.g., headache) or finding (e.g., increased temperature) the PRN acetaminophen (Tylenol) is ordered.

28. The nurse is caring for a 64-year-old patient admitted with mitral valve regurgitation. Which information obtained by the nurse when assessing the patient should be communicated to the health care provider **immediately**?

- a. The patient has bilateral crackles.
- b. The patient has bilateral, 4+ peripheral edema.
- c. The patient has a loud systolic murmur across the precordium.
- d. The patient has a palpable thrill felt over the left anterior chest.

ANS: A

Crackles that are audible throughout the lungs indicate that the patient is experiencing severe left ventricular failure with pulmonary congestion and needs immediate interventions such as diuretics. A systolic murmur and palpable thrill would be expected in a patient with mitral regurgitation. Although 4+ peripheral edema indicates a need for a change in therapy, it does not need to be addressed urgently.

Chapter 38. Assessment: Gastrointestinal System

MULTIPLE CHOICE

1. Which information about an 80-year-old man at the senior center is of **most** concern to the nurse?
 - a. Decreased appetite
 - b. Unintended weight loss

- c. Difficulty chewing food
- d. Complaints of indigestion

ANS: B

Unintentional weight loss is not a normal finding and may indicate a problem such as cancer or depression. Poor appetite, difficulty in chewing, and complaints of indigestion are common in older patients. These will need to be addressed but are not of as much concern as the weight loss.

2. A 62- year-old man reports chronic constipation. To promote bowel evacuation, the nurse will suggest that the patient attempt defecation

- a. in the mid-afternoon.
- b. after eating breakfast.
- c. right after getting up in the morning.
- d. immediately before the first daily meal.

ANS: B

The gastrocolic reflex is most active after the first daily meal. Arising in the morning, the anticipation of eating, and physical exercise do not stimulate these reflexes.

3. When caring for a patient with a history of a total gastrectomy, the nurse will monitor for

- a. constipation.
- b. dehydration.
- c. elevated total serum cholesterol.
- d. cobalamin (vitamin B₁₂) deficiency.

ANS: D

The patient with a total gastrectomy does not secrete intrinsic factor, which is needed for cobalamin (vitamin B₁₂) absorption. Because the stomach absorbs only small amounts of water and nutrients, the patient is not at higher risk for dehydration, elevated cholesterol, or constipation.

4. The nurse will plan to monitor a patient with an obstructed common bile duct for
- a. melena.
 - b. steatorrhea.
 - c. decreased serum cholesterol levels.
 - d. increased serum indirect bilirubin levels.

ANS: B

A common bile duct obstruction will reduce the absorption of fat in the small intestine, leading to fatty stools. Gastrointestinal (GI) bleeding is not caused by common bile duct obstruction. Serum cholesterol levels are increased with biliary obstruction. Direct bilirubin level is increased with biliary obstruction.

5. The nurse receives the following information about a 51-year-old woman who is scheduled for a colonoscopy. Which information should be communicated to the health care provider before sending the patient for the procedure?
- a. The patient has a permanent pacemaker to prevent bradycardia.
 - b. The patient is worried about discomfort during the examination.
 - c. The patient has had an allergic reaction to shellfish and iodine in the past.
 - d. The patient refused to drink the ordered polyethylene glycol (GoLYTELY).

ANS: D

If the patient has had inadequate bowel preparation, the colon cannot be visualized and the procedure should be rescheduled. Because contrast solution is not used during

colonoscopy, the iodine allergy is not pertinent. A pacemaker is a contraindication to magnetic resonance imaging (MRI), but not to colonoscopy. The nurse should instruct the patient about the sedation used during the examination to decrease the patients anxiety about discomfort.

6. Which statement to the nurse from a patient with jaundice indicates a need for teaching?

- a. I used cough syrup several times a day last week.
- b. I take a baby aspirin every day to prevent strokes.
- c. I use acetaminophen (Tylenol) every 4 hours for back pain.
- d. I need to take an antacid for indigestion several times a week

ANS: C

Chronic use of high doses of acetaminophen can be hepatotoxic and may have caused the patients jaundice. The other patient statements require further assessment by the nurse, but do not indicate a need for patient education.

7. To palpate the liver during a head-to-toe physical assessment, the nurse

- a. places one hand on the patients back and presses upward and inward with the other hand below the patients right costal margin.
- b. places one hand on top of the other and uses the upper fingers to apply pressure and the bottom fingers to feel for the liver edge.
- c. presses slowly and firmly over the right costal margin with one hand and withdraws the fingers quickly after the liver edge is felt.
- d. places one hand under the patients lower ribs and presses the left lower rib cage forward, palpating below the costal margin with the other hand.

ANS: A

The liver is normally not palpable below the costal margin. The nurse needs to push inward below the right costal margin while lifting the patients back slightly with the left hand. The other methods will not allow palpation of the liver.

8. Which finding by the nurse during abdominal auscultation indicates a need for a focused abdominal assessment?

- a. Loud gurgles
- b. High-pitched gurgles
- c. Absent bowel sounds
- d. Frequent clicking sounds

ANS: C

Absent bowel sounds are abnormal and require further assessment by the nurse. The other sounds may be heard normally.

9. After assisting with a needle biopsy of the liver at a patients bedside, the nurse should

- a. put pressure on the biopsy site using a sandbag.
- b. elevate the head of the bed to facilitate breathing.
- c. place the patient on the right side with the bed flat.
- d. check the patients postbiopsy coagulation studies.

ANS: C

After a biopsy, the patient lies on the right side with the bed flat to splint the biopsy site. Coagulation studies are checked before the biopsy. A sandbag does not exert adequate pressure to splint the site.

10. A 42-year-old woman is admitted to the outpatient testing area for an ultrasound of the gallbladder. Which information obtained by the nurse indicates that the ultrasound may need to be rescheduled?

- a. The patient took a laxative the previous evening.
- b. The patient had a high-fat meal the previous evening.
- c. The patient has a permanent gastrostomy tube in place.
- d. The patient ate a low-fat bagel 4 hours ago for breakfast.

ANS: D

Food intake can cause the gallbladder to contract and result in a suboptimal study. The patient should be NPO for 8 to 12 hours before the test. A high-fat meal the previous evening, laxative use, or a gastrostomy tube will not affect the results of the study.

11. The nurse is assessing an alert and independent 78-year-old woman for malnutrition risk. The most appropriate initial question is which of the following?

- a. How do you get to the store to buy your food?
- b. Can you tell me the food that you ate yesterday?
- c. Do you have any difficulty in preparing or eating food?
- d. Are you taking any medications that alter your taste for food?

ANS: B

This question is the most open-ended, and will provide the best overall information about the patient's daily intake and risk for poor nutrition. The other questions may be asked, depending on the patient's response to the first question.

12. A 54-year-old man has just arrived in the recovery area after an upper endoscopy. Which information collected by the nurse is **most** important to communicate to the health care provider?

- a. The patient is very drowsy.
- b. The patient reports a sore throat.
- c. The oral temperature is 101.6 F.

- d. The apical pulse is 104 beats/minute.

ANS: C

A temperature elevation may indicate that a perforation has occurred. The other assessment data are normal immediately after the procedure.

13. A 30-year-old man is being admitted to the hospital for elective knee surgery. Which assessment finding is **most** important to report to the health care provider?

- a. Tympany on percussion of the abdomen
- b. Liver edge 3 cm below the costal margin
- c. Bowel sounds of 20/minute in each quadrant
- d. Aortic pulsations visible in the epigastric area

ANS: B

Normally the lower border of the liver is not palpable below the ribs, so this finding suggests hepatomegaly. The other findings are within normal range for the physical assessment.

14. A 58-year-old woman has just returned to the nursing unit after an esophagogastroduodenoscopy (EGD). Which action by unlicensed assistive personnel (UAP) requires that the registered nurse (RN) intervene?

- a. Offering the patient a drink of water
- b. Positioning the patient on the right side
- c. Checking the vital signs every 30 minutes
- d. Swabbing the patient's mouth with cold water

ANS: A

Immediately after EGD, the patient will have a decreased gag reflex and is at risk for aspiration. Assessment for return of the gag reflex should be done by the RN. The other actions by the UAP are appropriate.

15. A patient is being scheduled for endoscopic retrograde cholangiopancreatography (ERCP) as soon as possible. Which actions from the agency policy for ERCP should the nurse take **first**?

- a. Place the patient on NPO status.
- b. Administer sedative medications.
- c. Ensure the consent form is signed.
- d. Teach the patient about the procedure.

ANS: A

The patient will need to be NPO for 8 hours before the ERCP is done, so the nurses initial action should be to place the patient on NPO status. The other actions can be done after the patient is NPO.

16. While interviewing a 30-year-old man, the nurse learns that the patient has a family history of familial adenomatous polyposis (FAP). The nurse will plan to assess the patients knowledge about

- a. preventing noninfectious hepatitis.
- b. treating inflammatory bowel disease.
- c. risk for developing colorectal cancer.
- d. using antacids and proton pump inhibitors.

ANS: C

Familial adenomatous polyposis is a genetic condition that greatly increases the risk for colorectal cancer. Noninfectious hepatitis, use of medications that treat increased gastric pH, and inflammatory bowel disease are not related to FAP.

17. Which area of the abdomen shown in the accompanying figure will the nurse palpate to assess for splenomegaly?

- a. 1
- b. 2
- c. 3
- d. 4

ANS: B

The spleen is usually not palpable, but when palpated, it is located in left upper quadrant of abdomen.

Chapter 39. Management: Nutritional Problems

MULTIPLE CHOICE

1. Which finding for a 19-year-old female who is a vegan may indicate the need for cobalamin supplementation?

- a. Paresthesias
- b. Ecchymoses
- c. Dry, scaly skin
- d. Gingival swelling

ANS: A

Cobalamin (vitamin B₁₂) cannot be obtained from foods of plant origin, so the patient will be most at risk for signs of cobalamin deficiency, such as paresthesias, peripheral neuropathy, and anemia. The other symptoms listed are associated with other nutritional deficiencies but would not be associated with a vegan diet.

2. A 76-year-old woman with a body mass index (BMI) of 17 kg/m² and a low serum albumin level is being admitted by the nurse. Which assessment finding will the nurse expect to find?

- a. Restlessness
- b. Hypertension
- c. Pitting edema
- d. Food allergies

ANS: C

Edema occurs when serum albumin levels and plasma oncotic pressure decrease. The blood pressure and level of consciousness are not directly affected by malnutrition. Food allergies are not an indicator of nutritional status.

3. Which menu choice indicates that the patient is implementing plans to choose high-calorie, high-protein foods?

- a. Baked fish with applesauce
- b. Beef noodle soup and canned corn
- c. Fresh fruit salad with yogurt topping
- d. Fried chicken with potatoes and gravy

ANS: D

Foods that are high in calories include fried foods and those covered with sauces. High protein foods include meat and dairy products. The other choices are lower in calories and protein.

4. A 48-year-old woman has a body mass index (BMI) of 31 kg/m², a normal C-reactive protein level, and low serum transferrin and albumin levels. The nurse will plan patient teaching to increase the patient's intake of foods that are high in

- a. iron.
- b. protein.
- c. calories.
- d. carbohydrate.

ANS: B

The patient's C-reactive protein and transferrin levels indicate low protein stores. The BMI is in the obese range, so increasing caloric intake is not indicated. The data do not indicate a need for increased carbohydrate or iron intake.

5. A 48-year-old man who has just been started on tube feedings of full-strength formula at 100 mL/hr has 6 diarrhea stools the first day. Which action should the nurse plan to take?

- a. Slow the infusion rate of the tube feeding.
- b. Check gastric residual volumes more frequently.
- c. Change the enteral feeding system and formula every 8 hours.
- d. Discontinue administration of water through the feeding tube.

ANS: A

Loose stools indicate poor absorption of nutrients and indicate a need to slow the feeding rate or decrease the concentration of the feeding. Water should be given when patients receive enteral feedings to prevent dehydration. When a closed enteral feeding system is used, the tubing and formula are changed every 24 hours. High residual volumes do not contribute to diarrhea.

6. A 20-year-old man with extensive facial injuries from a motor vehicle crash is receiving tube feedings through a percutaneous endoscopic gastrostomy (PEG). Which action will the nurse include in the plan of care?

- a. Keep the patient positioned on the left side.

- b. Check the gastric residual volume every 4 to 6 hours.
- c. Avoid giving bolus tube feedings through the PEG tube.
- d. Obtain a daily abdominal x-ray to verify tube placement.

ANS: B

The gastric residual volume is assessed every 4 to 6 hours to decrease the risk for aspiration. The patient does not need to be positioned on the left side. Bolus feedings can be administered through a PEG tube. An x-ray is obtained immediately after placement of the PEG tube to check position, but daily x-rays are not needed.

7. A malnourished patient is receiving a parenteral nutrition (PN) infusion containing amino acids and dextrose from a bag that was hung 24 hours ago. The nurse observes that about 50 mL remain in the PN container. Which action is **best** for the nurse to take?

- a. Ask the health care provider to clarify the written PN order.
- b. Add a new container of PN using the current tubing and filter.
- c. Hang a new container of PN and change the IV tubing and filter.
- d. Infuse the remaining 50 mL and then hang a new container of PN.

ANS: B

All PN solutions are changed at 24 hours. PN solutions containing dextrose and amino acids require a change in tubing and filter every 72 hours rather than daily. Infusion of the additional 50 mL will increase patient risk for infection. Changing the IV tubing and filter more frequently than required will unnecessarily increase costs. The nurse (not the health care provider) is responsible for knowing the indicated times for tubing and filter changes.

8. A patient's capillary blood glucose level is 120 mg/dL 6 hours after the nurse initiated a parenteral nutrition (PN) infusion. The **most** appropriate action by the nurse is to

- a. obtain a venous blood glucose specimen.
- b. slow the infusion rate of the PN infusion.
- c. recheck the capillary blood glucose in 4 to 6 hours.
- d. notify the health care provider of the glucose level.

ANS: C

Mild hyperglycemia is expected during the first few days after PN is started and requires ongoing monitoring. Because the glucose elevation is small and expected, notification of the health care provider is not necessary. There is no need to obtain a venous specimen for comparison. Slowing the rate of the infusion is beyond the nurses scope of practice and will decrease the patients nutritional intake.

9. After abdominal surgery, a patient with protein calorie malnutrition is receiving parenteral nutrition (PN). Which is the best indicator that the patient is receiving adequate nutrition?

- a. Serum albumin level is 3.5 mg/dL.
- b. Fluid intake and output are balanced.
- c. Surgical incision is healing normally.
- d. Blood glucose is less than 110 mg/dL.

ANS: C

Because poor wound healing is a possible complication of malnutrition for this patient, normal healing of the incision is an indicator of the effectiveness of the PN in providing adequate nutrition. Blood glucose is monitored to prevent the complications of hyperglycemia and hypoglycemia, but it does not indicate that the patients nutrition is adequate. The intake and output will be monitored, but do not indicate that the PN is effective. The albumin level is in the low-normal range but does not reflect adequate caloric intake, which is also important for the patient.

10. A 60-year-old man who is hospitalized with an abdominal wound infection has only been eating about 50% of meals and states, Nothing on the menu sounds good. Which action by the nurse will be **most** effective in improving the patients oral intake?

- a. Order six small meals daily.
- b. Make a referral to the dietitian.
- c. Teach the patient about high-calorie foods.
- d. Have family members bring in favorite foods.

ANS: D

The patients statement that the hospital foods are unappealing indicates that favorite home-cooked foods might improve intake. The other interventions may also help improve the patients intake, but the most effective action will be to offer the patient more appealing foods.

11. When caring for a 63-year-old woman with a soft, silicone nasogastric tube in place for enteral feedings, the nurse will

- a. avoid giving medications through the feeding tube.
- b. flush the tubing after checking for residual volumes.
- c. administer continuous feedings using an infusion pump.
- d. replace the tube every 3 days to avoid mucosal damage.

ANS: B

The soft silicone feeding tubes are small in diameter and can easily become clogged unless they are flushed after the nurse checks the residual volume. Either intermittent or continuous feedings can be given. The tubes are less likely to cause mucosal damage than the stiffer polyvinyl chloride tubes used for nasogastric suction and do not need to be replaced at certain intervals. Medications can be given through these tubes, but flushing after medication administration is important to avoid clogging.

12. A patient is receiving continuous enteral nutrition through a small-bore silicone feeding tube. What should the nurse plan for when this patient has a computed tomography (CT) scan ordered?

- a. Shut the feeding off 30 to 60 minutes before the scan.
- b. Ask the health care provider to reschedule the CT scan.
- c. Connect the feeding tube to continuous suction during the scan.
- d. Send the patient to CT scan with oral suction in case of aspiration.

ANS: A

The tube feeding should be shut off 30 to 60 minutes before any procedure requiring the patient to lie flat. Because the CT scan is ordered for diagnosis of patient problems, rescheduling is not usually an option. Prevention, rather than treatment, of aspiration is needed. Small-bore feeding tubes are soft and collapse easily with aspiration or suction, making nasogastric suction of gastric contents unreliable.

13. A healthy 28-year-old woman patient who weighs 145 pounds (66 kg) asks the nurse about the minimum daily requirement for protein. How many grams of protein will the nurse recommend?

- a. 53
- b. 66
- c. 75
- d. 98

ANS: A

The recommended daily protein intake is 0.8 to 1 g/kg of body weight, which for this patient is $66 \text{ kg} \times 0.8 \text{ g} = 52.8$ or 53 g/day.

14. A 20-year-old female is being admitted for electrolyte disorders of unknown etiology. Which assessment finding is **most** important to report to the health care provider?

- a. The patient uses laxatives daily.
- b. The patients knuckles are macerated.
- c. The patients serum potassium level is 2.9 mEq/L.
- d. The patient has a history of large weight fluctuations.

ANS: C

The low serum potassium level may cause life-threatening cardiac dysrhythmias, and potassium supplementation is needed rapidly. The other information will also be reported because it suggests that bulimia may be the etiology of the patients electrolyte disturbances, but it does not suggest imminent life-threatening complications.

15. Which action for a patient receiving tube feedings through a percutaneous endoscopic gastrostomy (PEG) may be delegated to a licensed practical/vocational nurse (LPN/LVN)?

- a. Providing skin care to the area around the tube site
- b. Teaching the patient how to administer tube feedings
- c. Determining the need for adding water to the feedings
- d. Assessing the patients nutritional status at least weekly

ANS: A

LPN/LVN education and scope of practice include actions such as dressing changes and wound care. Patient teaching and complex assessments (such as patient nutrition and hydration status) require registered nurse (RN) level education and scope of practice.

16. Which action should the nurse take **first** when preparing to teach a frail 79-year-old Hispanic man who lives with an adult daughter about ways to improve nutrition?

- a. Ask the daughter about the patients food preferences.
- b. Determine who shops for groceries and prepares the meals.
- c. Question the patient about how many meals per day are eaten.
- d. Assure the patient that culturally preferred foods will be included.

ANS: B

The family member who shops for groceries and cooks will be in control of the patients diet, so the nurse will need to ensure that this family member is involved in any teaching or discussion about the patients nutritional needs. The other information will also be assessed and used but will not be useful in meeting the patients nutritional needs unless nutritionally appropriate foods are purchased and prepared.

17. After change-of-shift report, which patient will the nurse assess **first**?

- a. A 40-year-old woman whose parenteral nutrition infusion bag has 30 minutes of solution left
- b. A 40-year-old man with continuous enteral feedings who has developed pulmonary crackles
- c. A 30-year-old man with 4+ generalized pitting edema and severe protein-calorie malnutrition
- d. A 30-year-old woman whose gastrostomy tube is plugged after crushed medications were administered.

ANS: B

The patient data suggest aspiration has occurred and rapid assessment and intervention are needed. The other patients should also be assessed as quickly as possible, but the data about them do not suggest any immediately life-threatening complications.

18. A patient hospitalized with chronic heart failure eats only about 50% of each meal and reports feeling too tired to eat. Which action should the nurse take **first**?

- a. Teach the patient about the importance of good nutrition.
- b. Serve multiple small feedings of high-calorie, high-protein foods.
- c. Obtain an order for enteral feedings of liquid nutritional supplements.
- d. Consult with the health care provider about providing parenteral nutrition (PN).

ANS: B

Eating small amounts of food frequently throughout the day is less fatiguing and will improve the patient's ability to take in more nutrients. Teaching the patient may be appropriate, but will not address the patient's inability to eat more because of fatigue. Tube feedings or PN may be needed if the patient is unable to take in enough nutrients orally, but increasing the oral intake should be attempted first.

19. A patient's peripheral parenteral nutrition (PN) bag is nearly empty and a new PN bag has not arrived yet from the pharmacy. Which intervention is the **priority**?

- a. Monitor the patient's capillary blood glucose until a new PN bag is hung.
- b. Flush the peripheral line with saline and wait until the new PN bag is available.
- c. Infuse 5% dextrose in water until the new PN bag is delivered from the pharmacy.
- d. Decrease the rate of the current PN infusion to 10 mL/hr until the new bag arrives.

ANS: C

To prevent hypoglycemia, the nurse should infuse a 5% dextrose solution until the next PN bag can be started. Decreasing the rate of the ordered PN infusion is beyond the nurse's scope of practice. Flushing the line and then waiting for the next bag may

lead to hypoglycemia. Monitoring the capillary blood glucose is appropriate but is not the priority.

20. A 19-year-old female admitted with anorexia nervosa is 5 ft 6 in (163 cm) tall and weighs 88 pounds (41 kg). Laboratory tests reveal hypokalemia and iron-deficiency anemia. Which nursing diagnosis has the **highest** priority?

- a. Risk for activity intolerance related to anemia
- b. Risk for electrolyte imbalance related to eating patterns
- c. Ineffective health maintenance related to body image obsession
- d. Imbalanced nutrition: less than body requirements related to anorexia

ANS: B

The patient's hypokalemia may lead to life-threatening cardiac dysrhythmias. The other diagnoses are also appropriate for this patient but are not associated with immediate risk for fatal complications.

21. The nurse is planning care for a patient who is chronically malnourished. Which action is appropriate for the nurse to delegate to unlicensed assistive personnel (UAP)?

- a. Assist the patient to choose high-nutrition items from the menu.
- b. Monitor the patient for skin breakdown over the bony prominences.
- c. Offer the patient the prescribed nutritional supplement between meals.
- d. Assess the patient's strength while ambulating the patient in the room.

ANS: C

Feeding the patient and assisting with oral intake are included in UAP education and scope of practice. Assessing the patient and assisting the patient in choosing high-nutrition foods require licensed practical/vocational nurse (LPN/LVN) or registered nurse (RN) level education and scope of practice.

22. A severely malnourished patient reports that he is Jewish. The nurses **initial** action to meet his nutritional needs will be to

- a. have family members bring in food.
- b. ask the patient about food preferences.
- c. teach the patient about nutritious Kosher foods.
- d. order nutrition supplements that are manufactured Kosher.

ANS: B

The nurses first action should be further assessment whether or not the patient follows any specific religious guidelines that impact nutrition. The other actions may also be appropriate, based on the information obtained during the assessment.

MULTIPLE RESPONSE

1. Which of the nurses assigned patients should be referred to the dietitian for a complete nutritional assessment (*select all that apply*)?

- a. A 23-year-old who has a history of fluctuating weight gains and losses
- b. A 35-year-old who complains of intermittent nausea for the past 2 days
- c. A 64-year-old who is admitted for debridement of an infected surgical wound
- d. A 52-year-old admitted with chest pain and possible myocardial infarction (MI)
- e. A 48-year-old with rheumatoid arthritis who takes prednisone (Deltasone) daily

ANS: A, C, E

Weight fluctuations, use of corticosteroids, and draining or infected wounds all suggest that the patient may be at risk for malnutrition. Patients with chest pain or MI are not usually poorly nourished. Although vomiting that lasts 5 days places a patient

at risk, nausea that has persisted for 2 days does not always indicate poor nutritional status or risk for health problems caused by poor nutrition.

OTHER

1. The nurse is caring for a 47-year-old female patient who is comatose and is receiving continuous enteral nutrition through a soft nasogastric tube. The nurse notes the presence of new crackles in the patients lungs. In which order will the nurse take action? (*Put a comma and a space between each answer choice [A, B, C, D].*)

- a. Check the patients oxygen saturation.
- b. Notify the patients health care provider.
- c. Measure the tube feeding residual volume.
- d. Stop administering the continuous feeding.

ANS:

D, A, C, B

The assessment data indicate that aspiration may have occurred, and the nurses first action should be to turn off the tube feeding to avoid further aspiration. The next action should be to check the oxygen saturation because this may indicate the need for immediate respiratory suctioning or oxygen administration. The residual volume should be obtained because it provides data about possible causes of aspiration. Finally, the health care provider should be notified and informed of all the assessment data the nurse has just obtained.

Chapter 40. Management: Obesity

MULTIPLE CHOICE

1. Which statement by the nurse is **most** likely to help a morbidly obese 22-year-old man in losing weight on a 1000-calorie diet?

- a. It will be necessary to change lifestyle habits permanently to maintain weight loss.
- b. You will decrease your risk for future health problems such as diabetes by losing weight now.
- c. You are likely to notice changes in how you feel with just a few weeks of diet and exercise.
- d. Most of the weight that you lose during the first weeks of dieting is water weight rather than fat.

ANS: C

Motivation is a key factor in successful weight loss and a short-term outcome provides a higher motivation. A 22-year-old patient is unlikely to be motivated by future health problems. Telling a patient that the initial weight loss is water will be discouraging, although this may be correct. Changing lifestyle habits is necessary, but this process occurs over time and discussing this is not likely to motivate the patient.

2. After the nurse teaches a patient about the recommended amounts of foods from animal and plant sources, which menu selections indicate that the initial instructions about diet have been understood?

- a. 3 oz of lean beef, 2 oz of low-fat cheese, and a tomato slice
- b. 3 oz of roasted pork, a cup of corn, and a cup of carrot sticks
- c. Cup of tossed salad and nonfat dressing topped with a chicken breast
- d. Half cup of tuna mixed with nonfat mayonnaise and a half cup of celery

ANS: B

This selection is most consistent with the recommendation of the American Institute for Cancer Research that one third of the diet should be from animal sources and two thirds from plant source foods. The other choices all have higher ratios of animal origin foods to plant source foods than would be recommended.

3. Which nursing action is appropriate when coaching obese adults enrolled in a behavior modification program?

- a. Having the adults write down the caloric intake of each meal
- b. Asking the adults about situations that tend to increase appetite
- c. Suggesting that the adults plan rewards, such as sugarless candy, for achieving their goals
- d. Encouraging the adults to eat small amounts frequently rather than having scheduled meals

ANS: B

Behavior modification programs focus on how and when the person eats and de-emphasize aspects such as calorie counting. Nonfood rewards are recommended for achievement of weight-loss goals. Patients are often taught to restrict eating to designated meals when using behavior modification.

4. The nurse is coaching a community group for individuals who are overweight. Which participant behavior is an example of the **best** exercise plan for weight loss?

- a. Walking for 40 minutes 6 or 7 days/week
- b. Lifting weights with friends 3 times/week
- c. Playing soccer for an hour on the weekend
- d. Running for 10 to 15 minutes 3 times/week

ANS: A

Exercise should be done daily for 30 minutes to an hour. Exercising in highly aerobic activities for short bursts or only once a week is not helpful and may be dangerous in an individual who has not been exercising. Running may be appropriate, but a patient should start with an exercise that is less stressful and can be done for a longer period. Weight lifting is not as helpful as aerobic exercise in weight loss.

5. A few months after bariatric surgery, a 56-year-old man tells the nurse, My skin is hanging in folds. I think I need cosmetic surgery. Which response by the nurse is **most** appropriate?

- a. The important thing is that you are improving your health.
- b. The skinfolds will disappear once most of the weight is lost.
- c. Cosmetic surgery is a possibility once your weight has stabilized.
- d. Perhaps you would like to talk to a counselor about your body image.

ANS: C

Reconstructive surgery may be used to eliminate excess skinfolds after at least a year has passed since the surgery. Skinfolds may not disappear over time, especially in older patients. The response, The important thing is that your weight loss is improving your health, ignores the patients concerns about appearance and implies that the nurse knows what is important. Whereas it may be helpful for the patient to talk to a counselor, it is more likely to be helpful to know that cosmetic surgery is available.

6. After vertical banded gastroplasty, a 42-year-old male patient returns to the surgical nursing unit with a nasogastric tube to low, intermittent suction and a patient-controlled analgesia (PCA) machine for pain control. Which nursing action should be included in the postoperative plan of care?

- a. Offer sips of fruit juices at frequent intervals.
- b. Irrigate the nasogastric (NG) tube frequently.
- c. Remind the patient that PCA use may slow the return of bowel function.
- d. Support the surgical incision during patient coughing and turning in bed.

ANS: D

The incision should be protected from strain to decrease the risk for wound dehiscence. The patient should be encouraged to use the PCA because pain control will improve the cough effort and patient mobility. NG irrigation may damage the

suture line or overfill the stomach pouch. Sugar-free clear liquids are offered during the immediate postoperative time to decrease the risk for dumping syndrome.

7. The nurse will be teaching self-management to patients after gastric bypass surgery. Which information will the nurse plan to include?

- a. Drink fluids between meals but not with meals.
- b. Choose high-fat foods for at least 30% of intake.
- c. Developing flabby skin can be prevented by exercise.
- d. Choose foods high in fiber to promote bowel function.

ANS: A

Intake of fluids with meals tends to cause dumping syndrome and diarrhea. Food choices should be low in fat and fiber. Exercise does not prevent the development of flabby skin.

8. Which assessment action will help the nurse determine if an obese patient has metabolic syndrome?

- a. Take the patients apical pulse.
- b. Check the patients blood pressure.
- c. Ask the patient about dietary intake.
- d. Dipstick the patients urine for protein.

ANS: B

Elevated blood pressure is one of the characteristics of metabolic syndrome. The other information also may be obtained by the nurse, but it will not assist with the diagnosis of metabolic syndrome.

9. When teaching a patient about testing to diagnose metabolic syndrome, which topic would the nurse include?

- a. Blood glucose test
- b. Cardiac enzyme tests
- c. Postural blood pressures
- d. Resting electrocardiogram

ANS: A

A fasting blood glucose test >100 mg/dL is one of the diagnostic criteria for metabolic syndrome. The other tests are not used to diagnose metabolic syndrome although they may be used to check for cardiovascular complications of the disorder.

10. What information will the nurse include for an overweight 35-year-old woman who is starting a weight-loss plan?

- a. Weigh yourself at the same time every morning and evening.
- b. Stick to a 600- to 800-calorie diet for the most rapid weight loss.
- c. Low carbohydrate diets lead to rapid weight loss but are difficult to maintain.
- d. Weighing all foods on a scale is necessary to choose appropriate portion sizes.

ANS: C

The restrictive nature of fad diets makes the weight loss achieved by the patient more difficult to maintain. Portion size can be estimated in other ways besides weighing. Severely calorie-restricted diets are not necessary for patients in the overweight category of obesity and need to be closely supervised. Patients should weigh weekly rather than daily.

11. Which adult will the nurse plan to teach about risks associated with obesity?

- a. Man who has a BMI of 18 kg/m^2
- b. Man with a 42 in waist and 44 in hips

- c. Woman who has a body mass index (BMI) of 24 kg/m^2
- d. Woman with a waist circumference of 34 inches (86 cm)

ANS: B

The waist-to-hip ratio for this patient is 0.95, which exceeds the recommended level of <0.80 . A patient with a BMI of 18 kg/m^2 is considered underweight. A BMI of 24 kg/m^2 is normal. Health risks associated with obesity increase in women with a waist circumference larger than 35 in (89 cm) and men with a waist circumference larger than 40 in (102 cm).

12. A 61-year-old man is being admitted for bariatric surgery. Which nursing action can the nurse delegate to unlicensed assistive personnel (UAP)?
- a. Demonstrate use of the incentive spirometer.
 - b. Plan methods for bathing and turning the patient.
 - c. Assist with IV insertion by holding adipose tissue out of the way.
 - d. Develop strategies to provide privacy and decrease embarrassment.

ANS: C

UAP can assist with IV placement by assisting with patient positioning or holding skinfolds aside. Planning for care and patient teaching require registered nurse (RN) level education and scope of practice.

13. After successfully losing 1 lb weekly for several months, a patient at the clinic has not lost any weight for the last month. The nurse should **first**
- a. review the diet and exercise guidelines with the patient.
 - b. instruct the patient to weigh and record weights weekly.
 - c. ask the patient whether there have been any changes in exercise or diet patterns.

- d. discuss the possibility that the patient has reached a temporary weight loss plateau.

ANS: C

The initial nursing action should be assessment of any reason for the change in weight loss. The other actions may be needed, but further assessment is required before any interventions are planned or implemented.

14. Which finding for a patient who has been taking orlistat (Xenical) is **most** important to report to the health care provider?

- a. The patient frequently has liquid stools.
- b. The patient is pale and has many bruises.
- c. The patient complains of bloating after meals.
- d. The patient is experiencing a weight loss plateau.

ANS: B

Because orlistat blocks the absorption of fat-soluble vitamins, the patient may not be receiving an adequate amount of vitamin K, resulting in a decrease in clotting factors. Abdominal bloating and liquid stools are common side effects of orlistat and indicate that the nurse should remind the patient that fat in the diet may increase these side effects. Weight loss plateaus are normal during weight reduction.

15. A 40-year-old obese woman reports that she wants to lose weight. Which question should the nurse ask **first**?

- a. What factors led to your obesity?
- b. Which types of food do you like best?
- c. How long have you been overweight?
- d. What kind of activities do you enjoy?

ANS: A

The nurse should obtain information about the patients perceptions of the reasons for the obesity to develop a plan individualized to the patient. The other information also will be obtained from the patient, but the patient is more likely to make changes when the patients beliefs are considered in planning.

16. The nurse is caring for a 54-year-old female patient on the first postoperative day after a Roux-en-Y gastric bypass procedure. Which assessment finding should be reported **immediately** to the surgeon?

- a. Bilateral crackles audible at both lung bases
- b. Redness, irritation, and skin breakdown in skinfolds
- c. Emesis of bile-colored fluid past the nasogastric (NG) tube
- d. Use of patient-controlled analgesia (PCA) several times an hour for pain

ANS: C

Vomiting with an NG tube in place indicates that the NG tube needs to be repositioned by the surgeon to avoid putting stress on the gastric sutures. The nurse should implement actions to decrease skin irritation and have the patient cough and deep breathe, but these do not indicate a need for rapid notification of the surgeon. Frequent PCA use after bariatric surgery is expected.

17. Which information will the nurse **prioritize** in planning preoperative teaching for a patient undergoing a Roux-en-Y gastric bypass?

- a. Educating the patient about the nasogastric (NG) tube
- b. Instructing the patient on coughing and breathing techniques
- c. Discussing necessary postoperative modifications in lifestyle
- d. Demonstrating passive range-of-motion exercises for the legs

ANS: B

Coughing and deep breathing can prevent major postoperative complications such as carbon monoxide retention and hypoxemia. Information about passive range of motion, the NG tube, and postoperative modifications in lifestyle will also be discussed, but avoidance of respiratory complications is the priority goal after surgery.

18. After bariatric surgery, a patient who is being discharged tells the nurse, I prefer to be independent. I am not interested in any support groups. Which response by the nurse is **best**?

- a. I hope you change your mind so that I can suggest a group for you.
- b. Tell me what types of resources you think you might use after this surgery.
- c. Support groups have been found to lead to more successful weight loss after surgery.
- d. Because there are many lifestyle changes after surgery, we recommend support groups.

ANS: B

This statement allows the nurse to assess the individual patients potential needs and preferences. The other statements offer the patient more information about the benefits of support groups, but fail to acknowledge the patients preferences.

19. To evaluate an obese patient for adverse effects of lorcaserin (Belviq), which action will the nurse take?

- a. Take the apical pulse rate.
- b. Check sclera for jaundice.
- c. Ask about bowel movements.
- d. Assess for agitation or restlessness.

ANS: C

Constipation is a common side effect of lorcaserin. The other assessments would be appropriate for other weight-loss medications.

MULTIPLE RESPONSE

1. Which information in this male patient's electronic health record as shown in the accompanying figure will the nurse use to confirm that the patient has metabolic syndrome (*select all that apply*)?

- a. Weight
- b. Waist size
- c. Blood glucose
- d. Blood pressure
- e. Triglyceride level
- f. Total cholesterol level

ANS: B, C

The patient's waist circumference, HDL, and fasting blood glucose indicate that he has metabolic syndrome. The other data are not used in making a metabolic syndrome diagnosis or do not meet the criteria for this diagnosis.

Chapter 41. Management: Upper Gastrointestinal Problems

MULTIPLE CHOICE

1. A 53-year-old male patient with deep partial-thickness burns from a chemical spill in the workplace experiences severe pain followed by nausea during dressing changes. Which action will be **most** useful in decreasing the patient's nausea?

- a. Keep the patient NPO for 2 hours before and after dressing changes.
- b. Avoid performing dressing changes close to the patient's mealtimes.

- c. Administer the prescribed morphine sulfate before dressing changes.
- d. Give the ordered prochlorperazine (Compazine) before dressing changes.

ANS: C

Because the patient's nausea is associated with severe pain, it is likely that it is precipitated by stress and pain. The best treatment will be to provide adequate pain medication before dressing changes. The nurse should avoid doing painful procedures close to mealtimes, but nausea/vomiting that occur at other times also should be addressed. Keeping the patient NPO does not address the reason for the nausea and vomiting and will have an adverse effect on the patient's nutrition. Administration of antiemetics is not the best choice for a patient with nausea caused by pain.

2. Which item should the nurse offer to the patient who is to restart oral intake after being NPO due to nausea and vomiting?

- a. Glass of orange juice
- b. Dish of lemon gelatin
- c. Cup of coffee with cream
- d. Bowl of hot chicken broth

ANS: B

Clear cool liquids are usually the first foods started after a patient has been nauseated. Acidic foods such as orange juice, very hot foods, and coffee are poorly tolerated when patients have been nauseated.

3. A 38-year old woman receiving chemotherapy for breast cancer develops a *Candida albicans* oral infection. The nurse will anticipate the need for

- a. hydrogen peroxide rinses.
- b. the use of antiviral agents.

- c. administration of nystatin (Mycostatin) tablets.
- d. referral to a dentist for professional tooth cleaning.

ANS: C

Candida albicans is treated with an antifungal such as nystatin. Oral saltwater rinses may be used but will not cure the infection. Antiviral agents are used for viral infections such as herpes simplex. Referral to a dentist is indicated for gingivitis but not for *Candida* infection.

4. Which finding in the mouth of a patient who uses smokeless tobacco is suggestive of oral cancer?

- a. Bleeding during tooth brushing
- b. Painful blisters at the lip border
- c. Red, velvety patches on the buccal mucosa
- d. White, curdlike plaques on the posterior tongue

ANS: C

A red, velvety patch suggests erythroplasia, which has a high incidence (greater than 50%) of progression to squamous cell carcinoma. The other lesions are suggestive of acute processes (e.g., gingivitis, oral candidiasis, herpes simplex).

5. Which information will the nurse include when teaching adults to decrease the risk for cancers of the tongue and buccal mucosa?

- a. Avoid use of cigarettes and smokeless tobacco.
- b. Use sunscreen when outside even on cloudy days.
- c. Complete antibiotic courses used to treat throat infections.
- d. Use antivirals to treat herpes simplex virus (HSV) infections.

ANS: A

Tobacco use greatly increases the risk for oral cancer. Acute throat infections do not increase the risk for oral cancer, although chronic irritation of the oral mucosa does increase risk. Sun exposure does not increase the risk for cancers of the buccal mucosa. Human papillomavirus (HPV) infection is associated with an increased risk, but HSV infection is not a risk factor for oral cancer.

6. A 46-year-old female with gastroesophageal reflux disease (GERD) is experiencing increasing discomfort. Which patient statement indicates that additional teaching about GERD is needed?

- a. I take antacids between meals and at bedtime each night.
- b. I sleep with the head of the bed elevated on 4-inch blocks.
- c. I eat small meals during the day and have a bedtime snack.
- d. I quit smoking several years ago, but I still chew a lot of gum.

ANS: C

GERD is exacerbated by eating late at night, and the nurse should plan to teach the patient to avoid eating at bedtime. The other patient actions are appropriate to control symptoms of GERD.

7. A 68-year-old male patient with a stroke is unconscious and unresponsive to stimuli. After learning that the patient has a history of gastroesophageal reflux disease (GERD), the nurse will plan to do frequent assessments of the patients

- a. apical pulse.
- b. bowel sounds.
- c. breath sounds.
- d. abdominal girth.

ANS: C

Because GERD may cause aspiration, the unconscious patient is at risk for developing aspiration pneumonia. Bowel sounds, abdominal girth, and apical pulse will not be affected by the patient's stroke or GERD and do not require more frequent monitoring than the routine.

8. The nurse explaining esomeprazole (Nexium) to a patient with recurring heartburn describes that the medication

- a. reduces gastroesophageal reflux by increasing the rate of gastric emptying.
- b. neutralizes stomach acid and provides relief of symptoms in a few minutes.
- c. coats and protects the lining of the stomach and esophagus from gastric acid.
- d. treats gastroesophageal reflux disease by decreasing stomach acid production.

ANS: D

The proton pump inhibitors decrease the rate of gastric acid secretion. Prokinetic drugs such as metoclopramide (Reglan) increase the rate of gastric emptying. Cytoprotective medications such as sucralfate (Carafate) protect the stomach. Antacids neutralize stomach acid and work rapidly.

9. Which patient choice for a snack 2 hours before bedtime indicates that the nurse's teaching about gastroesophageal reflux disease (GERD) has been effective?

- a. Chocolate pudding
- b. Glass of low-fat milk
- c. Cherry gelatin with fruit
- d. Peanut butter and jelly sandwich

ANS: C

Gelatin and fruit are low fat and will not decrease lower esophageal sphincter (LES) pressure. Foods such as chocolate are avoided because they lower LES pressure. Milk products increase gastric acid secretion. High-fat foods such as peanut butter decrease both gastric emptying and LES pressure.

10. The nurse will anticipate teaching a patient experiencing frequent heartburn about
- a. a barium swallow.
 - b. radionuclide tests.
 - c. endoscopy procedures.
 - d. proton pump inhibitors.

ANS: D

Because diagnostic testing for heartburn that is probably caused by gastroesophageal reflux disease (GERD) is expensive and uncomfortable, proton pump inhibitors are frequently used for a short period as the first step in the diagnosis of GERD. The other tests may be used but are not usually the first step in diagnosis.

11. A 58-year-old woman who recently has been diagnosed with esophageal cancer tells the nurse, I do not feel ready to die yet. Which response by the nurse is **most** appropriate?

- a. You may have quite a few years still left to live.
- b. Thinking about dying will only make you feel worse.
- c. Having this new diagnosis must be very hard for you.
- d. It is important that you be realistic about your prognosis.

ANS: C

This response is open-ended and will encourage the patient to further discuss feelings of anxiety or sadness about the diagnosis. Patients with esophageal cancer have only a low survival rate, so the response You may have quite a few years still left to live is

misleading. The response beginning, Thinking about dying indicates that the nurse is not open to discussing the patients fears of dying. The response beginning, It is important that you be realistic, discourages the patient from feeling hopeful, which is important to patients with any life-threatening diagnosis.

12. Which information will the nurse include for a patient with newly diagnosed gastroesophageal reflux disease (GERD)?

- a. Peppermint tea may reduce your symptoms.
- b. Keep the head of your bed elevated on blocks.
- c. You should avoid eating between meals to reduce acid secretion.
- d. Vigorous physical activities may increase the incidence of reflux.

ANS: B

Elevating the head of the bed will reduce the incidence of reflux while the patient is sleeping. Peppermint will decrease lower esophageal sphincter (LES) pressure and increase the chance for reflux. Small, frequent meals are recommended to avoid abdominal distention. There is no need to make changes in physical activities because of GERD.

13. Which nursing action should be included in the postoperative plan of care for a patient after a laparoscopic esophagectomy?

- a. Notify the doctor about bloody nasogastric (NG) drainage.
- b. Elevate the head of the bed to at least 30 degrees.
- c. Reposition the NG tube if drainage stops.
- d. Start oral fluids when the patient has active bowel sounds.

ANS: B

Elevation of the head of the bed decreases the risk for reflux and aspiration of gastric secretions. The NG tube should not be repositioned without consulting with the health

care provider. Bloody NG drainage is expected for the first 8 to 12 hours. A swallowing study is needed before oral fluids are started.

14. When a 72-year-old patient is diagnosed with achalasia, the nurse will teach the patient that

- a. lying down after meals is recommended.
- b. a liquid or blenderized diet will be necessary.
- c. drinking fluids with meals should be avoided.
- d. treatment may include endoscopic procedures.

ANS: D

Endoscopic and laparoscopic procedures are the most effective therapy for improving symptoms caused by achalasia. Keeping the head elevated after eating will improve esophageal emptying. A semisoft diet is recommended to improve esophageal emptying. Patients are advised to drink fluid with meals.

15. A 50-year-old man vomiting blood-streaked fluid is admitted to the hospital with acute gastritis. To determine possible risk factors for gastritis, the nurse will ask the patient about

- a. the amount of saturated fat in the diet.
- b. any family history of gastric or colon cancer.
- c. a history of a large recent weight gain or loss.
- d. use of nonsteroidal antiinflammatory drugs (NSAIDs).

ANS: D

Use of an NSAID is associated with damage to the gastric mucosa, which can result in acute gastritis. Family history, recent weight gain or loss, and fatty foods are not risk factors for acute gastritis.

16. The nurse determines that teaching regarding cobalamin injections has been effective when the patient with chronic atrophic gastritis states which of the following?

- a. The cobalamin injections will prevent gastric inflammation.
- b. The cobalamin injections will prevent me from becoming anemic.
- c. These injections will increase the hydrochloric acid in my stomach.
- d. These injections will decrease my risk for developing stomach cancer.

ANS: B

Cobalamin supplementation prevents the development of pernicious anemia. Chronic gastritis may cause achlorhydria, but cobalamin does not correct this. The loss of intrinsic factor secretion with chronic gastritis is permanent, and the patient will need lifelong supplementation with cobalamin. The incidence of stomach cancer is higher in patients with chronic gastritis, but cobalamin does not reduce the risk for stomach cancer.

17. Which medications will the nurse teach the patient about whose peptic ulcer disease is associated with *Helicobacter pylori*?

- a. Sucralfate (Carafate), nystatin (Mycostatin), and bismuth (Pepto-Bismol)
- b. Amoxicillin (Amoxil), clarithromycin (Biaxin), and omeprazole (Prilosec)
- c. Famotidine (Pepcid), magnesium hydroxide (Mylanta), and pantoprazole (Protonix)
- d. Metoclopramide (Reglan), bethanechol (Urecholine), and promethazine (Phenergan)

ANS: B

The drugs used in triple drug therapy include a proton pump inhibitor such as omeprazole and the antibiotics amoxicillin and clarithromycin. The other combinations listed are not included in the protocol for *H. pylori* infection.

18. Which action should the nurse in the emergency department anticipate for a 23-year-old patient who has had several episodes of bloody diarrhea?

- a. Obtain a stool specimen for culture.
- b. Administer antidiarrheal medication.
- c. Provide teaching about antibiotic therapy.
- d. Teach about adverse effects of acetaminophen (Tylenol).

ANS: A

Patients with bloody diarrhea should have a stool culture for *E. coli* O157:H7. Antidiarrheal medications are usually avoided for possible infectious diarrhea to avoid prolonging the infection. Antibiotic therapy in the treatment of infectious diarrhea is controversial because it may precipitate kidney complications. Acetaminophen does not cause bloody diarrhea.

19. The nurse will anticipate preparing a 71-year-old female patient who is vomiting coffee-ground emesis for

- a. endoscopy.
- b. angiography.
- c. barium studies.
- d. gastric analysis.

ANS: A

Endoscopy is the primary tool for visualization and diagnosis of upper gastrointestinal (GI) bleeding. Angiography is used only when endoscopy cannot be done because it is

more invasive and has more possible complications. Barium studies are helpful in determining the presence of gastric lesions, but not whether the lesions are actively bleeding. Gastric analysis testing may help with determining the cause of gastric irritation, but it is not used for acute GI bleeding.

20. A 57-year-old man with *Escherichia coli* O157:H7 food poisoning is admitted to the hospital with bloody diarrhea and dehydration. Which order will the nurse question?

- a. Infuse lactated Ringers solution at 250 mL/hr.
- b. Monitor blood urea nitrogen and creatinine daily.
- c. Administer loperamide (Imodium) after each stool.
- d. Provide a clear liquid diet and progress diet as tolerated.

ANS: C

Use of antidiarrheal agents is avoided with this type of food poisoning. The other orders are appropriate.

21. Which information will the nurse include when teaching a patient with peptic ulcer disease about the effect of ranitidine (Zantac)?

- a. Ranitidine absorbs the gastric acid.
- b. Ranitidine decreases gastric acid secretion.
- c. Ranitidine constricts the blood vessels near the ulcer.
- d. Ranitidine covers the ulcer with a protective material.

ANS: B

Ranitidine is a histamine-2 (H₂) receptor blocker, which decreases the secretion of gastric acid. The response beginning, Ranitidine constricts the blood vessels describes the effect of vasopressin. The response Ranitidine absorbs the gastric acid describes

the effect of antacids. The response beginning Ranitidine covers the ulcer describes the action of sucralfate (Carafate).

22. A family member of a 28-year-old patient who has suffered massive abdominal trauma in an automobile accident asks the nurse why the patient is receiving famotidine (Pepcid). The nurse will explain that the medication will

- a. decrease nausea and vomiting.
- b. inhibit development of stress ulcers.
- c. lower the risk for *H. pylori* infection.
- d. prevent aspiration of gastric contents.

ANS: B

Famotidine is administered to prevent the development of physiologic stress ulcers, which are associated with a major physiologic insult such as massive trauma.

Famotidine does not decrease nausea or vomiting, prevent aspiration, or prevent *H. pylori* infection.

23. A 68-year-old patient with a bleeding duodenal ulcer has a nasogastric (NG) tube in place, and the health care provider orders 30 mL of aluminum hydroxide/magnesium hydroxide (Maalox) to be instilled through the tube every hour. To evaluate the effectiveness of this treatment, the nurse

- a. monitors arterial blood gas values daily.
- b. periodically aspirates and tests gastric pH.
- c. checks each stool for the presence of occult blood.
- d. measures the volume of residual stomach contents.

ANS: B

The purpose for antacids is to increase gastric pH. Checking gastric pH is the most direct way of evaluating the effectiveness of the medication. Arterial blood gases may

change slightly, but this does not directly reflect the effect of antacids on gastric pH. Because the patient has upper gastrointestinal (GI) bleeding, occult blood in the stools will appear even after the acute bleeding has stopped. The amount of residual stomach contents is not a reflection of resolution of bleeding or of gastric pH.

24. A 44-year-old man admitted with a peptic ulcer has a nasogastric (NG) tube in place. When the patient develops sudden, severe upper abdominal pain, diaphoresis, and a firm abdomen, which action should the nurse take?

- a. Irrigate the NG tube.
- b. Check the vital signs.
- c. Give the ordered antacid.
- d. Elevate the foot of the bed.

ANS: B

The patient's symptoms suggest acute perforation, and the nurse should assess for signs of hypovolemic shock. Irrigation of the NG tube, administration of antacids, or both would be contraindicated because any material in the stomach will increase the spillage into the peritoneal cavity. Elevating the foot of the bed may increase abdominal pressure and discomfort, as well as making it more difficult for the patient to breathe.

25. A 50-year-old patient who underwent a gastroduodenostomy (Billroth I) earlier today complains of increasing abdominal pain. The patient has no bowel sounds and 200 mL of bright red nasogastric (NG) drainage in the last hour. The **highest** priority action by the nurse is to

- a. contact the surgeon.
- b. irrigate the NG tube.
- c. monitor the NG drainage.
- d. administer the prescribed morphine.

ANS: A

Increased pain and 200 mL of bright red NG drainage 12 hours after surgery indicate possible postoperative hemorrhage, and immediate actions such as blood transfusion and/or return to surgery are needed. Because the NG is draining, there is no indication that irrigation is needed. Continuing to monitor the NG drainage is not an adequate response. The patient may need morphine, but this is not the highest priority action.

26. Which patient statement indicates that the nurses teaching following a gastroduodenostomy has been effective?

- a. Vitamin supplements may prevent anemia.
- b. Persistent heartburn is common after surgery.
- c. I will try to drink more liquids with my meals.
- d. I will need to choose high carbohydrate foods.

ANS: A

Cobalamin deficiency may occur after partial gastrectomy, and the patient may need to receive cobalamin via injections or nasal spray. Although peptic ulcer disease may recur, persistent heartburn is not expected after surgery and the patient should call the health care provider if this occurs. Ingestion of liquids with meals is avoided to prevent dumping syndrome. Foods that have moderate fat and low carbohydrate should be chosen to prevent dumping syndrome.

27. At his first postoperative checkup appointment after a gastrojejunostomy (Billroth II), a patient reports that dizziness, weakness, and palpitations occur about 20 minutes after each meal. The nurse will teach the patient to

- a. increase the amount of fluid with meals.
- b. eat foods that are higher in carbohydrates.
- c. lie down for about 30 minutes after eating.
- d. drink sugared fluids or eat candy after meals.

ANS: C

The patient is experiencing symptoms of dumping syndrome, which may be reduced by lying down after eating. Increasing fluid intake and choosing high carbohydrate foods will increase the risk for dumping syndrome. Having a sweet drink or hard candy will correct the hypoglycemia that is associated with dumping syndrome but will not prevent dumping syndrome.

28. A 62-year-old man patient who requires daily use of a nonsteroidal antiinflammatory drug (NSAID) for the management of severe rheumatoid arthritis has recently developed melena. The nurse will anticipate teaching the patient about

- a. substitution of acetaminophen (Tylenol) for the NSAID.
- b. use of enteric-coated NSAIDs to reduce gastric irritation.
- c. reasons for using corticosteroids to treat the rheumatoid arthritis.
- d. misoprostol (Cytotec) to protect the gastrointestinal (GI) mucosa.

ANS: D

Misoprostol, a prostaglandin analog, reduces acid secretion and the incidence of upper GI bleeding associated with NSAID use. Enteric coating of NSAIDs does not reduce the risk for GI bleeding. Corticosteroids increase the risk for ulcer development, and will not be substituted for NSAIDs for this patient. Acetaminophen will not be effective in treating the patients rheumatoid arthritis.

29. The health care provider prescribes antacids and sucralfate (Carafate) for treatment of a patients peptic ulcer. The nurse will teach the patient to take

- a. sucralfate at bedtime and antacids before each meal.
- b. sucralfate and antacids together 30 minutes before meals.
- c. antacids 30 minutes before each dose of sucralfate is taken.
- d. antacids after meals and sucralfate 30 minutes before meals.

ANS: D

Sucralfate is most effective when the pH is low and should not be given with or soon after

antacids. Antacids are most effective when taken after eating. Administration of sucralfate 30

minutes before eating and antacids just after eating will ensure that both drugs can be most effective. The other regimens will decrease the effectiveness of the medications.

30. Which information about dietary management should the nurse include when teaching a patient with peptic ulcer disease (PUD)?

- a. You will need to remain on a bland diet.
- b. Avoid foods that cause pain after you eat them.
- c. High-protein foods are least likely to cause you pain.
- d. You should avoid eating any raw fruits and vegetables.

ANS: B

The best information is that each individual should choose foods that are not associated with postprandial discomfort. Raw fruits and vegetables may irritate the gastric mucosa, but chewing well seems to decrease this problem and some patients may tolerate these foods well. High-protein foods help neutralize acid, but they also stimulate hydrochloric (HCl) acid secretion and may increase discomfort for some patients. Bland diets may be recommended during an acute exacerbation of PUD, but there is little scientific evidence to support their use.

31. A 73-year-old patient is diagnosed with stomach cancer after an unintended 20-pound weight loss. Which nursing action will be included in the plan of care?

- a. Refer the patient for hospice services.
- b. Infuse IV fluids through a central line.

- c. Teach the patient about antiemetic therapy.
- d. Offer supplemental feedings between meals.

ANS: D

The patient data indicate a poor nutritional state and improvement in nutrition will be helpful in improving the response to therapies such as surgery, chemotherapy, or radiation. Nausea and vomiting are not common clinical manifestations of stomach cancer. There is no indication that the patient requires hospice or IV fluid infusions.

32. A 26-year-old patient with a family history of stomach cancer asks the nurse about ways to decrease the risk for developing stomach cancer. The nurse will teach the patient to avoid

- a. emotionally stressful situations.
- b. smoked foods such as ham and bacon.
- c. foods that cause distention or bloating.
- d. chronic use of H₂ blocking medications.

ANS: B

Smoked foods such as bacon, ham, and smoked sausage increase the risk for stomach cancer. Stressful situations, abdominal distention, and use of H₂ blockers are not associated with an increased incidence of stomach cancer.

33. The nurse is assessing a patient who had a total gastrectomy 8 hours ago. What information is **most** important to report to the health care provider?

- a. Absent bowel sounds
- b. Complaints of incisional pain
- c. Temperature 102.1 F (38.9 C)

- d. Scant nasogastric (NG) tube drainage

ANS: C

An elevation in temperature may indicate leakage at the anastomosis, which may require return to surgery or keeping the patient NPO. The other findings are expected in the immediate postoperative period for patients who have this surgery.

34. A 58-year-old patient has just been admitted to the emergency department with nausea and vomiting. Which information requires the **most** rapid intervention by the nurse?

- a. The patient has been vomiting for 4 days.
- b. The patient takes antacids 8 to 10 times a day.
- c. The patient is lethargic and difficult to arouse.
- d. The patient has undergone a small intestinal resection.

ANS: C

A lethargic patient is at risk for aspiration, and the nurse will need to position the patient to decrease aspiration risk. The other information is also important to collect, but it does not require as quick action as the risk for aspiration.

35. A 26-year-old woman has been admitted to the emergency department with nausea and vomiting. Which action could the RN delegate to unlicensed assistive personnel (UAP)?

- a. Auscultate the bowel sounds.
- b. Assess for signs of dehydration.
- c. Assist the patient with oral care.
- d. Ask the patient about the nausea.

ANS: C

Oral care is included in UAP education and scope of practice. The other actions are all assessments that require more education and a higher scope of nursing practice.

36. A 49-year-old man has been admitted with hypotension and dehydration after 3 days of nausea and vomiting. Which order from the health care provider will the nurse implement **first**?

- a. Insert a nasogastric (NG) tube.
- b. Infuse normal saline at 250 mL/hr.
- c. Administer IV ondansetron (Zofran).
- d. Provide oral care with moistened swabs.

ANS: B

Because the patient has severe dehydration, rehydration with IV fluids is the priority. The other orders should be accomplished as quickly as possible after the IV fluids are initiated.

37. Which patient should the nurse assess **first** after receiving change-of-shift report?

- a. A patient with nausea who has a dose of metoclopramide (Reglan) due
- b. A patient who is crying after receiving a diagnosis of esophageal cancer
- c. A patient with esophageal varices who has a blood pressure of 92/58 mm Hg
- d. A patient admitted yesterday with gastrointestinal (GI) bleeding who has melena

ANS: C

The patient's history and blood pressure indicate possible hemodynamic instability caused by GI bleeding. The data about the other patients do not indicate acutely life-threatening complications.

38. A patient returned from a laparoscopic Nissen fundoplication for hiatal hernia 4 hours ago. Which assessment finding is **most** important for the nurse to address immediately?

- a. The patient is experiencing intermittent waves of nausea.
- b. The patient complains of 7/10 (0 to 10 scale) abdominal pain.
- c. The patient has absent breath sounds in the left anterior chest.
- d. The patient has hypoactive bowel sounds in all four quadrants.

ANS: C

Decreased breath sounds on one side may indicate a pneumothorax, which requires rapid diagnosis and treatment. The nausea and abdominal pain should also be addressed but they are not as high priority as the patient's respiratory status. The patient's decreased bowel sounds are expected after surgery and require ongoing monitoring but no other action.

39. Which assessment should the nurse perform **first** for a patient who just vomited bright red blood?

- a. Measuring the quantity of emesis
- b. Palpating the abdomen for distention
- c. Auscultating the chest for breath sounds
- d. Taking the blood pressure (BP) and pulse

ANS: D

The nurse is concerned about blood loss and possible hypovolemic shock in a patient with acute gastrointestinal (GI) bleeding. BP and pulse are the best indicators of these complications. The other information is important to obtain, but BP and pulse rate are the best indicators for assessing intravascular volume.

40. Which order from the health care provider will the nurse implement **first** for a patient who has vomited 1200 mL of blood?

- a. Give an IV H₂ receptor antagonist.
- b. Draw blood for typing and crossmatching.
- c. Administer 1000 mL of lactated Ringers solution.
- d. Insert a nasogastric (NG) tube and connect to suction.

ANS: C

Because the patient has vomited a large amount of blood, correction of hypovolemia and prevention of hypovolemic shock are the priorities. The other actions also are important to implement quickly but are not the highest priorities.

41. The nurse is administering IV fluid boluses and nasogastric irrigation to a patient with acute gastrointestinal (GI) bleeding. Which assessment finding is **most** important for the nurse to communicate to the health care provider?

- a. The bowel sounds are hyperactive in all four quadrants.
- b. The patients lungs have crackles audible to the midchest.
- c. The nasogastric (NG) suction is returning coffee-ground material.
- d. The patients blood pressure (BP) has increased to 142/84 mm Hg.

ANS: B

The patients lung sounds indicate that pulmonary edema may be developing as a result of the rapid infusion of IV fluid and that the fluid infusion rate should be slowed. The return of coffee-ground material in an NG tube is expected for a patient with upper GI bleeding. The BP is slightly elevated but would not be an indication to contact the health care provider immediately. Hyperactive bowel sounds are common when a patient has GI bleeding.

42. After the nurse has completed teaching a patient with newly diagnosed eosinophilic esophagitis about the management of the disease, which patient action indicates that the teaching has been effective?

- a. Patient orders nonfat milk for each meal.
- b. Patient uses the prescribed corticosteroid inhaler.
- c. Patient schedules an appointment for allergy testing.
- d. Patient takes ibuprofen (Advil) to control throat pain.

ANS: C

Eosinophilic esophagitis is frequently associated with environmental allergens, so allergy testing is used to determine possible triggers. Corticosteroid therapy may be prescribed, but the medication will be swallowed, not inhaled. Milk is a frequent trigger for attacks. NSAIDs are not used for eosinophilic esophagitis.

43. An 80-year-old who is hospitalized with peptic ulcer disease develops new-onset auditory hallucinations. Which prescribed medication will the nurse discuss with the health care provider before administration?

- a. Sucralfate (Carafate)
- b. Omeprazole (Prilosec)
- c. Metoclopramide (Reglan)
- d. Aluminum hydroxide (Amphojel)

ANS: C

Metoclopramide can cause central nervous system (CNS) side effects ranging from anxiety to hallucinations. Hallucinations are not a side effect of proton-pump inhibitors, mucosal protectants, or antacids.

44. The nurse and a licensed practical/vocational nurse (LPN/LVN) are working together to care for a patient who had an esophagectomy 2 days ago. Which action by the LPN/LVN requires that the nurse intervene?

- a. The LPN/LVN uses soft swabs to provide for oral care.
- b. The LPN/LVN positions the head of the bed in the flat position.
- c. The LPN/LVN encourages the patient to use pain medications before coughing.
- d. The LPN/LVN includes the enteral feeding volume when calculating intake and output.

ANS: B

The patient's bed should be in Fowler's position to prevent reflux and aspiration of gastric contents. The other actions by the LPN/LVN are appropriate.

45. After change-of-shift report, which patient should the nurse assess **first**?

- a. 42-year-old who has acute gastritis and ongoing epigastric pain
- b. 70-year-old with a hiatal hernia who experiences frequent heartburn
- c. 53-year-old who has dumping syndrome after a recent partial gastrectomy
- d. 60-year-old with nausea and vomiting who has dry oral mucosa and lethargy

ANS: D

This older patient is at high risk for problems such as aspiration, dehydration, and fluid and electrolyte disturbances. The other patients will also need to be assessed, but the information about them indicates symptoms that are typical for their diagnoses and are not life threatening.

SHORT ANSWER

1. Vasopressin (Pitressin) 0.2 units/min infusion is prescribed for a patient with acute arterial gastrointestinal (GI) bleeding. The vasopressin label states vasopressin 100 units/250 mL normal saline. How many mL/hr will the nurse infuse?

ANS:

30

There are 0.4 units/1 mL. An infusion of 30 mL/hr will result in the patient receiving 0.2 units/min as prescribed.

REF: 955

OTHER

1. In which order will the nurse take the following actions when caring for a patient who develops watery diarrhea and a fever after prolonged omeprazole (Prilosec) therapy? (*Put a comma and a space between each answer choice [A, B, C, D].*)

- a. Contact the health care provider.
- b. Assess blood pressure and heart rate.
- c. Give the PRN acetaminophen (Tylenol).
- d. Place the patient on contact precautions.

ANS:

D, B, A, C

Proton pump inhibitors including omeprazole (Prilosec) may increase the risk of *Clostridium difficile* associated colitis. Because the patient's history and symptoms are consistent with *C. difficile* infection, the initial action should be initiation of infection control measures to protect other patients. Assessment of blood pressure and pulse is needed to determine whether the patient has symptoms of hypovolemia and/or shock. The health care provider should be notified so that actions such as obtaining stool

specimens and antibiotic therapy can be started. Tylenol may be administered, but is the lowest priority of the actions.

Chapter 42. Management: Lower Gastrointestinal Problems

MULTIPLE CHOICE

1. Which action will the nurse include in the plan of care for a 42-year-old patient who is being admitted with *Clostridium difficile*?

- a. Educate the patient about proper food storage.
- b. Order a diet with no dairy products for the patient.
- c. Place the patient in a private room on contact isolation.
- d. Teach the patient about why antibiotics will not be used.

ANS: C

Because *C. difficile* is highly contagious, the patient should be placed in a private room and contact precautions should be used. There is no need to restrict dairy products for this type of diarrhea. Metronidazole (Flagyl) is frequently used to treat *C. difficile*. Improper food handling and storage do not cause *C. difficile*.

2. A 71-year-old male patient tells the nurse that growing old causes constipation so he has been using a suppository for constipation every morning. Which action should the nurse take **first**?

- a. Encourage the patient to increase oral fluid intake.
- b. Assess the patient about risk factors for constipation.
- c. Suggest that the patient increase intake of high-fiber foods.
- d. Teach the patient that a daily bowel movement is unnecessary.

ANS: B

The nurse's initial action should be further assessment of the patient for risk factors for constipation and for his usual bowel pattern. The other actions may be appropriate but will be based on the assessment.

3. A 64-year-old woman who has chronic constipation asks the nurse about the use of psyllium (Metamucil). Which information will the nurse include in the response?

- a. Absorption of fat-soluble vitamins may be reduced by fiber-containing laxatives.
- b. Dietary sources of fiber should be eliminated to prevent excessive gas formation.
- c. Use of this type of laxative to prevent constipation does not cause adverse effects.
- d. Large amounts of fluid should be taken to prevent impaction or bowel obstruction.

ANS: D

A high fluid intake is needed when patients are using bulk-forming laxatives to avoid worsening constipation. Although bulk-forming laxatives are generally safe, the nurse should emphasize the possibility of constipation or obstipation if inadequate fluid intake occurs. Although increased gas formation is likely to occur with increased dietary fiber, the patient should gradually increase dietary fiber and eventually may not need the psyllium. Fat-soluble vitamin absorption is blocked by stool softeners and lubricants, not by bulk-forming laxatives.

4. A 26-year-old woman is being evaluated for vomiting and abdominal pain. Which question from the nurse will be most useful in determining the cause of the patient's symptoms?

- a. What type of foods do you eat?
- b. Is it possible that you are pregnant?
- c. Can you tell me more about the pain?
- d. What is your usual elimination pattern?

ANS: C

A complete description of the pain provides clues about the cause of the problem. Although the nurse should ask whether the patient is pregnant to determine whether the patient might have an ectopic pregnancy and before any radiology studies are done, this information is not the most useful in determining the cause of the pain. The usual diet and elimination patterns are less helpful in determining the reason for the patient's symptoms.

5. A patient complains of gas pains and abdominal distention two days after a small bowel resection. Which nursing action is **best** to take?

- a. Encourage the patient to ambulate.
- b. Instill a mineral oil retention enema.
- c. Administer the ordered IV morphine sulfate.
- d. Offer the ordered promethazine (Phenergan) suppository.

ANS: A

Ambulation will improve peristalsis and help the patient eliminate flatus and reduce gas pain. A mineral oil retention enema is helpful for constipation with hard stool. A return-flow enema might be used to relieve persistent gas pains. Morphine will further reduce peristalsis. Promethazine (Phenergan) is used as an antiemetic rather than to decrease gas pains or distention.

6. A 58-year-old man with blunt abdominal trauma from a motor vehicle crash undergoes peritoneal lavage. If the lavage returns brown fecal drainage, which action will the nurse plan to take **next**?

- a. Auscultate the bowel sounds.
- b. Prepare the patient for surgery.
- c. Check the patient's oral temperature.
- d. Obtain information about the accident.

ANS: B

Return of brown drainage and fecal material suggests perforation of the bowel and the need for immediate surgery. Auscultation of bowel sounds, checking the temperature, and obtaining information about the accident are appropriate actions, but the priority is to prepare to send the patient for emergency surgery.

7. A 27-year-old female patient is admitted to the hospital for evaluation of right lower quadrant abdominal pain with nausea and vomiting. Which action should the nurse take?

- a. Encourage the patient to sip clear liquids.
- b. Assess the abdomen for rebound tenderness.
- c. Assist the patient to cough and deep breathe.
- d. Apply an ice pack to the right lower quadrant.

ANS: D

The patient's clinical manifestations are consistent with appendicitis, and application of an ice pack will decrease inflammation at the area. Checking for rebound tenderness frequently is unnecessary and uncomfortable for the patient. The patient should be NPO in case immediate surgery is needed. The patient will need to know how to cough and deep breathe postoperatively, but coughing will increase pain at this time.

8. Which nursing action will be included in the plan of care for a 27-year-old male patient with bowel irregularity and a new diagnosis of irritable bowel syndrome (IBS)?

- a. Encourage the patient to express concerns and ask questions about IBS.
- b. Suggest that the patient increase the intake of milk and other dairy products.
- c. Educate the patient about the use of alosetron (Lotronex) to reduce symptoms.

- d. Teach the patient to avoid using nonsteroidal antiinflammatory drugs (NSAIDs).

ANS: A

Because psychologic and emotional factors can affect the symptoms for IBS, encouraging the patient to discuss emotions and ask questions is an important intervention. Alosetron has serious side effects, and is used only for female patients who have not responded to other therapies. Although yogurt may be beneficial, milk is avoided because lactose intolerance can contribute to symptoms in some patients. NSAIDs can be used by patients with IBS.

9. A patient being admitted with an acute exacerbation of ulcerative colitis reports crampy abdominal pain and passing 15 or more bloody stools a day. The nurse will plan to

- a. administer IV metoclopramide (Reglan).
- b. discontinue the patients oral food intake.
- c. administer cobalamin (vitamin B₁₂) injections.
- d. teach the patient about total colectomy surgery.

ANS: B

An initial therapy for an acute exacerbation of inflammatory bowel disease (IBD) is to rest the bowel by making the patient NPO. Metoclopramide increases peristalsis and will worsen symptoms. Cobalamin (vitamin B₁₂) is absorbed in the ileum, which is not affected by ulcerative colitis. Although total colectomy is needed for some patients, there is no indication that this patient is a candidate.

10. Which nursing action will the nurse include in the plan of care for a 35-year-old male patient admitted with an exacerbation of inflammatory bowel disease (IBD)?

- a. Restrict oral fluid intake.
- b. Monitor stools for blood.

- c. Ambulate four times daily.
- d. Increase dietary fiber intake.

ANS: B

Because anemia or hemorrhage may occur with IBD, stools should be assessed for the presence of blood. The other actions would not be appropriate for the patient with IBD. Because dietary fiber may increase gastrointestinal (GI) motility and exacerbate the diarrhea, severe fatigue is common with IBD exacerbations, and dehydration may occur.

11. Which patient statement indicates that the nurses teaching about sulfasalazine (Azulfidine) for ulcerative colitis has been effective?

- a. The medication will be tapered if I need surgery.
- b. I will need to use a sunscreen when I am outdoors.
- c. I will need to avoid contact with people who are sick.
- d. The medication will prevent infections that cause the diarrhea.

ANS: B

Sulfasalazine may cause photosensitivity in some patients. It is not used to treat infections. Sulfasalazine does not reduce immune function. Unlike corticosteroids, tapering of sulfasalazine is not needed.

12. A 22-year-old female patient with an exacerbation of ulcerative colitis is having 15 to 20 stools daily and has excoriated perianal skin. Which patient behavior indicates that teaching regarding maintenance of skin integrity has been effective?

- a. The patient uses incontinence briefs to contain loose stools.
- b. The patient asks for antidiarrheal medication after each stool.
- c. The patient uses witch hazel compresses to decrease irritation.
- d. The patient cleans the perianal area with soap after each stool.

ANS: C

Witch hazel compresses are suggested to reduce anal irritation and discomfort. Incontinence briefs may trap diarrhea and increase the incidence of skin breakdown. Antidiarrheal medications are not given 15 to 20 times a day. The perianal area should be washed with plain water after each stool.

13. Which diet choice by the patient with an acute exacerbation of inflammatory bowel disease (IBD) indicates a need for more teaching?

- a. Scrambled eggs
- b. White toast and jam
- c. Oatmeal with cream
- d. Pancakes with syrup

ANS: C

During acute exacerbations of IBD, the patient should avoid high-fiber foods such as whole grains. High-fat foods also may cause diarrhea in some patients. The other choices are low residue and would be appropriate for this patient.

14. After a total proctocolectomy and permanent ileostomy, the patient tells the nurse, I cannot manage all these changes. I don't want to look at the stoma. What is the **best** action by the nurse?

- a. Reassure the patient that ileostomy care will become easier.
- b. Ask the patient about the concerns with stoma management.
- c. Develop a detailed written list of ostomy care tasks for the patient.
- d. Postpone any teaching until the patient adjusts to the ileostomy.

ANS: B

Encouraging the patient to share concerns assists in helping the patient adjust to the body changes. Acknowledgment of the patient's feelings and concerns is important

rather than offering false reassurance. Because the patient indicates that the feelings about the ostomy are the reason for the difficulty with the many changes, development of a detailed ostomy care plan will not improve the patient's ability to manage the ostomy. Although detailed ostomy teaching may be postponed, the nurse should offer teaching about some aspects of living with an ostomy.

15. A 51-year-old male patient has a new diagnosis of Crohn's disease after having frequent diarrhea and a weight loss of 10 pounds (4.5 kg) over 2 months. The nurse will plan to teach about

- a. medication use.
- b. fluid restriction.
- c. enteral nutrition.
- d. activity restrictions.

ANS: A

Medications are used to induce and maintain remission in patients with inflammatory bowel disease (IBD). Decreased activity level is indicated only if the patient has severe fatigue and weakness. Fluids are needed to prevent dehydration. There is no advantage to enteral feedings.

16. A 24-year-old woman with Crohn's disease develops a fever and symptoms of a urinary tract infection (UTI) with tan, fecal-smelling urine. What information will the nurse add to a general teaching plan about UTIs in order to individualize the teaching for this patient?

- a. Bacteria in the perianal area can enter the urethra.
- b. Fistulas can form between the bowel and bladder.
- c. Drink adequate fluids to maintain normal hydration.
- d. Empty the bladder before and after sexual intercourse.

ANS: B

Fistulas between the bowel and bladder occur in Crohns disease and can lead to UTI. Teaching for UTI prevention in general includes good hygiene, adequate fluid intake, and voiding before and after intercourse.

17. A 73-year-old patient with diverticulosis has a large bowel obstruction. The nurse will monitor for

- a. referred back pain.
- b. metabolic alkalosis.
- c. projectile vomiting.
- d. abdominal distention.

ANS: D

Abdominal distention is seen in lower intestinal obstruction. Referred back pain is not a common clinical manifestation of intestinal obstruction. Metabolic alkalosis is common in high intestinal obstruction because of the loss of HCl acid from vomiting. Projectile vomiting is associated with higher intestinal obstruction.

18. The nurse preparing for the annual physical exam of a 50-year-old man will plan to teach the patient about

- a. endoscopy.
- b. colonoscopy.
- c. computerized tomography screening.
- d. carcinoembryonic antigen (CEA) testing.

ANS: B

At age 50, individuals with an average risk for colorectal cancer (CRC) should begin screening for CRC. Colonoscopy is the gold standard for CRC screening. The other diagnostic tests are not recommended as part of a routine annual physical exam at age 50.

19. The nurse is providing preoperative teaching for a 61-year-old man scheduled for an abdominal-perineal resection. Which information will the nurse include?

- a. Another surgery in 8 to 12 weeks will be used to create an ileal-anal reservoir.
- b. The patient will begin sitting in a chair at the bedside on the first postoperative day.
- c. The patient will drink polyethylene glycol lavage solution (GoLYTELY) preoperatively.
- d. IV antibiotics will be started at least 24 hours before surgery to reduce the bowel bacteria.

ANS: C

A bowel-cleansing agent is used to empty the bowel before surgery to reduce the risk for infection. A permanent colostomy is created with this surgery. Sitting is contraindicated after an abdominal-perineal resection. Oral antibiotics (rather than IV antibiotics) are given to reduce colonic and rectal bacteria.

20. A 74-year-old patient preparing to undergo a colon resection for cancer of the colon asks about the elevated carcinoembryonic antigen (CEA) test result. The nurse explains that the test is used to

- a. identify any metastasis of the cancer.
- b. monitor the tumor status after surgery.
- c. confirm the diagnosis of a specific type of cancer.
- d. determine the need for postoperative chemotherapy.

ANS: B

CEA is used to monitor for cancer recurrence after surgery. CEA levels do not help to determine whether there is metastasis of the cancer. Confirmation of the diagnosis is made on the basis of biopsy. Chemotherapy use is based on factors other than CEA.

21. A 71-year-old patient had an abdominal-perineal resection for colon cancer. Which nursing action is **most** important to include in the plan of care for the day after surgery?

- a. Teach about a low-residue diet.
- b. Monitor output from the stoma.
- c. Assess the perineal drainage and incision.
- d. Encourage acceptance of the colostomy stoma.

ANS: C

Because the perineal wound is at high risk for infection, the initial care is focused on assessment and care of this wound. Teaching about diet is best done closer to discharge from the hospital. There will be very little drainage into the colostomy until peristalsis returns. The patient will be encouraged to assist with the colostomy, but this is not the highest priority in the immediate postoperative period.

22. A 47-year-old female patient is transferred from the recovery room to a surgical unit after a transverse colostomy. The nurse observes the stoma to be deep pink with edema and a small amount of sanguineous drainage. The nurse should

- a. place ice packs around the stoma.
- b. notify the surgeon about the stoma.
- c. monitor the stoma every 30 minutes.
- d. document stoma assessment findings.

ANS: D

The stoma appearance indicates good circulation to the stoma. There is no indication that surgical intervention is needed or that frequent stoma monitoring is required. Swelling of the stoma is normal for 2 to 3 weeks after surgery, and an ice pack is not needed.

23. Which information will the nurse include in teaching a patient who had a proctocolectomy and ileostomy for ulcerative colitis?

- a. Restrict fluid intake to prevent constant liquid drainage from the stoma.
- b. Use care when eating high-fiber foods to avoid obstruction of the ileum.
- c. Irrigate the ileostomy daily to avoid having to wear a drainage appliance.
- d. Change the pouch every day to prevent leakage of contents onto the skin.

ANS: B

High-fiber foods are introduced gradually and should be well chewed to avoid obstruction of the ileostomy. Patients with ileostomies lose the absorption of water in the colon and need to take in increased amounts of fluid. The pouch should be drained frequently but is changed every 5 to 7 days. The drainage from an ileostomy is liquid and continuous, so control by irrigation is not possible.

24. The nurse will determine that teaching a 67-year-old man to irrigate his new colostomy has been effective if the patient

- a. inserts the irrigation tubing 4 to 6 inches into the stoma.
- b. hangs the irrigating container 18 inches above the stoma.
- c. stops the irrigation and removes the irrigating cone if cramping occurs.
- d. fills the irrigating container with 1000 to 2000 mL of lukewarm tap water.

ANS: B

The irrigating container should be hung 18 to 24 inches above the stoma. If cramping occurs, the irrigation should be temporarily stopped and the cone left in place. Five hundred to 1000 mL of water should be used for irrigation. An irrigation cone, rather than tubing, should be inserted into the stoma; 4 to 6 inches would be too far for safe insertion.

25. A 34-year-old female patient with a new ileostomy asks how much drainage to expect. The nurse explains that after the bowel adjusts to the ileostomy, the usual drainage will be about _____ cups.

- a. 2
- b. 3
- c. 4
- d. 5

ANS: A

After the proximal small bowel adapts to reabsorb more fluid, the average amount of ileostomy drainage is about 500 mL daily. One cup is about 240 mL.

26. The nurse admitting a patient with acute diverticulitis explains that the initial plan of care is to

- a. administer IV fluids.
- b. give stool softeners and enemas.
- c. order a diet high in fiber and fluids.
- d. prepare the patient for colonoscopy.

ANS: A

A patient with acute diverticulitis will be NPO and given parenteral fluids. A diet high in fiber and fluids will be implemented before discharge. Bulk-forming laxatives, rather than stool softeners, are usually given, and these will be implemented later in the hospitalization. The patient with acute diverticulitis will not have enemas or a colonoscopy because of the risk for perforation and peritonitis.

27. A 42-year-old male patient has had a herniorrhaphy to repair an incarcerated inguinal hernia. Which patient teaching will the nurse provide before discharge?

- a. Soak in sitz baths several times each day.
- b. Cough 5 times each hour for the next 48 hours.
- c. Avoid use of acetaminophen (Tylenol) for pain.
- d. Apply a scrotal support and ice to reduce swelling.

ANS: D

A scrotal support and ice are used to reduce edema and pain. Coughing will increase pressure on the incision. Sitz baths will not relieve pain and would not be of use after this surgery. Acetaminophen can be used for postoperative pain.

28. Which breakfast choice indicates a patient's good understanding of information about a diet for celiac disease?

- a. Oatmeal with nonfat milk
- b. Whole wheat toast with butter
- c. Bagel with low-fat cream cheese
- d. Corn tortilla with scrambled eggs

ANS: D

Avoidance of gluten-containing foods is the only treatment for celiac disease. Corn does not contain gluten, while oatmeal and wheat do.

29. A 62-year-old patient has had a hemorrhoidectomy at an outpatient surgical center. Which instructions will the nurse include in discharge teaching?

- a. Maintain a low-residue diet until the surgical area is healed.
- b. Use ice packs on the perianal area to relieve pain and swelling.
- c. Take prescribed pain medications before a bowel movement is expected.
- d. Delay having a bowel movement for several days until healing has occurred.

ANS: C

Bowel movements may be very painful, and patients may avoid defecation unless pain medication is taken before the bowel movement. A high-residue diet will increase stool bulk and prevent constipation. Delay of bowel movements is likely to lead to constipation. Warm sitz baths rather than ice packs are used to relieve pain and keep the surgical area clean.

30. A 50-year-old female patient calls the clinic to report a new onset of severe diarrhea. The nurse anticipates that the patient will need to

- a. collect a stool specimen.
- b. prepare for colonoscopy.
- c. schedule a barium enema.
- d. have blood cultures drawn.

ANS: A

Acute diarrhea is usually caused by an infectious process, and stool specimens are obtained for culture and examined for parasites or white blood cells. There is no indication that the patient needs a colonoscopy, blood cultures, or a barium enema.

31. The nurse will plan to teach a patient with Crohns disease who has megaloblastic anemia about the need for

- a. oral ferrous sulfate tablets.
- b. regular blood transfusions.
- c. iron dextran (Imferon) infusions.
- d. cobalamin (B₁₂) spray or injections.

ANS: D

Crohns disease frequently affects the ileum, where absorption of cobalamin occurs. Cobalamin must be administered regularly by nasal spray or IM to correct the anemia.

Iron deficiency does not cause megaloblastic anemia. The patient may need occasional transfusions but not regularly scheduled transfusions.

Chapter 43. Management: Liver, Biliary Tract, Pancreas

MULTIPLE CHOICE

1. A 24-year-old female contracts hepatitis from contaminated food. During the acute (icteric) phase of the patient's illness, the nurse would expect serologic testing to reveal

- a. antibody to hepatitis D (anti-HDV).
- b. hepatitis B surface antigen (HBsAg).
- c. anti-hepatitis A virus immunoglobulin G (anti-HAV IgG).
- d. anti-hepatitis A virus immunoglobulin M (anti-HAV IgM).

ANS: D

Hepatitis A is transmitted through the oral-fecal route, and antibody to HAV IgM appears during the acute phase of hepatitis A. The patient would not have antigen for hepatitis B or antibody for hepatitis D. Anti-HAV IgG would indicate past infection and lifelong immunity.

2. Administration of hepatitis B vaccine to a healthy 18-year-old patient has been effective when a specimen of the patient's blood reveals

- a. HBsAg.
- b. anti-HBs.
- c. anti-HBc IgG.
- d. anti-HBc IgM.

ANS: B

The presence of surface antibody to HBV (anti-HBs) is a marker of a positive response to the vaccine. The other laboratory values indicate current infection with HBV.

3. A 36-year-old male patient in the outpatient clinic is diagnosed with acute hepatitis C (HCV) infection. Which action by the nurse is appropriate?

- a. Schedule the patient for HCV genotype testing.
- b. Administer the HCV vaccine and immune globulin.
- c. Teach the patient about ribavirin (Rebetol) treatment.
- d. Explain that the infection will resolve over a few months.

ANS: A

Genotyping of HCV has an important role in managing treatment and is done before drug therapy is initiated. Because most patients with acute HCV infection convert to the chronic state, the nurse should not teach the patient that the HCV will resolve in a few months. Immune globulin or vaccine is not available for HCV. Ribavirin is used for chronic HCV infection.

4. The nurse will plan to teach the patient diagnosed with acute hepatitis B about

- a. side effects of nucleotide analogs.
- b. measures for improving the appetite.
- c. ways to increase activity and exercise.
- d. administering α -interferon (Intron A).

ANS: B

Maintaining adequate nutritional intake is important for regeneration of hepatocytes. Interferon and antivirals may be used for chronic hepatitis B, but they are not prescribed for acute hepatitis B infection. Rest is recommended.

5. The nurse administering α -interferon and ribavirin (Rebetol) to a patient with chronic hepatitis C will plan to monitor for

- a. leukopenia.
- b. hypokalemia.
- c. polycythemia.
- d. hypoglycemia.

ANS: A

Therapy with ribavirin and α -interferon may cause leukopenia. The other problems are not associated with this drug therapy.

6. Which information given by a 70-year-old patient during a health history indicates to the nurse that the patient should be screened for hepatitis C?

- a. The patient had a blood transfusion in 2005.
- b. The patient used IV drugs about 20 years ago.
- c. The patient frequently eats in fast-food restaurants.
- d. The patient traveled to a country with poor sanitation.

ANS: B

Any patient with a history of IV drug use should be tested for hepatitis C. Blood transfusions given after 1992 (when an antibody test for hepatitis C became available) do not pose a risk for hepatitis C. Hepatitis C is not spread by the oral-fecal route and therefore is not caused by contaminated food or by traveling in underdeveloped countries.

7. A 55-year-old patient admitted with an abrupt onset of jaundice and nausea has abnormal liver function studies but serologic testing is negative for viral causes of hepatitis. Which question by the nurse is **most** appropriate?

- a. Is there any history of IV drug use?
- b. Do you use any over-the-counter drugs?
- c. Are you taking corticosteroids for any reason?
- d. Have you recently traveled to a foreign country?

ANS: B

The patients symptoms, lack of antibodies for hepatitis, and the abrupt onset of symptoms suggest toxic hepatitis, which can be caused by commonly used over-the-counter drugs such as acetaminophen (Tylenol). Travel to a foreign country and a history of IV drug use are risk factors for viral hepatitis. Corticosteroid use does not cause the symptoms listed.

8. Which data will the nurse monitor in relation to the 4+ pitting edema assessed in a patient with cirrhosis?

- a. Hemoglobin
- b. Temperature
- c. Activity level
- d. Albumin level

ANS: D

The low oncotic pressure caused by hypoalbuminemia is a major pathophysiologic factor in the development of edema. The other parameters should also be monitored, but they are not directly associated with the patients current symptoms.

9. Which topic is **most** important to include in patient teaching for a 41-year-old patient diagnosed with early alcoholic cirrhosis?

- a. Maintaining good nutrition
- b. Avoiding alcohol ingestion
- c. Taking lactulose (Cephulac)

- d. Using vitamin B supplements

ANS: B

The disease progression can be stopped or reversed by alcohol abstinence. The other interventions may be used when cirrhosis becomes more severe to decrease symptoms or complications, but the priority for this patient is to stop the progression of the disease.

10. A serum potassium level of 3.2 mEq/L (3.2 mmol/L) is reported for a patient with cirrhosis who has scheduled doses of spironolactone (Aldactone) and furosemide (Lasix). due. Which action should the nurse take?

- a. Administer both drugs.
- b. Administer the spironolactone.
- c. Withhold the spironolactone and administer the furosemide.
- d. Withhold both drugs until discussed with the health care provider.

ANS: B

Spironolactone is a potassium-sparing diuretic and will help increase the patients potassium level. The nurse does not need to talk with the doctor before giving the spironolactone, although the health care provider should be notified about the low potassium value. The furosemide will further decrease the patients potassium level and should be held until the nurse talks with the health care provider.

11. Which action should the nurse take to evaluate treatment effectiveness for a patient who has hepatic encephalopathy?

- a. Request that the patient stand on one foot.
- b. Ask the patient to extend both arms forward.
- c. Request that the patient walk with eyes closed.
- d. Ask the patient to perform the Valsalva maneuver.

ANS: B

Extending the arms allows the nurse to check for asterixis, a classic sign of hepatic encephalopathy. The other tests might also be done as part of the neurologic assessment but would not be diagnostic for hepatic encephalopathy.

12. Which finding indicates to the nurse that lactulose (Cephulac) is effective for a 72-year-old man who has advanced cirrhosis?

- a. The patient is alert and oriented.
- b. The patient denies nausea or anorexia.
- c. The patient's bilirubin level decreases.
- d. The patient has at least one stool daily.

ANS: A

The purpose of lactulose in the patient with cirrhosis is to lower ammonia levels and prevent encephalopathy. Although lactulose may be used to treat constipation, that is not the purpose for this patient. Lactulose will not decrease nausea and vomiting or lower bilirubin levels.

13. A 53-year-old patient is being treated for bleeding esophageal varices with balloon tamponade. Which nursing action will be included in the plan of care?

- a. Instruct the patient to cough every hour.
- b. Monitor the patient for shortness of breath.
- c. Verify the position of the balloon every 4 hours.
- d. Deflate the gastric balloon if the patient reports nausea.

ANS: B

The most common complication of balloon tamponade is aspiration pneumonia. In addition, if the gastric balloon ruptures, the esophageal balloon may slip upward and occlude the airway. Coughing increases the pressure on the varices and increases the

risk for bleeding. Balloon position is verified after insertion and does not require further verification. The esophageal balloon is deflated every 8 to 12 hours to avoid necrosis, but if the gastric balloon is deflated, the esophageal balloon may occlude the airway.

14. To detect possible complications in a patient with severe cirrhosis who has bleeding esophageal varices, it is **most** important for the nurse to monitor

- a. bilirubin levels.
- b. ammonia levels.
- c. potassium levels.
- d. prothrombin time.

ANS: B

The protein in the blood in the gastrointestinal (GI) tract will be absorbed and may result in an increase in the ammonia level because the liver cannot metabolize protein very well. The prothrombin time, bilirubin, and potassium levels should also be monitored, but they will not be affected by the bleeding episode.

DIF: Cognitive Level: Apply (application) REF: 1021

TOP: Nursing Process: Assessment MSC: NCLEX: Physiological Integrity

15. A 38-year-old patient with cirrhosis has ascites and 4+ edema of the feet and legs. Which nursing action will be included in the plan of care?

- a. Restrict daily dietary protein intake.
- b. Reposition the patient every 4 hours.
- c. Place the patient on a pressure-relieving mattress.
- d. Perform passive range of motion daily.

ANS: C

The pressure-relieving mattress will decrease the risk for skin breakdown for this patient. Adequate dietary protein intake is necessary in patients with ascites to improve oncotic pressure. Repositioning the patient every 4 hours will not be adequate to maintain skin integrity. Passive range of motion will not take the pressure off areas such as the sacrum that are vulnerable to breakdown.

16. Which finding indicates to the nurse that a patient's transjugular intrahepatic portosystemic shunt (TIPS) placed 3 months ago has been effective?

- a. Increased serum albumin level
- b. Decreased indirect bilirubin level
- c. Improved alertness and orientation
- d. Fewer episodes of bleeding varices

ANS: D

TIPS is used to lower pressure in the portal venous system and decrease the risk of bleeding from esophageal varices. Indirect bilirubin level and serum albumin levels are not affected by shunting procedures. TIPS will increase the risk for hepatic encephalopathy.

17. To prepare a 56-year-old male patient with ascites for paracentesis, the nurse

- a. places the patient on NPO status.
- b. assists the patient to lie flat in bed.
- c. asks the patient to empty the bladder.
- d. positions the patient on the right side.

ANS: C

The patient should empty the bladder to decrease the risk of bladder perforation during the procedure. The patient would be positioned in Fowler's position and would

not be able to lie flat without compromising breathing. Because no sedation is required for paracentesis, the patient does not need to be NPO.

18. Which finding is **most** important for the nurse to communicate to the health care provider about a patient who received a liver transplant 1 week ago?

- a. Dry palpebral and oral mucosa
- b. Crackles at bilateral lung bases
- c. Temperature 100.8 F (38.2 C)
- d. No bowel movement for 4 days

ANS: C

The risk of infection is high in the first few months after liver transplant and fever is frequently the only sign of infection. The other patient data indicate the need for further assessment or nursing actions and might be communicated to the health care provider, but they do not indicate a need for urgent action.

19. Which laboratory test result will the nurse monitor when evaluating the effects of therapy for a 62-year-old female patient who has acute pancreatitis?

- a. Calcium
- b. Bilirubin
- c. Amylase
- d. Potassium

ANS: C

Amylase is elevated in acute pancreatitis. Although changes in the other values may occur, they would not be useful in evaluating whether the prescribed therapies have been effective.

20. Which assessment finding would the nurse need to report **most** quickly to the health care provider regarding a patient with acute pancreatitis?

- a. Nausea and vomiting
- b. Hypotonic bowel sounds
- c. Abdominal tenderness and guarding
- d. Muscle twitching and finger numbness

ANS: D

Muscle twitching and finger numbness indicate hypocalcemia, which may lead to tetany unless calcium gluconate is administered. Although the other findings should also be reported to the health care provider, they do not indicate complications that require rapid action.

21. The nurse will ask a 64-year-old patient being admitted with acute pancreatitis specifically about a history of

- a. diabetes mellitus.
- b. high-protein diet.
- c. cigarette smoking.
- d. alcohol consumption.

ANS: D

Alcohol use is one of the most common risk factors for pancreatitis in the United States. Cigarette smoking, diabetes, and high-protein diets are not risk factors.

22. The nurse will teach a patient with chronic pancreatitis to take the prescribed pancrelipase (Viokase)

- a. at bedtime.
- b. in the morning.
- c. with each meal.
- d. for abdominal pain.

ANS: C

Pancreatic enzymes are used to help with digestion of nutrients and should be taken with every meal.

23. The nurse recognizes that teaching a 44-year-old woman following a laparoscopic cholecystectomy has been effective when the patient states which of the following?

- a. I can expect yellow-green drainage from the incision for a few days.
- b. I can remove the bandages on my incisions tomorrow and take a shower.
- c. I should plan to limit my activities and not return to work for 4 to 6 weeks.
- d. I will always need to maintain a low-fat diet since I no longer have a gallbladder.

ANS: B

After a laparoscopic cholecystectomy, the patient will have Band-Aids in place over the incisions. Patients are discharged the same (or next) day and have few restrictions on activities of daily living. Drainage from the incisions would be abnormal, and the patient should be instructed to call the health care provider if this occurs. A low-fat diet may be recommended for a few weeks after surgery but will not be a life-long requirement.

24. The nurse is caring for a 73-year-old man who has cirrhosis. Which data obtained by the nurse during the assessment will be of **most** concern?

- a. The patient complains of right upper-quadrant pain with palpation.
- b. The patients hands flap back and forth when the arms are extended.
- c. The patient has ascites and a 2-kg weight gain from the previous day.
- d. The patients skin has multiple spider-shaped blood vessels on the abdomen.

ANS: B

Asterixis indicates that the patient has hepatic encephalopathy, and hepatic coma may occur. The spider angiomas and right upper quadrant abdominal pain are not unusual for the patient with cirrhosis and do not require a change in treatment. The ascites and weight gain indicate the need for treatment but not as urgently as the changes in neurologic status.

25. A 49-year-old female patient with cirrhosis and esophageal varices has a new prescription for propranolol (Inderal). Which finding is the **best** indicator that the medication has been effective?

- a. The patient reports no chest pain.
- b. Blood pressure is 140/90 mm Hg.
- c. Stools test negative for occult blood.
- d. The apical pulse rate is 68 beats/minute.

ANS: C

Because the purpose of β -blocker therapy for patients with esophageal varices is to decrease the risk for bleeding from esophageal varices, the best indicator of the effectiveness for propranolol is the lack of blood in the stools. Although propranolol is used to treat hypertension, angina, and tachycardia, the purpose for use in this patient is to decrease the risk for bleeding from esophageal varices.

26. Which response by the nurse **best** explains the purpose of ranitidine (Zantac) for a patient admitted with bleeding esophageal varices?

- a. The medication will reduce the risk for aspiration.
- b. The medication will inhibit development of gastric ulcers.
- c. The medication will prevent irritation of the enlarged veins.
- d. The medication will decrease nausea and improve the appetite.

ANS: C

Esophageal varices are dilated submucosal veins. The therapeutic action of H₂-receptor blockers in patients with esophageal varices is to prevent irritation and bleeding from the varices caused by reflux of acid gastric contents. Although ranitidine does decrease the risk for peptic ulcers, reduce nausea, and help prevent aspiration pneumonia, these are not the primary purposes for H₂-receptor blockade in this patient.

27. When taking the blood pressure (BP) on the right arm of a patient with severe acute pancreatitis, the nurse notices carpal spasms of the patients right hand. Which action should the nurse take **next**?

- a. Ask the patient about any arm pain.
- b. Retake the patients blood pressure.
- c. Check the calcium level in the chart.
- d. Notify the health care provider immediately.

ANS: C

The patient with acute pancreatitis is at risk for hypocalcemia, and the assessment data indicate a positive Trousseau's sign. The health care provider should be notified after the nurse checks the patient's calcium level. There is no indication that the patient needs to have the BP rechecked or that there is any arm pain.

28. A 67-year-old male patient with acute pancreatitis has a nasogastric (NG) tube to suction and is NPO. Which information obtained by the nurse indicates that these therapies have been effective?

- a. Bowel sounds are present.
- b. Grey Turner sign resolves.
- c. Electrolyte levels are normal.
- d. Abdominal pain is decreased.

ANS: D

NG suction and NPO status will decrease the release of pancreatic enzymes into the pancreas and decrease pain. Although bowel sounds may be hypotonic with acute pancreatitis, the presence of bowel sounds does not indicate that treatment with NG suction and NPO status has been effective. Electrolyte levels may be abnormal with NG suction and must be replaced by appropriate IV infusion. Although Grey Turner sign will eventually resolve, it would not be appropriate to wait for this to occur to determine whether treatment was effective.

29. Which assessment finding is of **most** concern for a 46-year-old woman with acute pancreatitis?

- a. Absent bowel sounds
- b. Abdominal tenderness
- c. Left upper quadrant pain
- d. Palpable abdominal mass

ANS: D

A palpable abdominal mass may indicate the presence of a pancreatic abscess, which will require rapid surgical drainage to prevent sepsis. Absent bowel sounds, abdominal tenderness, and left upper quadrant pain are common in acute pancreatitis and do not require rapid action to prevent further complications.

30. Which action will be included in the care for a patient who has recently been diagnosed with asymptomatic nonalcoholic fatty liver disease (NAFLD)?

- a. Teach symptoms of variceal bleeding.
- b. Draw blood for hepatitis serology testing.
- c. Discuss the need to increase caloric intake.
- d. Review the patients current medication list.

ANS: D

Some medications can increase the risk for NAFLD, and they should be eliminated. NAFLD is not associated with hepatitis, weight loss is usually indicated, and variceal bleeding would not be a concern in a patient with asymptomatic NAFLD.

31. A 34-year old patient with chronic hepatitis C infection has several medications prescribed. Which medication requires further discussion with the health care provider before administration?

- a. Ribavirin (Rebetol, Copegus) 600 mg PO bid
- b. Pegylated α -interferon (PEG-Intron, Pegasys) SQ daily
- c. Diphenhydramine (Benadryl) 25 mg PO every 4 hours PRN itching
- d. Dimenhydrinate (Dramamine) 50 mg PO every 6 hours PRN nausea

ANS: B

Pegylated α -interferon is administered weekly. The other medications are appropriate for a patient with chronic hepatitis C infection.

32. During change-of-shift report, the nurse learns about the following four patients. Which patient requires assessment **first**?

- a. 40-year-old with chronic pancreatitis who has gnawing abdominal pain
- b. 58-year-old who has compensated cirrhosis and is complaining of anorexia
- c. 55-year-old with cirrhosis and ascites who has an oral temperature of 102 F (38.8 C)
- d. 36-year-old recovering from a laparoscopic cholecystectomy who has severe shoulder pain

ANS: C

This patient's history and fever suggest possible spontaneous bacterial peritonitis, which would require rapid assessment and interventions such as antibiotic therapy.

The clinical manifestations for the other patients are consistent with their diagnoses and do not indicate complications are occurring.

33. Which goal has the **highest** priority in the plan of care for a 26-year-old homeless patient admitted with viral hepatitis who has severe anorexia and fatigue?

- a. Increase activity level.
- b. Maintain adequate nutrition.
- c. Establish a stable environment.
- d. Identify sources of hepatitis exposure.

ANS: B

The highest priority outcome is to maintain nutrition because adequate nutrition is needed for hepatocyte regeneration. Finding a home for the patient and identifying the source of the infection would be appropriate activities, but they do not have as high a priority as ensuring adequate nutrition. Although the patient's activity level will be gradually increased, rest is indicated during the acute phase of hepatitis.

Chapter 44. Assessment: Urinary System

MULTIPLE CHOICE

1. To assess whether there is any improvement in a patient's dysuria, which question will the nurse ask?

- a. Do you have to urinate at night?
- b. Do you have blood in your urine?
- c. Do you have to urinate frequently?
- d. Do you have pain when you urinate?

ANS: D

Dysuria is painful urination. The alternate responses are used to assess other urinary tract symptoms: hematuria, nocturia, and frequency.

2. When a patient's urine dipstick test indicates a small amount of protein, the nurse's **next** action should be to

- a. send a urine specimen to the laboratory to test for ketones.
- b. obtain a clean-catch urine for culture and sensitivity testing.
- c. inquire about which medications the patient is currently taking.
- d. ask the patient about any family history of chronic renal failure.

ANS: C

Normally the urinalysis will show zero to trace amounts of protein, but some medications may give false-positive readings. The other actions by the nurse may be appropriate, but checking for medications that may affect the dipstick accuracy should be done first.

3. A hospitalized patient with possible renal insufficiency after coronary artery bypass surgery is scheduled for a creatinine clearance test. Which equipment will the nurse need to obtain?

- a. Urinary catheter
- b. Cleaning towelettes
- c. Large container for urine
- d. Sterile urine specimen cup

ANS: C

Because creatinine clearance testing involves a 24-hour urine specimen, the nurse should obtain a large container for the urine collection. Catheterization, cleaning of the perineum with antiseptic towelettes, and a sterile specimen cup are not needed for this test.

4. A 32-year-old patient who is employed as a hairdresser and has a 15 pack-year history of cigarette smoking is scheduled for an annual physical examination. The nurse will plan to teach the patient about the increased risk for

- a. renal failure.
- b. kidney stones.
- c. pyelonephritis.
- d. bladder cancer.

ANS: D

Exposure to the chemicals involved with working as a hairdresser and in smoking both increase the risk of bladder cancer, and the nurse should assess whether the patient understands this risk. The patient is not at increased risk for renal failure, pyelonephritis, or kidney stones.

5. Which medication taken at home by a 47-year-old patient with decreased renal function will be of **most** concern to the nurse?

- a. ibuprofen (Motrin)
- b. warfarin (Coumadin)
- c. folic acid (vitamin B₉)
- d. penicillin (Bicillin LA)

ANS: A

The nonsteroidal antiinflammatory medications (NSAIDs) are nephrotoxic and should be avoided in patients with impaired renal function. The nurse also should ask about reasons the patient is taking the other medications, but the medication of most concern is the ibuprofen.

6. A 79-year-old man has been admitted with benign prostatic hyperplasia. What is **most** appropriate to include in the nursing plan of care?

- a. Limit fluid intake to no more than 1000 mL/day.
- b. Leave a light on in the bathroom during the night.
- c. Ask the patient to use a urinal so that urine can be measured.
- d. Pad the patients bed to accommodate overflow incontinence.

ANS: B

The patients age and diagnosis indicate a likelihood of nocturia, so leaving the light on in the bathroom is appropriate. Fluids should be encouraged because dehydration is more common in older patients. The information in the question does not indicate that measurement of the patients output is necessary or that the patient has overflow incontinence.

7. The nurse completing a physical assessment for a newly admitted male patient is unable to feel either kidney on palpation. Which action should the nurse take **next**?

- a. Obtain a urine specimen to check for hematuria.
- b. Document the information on the assessment form.
- c. Ask the patient about any history of recent sore throat.
- d. Ask the health care provider about scheduling a renal ultrasound.

ANS: B

The kidneys are protected by the abdominal organs, ribs, and muscles of the back, and may not be palpable under normal circumstances, so no action except to document the assessment information is needed. Asking about a recent sore throat, checking for hematuria, or obtaining a renal ultrasound may be appropriate when assessing for renal problems for some patients, but there is nothing in the question stem to indicate that they are appropriate for this patient.

8. How will the nurse assess for flank tenderness in a 30-year-old female patient with suspected pyelonephritis?

- a. Palpate along both sides of the lumbar vertebral column.
- b. Strike a flat hand covering the costovertebral angle (CVA).
- c. Push fingers upward into the two lowest intercostal spaces.
- d. Percuss between the iliac crest and ribs along the midaxillary line.

ANS: B

Checking for flank pain is best performed by percussion of the CVA and asking about pain. The other techniques would not assess for flank pain.

9. What glomerular filtration rate (GFR) would the nurse estimate for a 30-year-old patient with a creatinine clearance result of 60 mL/min?

- a. 60 mL/min
- b. 90 mL/min
- c. 120 mL/min
- d. 180 mL/min

ANS: A

The creatinine clearance approximates the GFR. The other responses are not accurate.

DIF: Cognitive Level: Understand (comprehension) REF: 1056

TOP: Nursing Process: Assessment MSC: NCLEX: Physiological Integrity

10. The nurse assessing the urinary system of a 45-year-old female would use auscultation to

- a. determine kidney position.
- b. identify renal artery bruits.
- c. check for ureteral peristalsis.
- d. assess for bladder distention.

ANS: B

The presence of a bruit may indicate problems such as renal artery tortuosity or abdominal aortic aneurysm. Auscultation would not be helpful in assessing for the other listed urinary tract information.

11. A patient gives the nurse health information before a scheduled intravenous pyelogram (IVP). Which item has the **most** immediate implications for the patient's care?

- a. The patient has not had food or drink for 8 hours.
- b. The patient lists allergies to shellfish and penicillin.
- c. The patient complains of costovertebral angle (CVA) tenderness.
- d. The patient used a bisacodyl (Dulcolax) tablet the previous night.

ANS: B

Iodine-based contrast dye is used during IVP and for many computed tomography (CT) scans. The nurse will need to notify the health care provider before the procedures so that the patient can receive medications such as antihistamines or corticosteroids before the procedures are started. The other information is also important to note and document but does not have immediate implications for the patient's care during the procedures.

12. A patient passing bloody urine is scheduled for a cystoscopy with cystogram. Which description of the procedure by the nurse is accurate?

- a. Your doctor will place a catheter into an artery in your groin and inject a dye that will visualize the blood supply to the kidneys.
- b. Your doctor will insert a lighted tube into the bladder, and little catheters will be inserted through the tube into your kidney.
- c. Your doctor will insert a lighted tube into the bladder through your urethra, inspect the bladder, and instill a dye that will outline your bladder on x-ray.

- d. Your doctor will inject a radioactive solution into a vein in your arm and the distribution of the isotope in your kidneys and bladder will be checked.

ANS: C

In a cystoscope and cystogram procedure, a cystoscope is inserted into the bladder for direct visualization, and then contrast solution is injected through the scope so that x-rays can be taken. The response beginning, Your doctor will place a catheter describes a renal arteriogram procedure. The response beginning, Your doctor will inject a radioactive solution describes a nuclear scan. The response beginning, Your doctor will insert a lighted tube into the bladder, and little catheters will be inserted describes a retrograde pyelogram.

13. The nurse caring for a patient after cystoscopy plans that the patient
- a. learns to request narcotics for pain.
 - b. understands to expect blood-tinged urine.
 - c. restricts activity to bed rest for a 4 to 6 hours.
 - d. remains NPO for 8 hours to prevent vomiting.

ANS: B

Pink-tinged urine and urinary frequency are expected after cystoscopy. Burning on urination is common, but pain that requires opioids for relief is not expected. A good fluid intake is encouraged after this procedure. Bed rest is not required following cystoscopy.

14. A patient has elevated blood urea nitrogen (BUN) and serum creatinine levels. Which bowel preparation order would the nurse question for this patient who is scheduled for a renal arteriogram?

- a. Fleet enema
- b. Tap-water enema

- c. Senna/docusate (Senokot-S)
- d. Bisacodyl (Dulcolax) tablets

ANS: A

High-phosphate enemas, such as Fleet enemas, should be avoided in patients with elevated BUN and creatinine because phosphate cannot be excreted by patients with renal failure. The other medications for bowel evacuation are more appropriate.

15. A female patient with a suspected urinary tract infection (UTI) is to provide a clean-catch urine specimen for culture and sensitivity testing. To obtain the specimen, the nurse will

- a. have the patient empty the bladder completely, then obtain the next urine specimen that the patient is able to void.
- b. teach the patient to clean the urethral area, void a small amount into the toilet, and then void into a sterile specimen cup.
- c. insert a short sterile mini catheter attached to a collecting container into the urethra and bladder to obtain the specimen.
- d. clean the area around the meatus with a povidone-iodine (Betadine) swab, and then have the patient void into a sterile container.

ANS: B

This answer describes the technique for obtaining a clean-catch specimen. The answer beginning, insert a short, small, mini catheter attached to a collecting container describes a technique that would result in a sterile specimen, but a health care providers order for a catheterized specimen would be required. Using Betadine before obtaining the specimen is not necessary, and might result in suppressing the growth of some bacteria. The technique described in the answer beginning have the patient empty the bladder completely would not result in a sterile specimen.

16. The nurse is caring for a 68-year-old hospitalized patient with a decreased glomerular filtration rate who is scheduled for an intravenous pyelogram (IVP). Which action will be included in the plan of care?

- a. Monitor the urine output after the procedure.
- b. Assist with monitored anesthesia care (MAC).
- c. Give oral contrast solution before the procedure.
- d. Insert a large size urinary catheter before the IVP.

ANS: A

Patients with impaired renal function are at risk for decreased renal function after IVP because the contrast medium used is nephrotoxic, so the nurse should monitor the patients urine output. MAC sedation and retention catheterization are not required for the procedure. The contrast medium is given IV, not orally.

17. Which nursing action is essential for a patient immediately after a renal biopsy?

- a. Check blood glucose to assess for hyperglycemia or hypoglycemia.
- b. Insert a urinary catheter and test urine for gross or microscopic hematuria.
- c. Monitor the blood urea nitrogen (BUN) and creatinine to assess renal function.
- d. Apply a pressure dressing and keep the patient on the affected side for 30 minutes.

ANS: D

A pressure dressing is applied and the patient is kept on the affected side for 30 to 60 minutes to put pressure on the biopsy side and decrease the risk for bleeding. The blood glucose and BUN/creatinine will not be affected by the biopsy. Although monitoring for hematuria is needed, there is no need for catheterization.

18. A male patient in the clinic provides a urine sample that is red-orange in color. Which action should the nurse take **first**?

- a. Notify the patient's health care provider.
- b. Teach correct midstream urine collection.
- c. Ask the patient about current medications.
- d. Question the patient about urinary tract infection (UTI) risk factors.

ANS: C

A red-orange color in the urine is normal with some over-the-counter (OTC) medications such as phenazopyridine (Pyridium). The color would not be expected with urinary tract infection, is not a sign that poor technique was used in obtaining the specimen, and does not need to be communicated to the health care provider until further assessment is done.

19. A female patient being admitted with pneumonia has a history of neurogenic bladder as a result of a spinal cord injury. Which action will the nurse plan to take **first**?

- a. Ask about the usual urinary pattern and any measures used for bladder control.
- b. Assist the patient to the toilet at scheduled times to help ensure bladder emptying.
- c. Check the patient for urinary incontinence every 2 hours to maintain skin integrity.
- d. Use intermittent catheterization on a regular schedule to avoid the risk of infection.

ANS: A

Before planning any interventions, the nurse should complete the assessment and determine the patient's normal bladder pattern and the usual measures used by the

patient at home. All the other responses may be appropriate, but until the assessment is complete, an individualized plan for the patient cannot be developed.

20. Which information from a patient's urinalysis requires that the nurse notify the health care provider?

- a. pH 6.2
- b. Trace protein
- c. WBC 20 to 26/hpf
- d. Specific gravity 1.021

ANS: C

The increased number of white blood cells (WBCs) indicates the presence of urinary tract infection or inflammation. The other findings are normal.

21. Which statement by a patient who had a cystoscopy the previous day should be reported **immediately** to the health care provider?

- a. My urine looks pink.
- b. My IV site is bruised.
- c. My sleep was restless.
- d. My temperature is 101.

ANS: D

The patient's elevated temperature may indicate a bladder infection, a possible complication of cystoscopy. The health care provider should be notified so that antibiotic therapy can be started. Pink-tinged urine is expected after a cystoscopy. The insomnia and bruising should be discussed further with the patient but do not indicate a need to notify the health care provider.

22. Which assessment of a 62-year-old patient who has just had an intravenous pyelogram (IVP) requires **immediate** action by the nurse?

- a. The heart rate is 58 beats/minute.
- b. The patient complains of a dry mouth.
- c. The respiratory rate is 38 breaths/minute.
- d. The urine output is 400 mL after 2 hours.

ANS: C

The increased respiratory rate indicates that the patient may be experiencing an allergic reaction to the contrast medium used during the procedure. The nurse should immediately assess the patient's oxygen saturation and breath sounds. The other data are not unusual findings following an IVP.

23. When working in the urology/nephrology clinic, which patient could the nurse delegate to an experienced licensed practical/vocational nurse (LPN/LVN)?

- a. Patient who is scheduled for a renal biopsy after a recent kidney transplant
- b. Patient who will need monitoring for several hours after a renal arteriogram
- c. Patient who requires teaching about possible post-cystoscopy complications
- d. Patient who will have catheterization to check for residual urine after voiding

ANS: D

LPN/LVN education includes common procedures such as catheterization of stable patients. The other patients require more complex assessments and/or patient teaching that are included in registered nurse (RN) education and scope of practice.

24. When assessing a patient with a urinary tract infection, indicate on the accompanying figure where the nurse will percuss to assess for possible pyelonephritis.

- a. 1
- b. 2
- c. 3
- d. 4

ANS: B

Costovertebral angle (CVA) tenderness with percussion suggests pyelonephritis or polycystic kidney disease.

Chapter 45. Management: Renal and Urologic Problems

MULTIPLE CHOICE

1. A 46-year-old female patient returns to the clinic with recurrent dysuria after being treated with trimethoprim and sulfamethoxazole (Bactrim) for 3 days. Which action will the nurse plan to take?

- a. Teach the patient to take the prescribed Bactrim for 3 more days.
- b. Remind the patient about the need to drink 1000 mL of fluids daily.
- c. Obtain a midstream urine specimen for culture and sensitivity testing.
- d. Suggest that the patient use acetaminophen (Tylenol) to treat the symptoms.

ANS: C

Because uncomplicated urinary tract infections (UTIs) are usually successfully treated with 3 days of antibiotic therapy, this patient will need a urine culture and sensitivity to determine appropriate antibiotic therapy. Acetaminophen would not be as effective as other over-the-counter (OTC) medications such as phenazopyridine (Pyridium) in treating dysuria. The fluid intake should be increased to at least 1800 mL/day.

Because the UTI has persisted after treatment with Bactrim, the patient is likely to need a different antibiotic.

2. The nurse determines that instruction regarding prevention of future urinary tract infections (UTIs) has been effective for a 22-year-old female patient with cystitis when the patient states which of the following?

- a. I can use vaginal antiseptic sprays to reduce bacteria.
- b. I will drink a quart of water or other fluids every day.
- c. I will wash with soap and water before sexual intercourse.
- d. I will empty my bladder every 3 to 4 hours during the day.

ANS: D

Voiding every 3 to 4 hours is recommended to prevent UTIs. Use of vaginal sprays is discouraged. The bladder should be emptied before and after intercourse, but cleaning with soap and water is not necessary. A quart of fluids is insufficient to provide adequate urine output to decrease risk for UTI.

3. Which information will the nurse include when teaching the patient with a urinary tract infection (UTI) about the use of phenazopyridine (Pyridium)?

- a. Pyridium may cause photosensitivity
- b. Pyridium may change the urine color.
- c. Take the Pyridium for at least 7 days.
- d. Take Pyridium before sexual intercourse.

ANS: B

Patients should be taught that Pyridium will color the urine deep orange. Urinary analgesics should only be needed for a few days until the prescribed antibiotics decrease the bacterial count. Pyridium does not cause photosensitivity. Taking Pyridium before intercourse will not be helpful in reducing the risk for UTI.

4. Which finding by the nurse will be **most** helpful in determining whether a 67-year-old patient with benign prostatic hyperplasia has an upper urinary tract infection (UTI)?

- a. Bladder distention
- b. Foul-smelling urine
- c. Suprapubic discomfort
- d. Costovertebral tenderness

ANS: D

Costovertebral tenderness is characteristic of pyelonephritis. Bladder distention, foul-smelling urine, and suprapubic discomfort are characteristic of lower UTI and are likely to be present if the patient also has an upper UTI.

5. The nurse determines that further instruction is needed for a patient with interstitial cystitis when the patient says which of the following?

- a. I should stop having coffee and orange juice for breakfast.
- b. I will buy calcium glycerophosphate (Prelief) at the pharmacy.
- c. I will start taking high potency multiple vitamins every morning.
- d. I should call the doctor about increased bladder pain or odorous urine.

ANS: C

High-potency multiple vitamins may irritate the bladder and increase symptoms. The other patient statements indicate good understanding of the teaching.

6. It is **most** important that the nurse ask a patient admitted with acute glomerulonephritis about

- a. history of kidney stones.
- b. recent sore throat and fever.

- c. history of high blood pressure.
- d. frequency of bladder infections.

ANS: B

Acute glomerulonephritis frequently occurs after a streptococcal infection such as strep throat. It is not caused by kidney stones, hypertension, or urinary tract infection (UTI).

7. Which finding for a patient admitted with glomerulonephritis indicates to the nurse that treatment has been effective?

- a. The patient denies pain with voiding.
- b. The urine dipstick is negative for nitrites.
- c. The antistreptolysin-O (ASO) titer is decreased.
- d. The periorbital and peripheral edema is resolved.

ANS: D

Because edema is a common clinical manifestation of glomerulonephritis, resolution of the edema indicates that the prescribed therapies have been effective. Nitrites will be negative and the patient will not experience dysuria because the patient does not have a urinary tract infection. Antibodies to streptococcus will persist after a streptococcal infection.

8. The nurse will anticipate teaching a patient with nephrotic syndrome who develops flank pain about treatment with

- a. antibiotics.
- b. antifungals.
- c. anticoagulants.
- d. antihypertensives.

ANS: C

Flank pain in a patient with nephrotic syndrome suggests a renal vein thrombosis, and anticoagulation is needed. Antibiotics are used to treat a patient with flank pain caused by pyelonephritis. Fungal pyelonephritis is uncommon and is treated with antifungals. Antihypertensives are used if the patient has high blood pressure.

9. A 56-year-old female patient is admitted to the hospital with new onset nephrotic syndrome. Which assessment data will the nurse expect?

- a. Poor skin turgor
- b. Recent weight gain
- c. Elevated urine ketones
- d. Decreased blood pressure

ANS: B

The patient with a nephrotic syndrome will have weight gain associated with edema. Hypertension is a clinical manifestation of nephrotic syndrome. Skin turgor is normal because of the edema. Urine protein is high.

10. To prevent recurrence of uric acid renal calculi, the nurse teaches the patient to avoid eating

- a. milk and cheese.
- b. sardines and liver.
- c. legumes and dried fruit.
- d. spinach, chocolate, and tea.

ANS: B

Organ meats and fish such as sardines increase purine levels and uric acid. Spinach, chocolate, and tomatoes should be avoided in patients who have oxalate stones. Milk,

dairy products, legumes, and dried fruits may increase the incidence of calcium-containing stones.

11. The nurse teaches a 64-year-old woman to prevent the recurrence of renal calculi by

- a. using a filter to strain all urine.
- b. avoiding dietary sources of calcium.
- c. choosing diuretic fluids such as coffee.
- d. drinking 2000 to 3000 mL of fluid a day.

ANS: D

A fluid intake of 2000 to 3000 mL daily is recommended to help flush out minerals before stones can form. Avoidance of calcium is not usually recommended for patients with renal calculi. Coffee tends to increase stone recurrence. There is no need for a patient to strain all urine routinely after a stone has passed, and this will not prevent stones.

12. When planning teaching for a 59-year-old male patient with benign nephrosclerosis the nurse should include instructions regarding

- a. preventing bleeding with anticoagulants.
- b. monitoring and recording blood pressure.
- c. obtaining and documenting daily weights.
- d. measuring daily intake and output volumes.

ANS: B

Hypertension is the major symptom of nephrosclerosis. Measurements of intake and output and daily weights are not necessary unless the patient develops renal insufficiency. Anticoagulants are not used to treat nephrosclerosis.

13. A 28-year-old male patient is diagnosed with polycystic kidney disease. Which information is most appropriate for the nurse to include in teaching at this time?

- a. Complications of renal transplantation
- b. Methods for treating severe chronic pain
- c. Discussion of options for genetic counseling
- d. Differences between hemodialysis and peritoneal dialysis

ANS: C

Because a 28-year-old patient may be considering having children, the nurse should include information about genetic counseling when teaching the patient. The well-managed patient will not need to choose between hemodialysis and peritoneal dialysis or know about the effects of transplantation for many years. There is no indication that the patient has chronic pain.

14. A 34-year-old male patient seen at the primary care clinic complains of feeling continued fullness after voiding and a split, spraying urine stream. The nurse will ask about a history of

- a. recent kidney trauma.
- b. gonococcal urethritis.
- c. recurrent bladder infection.
- d. benign prostatic hyperplasia.

ANS: B

The patient's clinical manifestations are consistent with urethral strictures, a possible complication of gonococcal urethritis. These symptoms are not consistent with benign prostatic hyperplasia, kidney trauma, or bladder infection.

15. The nurse will plan to teach a 27-year-old female who smokes 2 packs of cigarettes daily about the increased risk for

- a. kidney stones.
- b. bladder cancer.
- c. bladder infection.
- d. interstitial cystitis.

ANS: B

Cigarette smoking is a risk factor for bladder cancer. The patient's risk for developing interstitial cystitis, urinary tract infection (UTI), or kidney stones will not be reduced by quitting smoking.

16. A 68-year-old female patient admitted to the hospital with dehydration is confused and incontinent of urine. Which nursing action will be best to include in the plan of care?

- a. Restrict fluids between meals and after the evening meal.
- b. Apply absorbent incontinent pads liberally over the bed linens.
- c. Insert an indwelling catheter until the symptoms have resolved.
- d. Assist the patient to the bathroom every 2 hours during the day.

ANS: D

In older or confused patients, incontinence may be avoided by using scheduled toileting times. Indwelling catheters increase the risk for urinary tract infection (UTI). Incontinent pads increase the risk for skin breakdown. Restricting fluids is not appropriate in a patient with dehydration.

17. A 55-year-old woman admitted for shoulder surgery asks the nurse for a perineal pad, stating that laughing or coughing causes leakage of urine. Which intervention is most appropriate to include in the care plan?

- a. Assist the patient to the bathroom q3hr.
- b. Place a commode at the patient's bedside.

- c. Demonstrate how to perform the Cred maneuver.
- d. Teach the patient how to perform Kegel exercises.

ANS: D

Kegel exercises to strengthen the pelvic floor muscles will help reduce stress incontinence. The Cred maneuver is used to help empty the bladder for patients with overflow incontinence. Placing the commode close to the bedside and assisting the patient to the bathroom are helpful for functional incontinence.

18. Following rectal surgery, a patient voids about 50 mL of urine every 30 to 60 minutes for the first 4 hours. Which nursing action is **most** appropriate?

- a. Monitor the patients intake and output over night.
- b. Have the patient drink small amounts of fluid frequently.
- c. Use an ultrasound scanner to check the postvoiding residual volume.
- d. Reassure the patient that this is normal after rectal surgery because of anesthesia.

ANS: C

An ultrasound scanner can be used to check for residual urine after the patient voids. Because the patients history and clinical manifestations are consistent with overflow incontinence, it is not appropriate to have the patient drink small amounts. Although overflow incontinence is not unusual after surgery, the nurse should intervene to correct the physiologic problem, not just reassure the patient. The patient may develop reflux into the renal pelvis and discomfort from a full bladder if the nurse waits to address the problem for several hours.

19. A patient admitted to the hospital with pneumonia has a history of functional urinary incontinence. Which nursing action will be included in the plan of care?

- a. Demonstrate the use of the Cred maneuver.
- b. Teach exercises to strengthen the pelvic floor.

- c. Place a bedside commode close to the patients bed.
- d. Use an ultrasound scanner to check postvoiding residuals.

ANS: C

Modifications in the environment make it easier to avoid functional incontinence. Checking for residual urine and performing the Cred maneuver are interventions for overflow incontinence. Kegel exercises are useful for stress incontinence.

20. The home health nurse teaches a patient with a neurogenic bladder how to use intermittent catheterization for bladder emptying. Which patient statement indicates that the teaching has been effective?

- a. I will buy seven new catheters weekly and use a new one every day.
- b. I will use a sterile catheter and gloves for each time I self-catheterize.
- c. I will clean the catheter carefully before and after each catheterization.
- d. I will need to take prophylactic antibiotics to prevent any urinary tract infections.

ANS: C

Patients who are at home can use a clean technique for intermittent self-catheterization and change the catheter every 7 days. There is no need to use a new catheter every day, to use sterile catheters, or to take prophylactic antibiotics.

21. After a ureterolithotomy, a female patient has a left ureteral catheter and a urethral catheter in place. Which action will the nurse include in the plan of care?

- a. Provide teaching about home care for both catheters.
- b. Apply continuous steady tension to the ureteral catheter.
- c. Call the health care provider if the ureteral catheter output drops suddenly.
- d. Clamp the ureteral catheter off when output from the urethral catheter stops.

ANS: C

The health care provider should be notified if the ureteral catheter output decreases because obstruction of this catheter may result in an increase in pressure in the renal pelvis. Tension on the ureteral catheter should be avoided in order to prevent catheter displacement. To avoid pressure in the renal pelvis, the catheter is not clamped. Because the patient is not usually discharged with a ureteral catheter in place, patient teaching about both catheters is not needed.

22. A 68-year-old male patient who has bladder cancer had a cystectomy with creation of an Indiana pouch. Which topic will be included in patient teaching?

- a. Application of ostomy appliances
- b. Barrier products for skin protection
- c. Catheterization technique and schedule
- d. Analgesic use before emptying the pouch

ANS: C

The Indiana pouch enables the patient to self-catheterize every 4 to 6 hours. There is no need for an ostomy device or barrier products. Catheterization of the pouch is not painful.

23. A patient who had surgery for creation of an ileal conduit 3 days ago will not look at the stoma and requests that only the ostomy nurse specialist does the stoma care.

The nurse identifies a nursing diagnosis of

- a. anxiety related to effects of procedure on lifestyle.
- b. disturbed body image related to change in function.
- c. readiness for enhanced coping related to need for information.
- d. self-care deficit, toileting, related to denial of altered body function.

ANS: B

The patient's unwillingness to look at the stoma or participate in care indicates that a disturbed body image is the best diagnosis. No data suggest that the impact on lifestyle is a concern for the patient. The patient does not appear to be ready for enhanced coping. The patient's insistence that only the ostomy nurse care for the stoma indicates that denial is not present.

24. Which information from a patient who had a transurethral resection with fulguration for bladder cancer 3 days ago is **most** important to report to the health care provider?

- a. The patient is voiding every 4 hours.
- b. The patient is using opioids for pain.
- c. The patient has seen clots in the urine.
- d. The patient is anxious about the cancer.

ANS: C

Clots in the urine are not expected and require further follow-up. Voiding every 4 hours, use of opioids for pain, and anxiety are typical after this procedure.

25. When preparing a female patient with bladder cancer for intravesical chemotherapy, the nurse will teach about

- a. premedicating to prevent nausea.
- b. obtaining wigs and scarves to wear.
- c. emptying the bladder before the medication.
- d. maintaining oral care during the treatments.

ANS: C

The patient will be asked to empty the bladder before instillation of the chemotherapy. Systemic side effects are not usually experienced with intravesical chemotherapy.

26. Nursing staff on a hospital unit are reviewing rates of hospital-acquired infections (HAI) of the urinary tract. Which nursing action will be **most** helpful in decreasing the risk for HAI in patients admitted to the hospital?

- a. Encouraging adequate oral fluid intake
- b. Testing urine with a dipstick daily for nitrites
- c. Avoiding unnecessary urinary catheterizations
- d. Providing frequent perineal hygiene to patients

ANS: C

Because catheterization bypasses many of the protective mechanisms that prevent urinary tract infection (UTI), avoidance of catheterization is the most effective means of reducing HAI. The other actions will also be helpful, but are not as useful as decreasing urinary catheter use.

27. Which assessment data reported by a 28-year-old male patient is consistent with a lower urinary tract infection (UTI)?

- a. Poor urine output
- b. Bilateral flank pain
- c. Nausea and vomiting
- d. Burning on urination

ANS: D

Pain with urination is a common symptom of a lower UTI. Urine output does not decrease, but frequency may be experienced. Flank pain and nausea are associated with an upper UTI.

28. Which assessment finding for a patient who has just been admitted with acute pyelonephritis is **most** important for the nurse to report to the health care provider?

- a. Complaint of flank pain
- b. Blood pressure 90/48 mm Hg
- c. Cloudy and foul-smelling urine
- d. Temperature 100.1 F (57.8 C)

ANS: B

The low blood pressure indicates that urosepsis and septic shock may be occurring and should be immediately reported. The other findings are typical of pyelonephritis.

29. A 58-year-old male patient who is diagnosed with nephrotic syndrome has ascites and 4+ leg edema. Which nursing diagnosis is a **priority** for the patient?

- a. Activity intolerance related to rapidly increased weight
- b. Excess fluid volume related to low serum protein levels
- c. Disturbed body image related to peripheral edema and ascites
- d. Altered nutrition: less than required related to protein restriction

ANS: B

The patient has massive edema, so the priority problem at this time is the excess fluid volume. The other nursing diagnoses are also appropriate, but the focus of nursing care should be resolution of the edema and ascites.

30. A 76-year-old with benign prostatic hyperplasia (BPH) is agitated and confused, with a markedly distended bladder. Which intervention prescribed by the health care provider should the nurse implement **first**?

- a. Insert a urinary retention catheter.
- b. Schedule an intravenous pyelogram (IVP).
- c. Draw blood for a serum creatinine level.
- d. Administer lorazepam (Ativan) 0.5 mg PO.

ANS: A

The patient's history and clinical manifestations are consistent with acute urinary retention, and the priority action is to relieve the retention by catheterization. The BUN and creatinine measurements can be obtained after the catheter is inserted. The patient's agitation may resolve once the bladder distention is corrected, and sedative drugs should be used cautiously in older patients. The IVP is an appropriate test but does not need to be done urgently.

Chapter 46. Management: Acute Renal Failure and Chronic Kidney Disease

MULTIPLE CHOICE

1. After the insertion of an arteriovenous graft (AVG) in the right forearm, a 54-year-old patient complains of pain and coldness of the right fingers. Which action should the nurse take?

- a. Teach the patient about normal AVG function.
- b. Remind the patient to take a daily low-dose aspirin tablet.
- c. Report the patient's symptoms to the health care provider.
- d. Elevate the patient's arm on pillows to above the heart level.

ANS: C

The patient's complaints suggest the development of distal ischemia (steal syndrome) and may require revision of the AVG. Elevation of the arm above the heart will further decrease perfusion. Pain and coolness are not normal after AVG insertion. Aspirin therapy is not used to maintain grafts.

2. When a patient with acute kidney injury (AKI) has an arterial blood pH of 7.30, the nurse will expect an assessment finding of

- a. persistent skin tenting

- b. rapid, deep respirations.
- c. bounding peripheral pulses.
- d. hot, flushed face and neck.

ANS: B

Patients with metabolic acidosis caused by AKI may have Kussmaul respirations as the lungs try to regulate carbon dioxide. Bounding pulses and vasodilation are not associated with metabolic acidosis. Because the patient is likely to have fluid retention, poor skin turgor would not be a finding in AKI.

3. The nurse is planning care for a patient with severe heart failure who has developed elevated blood urea nitrogen (BUN) and creatinine levels. The primary collaborative treatment goal in the plan will be

- a. augmenting fluid volume.
- b. maintaining cardiac output.
- c. diluting nephrotoxic substances.
- d. preventing systemic hypertension.

ANS: B

The primary goal of treatment for acute kidney injury (AKI) is to eliminate the cause and provide supportive care while the kidneys recover. Because this patient's heart failure is causing AKI, the care will be directed toward treatment of the heart failure. For renal failure caused by hypertension, hypovolemia, or nephrotoxins, the other responses would be correct.

4. A patient who has acute glomerulonephritis is hospitalized with hyperkalemia. Which information will the nurse monitor to evaluate the effectiveness of the prescribed calcium gluconate IV?

- a. Urine volume

- b. Calcium level
- c. Cardiac rhythm
- d. Neurologic status

ANS: C

The calcium gluconate helps prevent dysrhythmias that might be caused by the hyperkalemia. The nurse will monitor the other data as well, but these will not be helpful in determining the effectiveness of the calcium gluconate.

5. A 48-year-old patient with stage 2 chronic kidney disease (CKD) is scheduled for an intravenous pyelogram (IVP). Which order for the patient will the nurse question?

- a. NPO for 6 hours before procedure
- b. Ibuprofen (Advil) 400 mg PO PRN for pain
- c. Dulcolax suppository 4 hours before procedure
- d. Normal saline 500 mL IV infused before procedure

ANS: B

The contrast dye used in IVPs is potentially nephrotoxic, and concurrent use of other nephrotoxic medications such as the nonsteroidal anti-inflammatory drugs (NSAIDs) should be avoided. The suppository and NPO status are necessary to ensure adequate visualization during the IVP. IV fluids are used to ensure adequate hydration, which helps reduce the risk for contrast-induced renal failure.

6. Which statement by a 62-year-old patient with stage 5 chronic kidney disease (CKD) indicates that the nurses teaching about management of CKD has been effective?

- a. I need to get most of my protein from low-fat dairy products.
- b. I will increase my intake of fruits and vegetables to 5 per day.

- c. I will measure my urinary output each day to help calculate the amount I can drink.
- d. I need to take erythropoietin to boost my immune system and help prevent infection.

ANS: C

The patient with end-stage kidney disease is taught to measure urine output as a means of determining an appropriate oral fluid intake. Erythropoietin is given to increase the red blood cell count and will not offer any benefit for immune function. Dairy products are restricted because of the high phosphate level. Many fruits and vegetables are high in potassium and should be restricted in the patient with CKD.

7. Which information will the nurse monitor in order to determine the effectiveness of prescribed calcium carbonate (Caltrate) for a patient with chronic kidney disease (CKD)?

- a. Blood pressure
- b. Phosphate level
- c. Neurologic status
- d. Creatinine clearance

ANS: B

Calcium carbonate is prescribed to bind phosphorus and prevent mineral and bone disease in patients with CKD. The other data will not be helpful in evaluating the effectiveness of calcium carbonate.

8. Sodium polystyrene sulfonate (Kayexalate) is ordered for a patient with hyperkalemia. Before administering the medication, the nurse should assess the

- a. bowel sounds.
- b. blood glucose.
- c. blood urea nitrogen (BUN).

- d. level of consciousness (LOC).

ANS: A

Sodium polystyrene sulfonate (Kayexalate) should not be given to a patient with a paralytic ileus (as indicated by absent bowel sounds) because bowel necrosis can occur. The BUN and creatinine, blood glucose, and LOC would not affect the nurses decision to give the medication.

9. Which menu choice by the patient who is receiving hemodialysis indicates that the nurses teaching has been successful?

- a. Split-pea soup, English muffin, and nonfat milk
- b. Oatmeal with cream, half a banana, and herbal tea
- c. Poached eggs, whole-wheat toast, and apple juice
- d. Cheese sandwich, tomato soup, and cranberry juice

ANS: C

Poached eggs would provide high-quality protein, and apple juice is low in potassium. Cheese is high in salt and phosphate, and tomato soup would be high in potassium. Split-pea soup is high in potassium, and dairy products are high in phosphate. Bananas are high in potassium, and the cream would be high in phosphate.

10. Before administration of calcium carbonate (Caltrate) to a patient with chronic kidney disease (CKD), the nurse should check laboratory results for

- a. potassium level.
- b. total cholesterol.
- c. serum phosphate.
- d. serum creatinine.

ANS: C

If serum phosphate is elevated, the calcium and phosphate can cause soft tissue calcification. The calcium carbonate should not be given until the phosphate level is lowered. Total cholesterol, creatinine, and potassium values do not affect whether calcium carbonate should be administered.

11. A 37-year-old female patient is hospitalized with acute kidney injury (AKI). Which information will be **most** useful to the nurse in evaluating improvement in kidney function?

- a. Urine volume
- b. Creatinine level
- c. Glomerular filtration rate (GFR)
- d. Blood urea nitrogen (BUN) level

ANS: C

GFR is the preferred method for evaluating kidney function. BUN levels can fluctuate based on factors such as fluid volume status and protein intake. Urine output can be normal or high in patients with AKI and does not accurately reflect kidney function. Creatinine alone is not an accurate reflection of renal function.

12. A patient will need vascular access for hemodialysis. Which statement by the nurse accurately describes an advantage of a fistula over a graft?

- a. A fistula is much less likely to clot.
- b. A fistula increases patient mobility.
- c. A fistula can accommodate larger needles.
- d. A fistula can be used sooner after surgery.

ANS: A

Arteriovenous (AV) fistulas are much less likely to clot than grafts, although it takes longer for them to mature to the point where they can be used for dialysis. The choice of an AV fistula or a graft does not have an impact on needle size or patient mobility.

13. When caring for a patient with a left arm arteriovenous fistula, which action will the nurse include in the plan of care to maintain the patency of the fistula?

- a. Auscultate for a bruit at the fistula site.
- b. Assess the quality of the left radial pulse.
- c. Compare blood pressures in the left and right arms.
- d. Irrigate the fistula site with saline every 8 to 12 hours.

ANS: A

The presence of a thrill and bruit indicates adequate blood flow through the fistula. Pulse rate and quality are not good indicators of fistula patency. Blood pressures should never be obtained on the arm with a fistula. Irrigation of the fistula might damage the fistula, and typically only dialysis staff would access the fistula.

14. A 64-year-old male patient who has had progressive chronic kidney disease (CKD) for several years has just begun regular hemodialysis. Which information about diet will the nurse include in patient teaching?

- a. Increased calories are needed because glucose is lost during hemodialysis.
- b. Unlimited fluids are allowed because retained fluid is removed during dialysis.
- c. More protein is allowed because urea and creatinine are removed by dialysis.
- d. Dietary potassium is not restricted because the level is normalized by dialysis.

ANS: C

Once the patient is started on dialysis and nitrogenous wastes are removed, more protein in the diet is encouraged. Fluids are still restricted to avoid excessive weight gain and complications such as shortness of breath. Glucose is not lost during hemodialysis. Sodium and potassium intake continues to be restricted to avoid the complications associated with high levels of these electrolytes.

15. Which action by a 70-year-old patient who is using peritoneal dialysis (PD) indicates that the nurse should provide more teaching about PD?

- a. The patient leaves the catheter exit site without a dressing.
- b. The patient plans 30 to 60 minutes for a dialysate exchange.
- c. The patient cleans the catheter while taking a bath each day.
- d. The patient slows the inflow rate when experiencing abdominal pain.

ANS: C

Patients are encouraged to take showers rather than baths to avoid infections at the catheter insertion side. The other patient actions indicate good understanding of peritoneal dialysis.

16. Which information in a patient's history indicates to the nurse that the patient is not an appropriate candidate for kidney transplantation?

- a. The patient has type 1 diabetes.
- b. The patient has metastatic lung cancer.
- c. The patient has a history of chronic hepatitis C infection.
- d. The patient is infected with the human immunodeficiency virus.

ANS: B

Disseminated malignancies are a contraindication to transplantation. The conditions of the other patients are not contraindications for kidney transplant.

17. Which assessment finding may indicate that a patient is experiencing adverse effects to a corticosteroid prescribed after kidney transplantation?

- a. Postural hypotension
- b. Recurrent tachycardia
- c. Knee and hip joint pain
- d. Increased serum creatinine

ANS: C

Aseptic necrosis of the weight-bearing joints can occur when patients take corticosteroids over a prolonged period. Increased creatinine level, orthostatic dizziness, and tachycardia are not caused by corticosteroid use.

18. A 38-year-old patient who had a kidney transplant 8 years ago is receiving the immunosuppressants tacrolimus (Prograf), cyclosporine (Sandimmune), and prednisone (Deltasone). Which assessment data will be of **most** concern to the nurse?

- a. The blood glucose is 144 mg/dL.
- b. There is a nontender axillary lump.
- c. The patient's skin is thin and fragile.
- d. The patient's blood pressure is 150/92.

ANS: B

A nontender lump suggests a malignancy such as a lymphoma, which could occur as a result of chronic immunosuppressive therapy. The elevated glucose, skin change, and hypertension are possible side effects of the prednisone and should be addressed, but they are not as great a concern as the possibility of a malignancy.

19. The nurse in the dialysis clinic is reviewing the home medications of a patient with chronic kidney disease (CKD). Which medication reported by the patient indicates that patient teaching is required?

- a. Multivitamin with iron
- b. Magnesium hydroxide
- c. Acetaminophen (Tylenol)
- d. Calcium phosphate (PhosLo)

ANS: B

Magnesium is excreted by the kidneys, and patients with CKD should not use over-the-counter products containing magnesium. The other medications are appropriate for a patient with CKD.

20. Before administration of captopril (Capoten) to a patient with stage 2 chronic kidney disease (CKD), the nurse will check the patients

- a. glucose.
- b. potassium.
- c. creatinine.
- d. phosphate.

ANS: B

Angiotensin-converting enzyme (ACE) inhibitors are frequently used in patients with CKD because they delay the progression of the CKD, but they cause potassium retention. Therefore careful monitoring of potassium levels is needed in patients who are at risk for hyperkalemia. The other laboratory values would also be monitored in patients with CKD but would not affect whether the captopril was given or not.

21. A patient with diabetes who has bacterial pneumonia is being treated with IV gentamicin (Garamycin) 60 mg IV BID. The nurse will monitor for adverse effects of the medication by evaluating the patients

- a. blood glucose.
- b. urine osmolality.

- c. serum creatinine.
- d. serum potassium.

ANS: C

When a patient at risk for chronic kidney disease (CKD) receives a potentially nephrotoxic medication, it is important to monitor renal function with BUN and creatinine levels. The other laboratory values would not be useful in assessing for the adverse effects of the gentamicin.

22. A 55-year-old patient with end-stage kidney disease (ESKD) is scheduled to receive a prescribed dose of epoetin alfa (Procrit). Which information should the nurse report to the health care provider before giving the medication?

- a. Creatinine 1.6 mg/dL
- b. Oxygen saturation 89%
- c. Hemoglobin level 13 g/dL
- d. Blood pressure 98/56 mm Hg

ANS: C

High hemoglobin levels are associated with a higher rate of thromboembolic events and increased risk of death from serious cardiovascular events (heart attack, heart failure, stroke) when erythropoietin (EPO) is administered to a target hemoglobin of >12 g/dL. Hemoglobin levels higher than 12 g/dL indicate a need for a decrease in epoetin alfa dose. The other information also will be reported to the health care provider but will not affect whether the medication is administered.

23. Which intervention will be included in the plan of care for a male patient with acute kidney injury (AKI) who has a temporary vascular access catheter in the left femoral vein?

- a. Start continuous pulse oximetry.

- b. Restrict physical activity to bed rest.
- c. Restrict the patient's oral protein intake.
- d. Discontinue the urethral retention catheter.

ANS: B

The patient with a femoral vein catheter must be on bed rest to prevent trauma to the vein. Protein intake is likely to be increased when the patient is receiving dialysis. The retention catheter is likely to remain in place because accurate measurement of output will be needed. There is no indication that the patient needs continuous pulse oximetry.

24. A 25-year-old male patient has been admitted with a severe crushing injury after an industrial accident. Which laboratory result will be **most** important to report to the health care provider?

- a. Serum creatinine level 2.1 mg/dL
- b. Serum potassium level 6.5 mEq/L
- c. White blood cell count 11,500/L
- d. Blood urea nitrogen (BUN) 56 mg/dL

ANS: B

The hyperkalemia associated with crushing injuries may cause cardiac arrest and should be treated immediately. The nurse also will report the other laboratory values, but abnormalities in these are not immediately life threatening.

25. A 72-year-old patient with a history of benign prostatic hyperplasia (BPH) is admitted with acute urinary retention and elevated blood urea nitrogen (BUN) and creatinine levels. Which prescribed therapy should the nurse implement **first**?

- a. Insert urethral catheter.
- b. Obtain renal ultrasound.

- c. Draw a complete blood count.
- d. Infuse normal saline at 50 mL/hour.

ANS: A

The patient's elevation in BUN is most likely associated with hydronephrosis caused by the acute urinary retention, so the insertion of a retention catheter is the first action to prevent ongoing postrenal failure for this patient. The other actions also are appropriate, but should be implemented after the retention catheter.

26. A 62-year-old female patient has been hospitalized for 8 days with acute kidney injury (AKI) caused by dehydration. Which information will be **most** important for the nurse to report to the health care provider?

- a. The creatinine level is 3.0 mg/dL.
- b. Urine output over an 8-hour period is 2500 mL.
- c. The blood urea nitrogen (BUN) level is 67 mg/dL.
- d. The glomerular filtration rate is $<30 \text{ mL/min/1.73m}^2$.

ANS: B

The high urine output indicates a need to increase fluid intake to prevent hypovolemia. The other information is typical of AKI and will not require a change in therapy.

27. A patient with acute kidney injury (AKI) has longer QRS intervals on the electrocardiogram (ECG) than were noted on the previous shift. Which action should the nurse take **first**?

- a. Notify the patient's health care provider.
- b. Document the QRS interval measurement.
- c. Check the medical record for most recent potassium level.
- d. Check the chart for the patient's current creatinine level.

ANS: C

The increasing QRS interval is suggestive of hyperkalemia, so the nurse should check the most recent potassium and then notify the patient's health care provider. The BUN and creatinine will be elevated in a patient with AKI, but they would not directly affect the electrocardiogram (ECG). Documentation of the QRS interval is also appropriate, but interventions to decrease the potassium level are needed to prevent life-threatening dysrhythmias.

28. A 42-year-old patient admitted with acute kidney injury due to dehydration has oliguria, anemia, and hyperkalemia. Which prescribed actions should the nurse take **first**?

- a. Insert a urinary retention catheter.
- b. Place the patient on a cardiac monitor.
- c. Administer epoetin alfa (Epogen, Procrit).
- d. Give sodium polystyrene sulfonate (Kayexalate).

ANS: B

Because hyperkalemia can cause fatal cardiac dysrhythmias, the initial action should be to monitor the cardiac rhythm. Kayexalate and Epogen will take time to correct the hyperkalemia and anemia. The catheter allows monitoring of the urine output but does not correct the cause of the renal failure.

29. A patient has arrived for a scheduled hemodialysis session. Which nursing action is **most** appropriate for the registered nurse (RN) to delegate to a dialysis technician?

- a. Teach the patient about fluid restrictions.
- b. Check blood pressure before starting dialysis.
- c. Assess for causes of an increase in predialysis weight.
- d. Determine the ultrafiltration rate for the hemodialysis.

ANS: B

Dialysis technicians are educated in monitoring for blood pressure. Assessment, adjustment of the appropriate ultrafiltration rate, and patient teaching require the education and scope of practice of an RN.

30. A licensed practical/vocational nurse (LPN/LVN) is caring for a patient with stage 2 chronic kidney disease. Which observation by the RN requires an intervention?

- a. The LPN/LVN administers the erythropoietin subcutaneously.
- b. The LPN/LVN assists the patient to ambulate out in the hallway.
- c. The LPN/LVN administers the iron supplement and phosphate binder with lunch.
- d. The LPN/LVN carries a tray containing low-protein foods into the patients room.

ANS: C

Oral phosphate binders should not be given at the same time as iron because they prevent the iron from being absorbed. The phosphate binder should be given with a meal and the iron given at a different time. The other actions by the LPN/LVN are appropriate for a patient with renal insufficiency.

31. A female patient with chronic kidney disease (CKD) is receiving peritoneal dialysis with 2 L inflows. Which information should the nurse report **immediately** to the health care provider?

- a. The patient has an outflow volume of 1800 mL.
- b. The patients peritoneal effluent appears cloudy.
- c. The patient has abdominal pain during the inflow phase.
- d. The patients abdomen appears bloated after the inflow.

ANS: B

Cloudy appearing peritoneal effluent is a sign of peritonitis and should be reported immediately so that treatment with antibiotics can be started. The other problems can be addressed through nursing interventions such as slowing the inflow and repositioning the patient.

32. The nurse is assessing a patient 4 hours after a kidney transplant. Which information is **most** important to communicate to the health care provider?

- a. The urine output is 900 to 1100 mL/hr.
- b. The patient's central venous pressure (CVP) is decreased.
- c. The patient has a level 7 (0 to 10 point scale) incisional pain.
- d. The blood urea nitrogen (BUN) and creatinine levels are elevated.

ANS: B

The decrease in CVP suggests hypovolemia, which must be rapidly corrected to prevent renal hypoperfusion and acute tubular necrosis. The other information is not unusual in a patient after a transplant.

33. During routine hemodialysis, the 68-year-old patient complains of nausea and dizziness. Which action should the nurse take **first**?

- a. Slow down the rate of dialysis.
- b. Check patient's blood pressure (BP).
- c. Review the hematocrit (Hct) level.
- d. Give prescribed PRN antiemetic drugs.

ANS: B

The patient's complaints of nausea and dizziness suggest hypotension, so the initial action should be to check the BP. The other actions may also be appropriate based on the blood pressure obtained.

MULTIPLE CHOICE

1. A 22-year-old patient is being seen in the clinic with increased secretion of the anterior pituitary hormones. The nurse would expect the laboratory results to show

- a. increased urinary cortisol.
- b. decreased serum thyroxine.
- c. elevated serum aldosterone levels.
- d. low urinary catecholamines excretion.

ANS: A

Increased secretion of adrenocorticotrophic hormone (ACTH) by the anterior pituitary gland will lead to an increase in serum and urinary cortisol levels. An increase, rather than a decrease, in thyroxine level would be expected with increased secretion of thyroid stimulating hormone (TSH) by the anterior pituitary. Aldosterone and catecholamine levels are not controlled by the anterior pituitary.

2. Which statement by a 50-year-old female patient indicates to the nurse that further assessment of thyroid function may be necessary?

- a. I notice my breasts are tender lately.
- b. I am so thirsty that I drink all day long.
- c. I get up several times at night to urinate.
- d. I feel a lump in my throat when I swallow.

ANS: D

Difficulty in swallowing can occur with a goiter. Nocturia is associated with diseases such as diabetes mellitus, diabetes insipidus, or chronic kidney disease. Breast

tenderness would occur with excessive gonadal hormone levels. Thirst is a sign of disease such as diabetes.

3. A 30-year-old patient seen in the emergency department for severe headache and acute confusion is found to have a serum sodium level of 118 mEq/L. The nurse will anticipate the need for which diagnostic test?

- a. Urinary 17-ketosteroids
- b. Antidiuretic hormone level
- c. Growth hormone stimulation test
- d. Adrenocorticotrophic hormone level

ANS: B

Elevated levels of antidiuretic hormone will cause water retention and decrease serum sodium levels. The other tests would not be helpful in determining possible causes of the patient's hyponatremia.

4. Which question will provide the **most** useful information to a nurse who is interviewing a patient about a possible thyroid disorder?

- a. What methods do you use to help cope with stress?
- b. Have you experienced any blurring or double vision?
- c. Have you had a recent unplanned weight gain or loss?
- d. Do you have to get up at night to empty your bladder?

ANS: C

Because thyroid function affects metabolic rate, changes in weight may indicate hyperfunction or hypofunction of the thyroid gland. Nocturia, visual difficulty, and changes in stress level are associated with other endocrine disorders.

5. A 29-year-old patient in the outpatient clinic will be scheduled for blood cortisol testing. Which instruction will the nurse provide?

- a. Avoid adding any salt to your foods for 24 hours before the test.
- b. You will need to lie down for 30 minutes before the blood is drawn.
- c. Come to the laboratory to have the blood drawn early in the morning.
- d. Do not have anything to eat or drink before the blood test is obtained.

ANS: C

Cortisol levels are usually drawn in the morning, when levels are highest. The other instructions would be given to patients who were having other endocrine testing.

6. A 61-year-old female patient admitted with pneumonia has a total serum calcium level of 13.3 mg/dL (3.3 mmol/L). The nurse will anticipate the need to teach the patient about testing for _____ levels.

- a. calcitonin
- b. catecholamine
- c. thyroid hormone
- d. parathyroid hormone

ANS: D

Parathyroid hormone is the major controller of blood calcium levels. Although calcitonin secretion is a countermechanism to parathyroid hormone, it does not play a major role in calcium balance. Catecholamine and thyroid hormone levels do not affect serum calcium level.

7. During the physical examination of a 36-year-old female, the nurse finds that the patient's thyroid gland cannot be palpated. The most appropriate action by the nurse is to

- a. palpate the patient's neck more deeply.
- b. document that the thyroid was nonpalpable.
- c. notify the health care provider immediately.

- d. teach the patient about thyroid hormone testing.

ANS: B

The thyroid is frequently nonpalpable. The nurse should simply document the finding. There is no need to notify the health care provider immediately about a normal finding. There is no indication for thyroid-stimulating hormone (TSH) testing unless there is evidence of thyroid dysfunction. Deep palpation of the neck is not appropriate.

8. Which laboratory value should the nurse review to determine whether a patient's hypothyroidism is caused by a problem with the anterior pituitary gland or with the thyroid gland?

- a. Thyroxine (T₄) level
- b. Triiodothyronine (T₃) level
- c. Thyroid-stimulating hormone (TSH) level
- d. Thyrotropin-releasing hormone (TRH) level

ANS: C

A low TSH level indicates that the patient's hypothyroidism is caused by decreased anterior pituitary secretion of TSH. Low T₃ and T₄ levels are not diagnostic of the primary cause of the hypothyroidism. TRH levels indicate the function of the hypothalamus.

9. The nurse reviews a patient's glycosylated hemoglobin (Hb A_{1C}) results to evaluate

- a. fasting preprandial glucose levels.
- b. glucose levels 2 hours after a meal.
- c. glucose control over the past 90 days.
- d. hypoglycemic episodes in the past 3 months.

ANS: C

Glycosylated hemoglobin testing measures glucose control over the last 3 months. Glucose testing before/after a meal or random testing may reveal impaired glucose tolerance and indicate prediabetes, but it is not done on patients who already have a diagnosis of diabetes. There is no test to evaluate for hypoglycemic episodes in the past.

10. A 60-year-old patient is taking spironolactone (Aldactone), a drug that blocks the action of aldosterone on the kidney, for hypertension. The nurse will monitor for

- a. increased serum sodium.
- b. decreased urinary output.
- c. elevated serum potassium.
- d. evidence of fluid overload.

ANS: C

Because aldosterone increases the excretion of potassium, a medication that blocks aldosterone will tend to cause hyperkalemia. Aldosterone also promotes the reabsorption of sodium and water in the renal tubules, so spironolactone will tend to cause increased urine output, a decreased or normal serum sodium level, and signs of dehydration.

11. A 40-year-old male patient has been newly diagnosed with type 2 diabetes mellitus. Which information about the patient will be most useful to the nurse who is helping the patient develop strategies for successful adaptation to this disease?

- a. Ideal weight
- b. Value system
- c. Activity level
- d. Visual changes

ANS: B

When dealing with a patient with a chronic condition such as diabetes, identification of the patient's values and beliefs can assist the health care team in choosing strategies for successful lifestyle change. The other information also will be useful, but is not as important in developing an individualized plan for the necessary lifestyle changes.

12. An 18-year-old male patient with a small stature is scheduled for a growth hormone stimulation test. In preparation for the test, the nurse will obtain

- a. ice in a basin.
- b. glargine insulin.
- c. a cardiac monitor.
- d. 50% dextrose solution.

ANS: D

Hypoglycemia is induced during the growth hormone stimulation test, and the nurse should be ready to administer 50% dextrose immediately. Regular insulin is used to induce hypoglycemia (glargine is never given IV). The patient does not require cardiac monitoring during the test. Although blood samples for some tests must be kept on ice, this is not true for the growth hormone stimulation test.

13. The nurse will teach a patient to plan to minimize physical and emotional stress while the patient is undergoing

- a. a water deprivation test.
- b. testing for serum T₃ and T₄ levels.
- c. a 24-hour urine test for free cortisol.
- d. a radioactive iodine (I-131) uptake test.

ANS: C

Physical and emotional stress can affect the results of the free cortisol test. The other tests are not impacted by stress.

14. A nurse will teach a patient who is scheduled to complete a 24-hour urine collection for 17-ketosteroids to

- a. insert and maintain a retention catheter.
- b. keep the specimen refrigerated or on ice.
- c. drink at least 3 L of fluid during the 24 hours.
- d. void and save that specimen to start the collection.

ANS: B

The specimen must be kept on ice or refrigerated until the collection is finished. Voided or catheterized specimens are acceptable for the test. The initial voided specimen is discarded. There is no fluid intake requirement for the 24-hour collection.

15. Which additional information will the nurse need to consider when reviewing the laboratory results for a patient's total calcium level?

- a. The blood glucose is elevated.
- b. The phosphate level is normal.
- c. The serum albumin level is low.
- d. The magnesium level is normal.

ANS: C

Part of the total calcium is bound to albumin so hypoalbuminemia can lead to misinterpretation of calcium levels. The other laboratory values will not affect total calcium interpretation.

16. A 44-year-old patient is admitted with tetany. Which laboratory value should the nurse monitor?

- a. Total protein
- b. Blood glucose
- c. Ionized calcium
- d. Serum phosphate

ANS: C

Tetany is associated with hypocalcemia. The other values would not be useful for this patient.

17. Which information about a 30-year-old patient who is scheduled for an oral glucose tolerance test should be reported to the health care provider before starting the test?

- a. The patient reports having occasional orthostatic dizziness.
- b. The patient takes oral corticosteroids for rheumatoid arthritis.
- c. The patient has had a 10-pound weight gain in the last month.
- d. The patient drank several glasses of water an hour previously.

ANS: B

Corticosteroids can affect blood glucose results. The other information will be provided to the health care provider but will not affect the test results.

18. Which action by a new registered nurse (RN) caring for a patient with a goiter and possible hyperthyroidism indicates that the charge nurse needs to do more teaching?

- a. The RN checks the blood pressure on both arms.
- b. The RN palpates the neck thoroughly to check thyroid size.
- c. The RN lowers the thermostat to decrease the temperature in the room.
- d. The RN orders nonmedicated eye drops to lubricate the patients bulging eyes.

ANS: B

Palpation can cause the release of thyroid hormones in a patient with an enlarged thyroid and should be avoided. The other actions by the new RN are appropriate when caring for a patient with an enlarged thyroid.

19. The nurse is caring for a 45-year-old male patient during a water deprivation test. Which finding is most important for the nurse to communicate to the health care provider?

- a. The patient complains of intense thirst.
- b. The patient has a 5-lb (2.3 kg) weight loss.
- c. The patient's urine osmolality does not increase.
- d. The patient feels dizzy when sitting on the edge of the bed.

ANS: B

A drop in the weight of more than 2 kg indicates severe dehydration, and the test should be discontinued. The other assessment data are not unusual with this test.

20. A 35-year-old female patient with a possible pituitary adenoma is scheduled for a computed tomography (CT) scan with contrast media. Which patient information is **most** important for the nurse to communicate to the health care provider before the test?

- a. Bilateral poor peripheral vision
- b. Allergies to iodine and shellfish
- c. Recent weight loss of 20 pounds
- d. Complaint of ongoing headaches

ANS: B

Because the usual contrast media is iodine-based, the health care provider will need to know about the allergy before the CT scan. The other findings are common with any mass in the brain such as a pituitary adenoma.

21. The nurse is caring for a 63-year-old with a possible pituitary tumor who is scheduled for a computed tomography (CT) scan with contrast. Which information about the patient is **most** important to discuss with the health care provider before the test?

- a. History of renal insufficiency
- b. Complaints of chronic headache
- c. Recent bilateral visual field loss
- d. Blood glucose level of 134 mg/dL

ANS: A

Because contrast media may cause acute kidney injury in patients with poor renal function, the health care provider will need to prescribe therapies such as IV fluids to prevent this complication. The other findings are consistent with the patient's diagnosis of a pituitary tumor.

MULTIPLE RESPONSE

1. Which statements will the nurse include when teaching a patient who is scheduled for oral glucose tolerance testing in the outpatient clinic (*select all that apply*)?

- a. You will need to avoid smoking before the test.
- b. Exercise should be avoided until the testing is complete.
- c. Several blood samples will be obtained during the testing.
- d. You should follow a low-calorie diet the day before the test.
- e. The test requires that you fast for at least 8 hours before testing.

ANS: A, C, E

Smoking may affect the results of oral glucose tolerance tests. Blood samples are obtained at baseline and at 30, 60, and 120 minutes. Accuracy requires that the patient be fasting before the test. The patient should consume at least 1500 calories/day for 3 days before the test. The patient should be ambulatory and active for accurate test results.

Chapter 48. Management: Diabetes Mellitus

MULTIPLE CHOICE

1. Which statement by a nurse to a patient newly diagnosed with type 2 diabetes is correct?

- a. Insulin is not used to control blood glucose in patients with type 2 diabetes.
- b. Complications of type 2 diabetes are less serious than those of type 1 diabetes.
- c. Changes in diet and exercise may control blood glucose levels in type 2 diabetes.
- d. Type 2 diabetes is usually diagnosed when the patient is admitted with a hyperglycemic coma.

ANS: C

For some patients with type 2 diabetes, changes in lifestyle are sufficient to achieve blood glucose control. Insulin is frequently used for type 2 diabetes, complications are equally severe as for type 1 diabetes, and type 2 diabetes is usually diagnosed with routine laboratory testing or after a patient develops complications such as frequent yeast infections.

2. A 48-year-old male patient screened for diabetes at a clinic has a fasting plasma glucose level of 120 mg/dL (6.7 mmol/L). The nurse will plan to teach the patient about

- a. self-monitoring of blood glucose.
- b. using low doses of regular insulin.
- c. lifestyle changes to lower blood glucose.
- d. effects of oral hypoglycemic medications.

ANS: C

The patient's impaired fasting glucose indicates prediabetes, and the patient should be counseled about lifestyle changes to prevent the development of type 2 diabetes. The patient with prediabetes does not require insulin or oral hypoglycemics for glucose control and does not need to self-monitor blood glucose.

3. A 28-year-old male patient with type 1 diabetes reports how he manages his exercise and glucose control. Which behavior indicates that the nurse should implement additional teaching?

- a. The patient always carries hard candies when engaging in exercise.
- b. The patient goes for a vigorous walk when his glucose is 200 mg/dL.
- c. The patient has a peanut butter sandwich before going for a bicycle ride.
- d. The patient increases daily exercise when ketones are present in the urine.

ANS: D

When the patient is ketotic, exercise may result in an increase in blood glucose level. Type 1 diabetic patients should be taught to avoid exercise when ketosis is present. The other statements are correct.

4. The nurse is assessing a 22-year-old patient experiencing the onset of symptoms of type 1 diabetes. Which question is **most** appropriate for the nurse to ask?

- a. Are you anorexic?
- b. Is your urine dark colored?

- c. Have you lost weight lately?
- d. Do you crave sugary drinks?

ANS: C

Weight loss occurs because the body is no longer able to absorb glucose and starts to break down protein and fat for energy. The patient is thirsty but does not necessarily crave sugar-containing fluids. Increased appetite is a classic symptom of type 1 diabetes. With the classic symptom of polyuria, urine will be very dilute.

5. A patient with type 2 diabetes is scheduled for a follow-up visit in the clinic several months from now. Which test will the nurse schedule to evaluate the effectiveness of treatment for the patient?

- a. Urine dipstick for glucose
- b. Oral glucose tolerance test
- c. Fasting blood glucose level
- d. Glycosylated hemoglobin level

ANS: D

The glycosylated hemoglobin (A_{1C} or HbA_{1C}) test shows the overall control of glucose over 90 to 120 days. A fasting blood level indicates only the glucose level at one time. Urine glucose testing is not an accurate reflection of blood glucose level and does not reflect the glucose over a prolonged time. Oral glucose tolerance testing is done to diagnose diabetes, but is not used for monitoring glucose control once diabetes has been diagnosed.

6. A 55-year-old female patient with type 2 diabetes has a nursing diagnosis of imbalanced nutrition: more than body requirements. Which goal is **most** important for this patient?

- a. The patient will reach a glycosylated hemoglobin level of less than 7%.
- b. The patient will follow a diet and exercise plan that results in weight loss.
- c. The patient will choose a diet that distributes calories throughout the day.
- d. The patient will state the reasons for eliminating simple sugars in the diet.

ANS: A

The complications of diabetes are related to elevated blood glucose, and the most important patient outcome is the reduction of glucose to near-normal levels. The other outcomes also are appropriate but are not as high in priority.

7. A 38-year-old patient who has type 1 diabetes plans to swim laps daily at 1:00 PM. The clinic nurse will plan to teach the patient to

- a. check glucose level before, during, and after swimming.
- b. delay eating the noon meal until after the swimming class.
- c. increase the morning dose of neutral protamine Hagedorn (NPH) insulin.
- d. time the morning insulin injection so that the peak occurs while swimming.

ANS: A

The change in exercise will affect blood glucose, and the patient will need to monitor glucose carefully to determine the need for changes in diet and insulin administration. Because exercise tends to decrease blood glucose, patients are advised to eat before exercising. Increasing the morning NPH or timing the insulin to peak during exercise may lead to hypoglycemia, especially with the increased exercise.

8. The nurse determines a need for additional instruction when the patient with newly diagnosed type 1 diabetes says which of the following?

- a. I can have an occasional alcoholic drink if I include it in my meal plan.
- b. I will need a bedtime snack because I take an evening dose of NPH insulin.
- c. I can choose any foods, as long as I use enough insulin to cover the calories.
- d. I will eat something at meal times to prevent hypoglycemia, even if I am not hungry.

ANS: C

Most patients with type 1 diabetes need to plan diet choices very carefully. Patients who are using intensified insulin therapy have considerable flexibility in diet choices but still should restrict dietary intake of items such as fat, protein, and alcohol. The other patient statements are correct and indicate good understanding of the diet instruction.

9. In order to assist an older diabetic patient to engage in moderate daily exercise, which action is **most** important for the nurse to take?

- a. Determine what type of activities the patient enjoys.
- b. Remind the patient that exercise will improve self-esteem.
- c. Teach the patient about the effects of exercise on glucose level.
- d. Give the patient a list of activities that are moderate in intensity.

ANS: A

Because consistency with exercise is important, assessment for the types of exercise that the patient finds enjoyable is the most important action by the nurse in ensuring adherence to an exercise program. The other actions will also be implemented but are not the most important in improving compliance.

10. Which statement by the patient indicates a need for additional instruction in administering insulin?

- a. I need to rotate injection sites among my arms, legs, and abdomen each day.
- b. I can buy the 0.5 mL syringes because the line markings will be easier to see.
- c. I should draw up the regular insulin first after injecting air into the NPH bottle.
- d. I do not need to aspirate the plunger to check for blood before injecting insulin.

ANS: A

Rotating sites is no longer recommended because there is more consistent insulin absorption when the same site is used consistently. The other patient statements are accurate and indicate that no additional instruction is needed.

11. Which patient action indicates good understanding of the nurses teaching about administration of aspart (NovoLog) insulin?

- a. The patient avoids injecting the insulin into the upper abdominal area.
- b. The patient cleans the skin with soap and water before insulin administration.
- c. The patient stores the insulin in the freezer after administering the prescribed dose.
- d. The patient pushes the plunger down while removing the syringe from the injection site.

ANS: B

Cleaning the skin with soap and water or with alcohol is acceptable. Insulin should not be frozen. The patient should leave the syringe in place for about 5 seconds after injection to be sure that all the insulin has been injected. The upper abdominal area is one of the preferred areas for insulin injection.

12. A patient receives aspart (NovoLog) insulin at 8:00 AM. Which time will it be **most** important for the nurse to monitor for symptoms of hypoglycemia?

- a. 10:00 AM
- b. 12:00 AM
- c. 2:00 PM
- d. 4:00 PM

ANS: A

The rapid-acting insulins peak in 1 to 3 hours. The patient is not at a high risk for hypoglycemia at the other listed times, although hypoglycemia may occur.

13. Which patient action indicates a good understanding of the nurses teaching about the use of an insulin pump?

- a. The patient programs the pump for an insulin bolus after eating.
- b. The patient changes the location of the insertion site every week.
- c. The patient takes the pump off at bedtime and starts it again each morning.
- d. The patient plans for a diet that is less flexible when using the insulin pump.

ANS: A

In addition to the basal rate of insulin infusion, the patient will adjust the pump to administer a bolus after each meal, with the dosage depending on the oral intake. The insertion site should be changed every 2 or 3 days. There is more flexibility in diet and exercise when an insulin pump is used. The pump will deliver a basal insulin rate 24 hours a day.

14. A 32-year-old patient with diabetes is starting on intensive insulin therapy. Which type of insulin will the nurse discuss using for mealtime coverage?

- a. Lispro (Humalog)
- b. Glargine (Lantus)

- c. Detemir (Levemir)
- d. NPH (Humulin N)

ANS: A

Rapid- or short-acting insulin is used for mealtime coverage for patients receiving intensive insulin therapy. NPH, glargine, or detemir will be used as the basal insulin.

15. Which information will the nurse include when teaching a 50-year-old patient who has type 2 diabetes about glyburide (Micronase, DiaBeta, Glynase)?

- a. Glyburide decreases glucagon secretion from the pancreas.
- b. Glyburide stimulates insulin production and release from the pancreas.
- c. Glyburide should be taken even if the morning blood glucose level is low.
- d. Glyburide should not be used for 48 hours after receiving IV contrast media.

ANS: B

The sulfonylureas stimulate the production and release of insulin from the pancreas. If the glucose level is low, the patient should contact the health care provider before taking the glyburide, because hypoglycemia can occur with this class of medication. Metformin should be held for 48 hours after administration of IV contrast media, but this is not necessary for glyburide. Glucagon secretion is not affected by glyburide.

16. The nurse has been teaching a patient with type 2 diabetes about managing blood glucose levels and taking glipizide (Glucotrol). Which patient statement indicates a need for additional teaching?

- a. If I overeat at a meal, I will still take the usual dose of medication.
- b. Other medications besides the Glucotrol may affect my blood sugar.
- c. When I am ill, I may have to take insulin to control my blood sugar.

- d. My diabetes wont cause complications because I dont need insulin.

ANS: D

The patient should understand that type 2 diabetes places the patient at risk for many complications and that good glucose control is as important when taking oral agents as when using insulin. The other statements are accurate and indicate good understanding of the use of glipizide.

17. When a patient who takes metformin (Glucophage) to manage type 2 diabetes develops an allergic rash from an unknown cause, the health care provider prescribes prednisone (Deltasone). The nurse will anticipate that the patient may

- a. need a diet higher in calories while receiving prednisone.
- b. develop acute hypoglycemia while taking the prednisone.
- c. require administration of insulin while taking prednisone.
- d. have rashes caused by metformin-prednisone interactions.

ANS: C

Glucose levels increase when patients are taking corticosteroids, and insulin may be required to control blood glucose. Hypoglycemia is not a side effect of prednisone. Rashes are not an adverse effect caused by taking metformin and prednisone simultaneously. The patient may have an increased appetite when taking prednisone, but will not need a diet that is higher in calories.

18. A hospitalized diabetic patient received 38 U of NPH insulin at 7:00 AM. At 1:00 PM, the patient has been away from the nursing unit for 2 hours, missing the lunch delivery while awaiting a chest x-ray. To prevent hypoglycemia, the **best** action by the nurse is to

- a. save the lunch tray for the patients later return to the unit.
- b. ask that diagnostic testing area staff to start a 5% dextrose IV.

- c. send a glass of milk or orange juice to the patient in the diagnostic testing area.
- d. request that if testing is further delayed, the patient be returned to the unit to eat.

ANS: D

Consistency for mealtimes assists with regulation of blood glucose, so the best option is for the patient to have lunch at the usual time. Waiting to eat until after the procedure is likely to cause hypoglycemia. Administration of an IV solution is unnecessarily invasive for the patient. A glass of milk or juice will keep the patient from becoming hypoglycemic but will cause a rapid rise in blood glucose because of the rapid absorption of the simple carbohydrate in these items.

19. The nurse identifies a need for additional teaching when the patient who is self-monitoring blood glucose

- a. washes the puncture site using warm water and soap.
- b. chooses a puncture site in the center of the finger pad.
- c. hangs the arm down for a minute before puncturing the site.
- d. says the result of 120 mg indicates good blood sugar control.

ANS: B

The patient is taught to choose a puncture site at the side of the finger pad because there are fewer nerve endings along the side of the finger pad. The other patient actions indicate that teaching has been effective.

20. The nurse is preparing to teach a 43-year-old man who is newly diagnosed with type 2 diabetes about home management of the disease. Which action should the nurse take **first**?

- a. Ask the patients family to participate in the diabetes education program.

- b. Assess the patients perception of what it means to have diabetes mellitus.
- c. Demonstrate how to check glucose using capillary blood glucose monitoring.
- d. Discuss the need for the patient to actively participate in diabetes management.

ANS: B

Before planning teaching, the nurse should assess the patients interest in and ability to self-manage the diabetes. After assessing the patient, the other nursing actions may be appropriate, but planning needs to be individualized to each patient.

21. An unresponsive patient with type 2 diabetes is brought to the emergency department and diagnosed with hyperosmolar hyperglycemic syndrome (HHS). The nurse will anticipate the need to

- a. give a bolus of 50% dextrose.
- b. insert a large-bore IV catheter.
- c. initiate oxygen by nasal cannula.
- d. administer glargine (Lantus) insulin.

ANS: B

HHS is initially treated with large volumes of IV fluids to correct hypovolemia. Regular insulin is administered, not a long-acting insulin. There is no indication that the patient requires oxygen. Dextrose solutions will increase the patients blood glucose and would be contraindicated.

22. A 26-year-old female with type 1 diabetes develops a sore throat and runny nose after caring for her sick toddler. The patient calls the clinic for advice about her symptoms and a blood glucose level of 210 mg/dL despite taking her usual glargine (Lantus) and lispro (Humalog) insulin. The nurse advises the patient to

- a. use only the lispro insulin until the symptoms are resolved.
- b. limit intake of calories until the glucose is less than 120 mg/dL.
- c. monitor blood glucose every 4 hours and notify the clinic if it continues to rise.
- d. decrease intake of carbohydrates until glycosylated hemoglobin is less than 7%.

ANS: C

Infection and other stressors increase blood glucose levels and the patient will need to test blood glucose frequently, treat elevations appropriately with lispro insulin, and call the health care provider if glucose levels continue to be elevated. Discontinuing the glargine will contribute to hyperglycemia and may lead to diabetic ketoacidosis (DKA). Decreasing carbohydrate or caloric intake is not appropriate because the patient will need more calories when ill. Glycosylated hemoglobin testing is not used to evaluate short-term alterations in blood glucose.

23. The health care provider suspects the Somogyi effect in a 50-year-old patient whose 6:00 AM blood glucose is 230 mg/dL. Which action will the nurse teach the patient to take?

- a. Avoid snacking at bedtime.
- b. Increase the rapid-acting insulin dose.
- c. Check the blood glucose during the night
- d. Administer a larger dose of long-acting insulin.

ANS: C

If the Somogyi effect is causing the patient's increased morning glucose level, the patient will experience hypoglycemia between 2:00 and 4:00 AM. The dose of insulin will be reduced, rather than increased. A bedtime snack is used to prevent hypoglycemic episodes during the night.

24. Which action should the nurse take after a 36-year-old patient treated with intramuscular glucagon for hypoglycemia regains consciousness?

- a. Assess the patient for symptoms of hyperglycemia.
- b. Give the patient a snack of peanut butter and crackers.
- c. Have the patient drink a glass of orange juice or nonfat milk.
- d. Administer a continuous infusion of 5% dextrose for 24 hours.

ANS: B

Rebound hypoglycemia can occur after glucagon administration, but having a meal containing complex carbohydrates plus protein and fat will help prevent hypoglycemia. Orange juice and nonfat milk will elevate blood glucose rapidly, but the cheese and crackers will stabilize blood glucose. Administration of IV glucose might be used in patients who were unable to take in nutrition orally. The patient should be assessed for symptoms of hypoglycemia after glucagon administration.

25. Which question during the assessment of a diabetic patient will help the nurse identify autonomic neuropathy?

- a. Do you feel bloated after eating?
- b. Have you seen any skin changes?
- c. Do you need to increase your insulin dosage when you are stressed?
- d. Have you noticed any painful new ulcerations or sores on your feet?

ANS: A

Autonomic neuropathy can cause delayed gastric emptying, which results in a bloated feeling for the patient. The other questions are also appropriate to ask but would not help in identifying autonomic neuropathy.

26. Which information will the nurse include in teaching a female patient who has peripheral arterial disease, type 2 diabetes, and sensory neuropathy of the feet and legs?

- a. Choose flat-soled leather shoes.
- b. Set heating pads on a low temperature.
- c. Use callus remover for corns or calluses.
- d. Soak feet in warm water for an hour each day.

ANS: A

The patient is taught to avoid high heels and that leather shoes are preferred. The feet should be washed, but not soaked, in warm water daily. Heating pad use should be avoided. Commercial callus and corn removers should be avoided. The patient should see a specialist to treat these problems.

27. Which finding indicates a need to contact the health care provider before the nurse administers metformin (Glucophage)?

- a. The patients blood glucose level is 174 mg/dL.
- b. The patient has gained 2 lb (0.9 kg) since yesterday.
- c. The patient is scheduled for a chest x-ray in an hour.
- d. The patients blood urea nitrogen (BUN) level is 52 mg/dL.

ANS: D

The BUN indicates possible renal failure, and metformin should not be used in patients with renal failure. The other findings are not contraindications to the use of metformin.

28. A diabetic patient who has reported burning foot pain at night receives a new prescription. Which information should the nurse teach the patient about amitriptyline (Elavil)?

- a. Amitriptyline decreases the depression caused by your foot pain.
- b. Amitriptyline helps prevent transmission of pain impulses to the brain.
- c. Amitriptyline corrects some of the blood vessel changes that cause pain.
- d. Amitriptyline improves sleep and makes you less aware of nighttime pain.

ANS: B

Tricyclic antidepressants decrease the transmission of pain impulses to the spinal cord and brain. Tricyclic antidepressants also improve sleep quality and are used for depression, but that is not the major purpose for their use in diabetic neuropathy. The blood vessel changes that contribute to neuropathy are not affected by tricyclic antidepressants.

29. Which information is **most** important for the nurse to report to the health care provider before a patient with type 2 diabetes is prepared for a coronary angiogram?

- a. The patient's most recent HbA_{1c} was 6.5%.
- b. The patient's admission blood glucose is 128 mg/dL.
- c. The patient took the prescribed metformin (Glucophage) today.
- d. The patient took the prescribed captopril (Capoten) this morning.

ANS: C

To avoid lactic acidosis, metformin should be discontinued a day or 2 before the coronary arteriogram and should not be used for 48 hours after IV contrast media are administered. The other patient data will also be reported but do not indicate any need to reschedule the procedure.

30. Which action by a patient indicates that the home health nurse's teaching about glargine and regular insulin has been successful?

- a. The patient administers the glargine 30 minutes before each meal.

- b. The patients family prefills the syringes with the mix of insulins weekly.
- c. The patient draws up the regular insulin and then the glargine in the same syringe.
- d. The patient disposes of the open vials of glargine and regular insulin after 4 weeks.

ANS: D

Insulin can be stored at room temperature for 4 weeks. Glargine should not be mixed with other insulins or prefilled and stored. Short-acting regular insulin is administered before meals, while glargine is given once daily.

31. A 26-year-old patient with diabetes rides a bicycle to and from work every day. Which site should the nurse teach the patient to administer the morning insulin?

- a. thigh.
- b. buttock.
- c. abdomen.
- d. upper arm.

ANS: C

Patients should be taught not to administer insulin into a site that will be exercised because exercise will increase the rate of absorption. The thigh, buttock, and arm are all exercised by riding a bicycle.

32. The nurse is interviewing a new patient with diabetes who receives rosiglitazone (Avandia) through a restricted access medication program. What is **most** important for the nurse to report immediately to the health care provider?

- a. The patients blood pressure is 154/92.
- b. The patient has a history of emphysema.
- c. The patients blood glucose is 86 mg/dL.

- d. The patient has chest pressure when walking.

ANS: D

Rosiglitazone can cause myocardial ischemia. The nurse should immediately notify the health care provider and expect orders to discontinue the medication. There is no urgent need to discuss the other data with the health care provider.

33. The nurse is taking a health history from a 29-year-old pregnant patient at the first prenatal visit. The patient reports no personal history of diabetes but has a parent who is diabetic. Which action will the nurse plan to take first?

- a. Teach the patient about administering regular insulin.
- b. Schedule the patient for a fasting blood glucose level.
- c. Discuss an oral glucose tolerance test for the twenty-fourth week of pregnancy.
- d. Provide teaching about an increased risk for fetal problems with gestational diabetes.

ANS: B

Patients at high risk for gestational diabetes should be screened for diabetes on the initial prenatal visit. An oral glucose tolerance test may also be used to check for diabetes, but it would be done before the twenty-fourth week. The other actions may also be needed (depending on whether the patient develops gestational diabetes), but they are not the first actions that the nurse should take.

34. A 27-year-old patient admitted with diabetic ketoacidosis (DKA) has a serum glucose level of 732 mg/dL and serum potassium level of 3.1 mEq/L. Which action prescribed by the health care provider should the nurse take **first**?

- a. Place the patient on a cardiac monitor.
- b. Administer IV potassium supplements.
- c. Obtain urine glucose and ketone levels.

- d. Start an insulin infusion at 0.1 units/kg/hr.

ANS: A

Hypokalemia can lead to potentially fatal dysrhythmias such as ventricular tachycardia and ventricular fibrillation, which would be detected with electrocardiogram (ECG) monitoring. Because potassium must be infused over at least 1 hour, the nurse should initiate cardiac monitoring before infusion of potassium. Insulin should not be administered without cardiac monitoring because insulin infusion will further decrease potassium levels. Urine glucose and ketone levels are not urgently needed to manage the patient's care.

35. A 54-year-old patient is admitted with diabetic ketoacidosis. Which admission order should the nurse implement **first**?

- a. Infuse 1 liter of normal saline per hour.
- b. Give sodium bicarbonate 50 mEq IV push.
- c. Administer regular insulin 10 U by IV push.
- d. Start a regular insulin infusion at 0.1 units/kg/hr.

ANS: A

The most urgent patient problem is the hypovolemia associated with diabetic ketoacidosis (DKA), and the priority is to infuse IV fluids. The other actions can be done after the infusion of normal saline is initiated.

36. A patient who was admitted with diabetic ketoacidosis secondary to a urinary tract infection has been weaned off an insulin drip 30 minutes ago. The patient reports feeling lightheaded and sweaty. Which action should the nurse take **first**?

- a. Infuse dextrose 50% by slow IV push.
- b. Administer 1 mg glucagon subcutaneously.
- c. Obtain a glucose reading using a finger stick.

- d. Have the patient drink 4 ounces of orange juice.

ANS: C

The patients clinical manifestations are consistent with hypoglycemia and the initial action should be to check the patients glucose with a finger stick or order a stat blood glucose. If the glucose is low, the patient should ingest a rapid-acting carbohydrate, such as orange juice. Glucagon or dextrose 50% might be given if the patients symptoms become worse or if the patient is unconscious.

37. A female patient is scheduled for an oral glucose tolerance test. Which information from the patients health history is **most** important for the nurse to communicate to the health care provider?

- a. The patient uses oral contraceptives.
- b. The patient runs several days a week.
- c. The patient has been pregnant three times.
- d. The patient has a family history of diabetes.

ANS: A

Oral contraceptive use may falsely elevate oral glucose tolerance test (OGTT) values. Exercise and a family history of diabetes both can affect blood glucose but will not lead to misleading information from the OGTT. History of previous pregnancies may provide information about gestational glucose tolerance, but will not lead to misleading information from the OGTT.

38. Which laboratory value reported to the nurse by the unlicensed assistive personnel (UAP) indicates the **most** urgent need for the nurses assessment of the patient?

- a. Bedtime glucose of 140 mg/dL
- b. Noon blood glucose of 52 mg/dL
- c. Fasting blood glucose of 130 mg/dL

- d. 2-hr postprandial glucose of 220 mg/dL

ANS: B

The nurse should assess the patient with a blood glucose level of 52 mg/dL for symptoms of hypoglycemia and give the patient a carbohydrate-containing beverage such as orange juice. The other values are within an acceptable range or not immediately dangerous for a diabetic patient.

Chapter 49. Management: Endocrine Problems

MULTIPLE CHOICE

1. A 45-year-old male patient with suspected acromegaly is seen at the clinic. To assist in making the diagnosis, which question should the nurse ask?

- a. Have you had a recent head injury?
- b. Do you have to wear larger shoes now?
- c. Is there a family history of acromegaly?
- d. Are you experiencing tremors or anxiety?

ANS: B

Acromegaly causes an enlargement of the hands and feet. Head injury and family history are not risk factors for acromegaly. Tremors and anxiety are not clinical manifestations of acromegaly.

2. A 42-year-old female patient is scheduled for transsphenoidal hypophysectomy to treat a pituitary adenoma. During preoperative teaching, the nurse instructs the patient about the need to

- a. cough and deep breathe every 2 hours postoperatively.
- b. remain on bed rest for the first 48 hours after the surgery.

- c. avoid brushing teeth for at least 10 days after the surgery.
- d. be positioned flat with sandbags at the head postoperatively.

ANS: C

To avoid disruption of the suture line, the patient should avoid brushing the teeth for 10 days after surgery. It is not necessary to remain on bed rest after this surgery. Coughing is discouraged because it may cause leakage of cerebrospinal fluid (CSF) from the suture line. The head of the bed should be elevated 30 degrees to reduce pressure on the sella turcica and decrease the risk for headaches.

3. The nurse is planning postoperative care for a patient who is being admitted to the surgical unit from the recovery room after transsphenoidal resection of a pituitary tumor. Which nursing action should be included?

- a. Palpate extremities for edema.
- b. Measure urine volume every hour.
- c. Check hematocrit every 2 hours for 8 hours.
- d. Monitor continuous pulse oximetry for 24 hours.

ANS: B

After pituitary surgery, the patient is at risk for diabetes insipidus caused by cerebral edema. Monitoring of urine output and urine specific gravity is essential. Hemorrhage is not a common problem. There is no need to check the hematocrit hourly. The patient is at risk for dehydration, not volume overload. The patient is not at high risk for problems with oxygenation, and continuous pulse oximetry is not needed.

4. The nurse is assessing a 41-year-old African American male patient diagnosed with a pituitary tumor causing panhypopituitarism. Assessment findings consistent with panhypopituitarism include

- a. high blood pressure.

- b. decreased facial hair.
- c. elevated blood glucose.
- d. tachycardia and cardiac palpitations.

ANS: B

Changes in male secondary sex characteristics such as decreased facial hair, testicular atrophy, diminished spermatogenesis, loss of libido, impotence, and decreased muscle mass are associated with decreases in follicle stimulating hormone (FSH) and luteinizing hormone (LH). Fasting hypoglycemia and hypotension occur in panhypopituitarism as a result of decreases in adrenocorticotrophic hormone (ACTH) and cortisol. Bradycardia is likely due to the decrease in thyroid stimulating hormone (TSH) and thyroid hormones associated with panhypopituitarism.

5. Which information will the nurse include when teaching a 50-year-old male patient about somatropin (Genotropin)?

- a. The medication will be needed for 3 to 6 months.
- b. Inject the medication subcutaneously every day.
- c. Blood glucose levels may decrease when taking the medication.
- d. Stop taking the medication if swelling of the hands or feet occurs.

ANS: B

Somatropin is injected subcutaneously on a daily basis, preferably in the evening. The patient will need to continue on somatropin for life. If swelling or other common adverse effects occur, the health care provider should be notified. Growth hormone will increase blood glucose levels.

6. The nurse determines that demeclocycline (Declomycin) is effective for a patient with syndrome of inappropriate antidiuretic hormone (SIADH) based on finding that the patients

- a. weight has increased.
- b. urinary output is increased.
- c. peripheral edema is decreased.
- d. urine specific gravity is increased.

ANS: B

Demeclocycline blocks the action of antidiuretic hormone (ADH) on the renal tubules and increases urine output. An increase in weight or an increase in urine specific gravity indicates that the SIADH is not corrected. Peripheral edema does not occur with SIADH. A sudden weight gain without edema is a common clinical manifestation of this disorder.

7. The nurse determines that additional instruction is needed for a 60-year-old patient with chronic syndrome of inappropriate antidiuretic hormone (SIADH) when the patient says which of the following?

- a. I need to shop for foods low in sodium and avoid adding salt to food.
- b. I should weigh myself daily and report any sudden weight loss or gain.
- c. I need to limit my fluid intake to no more than 1 quart of liquids a day.
- d. I will eat foods high in potassium because diuretics cause potassium loss.

ANS: A

Patients with SIADH are at risk for hyponatremia, and a sodium supplement may be prescribed. The other patient statements are correct and indicate successful teaching has occurred.

8. A 56-year-old patient who is disoriented and reports a headache and muscle cramps is hospitalized with possible syndrome of inappropriate antidiuretic hormone (SIADH). The nurse would expect the initial laboratory results to include a(n)

- a. elevated hematocrit.
- b. decreased serum sodium.
- c. low urine specific gravity.
- d. increased serum chloride.

ANS: B

When water is retained, the serum sodium level will drop below normal, causing the clinical manifestations reported by the patient. The hematocrit will decrease because of the dilution caused by water retention. Urine will be more concentrated with a higher specific gravity. The serum chloride level will usually decrease along with the sodium level.

9. An expected nursing diagnosis for a 30-year-old patient admitted to the hospital with symptoms of diabetes insipidus is

- a. excess fluid volume related to intake greater than output.
- b. impaired gas exchange related to fluid retention in lungs.
- c. sleep pattern disturbance related to frequent waking to void.
- d. risk for impaired skin integrity related to generalized edema.

ANS: C

Nocturia occurs as a result of the polyuria caused by diabetes insipidus. Edema, excess fluid volume, and fluid retention are not expected.

10. Which information will the nurse teach a 48-year-old patient who has been newly diagnosed with Graves disease?

- a. Exercise is contraindicated to avoid increasing metabolic rate.
- b. Restriction of iodine intake is needed to reduce thyroid activity.
- c. Antithyroid medications may take several months for full effect.

- d. Surgery will eventually be required to remove the thyroid gland.

ANS: C

Medications used to block the synthesis of thyroid hormones may take 2 to 3 months before the full effect is seen. Large doses of iodine are used to inhibit the synthesis of thyroid hormones. Exercise using large muscle groups is encouraged to decrease the irritability and hyperactivity associated with high levels of thyroid hormones. Radioactive iodine is the most common treatment for Graves disease although surgery may be used.

11. A patient who had a subtotal thyroidectomy earlier today develops laryngeal stridor and a cramp in the right hand upon returning to the surgical nursing unit. Which collaborative action will the nurse anticipate **next**?

- a. Suction the patients airway.
- b. Administer IV calcium gluconate.
- c. Plan for emergency tracheostomy.
- d. Prepare for endotracheal intubation.

ANS: B

The patients clinical manifestations of stridor and cramping are consistent with tetany caused by hypocalcemia resulting from damage to the parathyroid glands during surgery. Endotracheal intubation or tracheostomy may be needed if the calcium does not resolve the stridor. Suctioning will not correct the stridor.

12. Which nursing action will be included in the plan of care for a 55-year-old patient with Graves disease who has exophthalmos?

- a. Place cold packs on the eyes to relieve pain and swelling.
- b. Elevate the head of the patients bed to reduce periorbital fluid.
- c. Apply alternating eye patches to protect the corneas from irritation.

- d. Teach the patient to blink every few seconds to lubricate the corneas.

ANS: B

The patient should sit upright as much as possible to promote fluid drainage from the periorbital area. With exophthalmos, the patient is unable to close the eyes completely to blink. Lubrication of the eyes, rather than eye patches, will protect the eyes from developing corneal scarring. The swelling of the eye is not caused by excessive blood flow to the eye, so cold packs will not be helpful.

13. A 62-year-old patient with hyperthyroidism is to be treated with radioactive iodine (RAI). The nurse instructs the patient

- a. about radioactive precautions to take with all body secretions.
- b. that symptoms of hyperthyroidism should be relieved in about a week.
- c. that symptoms of hypothyroidism may occur as the RAI therapy takes effect.
- d. to discontinue the antithyroid medications taken before the radioactive therapy.

ANS: C

There is a high incidence of postradiation hypothyroidism after RAI, and the patient should be monitored for symptoms of hypothyroidism. RAI has a delayed response, with the maximum effect not seen for 2 to 3 months, and the patient will continue to take antithyroid medications during this time. The therapeutic dose of radioactive iodine is low enough that no radiation safety precautions are needed.

14. Which nursing assessment of a 69-year-old patient is **most** important to make during initiation of thyroid replacement with levothyroxine (Synthroid)?

- a. Fluid balance
- b. Apical pulse rate
- c. Nutritional intake

- d. Orientation and alertness

ANS: B

In older patients, initiation of levothyroxine therapy can increase myocardial oxygen demand and cause angina or dysrhythmias. The medication also is expected to improve mental status and fluid balance and will increase metabolic rate and nutritional needs, but these changes will not result in potentially life-threatening complications.

15. An 82-year-old patient in a long-term care facility has several medications prescribed. After the patient is newly diagnosed with hypothyroidism, the nurse will need to consult with the health care provider before administering

- a. docusate (Colace).
- b. ibuprofen (Motrin).
- c. diazepam (Valium).
- d. cefoxitin (Mefoxin).

ANS: C

Worsening of mental status and myxedema coma can be precipitated by the use of sedatives, especially in older adults. The nurse should discuss the use of diazepam with the health care provider before administration. The other medications may be given safely to the patient.

16. A patient who was admitted with myxedema coma and diagnosed with hypothyroidism is improving and expected to be discharged in 2 days. Which teaching strategy will be **best** for the nurse to use?

- a. Provide written reminders of self-care information.
- b. Offer multiple options for management of therapies.
- c. Ensure privacy for teaching by asking visitors to leave.

- d. Delay teaching until patient discharge date is confirmed.

ANS: A

Written instructions will be helpful to the patient because initially the hypothyroid patient may be unable to remember to take medications and other aspects of self-care. Because the treatment regimen is somewhat complex, teaching should be initiated well before discharge. Family members or friends should be included in teaching because the hypothyroid patient is likely to forget some aspects of the treatment plan. A simpler regimen will be easier to understand until the patient is euthyroid.

17. A 63-year-old patient with primary hyperparathyroidism has a serum phosphorus level of 1.7 mg/dL (0.55 mmol/L) and calcium of 14 mg/dL (3.5 mmol/L). Which nursing action should be included in the plan of care?

- a. Restrict the patient to bed rest.
- b. Encourage 4000 mL of fluids daily.
- c. Institute routine seizure precautions.
- d. Assess for positive Chvosteks sign.

ANS: B

The patient with hypercalcemia is at risk for kidney stones, which may be prevented by a high fluid intake. Seizure precautions and monitoring for Chvosteks or Trousseaus sign are appropriate for hypocalcemic patients. The patient should engage in weight-bearing exercise to decrease calcium loss from bone.

18. A patient develops carpopedal spasms and tingling of the lips following a parathyroidectomy. Which action should the nurse take **first**?

- a. Administer the ordered muscle relaxant.
- b. Give the ordered oral calcium supplement.
- c. Have the patient rebreathe from a paper bag.

- d. Start the PRN oxygen at 2 L/min per cannula.

ANS: C

The patient's symptoms suggest mild hypocalcemia. The symptoms of hypocalcemia will be temporarily reduced by having the patient breathe into a paper bag, which will raise the PaCO₂ and create a more acidic pH. The muscle relaxant will have no impact on the ionized calcium level. Although severe hypocalcemia can cause laryngeal stridor, there is no indication that this patient is experiencing laryngeal stridor or needs oxygen. Calcium supplements will be given to normalize calcium levels quickly, but oral supplements will take time to be absorbed.

19. A patient who had radical neck surgery to remove a malignant tumor developed hypoparathyroidism. The nurse should plan to teach the patient about

- a. bisphosphonates to reduce bone demineralization.
- b. calcium supplements to normalize serum calcium levels.
- c. increasing fluid intake to decrease risk for nephrolithiasis.
- d. including whole grains in the diet to prevent constipation.

ANS: B

Oral calcium supplements are used to maintain the serum calcium in normal range and prevent the complications of hypocalcemia. Whole grain foods decrease calcium absorption and will not be recommended. Bisphosphonates will lower serum calcium levels further by preventing calcium from being reabsorbed from bone. Kidney stones are not a complication of hypoparathyroidism and low calcium levels.

20. Which finding for a patient who has hypothyroidism and hypertension indicates that the nurse should contact the health care provider before administering levothyroxine (Synthroid)?

- a. Increased thyroxine (T₄) level
- b. Blood pressure 112/62 mm Hg

- c. Distant and difficult to hear heart sounds
- d. Elevated thyroid stimulating hormone level

ANS: A

An increased thyroxine level indicates the levothyroxine dose needs to be decreased. The other data are consistent with hypothyroidism and the nurse should administer the levothyroxine.

21. A 37-year-old patient is being admitted with a diagnosis of Cushing syndrome. Which findings will the nurse expect during the assessment?

- a. Chronically low blood pressure
- b. Bronzed appearance of the skin
- c. Purplish streaks on the abdomen
- d. Decreased axillary and pubic hair

ANS: C

Purplish-red striae on the abdomen are a common clinical manifestation of Cushing syndrome. Hypotension and bronzed-appearing skin are manifestations of Addison's disease. Decreased axillary and pubic hair occur with androgen deficiency.

22. A 44-year-old female patient with Cushing syndrome is admitted for adrenalectomy. Which intervention by the nurse will be **most** helpful for a nursing diagnosis of disturbed body image related to changes in appearance?

- a. Reassure the patient that the physical changes are very common in patients with Cushing syndrome.
- b. Discuss the use of diet and exercise in controlling the weight gain associated with Cushing syndrome.
- c. Teach the patient that the metabolic impact of Cushing syndrome is of more importance than appearance.

- d. Remind the patient that most of the physical changes caused by Cushing syndrome will resolve after surgery.

ANS: D

The most reassuring communication to the patient is that the physical and emotional changes caused by the Cushing syndrome will resolve after hormone levels return to normal postoperatively. Reassurance that the physical changes are expected or that there are more serious physiologic problems associated with Cushing syndrome are not therapeutic responses. The patients physiological changes are caused by the high hormone levels, not by the patients diet or exercise choices.

23. Which finding indicates to the nurse that the current therapies are effective for a patient with acute adrenal insufficiency?

- a. Increasing serum sodium levels
- b. Decreasing blood glucose levels
- c. Decreasing serum chloride levels
- d. Increasing serum potassium levels

ANS: A

Clinical manifestations of Addisons disease include hyponatremia and an increase in sodium level indicates improvement. The other values indicate that treatment has not been effective.

24. A 38-year-old male patient is admitted to the hospital in Addisonian crisis. Which patient statement supports a nursing diagnosis of ineffective self-health management related to lack of knowledge about management of Addisons disease?

- a. I frequently eat at restaurants, and my food has a lot of added salt.
- b. I had the stomach flu earlier this week, so I couldnt take the hydrocortisone.

- c. I always double my dose of hydrocortisone on the days that I go for a long run.
- d. I take twice as much hydrocortisone in the morning dose as I do in the afternoon.

ANS: B

The need for hydrocortisone replacement is increased with stressors such as illness, and the patient needs to be taught to call the health care provider because medication and IV fluids and electrolytes may need to be given. The other patient statements indicate appropriate management of the Addisons disease.

25. A 29-year-old woman with systemic lupus erythematosus has been prescribed 2 weeks of high-dose prednisone therapy. Which information about the prednisone is **most** important for the nurse to include?

- a. Weigh yourself daily to monitor for weight gain caused by increased appetite.
- b. A weight-bearing exercise program will help minimize the risk for osteoporosis.
- c. The prednisone dose should be decreased gradually rather than stopped suddenly.
- d. Call the health care provider if you experience mood alterations with the prednisone.

ANS: C

Acute adrenal insufficiency may occur if exogenous corticosteroids are suddenly stopped. Mood alterations and weight gain are possible adverse effects of corticosteroid use, but these are not life-threatening effects. Osteoporosis occurs when patients take corticosteroids for longer periods.

26. A 56-year-old female patient has an adrenocortical adenoma, causing hyperaldosteronism. The nurse providing care should

- a. monitor the blood pressure every 4 hours.
- b. elevate the patients legs to relieve edema.
- c. monitor blood glucose level every 4 hours.
- d. order the patient a potassium-restricted diet.

ANS: A

Hypertension caused by sodium retention is a common complication of hyperaldosteronism. Hyperaldosteronism does not cause an elevation in blood glucose. The patient will be hypokalemic and require potassium supplementation before surgery. Edema does not usually occur with hyperaldosteronism.

27. The nurse will plan to monitor a patient diagnosed with a pheochromocytoma for

- a. flushing.
- b. headache.
- c. bradycardia.
- d. hypoglycemia.

ANS: B

The classic clinical manifestations of pheochromocytoma are hypertension, tachycardia, severe headache, diaphoresis, and abdominal or chest pain. Elevated blood glucose may also occur because of sympathetic nervous system stimulation. Bradycardia and flushing would not be expected.

28. After a 22-year-old female patient with a pituitary adenoma has had a hypophysectomy, the nurse will teach about the need for

- a. sodium restriction to prevent fluid retention.
- b. insulin to maintain normal blood glucose levels.
- c. oral corticosteroids to replace endogenous cortisol.

- d. chemotherapy to prevent malignant tumor recurrence.

ANS: C

Antidiuretic hormone (ADH), cortisol, and thyroid hormone replacement will be needed for life after hypophysectomy. Without the effects of adrenocorticotrophic hormone (ACTH) and cortisol, the blood glucose and serum sodium will be low unless cortisol is replaced. An adenoma is a benign tumor, and chemotherapy will not be needed.

29. Which intervention will the nurse include in the plan of care for a 52-year-old male patient with syndrome of inappropriate antidiuretic hormone (SIADH)?

- a. Monitor for peripheral edema.
- b. Offer patient hard candies to suck on.
- c. Encourage fluids to 2 to 3 liters per day.
- d. Keep head of bed elevated to 30 degrees.

ANS: B

Sucking on hard candies decreases thirst for a patient on fluid restriction. Patients with SIADH are on fluid restrictions of 800 to 1000 mL/day. Peripheral edema is not seen with SIADH. The head of the bed is elevated no more than 10 degrees to increase left atrial filling pressure and decrease antidiuretic hormone (ADH) release.

30. A patient has just arrived on the unit after a thyroidectomy. Which action should the nurse take **first**?

- a. Observe the dressing for bleeding.
- b. Check the blood pressure and pulse.
- c. Assess the patients respiratory effort.
- d. Support the patients head with pillows.

ANS: C

Airway obstruction is a possible complication after thyroidectomy because of swelling or bleeding at the site or tetany. The priority nursing action is to assess the airway. The other actions are also part of the standard nursing care postthyroidectomy but are not as high of a priority.

Chapter 50. Assessment: Reproductive System

MULTIPLE CHOICE

1. Which question should the nurse ask when assessing a 60-year-old patient who has a history of benign prostatic hyperplasia (BPH)?

- a. Have you noticed any unusual discharge from your penis?
- b. Has there been any change in your sex life in the last year?
- c. Has there been a decrease in the force of your urinary stream?
- d. Have you been experiencing any difficulty in achieving an erection?

ANS: C

Enlargement of the prostate blocks the urethra, leading to urinary changes such as a decrease in the force of the urinary stream. The other questions address possible problems with infection or sexual difficulties, but they would not be helpful in determining whether there were functional changes caused by BPH.

2. After a 26-year-old patient has been treated for pelvic inflammatory disease, the nurse will plan to teach about

- a. use of hormone therapy (HT).
- b. irregularities in the menstrual cycle.
- c. changes in secondary sex characteristics.
- d. possible difficulty with becoming pregnant.

ANS: D

Pelvic inflammatory disease may cause scarring of the fallopian tubes and result in difficulty in fertilization or implantation of the fertilized egg. Because ovarian function is not affected, the patient will not require HT, have irregular menstrual cycles, or experience changes in secondary sex characteristics.

3. A 68-year-old male patient tells the nurse that he is worried because he does not respond to sexual stimulation the same way he did when he was younger. The nurses **best** response to the patients concern is which of the following?

- a. Interest in sex frequently decreases as men get older.
- b. Many men need additional sexual stimulation with aging.
- c. Erectile dysfunction is a common problem with older men.
- d. Tell me more about how your sexual response has changed.

ANS: D

The initial response by the nurse should be further assessment of the problem. The other statements by the nurse are accurate but may not respond to the patients concerns.

4. The nurse is providing teaching by telephone to a patient who is scheduled for a pelvic examination and Pap test next week. The nurse instructs the patient that she should

- a. shower, but not take a tub bath, before the examination.
- b. not have sexual intercourse the day before the Pap test.
- c. avoid douching for at least 24 hours before the examination.
- d. schedule to have the Pap test just after her menstrual period.

ANS: C

Because the results of a Pap test may be affected by douching, the patient should not douche before the examination. The exam may be scheduled without regard to the menstrual period. The patient may shower or bathe before the examination. Sexual intercourse does not affect the results of the examination or Pap test.

5. A 22-year-old patient reports her concern about not having a menstrual period for the past 7 months. Which statement by the patient indicates a possible related factor to the amenorrhea?

- a. I drink at least 3 glasses of nonfat milk every day.
- b. I run 7 to 8 miles every day to keep my weight down.
- c. I was treated for a sexually transmitted infection 2 years ago.
- d. I am not sexually active but currently I have an IUD.

ANS: B

Excessive exercise can cause amenorrhea. The other statements by the patient do not suggest any urgent teaching needs.

6. The nurse is assessing the sexual-reproductive functional health pattern of a 32-year-old woman. Which question is **most** useful in determining the patients sexual orientation and risk factors?

- a. Do you have sex with men, women, or both?
- b. Which gender do you prefer to have sex with?
- c. What types of sexual activities do you prefer?
- d. Are you heterosexual, homosexual, or bisexual?

ANS: A

This question is the most simply stated and will increase the likelihood of obtaining the relevant information about sexual orientation and possible risk factors associated with sexual activity. A patient who prefers sex with women may also have intercourse

at times with men. The types of sexual activities engaged in may not indicate sexual orientation. Many patients who have sex with both men and women do not identify themselves as homosexual or bisexual.

7. The nurse explains to a 37-year-old patient being prepared for colposcopy with a cervical biopsy that the procedure

- a. involves dilation of the cervix and biopsy of the tissue lining the uterus.
- b. will take place in a same-day surgery center so that local anesthesia can be used.
- c. requires that the patient have nothing to eat or drink for 6 hours before the procedure.
- d. is similar to a speculum examination of the cervix and should result in little discomfort.

ANS: D

Colposcopy involves visualization of the cervix with a binocular microscope and is similar to a speculum examination. Anesthesia is not required and fasting is not necessary. A cervical biopsy may cause a minimal amount of pain.

8. A couple is scheduled to have a Huhner test for infertility. In preparation for the test, the nurse will instruct the couple about

- a. being sedated during the procedure.
- b. determining the estimated time of ovulation.
- c. experiencing shoulder pain after the procedure.
- d. refraining from intercourse before the appointment.

ANS: B

For the Huhner test, the couple should have intercourse at the estimated time of ovulation and then arrive for the test 2 to 8 hours after intercourse. The other instructions would be used for other types of fertility testing.

9. A 44-year-old patient in the sexually transmitted infection clinic has a positive Venereal Disease Research Laboratory (VDRL) test, but no chancre is visible on assessment. The nurse will plan to send specimens for

- a. gram stain.
- b. cytologic studies.
- c. rapid plasma reagin (RPR) agglutination.
- d. fluorescent treponemal antibody absorption (FTA-Abs).

ANS: D

Because false positives are common with VDRL and RPR testing, FTA-Abs testing is recommended to confirm a diagnosis of syphilis. Gram staining is used for other sexually transmitted infections (STIs) such as gonorrhea and *Chlamydia* and cytologic studies are used to detect abnormal cells (such as neoplastic cells).

10. A 24-year-old female says she wants to begin using oral contraceptives. Which information from the nursing assessment is **most** important to report to the health care provider?

- a. The patient quit smoking 5 months previously.
- b. The patient's blood pressure is 154/86 mm Hg.
- c. The patient has not been vaccinated for rubella.
- d. The patient has chronic iron-deficiency anemia.

ANS: B

Because hypertension increases the risk for morbidity and mortality in women taking oral contraceptives, the patient's blood pressure should be controlled before oral contraceptives are prescribed. The other information also will be reported but will not affect the choice of contraceptive.

11. A 49-year-old man who has type 2 diabetes, high blood pressure, hyperlipidemia, and gastroesophageal reflux tells the nurse that he has had recent difficulty in achieving an erection. Which of the following drugs from his current medications list may cause erectile dysfunction (ED)?

- a. Ranitidine (Zantac)
- b. Atorvastatin (Lipitor)
- c. Propranolol (Inderal)
- d. Metformin (Glucophage)

ANS: C

Some antihypertensives may cause erectile dysfunction, and the nurse should anticipate a change in antihypertensive therapy. The other medications will not affect erectile function.

12. A 19-year-old patient calls the school clinic and tells the nurse, My menstrual period is very heavy this time. I have to change my tampon every 4 hours. Which action should the nurse take **next**?

- a. Tell the patient that her flow is not unusually heavy.
- b. Schedule the patient for an appointment later that day.
- c. Ask the patient how heavy her usual menstrual flow is.
- d. Have the patient call again if the heavy flow continues.

ANS: C

Because a heavy menstrual flow is usually indicated by saturating a pad or tampon in 1 to 2 hours, the nurse should first assess how heavy the patients usual flow is. There is no need to schedule the patient for an appointment that day. The patient may need to call again, but this is not the first action that the nurse should take. Telling the patient that she does not have a heavy flow implies that the patients concern is not important.

13. After scheduling a patient with a possible ovarian cyst for ultrasound, the nurse will teach the patient that she should

- a. expect to receive IV contrast during the procedure.
- b. drink several glasses of fluids before the procedure.
- c. experience mild abdominal cramps after the procedure.
- d. discontinue taking aspirin for 7 days before the procedure.

ANS: B

A full bladder is needed for many ultrasound procedures, so the nurse will have the patient drink fluids before arriving for the ultrasound. The other instructions are not accurate for this procedure.

14. The nurse will plan to teach a 51-year-old man who is scheduled for an annual physical exam about a(n)

- a. increased risk for testicular cancer.
- b. possible changes in erectile function.
- c. normal decreases in testosterone level.
- d. prostate specific antigen (PSA) testing.

ANS: D

PSA testing may be recommended annually for men, starting at age 50. There is no indication that the other patient teaching topics are appropriate for this patient.

15. An 18-year-old female patient who has been admitted to the emergency department after a motor vehicle crash is scheduled for chest and abdominal x-rays. Which information is **most** important to report to the health care provider before the x-rays are obtained?

- a. Severity of abdominal pain

- b. Positive result of hCG test
- c. Blood pressure 172/88 mm Hg
- d. Temperature 102.1 F (38.9 C)

ANS: B

Positive hCG testing indicates that the patient is pregnant and that unnecessary abdominal x-rays should be avoided. The other information is also important to report, but it will not affect whether the x-rays should be done.

16. The following patients call the outpatient clinic. Which phone call should the nurse return **first**?

- a. A 44-year-old patient who has bloody discharge after a hysteroscopy earlier today
- b. A 64-year-old patient who is experiencing shoulder pain after a laparoscopy yesterday
- c. A 34-year-old patient who is short of breath after pelvic computed tomography (CT) with contrast
- d. A 54-year-old patient who has severe breast tenderness following a needle aspiration breast biopsy

ANS: C

The patient's dyspnea suggests a delayed reaction to the iodine dye used for the CT scan. The other patient's symptoms are not unusual after the procedures they had done.

17. A woman calls the clinic because she is having an unusually heavy menstrual flow. She tells the nurse that she has saturated three tampons in the past 2 hours. The nurse estimates that the amount of blood loss over the past 2 hours is _____ mL.

- a. 20 to 30
- b. 30 to 40
- c. 40 to 60

- d. 60 to 90

ANS: D

The average tampon absorbs 20 to 30 mL.

18. Which finding from the nurses physical assessment of a 42-year-old male patient should be reported to the health care provider?

- a. One testis hangs lower than the other.
- b. Genital hair distribution is diamond shaped.
- c. Clear discharge is present at the penile meatus.
- d. Inguinal lymph nodes are nonpalpable bilaterally.

ANS: C

Clear penile discharge may be indicative of a sexually transmitted infection (STI). The other findings are normal and do not need to be reported.

19. Which information shown in the accompanying figure and obtained by the nurse about a 72-year-old man who is complaining of erectile dysfunction is **most** important to communicate to the health care provider?

- a. Recent knee surgery
- b. Low position of left testis
- c. Pulse and blood pressure level
- d. Use of antihypertensive drugs

ANS: D

Many medications used for hypertension can cause erectile dysfunction. More information is needed regarding the specific medications. The other assessment data will not impact erectile function (recent knee surgery) or are normal for a 70-year-old man (physical exam data and vital signs).

MULTIPLE CHOICE

1. The nurse teaching a young women's community service group about breast self-examination (BSE) will include that

- a. BSE will reduce the risk of dying from breast cancer.
- b. BSE should be done daily while taking a bath or shower.
- c. annual mammograms should be scheduled in addition to BSE.
- d. performing BSE after the menstrual period is more comfortable.

ANS: D

Performing BSE at the end of the menstrual period will reduce the breast tenderness associated with the procedure. The evidence is not clear that BSE reduces mortality from breast cancer. BSE should be done monthly. Annual mammograms are not routinely scheduled for women under age 40, and newer guidelines suggest delaying them until age 50.

2. During a well woman physical exam, a 43-year-old patient asks about her risk for breast cancer. Which question is **most** pertinent for the nurse to ask?

- a. Do you currently smoke tobacco?
- b. Have you ever had a breast injury?
- c. At what age did you start having menstrual periods?
- d. Is there a family history of fibrocystic breast changes?

ANS: C

Early menarche and late menopause are risk factors for breast cancer because of the prolonged exposure to estrogen that occurs. Cigarette smoking, breast trauma, and fibrocystic breast changes are not associated with increased breast cancer risk.

3. A 51-year-old patient with a small immobile breast lump is considering having a fine-needle aspiration (FNA) biopsy. The nurse explains that an advantage to this procedure is that

- a. FNA is done in the outpatient clinic and results are available in 1 to 2 days.
- b. only a small incision is needed, resulting in minimal breast pain and scarring.
- c. if the biopsy results are negative, no further diagnostic testing will be needed.
- d. FNA is guided by a mammogram, ensuring that cells are taken from the lesion.

ANS: A

FNA is done in outpatient settings and results are available in 24 to 48 hours. No incision is needed. FNA may be guided by ultrasound, but not by mammogram. Because the immobility of the breast lump suggests cancer, further testing will be done if the FNA is negative.

4. Which assessment finding in a 36-year-old patient is **most** indicative of a need for further evaluation?

- a. Bilateral breast nodules that are tender with palpation
- b. A breast nodule that is 1 cm in size, nontender, and fixed
- c. A breast lump that increases in size before the menstrual period
- d. A breast lump that is small, mobile, with a rubbery consistency

ANS: B

Painless and fixed lumps suggest breast cancer. The other findings are more suggestive of benign processes such as fibrocystic breasts and fibroadenoma.

5. A 53-year-old woman at menopause is discussing the use of hormone therapy (HT) with the nurse. Which information about the risk of breast cancer will the nurse provide?

- a. HT is a safe therapy for menopausal symptoms if there is no family history of *BRCA* genes.
- b. HT does not appear to increase the risk for breast cancer unless there are other risk factors.
- c. The patient and her health care provider must weigh the benefits of HT against the risks of breast cancer.
- d. Natural herbs are as effective as estrogen in relieving symptoms without increasing the risk of breast cancer.

ANS: C

Because HT has been linked to increased risk for breast cancer, the patient and provider must determine whether or not to use HT. Breast cancer incidence is increased in women using HT, independent of other risk factors. HT increases the risk for both non*BRCA*-associated cancer and *BRCA*-related cancers. Alternative therapies can be used but are not consistent in relieving menopausal symptoms.

6. A 58-year-old woman tells the nurse, I understand that I have stage II breast cancer and I need to decide on a surgery, but I feel overwhelmed. What do you think I should do? Which response by the nurse is **best**?

- a. I would have a lumpectomy, but you need to decide what is best for you.
- b. Tell me what you understand about the surgical options that are available.
- c. It would not be appropriate for me to make a decision about your health.
- d. There is no need to make a decision rapidly; you have time to think about this.

ANS: B

Inquiring about the patients understanding shows the nurses willingness to assist the patient with the decision-making process without imposing the nurses values or opinions. Treatment decisions for breast cancer do need to be made relatively quickly. Imposing the nurses opinions or showing an unwillingness to discuss the topic could cut off communication.

7. The nurse will teach a patient with metastatic breast cancer who has a new prescription for trastuzumab (Herceptin) that

- a. hot flashes may occur with the medication.
- b. serum electrolyte levels will be drawn monthly.
- c. the patient will need frequent eye examinations.
- d. the patient should call if she notices ankle swelling.

ANS: D

Trastuzumab can lead to ventricular dysfunction, so the patient is taught to self-monitor for symptoms of heart failure. There is no need to monitor serum electrolyte levels. Hot flashes or changes in visual acuity may occur with tamoxifen, but not with trastuzumab.

8. After a 48-year-old patient has had a modified radical mastectomy, the pathology report identifies the tumor as an estrogen-receptor positive adenocarcinoma. The nurse will plan to teach the patient about

- a. estradiol (Estrace).
- b. raloxifene (Evista).
- c. tamoxifen (Nolvadex).
- d. trastuzumab (Herceptin).

ANS: C

Tamoxifen is used for estrogen-dependent breast tumors in premenopausal women. Raloxifene is used to prevent breast cancer, but it is not used postmastectomy to treat breast cancer. Estradiol will increase the growth of estrogen-dependent tumors. Trastuzumab is used to treat tumors that have the HER-2 receptor.

9. Which nursing action should be included in the plan of care for a patient returning to the surgical unit following a left modified radical mastectomy with dissection of axillary lymph nodes?

- a. Obtain a permanent breast prosthesis before the patient is discharged from the hospital.
- b. Teach the patient to use the ordered patient-controlled analgesia (PCA) every 10 minutes.
- c. Post a sign at the bedside warning against venipunctures or blood pressures in the left arm.
- d. Insist that the patient examine the surgical incision when the initial dressings are removed.

ANS: C

The patient is at risk for lymphedema and infection if blood pressures or venipuncture are done on the right arm. The patient is taught to use the PCA as needed for pain control rather than at a set time. The nurse allows the patient to examine the incision and participate in care when the patient feels ready. Permanent breast prostheses are usually obtained about 6 weeks after surgery.

10. The nurse provides discharge teaching for a 61-year-old patient who has had a left modified radical mastectomy and lymph node dissection. Which statement by the patient indicates that teaching has been successful?

- a. I will need to use my right arm and to rest the left one.
- b. I will avoid reaching over the stove with my left hand.
- c. I will keep my left arm in a sling until the incision is healed.
- d. I will stop the left arm exercises if moving the arm is painful.

ANS: B

The patient should avoid any activity that might injure the left arm, such as reaching over a burner. If the left arm exercises are painful, analgesics should be used and the exercises continued in order to restore strength and range of motion. The left arm should be elevated at or above heart level and should be used to improve range of motion and function.

11. A 33-year-old patient has a saline breast implant inserted in the outpatient surgery area. Which instruction will the nurse include in the discharge teaching?

- a. Take aspirin every 4 hours to reduce inflammation.
- b. Check wound drains for excessive blood or a foul odor.
- c. Wear a loose-fitting bra to decrease irritation of the sutures.
- d. Resume normal activities 2 to 3 days after the mammoplasty.

ANS: B

The patient should be taught drain care because the drains will be in place for 2 or 3 days after surgery. Normal activities can be resumed after 2 to 3 weeks. A bra that provides good support is typically ordered. Aspirin will decrease coagulation and is typically not given after surgery.

12. The nurse is providing preoperative teaching about the transverse rectus abdominis musculocutaneous (TRAM) procedure to a patient. Which information will the nurse include?

- a. Saline-filled implants are placed under the pectoral muscles.
- b. Recovery from the TRAM surgery takes at least 6 to 8 weeks.
- c. Muscle tissue removed from the back is used to form a breast.
- d. TRAM flap procedures may be done in outpatient surgery centers.

ANS: B

Patients take at least 6 to 8 weeks to recover from the TRAM surgery. Tissue from the abdomen is used to reconstruct the breast. The TRAM procedure can take up to 8 hours and requires postoperative hospitalization. Saline implants are used in mammoplasty.

13. A patient newly diagnosed with stage I breast cancer is discussing treatment options with the nurse. Which statement by the patient indicates that additional teaching may be needed?

- a. There are several options that I can consider for treating the cancer.
- b. I will probably need radiation to the breast after having the surgery.
- c. Mastectomy is the best choice to decrease the chance of cancer recurrence.
- d. I can probably have reconstructive surgery at the same time as a mastectomy.

ANS: C

The survival rates with lumpectomy and radiation or modified radical mastectomy are comparable. The other patient statements indicate a good understanding of stage I breast cancer treatment.

14. Which information will the nurse include in patient teaching for a 36-year-old patient who is scheduled for stereotactic core biopsy of the breast?

- a. A local anesthetic will be given before the biopsy specimen is obtained.
- b. You will need to lie flat on your back and lie very still during the biopsy.
- c. A thin needle will be inserted into the lump and aspirated to remove tissue.
- d. You should not have anything to eat or drink for 6 hours before the procedure.

ANS: A

A local anesthetic is given before stereotactic biopsy. NPO status is not needed because no sedative drugs are given. The patient is placed in the prone position. A biopsy gun is used to obtain the specimens.

15. A student nurse prepares a list of teaching topics for a patient with a new diagnosis of breast cancer. Which item should the charge nurse suggest that the student nurse omit from the teaching topic list about breast cancer diagnostic testing?

- a. CA 15-3 level testing
- b. HER-2 receptor testing
- c. Estrogen receptor testing
- d. Oncotype DX assay testing

ANS: A

Tumor markers such as CA 15-3 are used to monitor response to treatment for breast cancer, not to detect or diagnose breast cancer. The other tests are likely to be used for additional diagnostic testing in a patient with breast cancer.

16. The nurse will anticipate teaching a 56-year-old patient who is diagnosed with lobular carcinoma in situ (LCIS) about

- a. lumpectomy.
- b. lymphatic mapping.
- c. MammaPrint testing.
- d. tamoxifen (Nolvadex).

ANS: D

Tamoxifen is used as a chemopreventive therapy in some patients with LCIS. The other diagnostic tests and therapies are not needed because LCIS does not usually require treatment.

17. Which information should the nurse include in teaching a patient who is scheduled for external beam radiation to the breast?

- a. The radiation therapy will take a week to complete.
- b. Careful skin care in the radiated area will be necessary.
- c. Visitors are restricted until the radiation therapy is completed.
- d. Wigs may be used until the hair regrows after radiation therapy.

ANS: B

Skin care will be needed because of the damage caused to the skin by the radiation. External beam radiation is done over a 5- to 6-week period. Scalp hair loss does not occur with breast radiation therapy. Because the patient does not have radioactive implants, no visitor restrictions are necessary.

18. Which patient statement indicates that the nurses teaching about tamoxifen (Nolvadex) has been effective?

- a. I can expect to have leg cramps.
- b. I will call if I have any eye problems.
- c. I should contact you if I have hot flashes.
- d. I will be taking the medication for 6 to 12 months.

ANS: B

Retinopathy, cataracts, and decreased visual acuity should be immediately reported because it is likely that the tamoxifen will be discontinued or decreased. Tamoxifen treatment generally lasts 5 years. Hot flashes are an expected side effect of tamoxifen. Leg cramps may be a sign of deep vein thrombosis, and the patient should immediately notify the health care provider if pain occurs.

19. The nurse is admitting a patient scheduled this morning for lumpectomy and axillary lymph node dissection. Which action should the nurse take **first**?

- a. Teach the patient how to deep breathe and cough.
- b. Discuss options for postoperative pain management.
- c. Explain the postdischarge care of the axillary drains.
- d. Ask the patient to describe what she knows about the surgery.

ANS: D

Before teaching, the nurse should assess the patient's current knowledge level. The other teaching also may be appropriate, depending on the assessment findings.

20. When the nurse is working in the women's health care clinic, which action is appropriate to take?

- a. Teach a healthy 30-year-old about the need for an annual mammogram.
- b. Discuss scheduling an annual clinical breast examination with a 22-year-old.
- c. Explain to a 60-year-old that mammography frequency can be reduced to every 3 years.
- d. Teach a 28-year-old with a *BRCA-1* mutation about magnetic resonance imaging (MRI).

ANS: D

MRI (in addition to mammography) is recommended for women who are at high risk for breast cancer. A young woman should have a clinical breast exam every 3 years. Annual mammograms are recommended for women over 50.

21. Which action will the nurse include in the plan of care for a patient with right arm lymphedema?

- a. Check blood pressure (BP) on both right and left arms.
- b. Avoid isometric exercise on the right arm.
- c. Assist with application of a compression sleeve.

- d. Keep the right arm at or below the level of the heart.

ANS: C

Compression of the arm assists in improving lymphatic flow toward the heart. Isometric exercises may be prescribed for lymphedema. BPs should only be done on the patient's right arm. The arm should not be placed in a dependent position.

22. A 36-year-old who has a diagnosis of fibrocystic breast changes calls the nurse in the clinic with symptoms. Which is **most** important to report to the health care provider?

- a. There is yellow-green discharge from the patient's right nipple.
- b. There is an area on the breast that is hot, pink, and tender to touch.
- c. The lumps are firm and most are in the upper outer breast quadrants.
- d. The lumps are larger and painful before the patient's menstrual period.

ANS: B

An area that is hot or pink suggests an infectious process such as mastitis, which would require further assessment and treatment. The other information also will be reported, but these findings are typical in fibrocystic breasts.

23. The nurse notes bilateral enlargement of the breasts during examination of a 62-year-old man. Which action should the nurse take **first**?

- a. Teach the patient how to palpate the breast tissue for lumps.
- b. Question the patient about medications being currently used.
- c. Refer the patient for mammography and biopsy of the breast tissue.
- d. Explain that this is a temporary condition due to hormonal changes.

ANS: B

The first action should be further assessment. Because gynecomastia is a possible side effect of drug therapy, asking about the current drug regimen is appropriate. The other actions may be needed, depending on the data that are obtained with further assessment.

24. A patient has had left-sided lumpectomy (breast-conservation surgery) and an axillary lymph node dissection. Which nursing intervention is appropriate to delegate to a licensed practical/vocational nurse (LPN/LVN)?

- a. Teaching the patient how to avoid injury to the left arm
- b. Assessing the patients range of motion for the left arm
- c. Evaluating the patients understanding of instructions about drain care
- d. Administering an analgesic 30 minutes before scheduled arm exercises

ANS: D

LPN/LVN education and scope of practice include administration and evaluation of the effects of analgesics. Assessment, teaching, and evaluation of a patients understanding of instructions are more complex tasks that are more appropriate to RN level education and scope of practice.

25. The nurse is caring for a 52-year-old patient with breast cancer who is receiving chemotherapy with doxorubicin (Adriamycin) and cyclophosphamide (Cytosan). Which assessment finding is **most** important to communicate to the health care provider?

- a. The patient complains of fatigue.
- b. The patient eats only 25% of meals.
- c. The patients apical pulse is irregular.
- d. The patients white blood cell (WBC) count is 5000/L.

ANS: C

Doxorubicin can cause cardiac toxicity. The dysrhythmia should be reported because it may indicate a need for a change in therapy. Anorexia, fatigue, and a low-normal WBC count are expected effects of chemotherapy.

26. A patient who is scheduled for a lumpectomy and axillary lymph node dissection tells the nurse, I would rather not know much about the surgery. Which response by the nurse is **best**?

- a. Tell me what you think is important to know about the surgery.
- b. It is essential that you know enough to provide informed consent.
- c. Many patients do better after surgery if they have more information.
- d. You can wait until after surgery for teaching about pain management.

ANS: A

This response shows sensitivity to the individual patients need for information about the surgery. The other responses are also accurate, but the nurse should tailor patient teaching to individual patient preferences.

Chapter 52. Management: Sexually Transmitted Infections

MULTIPLE CHOICE

1. A 32-year-old man who has a profuse, purulent urethral discharge with painful urination is seen at the clinic. Which information will be **most** important for the nurse to obtain?

- a. Contraceptive use
- b. Sexual orientation
- c. Immunization history
- d. Recent sexual contacts

ANS: D

Information about sexual contacts is needed to help establish whether the patient has been exposed to a sexually transmitted infection (STI) and because sexual contacts also will need treatment. The other information also may be gathered but is not as important in determining the plan of care for the patient's current symptoms.

2. A 20-year-old woman who is being seen in the family medicine clinic for an annual physical exam reports being sexually active. The nurse will plan to teach the patient about

- a. testing for *Chlamydia* infection.
- b. immunization for herpes simplex.
- c. infertility associated with the human papillomavirus (HPV).
- d. the relationship between the herpes virus and cervical cancer.

ANS: A

Testing for *Chlamydia* is recommended for all sexually active females under age 25 by the Centers for Disease Control and Prevention. HPV infection does not cause infertility. There is no vaccine available for herpes simplex, and herpes simplex infection does not cause cervical cancer.

3. A 22-year-old patient with gonorrhea is treated with a single IM dose of ceftriaxone (Rocephin) and is given a prescription for doxycycline (Vibramycin) 100 mg bid for 7 days. The nurse explains to the patient that this combination of antibiotics is prescribed to

- a. prevent reinfection during treatment.
- b. treat any coexisting chlamydial infection.
- c. eradicate resistant strains of *N. gonorrhoeae*.
- d. prevent the development of resistant organisms.

ANS: B

Because there is a high incidence of co-infection with gonorrhea and chlamydia, patients are usually treated for both. The other explanations about the purpose of the antibiotic combination are not accurate.

4. A 46-year-old man who has had blood drawn for an insurance screening has a positive Venereal Disease Research Laboratory (VDRL) test. Which action should the nurse take **next**?

- a. Ask the patient about past treatment for syphilis.
- b. Explain the need for blood and spinal fluid cultures.
- c. Obtain a specimen for fluorescent treponemal antibody absorption (FAT-Abs) testing.
- d. Assess for the presence of chancres, flulike symptoms, or a bilateral rash on the trunk.

ANS: A

Once antibody testing is positive for syphilis, the antibodies remain present for an indefinite period of time even after successful treatment, so the nurse should inquire about previous treatment before doing other assessments or testing. Culture, FAT-Abs testing, and assessment for symptoms may be appropriate, based on whether the patient has been previously treated for syphilis.

5. A 48-year-old male patient who has been diagnosed with gonococcal urethritis tells the nurse he had recent sexual contact with a woman but says she did not appear to have any disease. In responding to the patient, the nurse explains that

- a. women do not develop gonorrhea infections but can serve as carriers to spread the disease to males.
- b. women may not be aware they have gonorrhea because they often do not have symptoms of infection.
- c. women develop subclinical cases of gonorrhea that do not cause tissue damage or clinical manifestations.

- d. when gonorrhea infections occur in women, the disease affects only the ovaries and not the genital organs.

ANS: B

Many women with gonorrhea are asymptomatic or have minor symptoms that are overlooked. The disease may affect both the genitals and the other reproductive organs and cause complications such as pelvic inflammatory disease (PID). Women who can transmit the disease have active infections.

6. A patient admitted with chest pain is also found to have positive Venereal Disease Research Laboratory (VDRL) and fluorescent treponemal antibody absorption (FAT-Abs) tests, rashes on the palms and the soles of the feet, and moist papules in the anal and vulvar area. Which action will the nurse include in the plan of care?

- a. Assess for arterial aneurysms.
- b. Wear gloves for patient contact.
- c. Place the patient in a private room.
- d. Apply antibiotic ointment to the perineum.

ANS: B

Exudate from any lesions with syphilis is highly contagious. Systemic antibiotics, rather than local treatment of lesions, are used to treat syphilis. The patient does not require a private room because the disease is spread through contact with the lesions. This patient has clinical manifestations of secondary syphilis and does not need to be monitored for manifestations of tertiary syphilis.

7. Which statement by a 24-year-old patient indicates that the nurses teaching about management of primary genital herpes has been effective?

- a. I will use acyclovir ointment on the area to relieve the pain.
- b. I will use condoms for intercourse until the medication is all gone.
- c. I will take the acyclovir (Zovirax) every 8 hours for the next week.

- d. I will need to take all of the medication to be sure the infection is cured.

ANS: C

The treatment regimen for primary genital herpes infections includes acyclovir 400 mg 3 times daily for 7 to 10 days. The patient is taught to abstain from intercourse until the lesions are gone. (Condoms should be used even when the patient is asymptomatic.) Acyclovir ointment is not effective in treating lesions or reducing pain. Herpes infection is chronic and recurrent.

8. Which infection, reported in the health history of a woman who is having difficulty conceiving, will the nurse identify as a risk factor for infertility?

- a. *N. gonorrhoeae*
- b. *Treponema pallidum*
- c. Condyloma acuminatum
- d. Herpes simplex virus type 2

ANS: A

Complications of gonorrhea include scarring of the fallopian tubes, which can lead to tubal pregnancies and infertility. Syphilis, genital warts, and genital herpes do not lead to problems with conceiving, although transmission to the fetus (syphilis) or newborn (genital warts or genital herpes) is a concern.

9. A woman is diagnosed with primary syphilis during her eighth week of pregnancy. The nurse will plan to teach the patient about the

- a. likelihood of a stillbirth.
- b. plans for cesarean section
- c. intramuscular injection of penicillin.
- d. antibiotic eye drops for the newborn.

ANS: C

A single injection of penicillin is recommended to treat primary syphilis. This will treat the mother and prevent transmission of the disease to the fetus. Instillation of erythromycin into the eyes of the newborn is used to prevent gonorrheal eye infections. C-section is used to prevent the transmission of herpes to the newborn. Although stillbirth can occur if the fetus is infected with syphilis, treatment before the tenth week of gestation will eliminate in utero transmission to the fetus.

10. A 19-year-old patient has genital warts around her external genitalia and perianal area. She tells the nurse that she has not sought treatment until now because the warts are so disgusting. Which nursing diagnosis is **most** appropriate?

- a. Disturbed body image related to feelings about the genital warts
- b. Ineffective coping related to denial of increased risk for infection
- c. Risk for infection related to lack of knowledge about transmission
- d. Anxiety related to impact of condition on interpersonal relationships

ANS: A

The patient's statement that her lesions are disgusting suggests that disturbed body image is the major concern. There is no evidence to indicate ineffective coping or lack of knowledge about mode of transmission. The patient may be experiencing anxiety, but there is nothing in the data indicating that the genital warts are impacting interpersonal relationships.

11. When a 31-year-old male patient returns to the clinic for follow-up after treatment for gonococcal urethritis, a purulent urethral discharge is still present. When trying to determine the reason for the recurrent infection, which question is **most** appropriate for the nurse to ask the patient?

- a. Did you take the prescribed antibiotic for a week?
- b. Did you drink at least 2 quarts of fluids every day?

- c. Were your sexual partners treated with antibiotics?
- d. Do you wash your hands after using the bathroom?

ANS: C

A common reason for recurrence of symptoms is reinfection because infected partners have not been simultaneously treated. Because gonorrhea is treated with one dose of antibiotic, antibiotic therapy for a week is not needed. An adequate fluid intake is important, but a low fluid intake is not a likely cause for failed treatment. Poor hygiene may cause complications such as ocular trachoma but will not cause a failure of treatment.

12. A 29-year-old female patient is diagnosed with *Chlamydia* during a routine pelvic examination. The nurse knows that teaching regarding the management of the condition has been effective when the patient says which of the following?

- a. My partner will need to take antibiotics at the same time I do.
- b. Go ahead and give me the antibiotic injection, so I will be cured.
- c. I will use condoms during sex until I finish taking all the antibiotics.
- d. I do not plan on having children, so treating the infection is not important.

ANS: A

Sex partners should be treated simultaneously to prevent reinfection. *Chlamydia* is treated with oral antibiotics. Abstinence from sexual intercourse is recommended for 7 days after treatment, and condoms should be recommended during all sexual contacts to prevent infection. Chronic pelvic pain, as well as infertility, can result from untreated *Chlamydia*.

13. A 55-year-old woman in the sexually transmitted infection (STI) clinic tells the nurse that she is concerned she may have been exposed to gonorrhea by her partner. To determine whether the patient has gonorrhea, the nurse will plan to

- a. interview the patient about symptoms of gonorrhea.
- b. take a sample of cervical discharge for Gram staining.
- c. draw a blood specimen or rapid plasma reagin (RPR) testing.
- d. obtain secretions for a nucleic acid amplification test (NAAT).

ANS: D

NAAT has a high sensitivity (similar to a culture) for gonorrhea. Because women have few symptoms of gonorrhea, asking the patient about symptoms may not be helpful in making a diagnosis. Smears and Gram staining are not useful because the female genitourinary tract has many normal flora that resemble *N. gonorrhoeae*. RPR testing is used to detect syphilis.

14. A 32-year-old woman who is diagnosed with *Chlamydia* tells the nurse that she is very angry because her husband is her only sexual partner. Which response should the nurse make **first**?

- a. You may need professional counseling to help resolve your anger.
- b. It is understandable that you are angry with your husband right now.
- c. Your feelings are justified and you should share them with your husband.
- d. It is important that both you and your husband be treated for the infection.

ANS: B

This response expresses the nurses acceptance of the patients feelings and encourages further discussion and problem solving. The patient may need professional counseling, but more assessment of the patient is needed before making this judgment. The nurse should also assess further before suggesting that the patient share her feelings with the husband because problems such as abuse might be present in the relationship. Although it is important that both partners be treated, the patients current anger suggests that this is not the appropriate time to bring this up.

15. Which patient will the nurse plan on teaching about the Gardasil vaccine?

- a. A 24-year-old female who has not been sexually active
- b. A 34-year-old woman who has multiple sexual partners
- c. A 19-year-old woman who is pregnant for the first time
- d. A 29-year-old woman who is in a monogamous relationship

ANS: A

Gardasil is recommended for females ages 9 through 26, preferably those who have never been sexually active. It is not recommended for women during pregnancy or for older women.

16. After the nurse has taught a patient with a newly diagnosed sexually transmitted infection about expedited partner therapy, which patient statement indicates that the teaching has been effective?

- a. I will tell my partner that it is important to be examined at the clinic.
- b. I will have my partner take the antibiotics if any STI symptoms occur.
- c. I will make sure that my partner takes all of the prescribed medication.
- d. I will have my partner use a condom until I have finished the antibiotics.

ANS: C

With expedited partner therapy, the patient is given a prescription or medications for the partner. The partner does not need to be evaluated by the health care provider, but is presumed to be infected and should be treated concurrently with the patient. Use of a condom will not treat the presumed STI in the partner.

MULTIPLE RESPONSE

1. A 39-year-old patient with a history of IV drug use is seen at a community clinic. The patient reports difficulty walking, stating I don't know where my feet are. Diagnostic screening reveals positive Venereal Disease Research Laboratory (VDRL)

and fluorescent treponemal antibody absorption (FTA-Abs) tests. Based on the patient history, what will the nurse assess (*select all that apply*)?

- a. Heart sounds
- b. Genitalia for lesions
- c. Joints for swelling and inflammation
- d. Mental state for judgment and orientation
- e. Skin and mucous membranes for gummas

ANS: A, D, E

The patient's clinical manifestations and laboratory tests are consistent with tertiary syphilis. Valvular insufficiency, gummas, and changes in mentation are other clinical manifestations of this stage.

2. Which topics will the nurse include when preparing to teach a patient with recurrent genital herpes simplex (*select all that apply*)?

- a. Infected areas should be kept moist to speed healing.
- b. Sitz baths may be used to relieve discomfort caused by the lesions.
- c. Genital herpes can be cured by consistent use of antiviral medications.
- d. Recurrent genital herpes episodes usually are shorter than the first episode.
- e. The virus can infect sexual partners even when you do not have symptoms of infection.

ANS: B, D, E

Patients are taught that shedding of the virus and infection of sexual partners can occur even in asymptomatic periods, that recurrent episodes resolve more quickly, and that sitz baths can be used to relieve pain caused by the lesions. Antiviral medications decrease the number of outbreaks, but do not cure herpes simplex infections. Infected areas may be kept dry if this decreases pain and itching.

3. The nurse in the outpatient clinic notes that the following patients have not received the human papillomavirus (HPV) vaccine. Which patients should the nurse plan to teach about benefits of the vaccine (*select all that apply*)?

- a. 24-year-old man who has a history of genital warts
- b. 18-year-old man who has had one male sexual partner
- c. 28-year-old woman who has never been sexually active
- d. 20-year-old woman who has a newly diagnosed *Chlamydia* infection
- e. 30-year-old woman whose sexual partner has a history of genital warts

ANS: A, B, D

The HPV vaccines are recommended for male and female patients between ages 9 through 26. Ideally, the vaccines are administered before patients are sexually active, but they offer benefit even to those who already have HPV infection.

Chapter 53. Management: Female Reproductive Problems

MULTIPLE CHOICE

1. A 34-year-old woman who is discussing contraceptive options with the nurse says, I want to have children, but not for a few years. Which response by the nurse is appropriate?

- a. If you do not become pregnant within the next few years, you never will.
- b. You may have more difficulty becoming pregnant after about age 35.
- c. You have many years of fertility left, so there is no rush to have children.
- d. You should plan to stop taking oral contraceptives several years before you want to become pregnant.

ANS: B

The probability of successfully becoming pregnant decreases after age 35, although some patients may have no difficulty in becoming pregnant. Oral contraceptives do not need to be withdrawn for several years for a woman to become pregnant.

Although the patient may be fertile for many years, it would be inaccurate to indicate that there is no concern about fertility as she becomes older. Although the risk for infertility increases after age 35, not all patients have difficulty in conceiving.

2. The nurse in the infertility clinic is explaining in vitro fertilization (IVF) to a couple. The woman tells the nurse that they cannot afford IVF on her husband's salary. The man replies that if his wife worked outside the home, they would have enough money. Which nursing diagnosis is appropriate?

- a. Decisional conflict related to inadequate financial resources
- b. Ineffective sexuality patterns related to psychological stress
- c. Defensive coping related to anxiety about lack of conception
- d. Ineffective denial related to frustration about continued infertility

ANS: C

The statements made by the couple are consistent with the diagnosis of defensive coping. No data indicate that ineffective sexuality and ineffective denial are problems. Although the couple is quarreling about finances, the data do not provide information indicating that the finances are inadequate.

3. A 29-year-old patient who is trying to become pregnant asks the nurse how to determine when she is most likely to conceive. The nurse explains that

- a. ovulation is unpredictable unless there are regular menstrual periods.
- b. ovulation prediction kits provide accurate information about ovulation.
- c. she will need to bring a specimen of cervical mucus to the clinic for testing.
- d. she should take her body temperature daily and have intercourse when it drops.

ANS: B

Ovulation prediction kits indicate when luteinizing hormone (LH) levels first rise. Ovulation occurs about 28 to 36 hours after the first rise of LH. This information can be used to determine the best time for intercourse. Body temperature rises at ovulation. Postcoital cervical smears are used in infertility testing, but they do not predict the best time for conceiving and are not obtained by the patient. Determination of the time of ovulation can be predicted by basal body temperature charts or ovulation prediction kits and is not dependent on regular menstrual periods.

4. A 25-year-old woman has an induced abortion with suction curettage at an ambulatory surgical center. Which instructions will the nurse include when discharging the patient?

- a. Heavy vaginal bleeding is expected for about 2 weeks.
- b. You should abstain from sexual intercourse for 2 weeks.
- c. Contraceptives should be avoided until your reexamination.
- d. Irregular menstrual periods are expected for the next few months.

ANS: B

Because infection is a possible complication of this procedure, the patient is advised to avoid intercourse until the reexamination in 2 weeks. Patients may be started on contraceptives on the day of the procedure. The patient should call the doctor if heavy vaginal bleeding occurs. No change in the regularity of the menstrual periods is expected.

5. A 32-year-old woman is scheduled for an induced abortion using instillation of hypertonic saline solution. Which information will the nurse plan to discuss with the patient before the procedure?

- a. The patient will require a general anesthetic.
- b. The expulsion of the fetus may take 1 to 2 days.

- c. There is a possibility that the patient may deliver a live fetus.
- d. The procedure may be unsuccessful in terminating the pregnancy.

ANS: B

Uterine contractions take 12 to 36 hours to begin after the hypertonic saline is instilled. Because the saline is fetocidal, the nurse does not need to discuss any possibility of a live delivery or that the pregnancy termination will not be successful. General anesthesia is not needed for this procedure.

6. A 28-year-old patient reports anxiety, headaches with dizziness, and abdominal bloating occurring before her menstrual periods. Which action is **best** for the nurse to take at this time?

- a. Ask the patient to keep track of her symptoms in a diary for 3 months.
- b. Suggest that the patient try aerobic exercise to decrease her symptoms.
- c. Teach the patient about appropriate lifestyle changes to reduce premenstrual syndrome (PMS) symptoms.
- d. Advise the patient to use nonsteroidal antiinflammatory drugs (NSAIDs) such as ibuprofen (Advil) to control symptoms.

ANS: A

The patient's symptoms indicate possible PMS, but they also may be associated with other diagnoses. Having the patient keep a symptom diary for 2 or 3 months will help in confirming a diagnosis of PMS. The nurse should not implement interventions for PMS until a diagnosis is made.

7. A 19-year-old has been diagnosed with primary dysmenorrhea. How will the nurse suggest that the patient prevent discomfort?

- a. Avoid aerobic exercise during her menstrual period.
- b. Use cold packs on the abdomen and back for pain relief.

- c. Talk with her health care provider about beginning antidepressant therapy.
- d. Take nonsteroidal antiinflammatory drugs (NSAIDs) when her period starts.

ANS: D

NSAIDs should be started as soon as the menstrual period begins and taken at regular intervals during the usual time frame in which pain occurs. Aerobic exercise may help reduce symptoms. Heat therapy, such as warm packs, is recommended for relief of pain. Antidepressant therapy is not a typical treatment for dysmenorrhea.

8. A 32-year-old who was admitted to the emergency department with severe abdominal pain is diagnosed with an ectopic pregnancy. The patient begins to cry and asks the nurse to leave her alone to grieve. Which action should the nurse take **next**?

- a. Stay with the patient and encourage her to discuss her feelings.
- b. Explain the reason for taking vital signs every 15 to 30 minutes.
- c. Close the door to the patient's room and minimize disturbances.
- d. Provide teaching about options for termination of the pregnancy.

ANS: B

Because the patient is at risk for rupture of the fallopian tube and hemorrhage, frequent monitoring of vital signs is needed. The patient has asked to be left alone, so staying with her and encouraging her to discuss her feelings are inappropriate actions. Minimizing contact with her and closing the door of the room is unsafe because of the risk for hemorrhage. Because the patient has requested time to grieve, it would be inappropriate to provide teaching about options for pregnancy termination.

9. When caring for a 58-year-old patient with persistent menorrhagia, the nurse will plan to monitor the

- a. estrogen level.

- b. complete blood count (CBC).
- c. gonadotropin-releasing hormone (GNRH) level.
- d. serial human chorionic gonadotropin (hCG) results.

ANS: B

Because anemia is a likely complication of menorrhagia, the nurse will need to check the CBC. Estrogen and GNRH levels are checked for patients with other problems, such as infertility. Serial hCG levels are monitored in patients who may be pregnant, which is not likely for this patient.

10. A 47-year-old woman asks whether she is going into menopause if she has not had a menstrual period for 3 months. The best response by the nurse is which of the following?

- a. Have you thought about using hormone replacement therapy?
- b. Most women feel a little depressed about entering menopause.
- c. What was your menstrual pattern before your periods stopped?
- d. Since you are in your mid-40s, it is likely that you are menopausal.

ANS: C

The initial response by the nurse should be to assess the patient's baseline menstrual pattern. Although many women do enter menopause in the mid-40s, more information about this patient is needed before telling her that it is likely she is menopausal. Although hormone therapy (HT) may be prescribed, further assessment of the patient is needed before discussing therapies for menopause. Because the response to menopause is very individual, the nurse should not assume that the patient is experiencing any adverse emotional reactions.

11. A 49-year-old woman is considering the use of combined estrogen-progesterone hormone replacement therapy (HT) during menopause. Which information will the nurse include during their discussion?

- a. Use of estrogen-containing vaginal creams provides most of the same benefits as oral HT.
- b. Increased incidence of colon cancer in women taking HT requires more frequent colonoscopy.
- c. HT decreases osteoporosis risk and increases the risk for cardiovascular disease and breast cancer.
- d. Use of HT for up to 10 years to prevent symptoms such as hot flashes is generally considered safe.

ANS: C

Data from the Womens Health Initiative indicate an increased risk for cardiovascular disease and breast cancer in women taking combination HT but a decrease in hip fractures. Vaginal creams decrease symptoms related to vaginal atrophy and dryness, but they do not offer the other benefits of HT, such as decreased hot flashes. Most women who use HT are placed on short-term treatment and are not treated for up to 10 years. The incidence of colon cancer decreases in women taking HRT.

12. A female patient tells the nurse that she has been having nightmares and acute anxiety around men since being sexually assaulted 3 months ago. The most appropriate nursing diagnosis for the patient is

- a. anxiety related to effects of being raped.
- b. sleep deprivation related to frightening dreams.
- c. rape-trauma syndrome related to rape experience.
- d. ineffective coping related to inability to resolve incident.

ANS: C

The patients symptoms are most consistent with the nursing diagnosis of rape-trauma syndrome. The nursing diagnoses of sleep deprivation, ineffective coping, and anxiety address some aspects of the patients symptoms but do not address the problem as completely as the rape-trauma syndrome diagnosis.

13. Which statement by the patient indicates that the nurses teaching about treating vaginal candidiasis has been effective?

- a. I should clean carefully after each urination and bowel movement.
- b. I can douche with warm water if the itching continues to bother me.
- c. I will insert the antifungal cream right before I get up in the morning.
- d. I will tell my husband that we cannot have intercourse for the next month.

ANS: A

Cleaning of the perineal area will decrease itching caused by contact of the irritated tissues with urine and reduce the chance of further infection of irritated tissues by bacteria in the stool. Sexual intercourse should be avoided for 1 week. Douching will disrupt normal protective mechanisms in the vagina. The cream should be used at night so that it will remain in the vagina for longer periods of time.

14. A 25-year-old woman who is scheduled for a routine gynecologic examination tells the nurse that she has had intercourse during the last year with several men. The nurse will plan to teach about the reason for

- a. contraceptive use.
- b. antibiotic therapy.
- c. *Chlamydia* testing.
- d. pregnancy testing.

ANS: C

Chlamydia testing is recommended annually for women with multiple sex partners. There is no indication that the patient needs teaching about contraceptives, pregnancy testing, or antibiotic therapy.

15. The nurse is caring for a 20-year-old patient with pelvic inflammatory disease (PID) requiring hospitalization. Which nursing intervention will be included in the plan of care?

- a. Monitor liver function tests.
- b. Use cold packs PRN for pelvic pain.
- c. Elevate the head of the bed to at least 30 degrees.
- d. Teach the patient how to perform Kegel exercises.

ANS: C

The head of the bed should be elevated to at least 30 degrees to promote drainage of the pelvic cavity and prevent abscess formation higher in the abdomen. Although a possible complication of PID is acute perihepatitis, liver function tests will remain normal. There is no indication for increased fluid intake. Application of heat is used to reduce pain. Kegel exercises are not helpful in PID.

16. A 24-year-old patient with pelvic inflammatory disease (PID) is being treated with oral antibiotics as an outpatient. Which instruction will be included in patient teaching?

- a. Abdominal pain may persist for several weeks.
- b. Return for a follow-up appointment in 2 to 3 days.
- c. Instruct a male partner to use a condom during sexual intercourse for the next week.
- d. Nonsteroidal antiinflammatory drug (NSAID) use may prevent pelvic organ scarring

ANS: B

The patient is instructed to return for follow-up in 48 to 72 hours. The patient should abstain from intercourse for 3 weeks. Abdominal pain should subside with effective antibiotic therapy. Corticosteroids may help prevent inflammation and scarring, but NSAIDs will not decrease scarring.

17. A 32-year-old patient has oral contraceptives prescribed for endometriosis. The nurse will teach the patient to

- a. expect to experience side effects such as facial hair.
- b. take the medication every day for the next 9 months.
- c. take calcium supplements to prevent developing osteoporosis during therapy.
- d. use a second method of contraception to ensure that she will not become pregnant.

ANS: B

When oral contraceptives are prescribed to treat endometriosis, the patient should take the medications continuously for 9 months. Facial hair is a side effect of synthetic androgens. The patient does not need to use additional contraceptive methods. The hormones in oral contraceptives will protect against osteoporosis.

18. A 28-year-old patient with endometriosis asks why she is being treated with medroxyprogesterone (Depo-Provera), a medication that she thought was an oral contraceptive. The nurse explains that this therapy

- a. suppresses the menstrual cycle by mimicking pregnancy.
- b. will relieve symptoms such as vaginal atrophy and hot flashes.
- c. prevents a pregnancy that could worsen the menstrual bleeding.
- d. will lead to permanent suppression of abnormal endometrial tissues.

ANS: A

Depo-Provera induces a pseudopregnancy, which suppresses ovulation and causes shrinkage of endometrial tissue. Menstrual bleeding does not occur during pregnancy. Vaginal atrophy and hot flashes are caused by synthetic androgens such as danazol or gonadotropin-releasing hormone agonists (GnRH) such as leuprolide. Although hormonal therapies will control endometriosis while the therapy is used, endometriosis will recur once the menstrual cycle is reestablished.

19. A 28-year-old patient was recently diagnosed with polycystic ovary syndrome. It is **most** important for the nurse to teach the patient

- a. reasons for a total hysterectomy.
- b. how to decrease facial hair growth.
- c. ways to reduce the occurrence of acne.
- d. methods to maintain appropriate weight.

ANS: D

Obesity exacerbates the problems associated with polycystic ovary syndrome, such as insulin resistance and type 2 diabetes. The nurse should also address the problems of acne and hirsutism, but these symptoms are lower priority because they do not have long-term health consequences. Although some patients do require total hysterectomy, this is usually performed only after other therapies have been unsuccessful.

20. A 56-year-old woman is concerned about having a moderate amount of vaginal bleeding after 4 years of menopause. The nurse will anticipate teaching the patient about

- a. endometrial biopsy.
- b. endometrial ablation.
- c. uterine balloon therapy.
- d. dilation and curettage (D&C).

ANS: A

A postmenopausal woman with vaginal bleeding should be evaluated for endometrial cancer, and endometrial biopsy is the primary test for endometrial cancer. D&C will be needed only if the biopsy does not provide sufficient information to make a diagnosis. Endometrial ablation and balloon therapy are used to treat menorrhagia, which is unlikely in this patient.

21. A nursing diagnosis that is likely to be appropriate for a 67-year-old woman who has just been diagnosed with stage III ovarian cancer is

- a. sexual dysfunction related to loss of vaginal sensation.
- b. risk for infection related to impaired immune function.
- c. anxiety related to cancer diagnosis and need for treatment decisions.
- d. situational low self-esteem related to guilt about delaying medical care.

ANS: C

The patient with stage III ovarian cancer is likely to be anxious about the poor prognosis and about the need to make decisions about the multiple treatments that may be used. Decreased vaginal sensation does not occur with ovarian cancer. The patient may develop immune dysfunction when she receives chemotherapy, but she is not currently at risk. It is unlikely that the patient has delayed seeking medical care because the symptoms of ovarian cancer are vague and occur late in the course of the cancer.

22. When caring for a patient who has a radium implant for treatment of cancer of the cervix, the nurse will

- a. assist the patient to ambulate every 2 to 3 hours.
- b. use gloves and gown when changing the patient's bed.
- c. flush the toilet several times right after the patient voids.
- d. encourage the patient to discuss needs or concerns by telephone.

ANS: D

The nurse should spend minimal time in the patient's room to avoid exposure to radiation. The patient and nurse can have longer conversations by telephone between the patient room and nursing station. To prevent displacement of the implant, absolute bed rest is required. Wearing of gloves and gown when changing linens, and flushing

the toilet several times are not necessary because the isotope is confined to the implant.

23. Which patient in the womens health clinic will the nurse expect to teach about an endometrial biopsy?

- a. The 55-year-old patient who has 3 to 4 alcoholic drinks each day
- b. The 35-year-old patient who has used oral contraceptives for 15 years
- c. The 25-year-old patient who has a family history of hereditary nonpolyposis colorectal cancer
- d. The 45-year-old patient who has had 6 full-term pregnancies and 2 spontaneous abortions

ANS: C

Patients with a personal or familial history of hereditary nonpolyposis colorectal cancer are at increased risk for endometrial cancer. Alcohol addiction does not increase this risk. Multiple pregnancies and oral contraceptive use offer protection from endometrial cancer.

24. The nurse will plan to teach a 34-year-old patient diagnosed with stage 0 cervical cancer about

- a. radiation.
- b. conization.
- c. chemotherapy.
- d. radical hysterectomy.

ANS: B

Because the carcinoma is in situ, conization can be used for treatment. Radical hysterectomy, chemotherapy, or radiation will not be needed.

25. A 31-year-old patient who has been diagnosed with human papillomavirus (HPV) infection gives a health history that includes smoking tobacco, taking oral contraceptives, and having been treated twice for vaginal candidiasis. Which topic will the nurse include in patient teaching?

- a. Use of water-soluble lubricants
- b. Risk factors for cervical cancer
- c. Antifungal cream administration
- d. Possible difficulties with conception

ANS: B

Because HPV infection and smoking are both associated with increased cervical cancer risk, the nurse should emphasize the importance of avoiding smoking. An HPV infection does not decrease vaginal lubrication, decrease ability to conceive, or require the use of antifungal creams.

26. Which topic will the nurse include in the preoperative teaching for a patient admitted for an abdominal hysterectomy?

- a. Purpose of ambulation and leg exercises
- b. Adverse effects of systemic chemotherapy
- c. Decrease in vaginal sensation after surgery
- d. Symptoms caused by the drop in estrogen level

ANS: A

Venous thromboembolism (VTE) is a potential complication after the surgery, and the nurse will instruct the patient about ways to prevent it. Vaginal sensation is decreased after a vaginal hysterectomy but not after abdominal hysterectomy. Leiomyomas are benign tumors, so chemotherapy and radiation will not be prescribed. Because the patient will still have her ovaries, the estrogen level will not decrease.

27. A 54-year-old patient is on the surgical unit after a radical abdominal hysterectomy. Which finding is **most** important to report to the health care provider?

- a. Urine output of 125 mL in the first 8 hours after surgery
- b. Decreased bowel sounds in all four abdominal quadrants
- c. One-inch area of bloody drainage on the abdominal dressing
- d. Complaints of abdominal pain at the incision site with coughing

ANS: A

The decreased urine output indicates possible low blood volume and further assessment is needed to assess for possible internal bleeding. Decreased bowel sounds, minor drainage on the dressing, and abdominal pain with coughing are expected after this surgery.

Chapter 54. Management: Male Reproductive Problems

MULTIPLE CHOICE

1. To determine the severity of the symptoms for a 68-year-old patient with benign prostatic hyperplasia (BPH) the nurse will ask the patient about

- a. blood in the urine.
- b. lower back or hip pain.
- c. erectile dysfunction (ED).
- d. force of the urinary stream.

ANS: D

The American Urological Association (AUA) Symptom Index for a patient with BPH asks questions about the force and frequency of urination, nocturia, etc. Blood in the urine, ED, and back or hip pain are not typical symptoms of BPH.

2. A 58-year-old patient who has been recently diagnosed with benign prostatic hyperplasia (BPH) tells the nurse that he does not want to have a transurethral resection of the prostate (TURP) because it might affect his ability to maintain an erection during intercourse. Which action should the nurse take?

- a. Provide teaching about medications for erectile dysfunction (ED).
- b. Discuss that TURP does not commonly affect erectile function.
- c. Offer reassurance that sperm production is not affected by TURP.
- d. Discuss alternative methods of sexual expression besides intercourse.

ANS: B

ED is not a concern with TURP, although retrograde ejaculation is likely and the nurse should discuss this with the patient. Erectile function is not usually affected by a TURP, so the patient will not need information about penile implants or reassurance that other forms of sexual expression may be used. Because the patient has not asked about fertility, reassurance about sperm production does not address his concerns.

3. The health care provider prescribes finasteride (Proscar) for a 67-year-old patient who has benign prostatic hyperplasia (BPH). When teaching the patient about the drug, the nurse informs him that

- a. he should change position from lying to standing slowly to avoid dizziness.
- b. his interest in sexual activity may decrease while he is taking the medication.
- c. improvement in the obstructive symptoms should occur within about 2 weeks.
- d. he will need to monitor his blood pressure frequently to assess for hypertension.

ANS: B

A decrease in libido is a side effect of finasteride because of the androgen suppression that occurs with the drug. Although orthostatic hypotension may occur if the patient is also taking a medication for erectile dysfunction (ED), it should not occur with finasteride alone. Improvement in symptoms of obstruction takes about 6 months. The medication does not cause hypertension.

4. The nurse will anticipate that a 61-year-old patient who has an enlarged prostate detected by digital rectal examination (DRE) and an elevated prostate specific antigen (PSA) level will need teaching about

- a. cystourethroscopy.
- b. uroflowmetry studies.
- c. magnetic resonance imaging (MRI).
- d. transrectal ultrasonography (TRUS).

ANS: D

In a patient with an abnormal DRE and elevated PSA, transrectal ultrasound is used to visualize the prostate for biopsy. Uroflowmetry studies help determine the extent of urine blockage and treatment, but there is no indication that this is a problem for this patient. Cystoscopy may be used before prostatectomy but will not be done until after the TRUS and biopsy. MRI is used to determine whether prostatic cancer has metastasized but would not be ordered at this stage of the diagnostic process.

5. Which information about continuous bladder irrigation will the nurse teach to a patient who is being admitted for a transurethral resection of the prostate (TURP)?

- a. Bladder irrigation decreases the risk of postoperative bleeding.
- b. Hydration and urine output are maintained by bladder irrigation.
- c. Antibiotics are infused continuously through the bladder irrigation.
- d. Bladder irrigation prevents obstruction of the catheter after surgery.

ANS: D

The purpose of bladder irrigation is to remove clots from the bladder and to prevent obstruction of the catheter by clots. The irrigation does not decrease bleeding or improve hydration. Antibiotics are given by the IV route, not through the bladder irrigation.

6. The nurse will plan to teach the patient scheduled for photovaporization of the prostate (PVP)

- a. that urine will appear bloody for several days.
- b. how to care for an indwelling urinary catheter.
- c. that symptom improvement takes 2 to 3 weeks.
- d. about complications associated with urethral stenting.

ANS: B

The patient will have an indwelling catheter for 24 to 48 hours and will need teaching about catheter care. There is minimal bleeding with this procedure. Symptom improvement is almost immediate after PVP. Stent placement is not included in the procedure.

7. A 53-year-old man is scheduled for an annual physical exam. The nurse will plan to teach the patient about the purpose of

- a. urinalysis collection.
- b. uroflowmetry studies.
- c. prostate specific antigen (PSA) testing.
- d. transrectal ultrasound scanning (TRUS).

ANS: C

An annual digital rectal exam (DRE) and PSA are usually recommended starting at age 50 for men who have an average risk for prostate cancer. Urinalysis and

uroflowmetry studies are done if patients have symptoms of urinary tract infection or changes in the urinary stream. TRUS may be ordered if the DRE or PSA is abnormal.

8. A patient returning from surgery for a perineal radical prostatectomy will have a nursing diagnosis of risk for infection related to

- a. urinary incontinence.
- b. prolonged urinary stasis.
- c. possible fecal wound contamination.
- d. placement of a suprapubic bladder catheter.

ANS: C

The perineal approach increases the risk for infection because the incision is located close to the anus and contamination with feces is possible. Urinary stasis and incontinence do not occur because the patient has a retention catheter in place for 1 to 2 weeks. A urethral catheter is used after the surgery.

9. A 57-year-old patient is incontinent of urine following a radical retropubic prostatectomy. The nurse will plan to teach the patient

- a. to restrict oral fluid intake.
- b. pelvic floor muscle exercises.
- c. to perform intermittent self-catheterization.
- d. the use of belladonna and opium suppositories.

ANS: B

Pelvic floor muscle training (Kegel) exercises are recommended to strengthen the pelvic floor muscles and improve urinary control. Belladonna and opium suppositories are used to reduce bladder spasms after surgery. Intermittent self-catheterization may be taught before surgery if the patient has urinary retention, but it

will not be useful in reducing incontinence after surgery. The patient should have a daily oral intake of 2 to 3 L.

10. A 70-year-old patient who has had a transurethral resection of the prostate (TURP) for benign prostatic hyperplasia (BPH) is being discharged from the hospital today. The nurse determines that additional instruction is needed when the patient says which of the following?

- a. I should call the doctor if I have incontinence at home.
- b. I will avoid driving until I get approval from my doctor.
- c. I will increase fiber and fluids in my diet to prevent constipation.
- d. I should continue to schedule yearly appointments for prostate exams.

ANS: A

Because incontinence is common for several weeks after a TURP, the patient does not need to call the health care provider if this occurs. The other patient statements indicate that the patient has a good understanding of post-TURP instructions.

11. The nurse will inform a patient with cancer of the prostate that side effects of leuprolide (Lupron) may include

- a. flushing.
- b. dizziness.
- c. infection.
- d. incontinence.

ANS: A

Hot flashes may occur with decreased testosterone production. Dizziness may occur with the alpha-blockers used for benign prostatic hyperplasia (BPH). Urinary incontinence may occur after prostate surgery, but it is not an expected side effect of medication. Risk for infection is increased in patients receiving chemotherapy.

12. Which information will the nurse teach a patient who has chronic prostatitis?

- a. Ibuprofen (Motrin) should provide good pain control.
- b. Prescribed antibiotics should be taken for 7 to 10 days.
- c. Intercourse or masturbation will help relieve symptoms.
- d. Cold packs used every 4 hours will decrease inflammation.

ANS: C

Ejaculation helps drain the prostate and relieve pain. Warm baths are recommended to reduce pain. Nonsteroidal antiinflammatory drugs (NSAIDs) are frequently prescribed but usually do not offer adequate pain relief. Antibiotics for chronic prostatitis are taken for 4 to 12 weeks.

13. The nurse performing a focused examination to determine possible causes of infertility will assess for

- a. hydrocele.
- b. varicocele.
- c. epididymitis.
- d. paraphimosis.

ANS: B

Persistent varicoceles are commonly associated with infertility. Hydrocele, epididymitis, and paraphimosis are not risk factors for infertility.

14. Which information will the nurse plan to include when teaching a community health group about testicular self-examination?

- a. Testicular self-examination should be done in a warm room.
- b. The only structure normally felt in the scrotal sac is the testis.
- c. Testicular self-examination should be done at least every week.

- d. Call the health care provider if one testis is larger than the other.

ANS: A

The testes will hang lower in the scrotum when the temperature is warm (e.g., during a shower), and it will be easier to palpate. The epididymis is also normally palpable in the scrotum. One testis is normally larger. The patient should perform testicular self-examination monthly.

15. A 27-year-old man who has testicular cancer is being admitted for a unilateral orchiectomy. The patient does not talk to his wife and speaks to the nurse only to answer the admission questions. Which action is **best** for the nurse to take?

- a. Teach the patient and the wife that impotence is unlikely after unilateral orchiectomy.
- b. Ask the patient if he has any questions or concerns about the diagnosis and treatment.
- c. Document the patient's lack of communication on the chart and continue preoperative care.
- d. Inform the patient's wife that concerns about sexual function are common with this diagnosis.

ANS: B

The initial action by the nurse should be assessment for any anxiety or questions about the surgery or postoperative care. The nurse should address the patient, not the spouse, when discussing the diagnosis and any possible concerns. Without further assessment of patient concerns, the nurse should not offer teaching about complications after orchiectomy. Documentation of the patient's lack of interaction is not an adequate nursing action in this situation.

16. When performing discharge teaching for a patient after a vasectomy, the nurse instructs the patient that he

- a. should continue to use other methods of birth control for 6 weeks.

- b. should not have sexual intercourse until his 6-week follow-up visit.
- c. may have temporary erectile dysfunction (ED) because of swelling.
- d. will notice a decrease in the appearance and volume of his ejaculate.

ANS: A

Because it takes about 6 weeks to evacuate sperm that are distal to the vasectomy site, the patient should use contraception for 6 weeks. ED that occurs after vasectomy is psychologic in origin and not related to postoperative swelling. The patient does not need to abstain from intercourse. The appearance and volume of the ejaculate are not changed because sperm are a minor component of the ejaculate.

17. A 52-year-old man tells the nurse that he decided to seek treatment for erectile dysfunction (ED) because his wife is losing patience with the situation. The most appropriate nursing diagnosis for the patient is

- a. situational low self-esteem related to effects of ED.
- b. ineffective role performance related to effects of ED.
- c. anxiety related to inability to have sexual intercourse.
- d. ineffective sexuality patterns related to infrequent intercourse.

ANS: B

The patient's statement indicates that the relationship with his wife is his primary concern. Although anxiety, low self-esteem, and ineffective sexuality patterns may also be concerns, the patient information suggests that addressing the role performance problem will lead to the best outcome for this patient.

18. A patient with urinary obstruction from benign prostatic hyperplasia (BPH) tells the nurse, "My symptoms are much worse this week." Which response by the nurse is **most** appropriate?

- a. Have you been taking any over-the-counter (OTC) medications recently?

- b. I will talk to the doctor about ordering a prostate specific antigen (PSA) test.
- c. Have you talked to the doctor about surgery such as transurethral resection of the prostate (TURP)?
- d. The prostate gland changes in size from day to day, and this may be making your symptoms worse.

ANS: A

Because the patient's increase in symptoms has occurred abruptly, the nurse should ask about OTC medications that might cause contraction of the smooth muscle in the prostate and worsen obstruction. The prostate gland does not vary in size from day to day. A TURP may be needed, but more assessment about possible reasons for the sudden symptom change is a more appropriate first response by the nurse. PSA testing is done to differentiate BPH from prostatic cancer.

19. The nurse taking a focused health history for a patient with possible testicular cancer will ask the patient about a history of

- a. testicular torsion.
- b. testicular trauma.
- c. undescended testicles.
- d. sexually transmitted infection (STI).

ANS: C

Cryptorchidism is a risk factor for testicular cancer if it is not corrected before puberty. STI, testicular torsion, and testicular trauma are risk factors for other testicular conditions but not for testicular cancer.

20. The nurse will plan to provide teaching for a 67-year-old patient who has been diagnosed with orchitis about

- a. pain management.

- b. emergency surgical repair.
- c. application of heat to the scrotum.
- d. aspiration of fluid from the scrotal sac.

ANS: A

Orchitis is very painful, and effective pain management will be needed. Heat, aspiration, and surgery are not used to treat orchitis.

21. A 71-year-old patient who has benign prostatic hyperplasia (BPH) with urinary retention is admitted to the hospital with elevated blood urea nitrogen (BUN) and creatinine. Which prescribed therapy should the nurse implement **first**?

- a. Infuse normal saline at 50 mL/hr.
- b. Insert a urinary retention catheter.
- c. Draw blood for a complete blood count.
- d. Schedule a pelvic computed tomography (CT) scan.

ANS: B

The patient data indicate that the patient may have acute kidney injury caused by the BPH. The initial therapy will be to insert a catheter. The other actions are also appropriate, but they can be implemented after the acute urinary retention is resolved.

22. The nurse in the clinic notes elevated prostate specific antigen (PSA) levels in the laboratory results of these patients. Which patient's PSA result is **most** important to report to the health care provider?

- a. A 38-year-old who is being treated for acute prostatitis
- b. A 48-year-old whose father died of metastatic prostate cancer
- c. A 52-year-old who goes on long bicycle rides every weekend
- d. A 75-year-old who uses saw palmetto to treat benign prostatic hyperplasia (BPH)

ANS: B

The family history of prostate cancer and elevation of PSA indicate that further evaluation of the patient for prostate cancer is needed. Elevations in PSA for the other patients are not unusual.

23. After a transurethral resection of the prostate (TURP), a 64-year-old patient with continuous bladder irrigation complains of painful bladder spasms. The nurse observes clots in the urine. Which action should the nurse take **first**?

- a. Increase the flow rate of the bladder irrigation.
- b. Administer the prescribed IV morphine sulfate.
- c. Give the patient the prescribed belladonna and opium suppository.
- d. Manually instill and then withdraw 50 mL of saline into the catheter.

ANS: D

The assessment suggests that obstruction by a clot is causing the bladder spasms, and the nurses first action should be to irrigate the catheter manually and to try to remove the clots. IV morphine will not decrease the spasm, although pain may be reduced. Increasing the flow rate of the irrigation will further distend the bladder and may increase spasms. The belladonna and opium suppository will decrease bladder spasms but will not remove the obstructing blood clot.

24. A 22-year-old man tells the nurse at the health clinic that he has recently had some problems with erectile dysfunction. Which question should the nurse ask **first** to assess for possible etiologic factors?

- a. Do you experience an unusual amount of stress?
- b. Do you use any recreational drugs or drink alcohol?
- c. Do you have chronic cardiovascular or peripheral vascular disease?
- d. Do you have a history of an erection that lasted for 6 hours or more?

ANS: B

A common etiologic factor for erectile dysfunction (ED) in younger men is use of recreational drugs or alcohol. Stress, priapism, and cardiovascular illness also contribute to ED, but they are not common etiologic factors in younger men.

25. A 58-year-old man with erectile dysfunction (ED) tells the nurse he is interested in using sildenafil (Viagra). Which action should the nurse take **first**?

- a. Assure the patient that ED is common with aging.
- b. Ask the patient about any prescription drugs he is taking.
- c. Tell the patient that Viagra does not always work for ED.
- d. Discuss the common adverse effects of erectogenic drugs.

ANS: B

Because some medications can cause ED and patients using nitrates should not take sildenafil, the nurse should first assess for prescription drug use. The nurse may want to teach the patient about realistic expectations and adverse effects of sildenafil therapy, but this should not be the first action. Although ED does increase with aging, it may be secondary to medication use or cardiovascular disease.

26. The nurse in a health clinic receives requests for appointments from several patients. Which patient should be seen by the health care provider **first**?

- a. A 48-year-old man who has perineal pain and a temperature of 100.4 F
- b. A 58-year-old man who has a painful erection that has lasted over 6 hours
- c. A 38-year-old man who states he had difficulty maintaining an erection last night
- d. A 68-year-old man who has pink urine after a transurethral resection of the prostate (TURP) 3 days ago

ANS: B

Priapism can cause complications such as necrosis or hydronephrosis, and this patient should be treated immediately. The other patients do not require immediate action to prevent serious complications.

27. Which assessment information is **most** important for the nurse to report to the health care provider when a patient asks for a prescription for testosterone replacement therapy (TRT)?

- a. The patient has noticed a decrease in energy level for a few years.
- b. The patient's symptoms have increased steadily over the last few years.
- c. The patient has been using sildenafil (Viagra) several times every week.
- d. The patient has had a gradual decrease in the force of his urinary stream.

ANS: D

The decrease in urinary stream may indicate benign prostatic hyperplasia (BPH) or prostate cancer, which are contraindications to the use of testosterone replacement therapy (TRT). The other patient data indicate that TRT may be a helpful therapy for the patient.

28. A 76-year-old patient who has been diagnosed with stage 2 prostate cancer chooses the option of active surveillance. The nurse will plan to

- a. vaccinate the patient with sipuleucel-T (Provenge).
- b. provide the patient with information about cryotherapy.
- c. teach the patient about placement of intraurethral stents.
- d. schedule the patient for annual prostate-specific antigen testing.

ANS: D

Patients who opt for active surveillance need to have annual digital rectal exams and prostate-specific antigen testing. Vaccination with sipuleucel-T, cryotherapy, and

stent placement are options for patients who choose to have active treatment for prostate cancer.

29. The health care provider prescribes the following interventions for a patient with acute prostatitis caused by *E. coli*. Which intervention should the nurse question?

- a. Instruct patient to avoid sexual intercourse until treatment is complete.
- b. Administer ibuprofen (Advil) 400 mg every 8 hours as needed for pain.
- c. Catheterize the patient as needed if symptoms of urinary retention develop.
- d. Give trimethoprim/sulfamethoxazole (Bactrim) DS 1 tablet daily for 28 days.

ANS: C

Although acute urinary retention may occur, insertion of a catheter through an inflamed urethra is contraindicated and the nurse will anticipate that the health care provider will need to insert a suprapubic catheter. The other actions are appropriate.

30. Several patients call the urology clinic requesting appointments with the health care provider as soon as possible. Which patient will the nurse schedule to be seen **first**?

- a. 22-year-old who has noticed a firm, nontender lump on his scrotum
- b. 35-year-old who is concerned that his scrotum feels like a bag of worms
- c. 40-year-old who has pelvic pain while being treated for chronic prostatitis
- d. 70-year-old who is reporting frequent urinary dribbling after a prostatectomy

ANS: A

The patient's age and symptoms suggest possible testicular cancer. Some forms of testicular cancer can be very aggressive, so the patient should be evaluated by the

health care provider as soon as possible. Varicoceles do require treatment, but not emergently. Ongoing pelvic pain is common with chronic prostatitis. Urinary dribbling is a common problem after prostatectomy.

Chapter 55. Assessment: Nervous System

MULTIPLE CHOICE

1. When admitting an acutely confused 20-year-old patient with a head injury, which action should the nurse take?

- a. Ask family members about the patient's health history.
- b. Ask leading questions to assist in obtaining health data.
- c. Wait until the patient is better oriented to ask questions.
- d. Obtain only the physiologic neurologic assessment data.

ANS: A

When admitting a patient who is likely to be a poor historian, the nurse should obtain health history information from others who have knowledge about the patient's health. Waiting until the patient is oriented or obtaining only physiologic data will result in incomplete assessment data, which could adversely affect decision making about treatment. Asking leading questions may result in inaccurate or incomplete information.

2. Which finding would the nurse expect when assessing the legs of a patient who has a lower motor neuron lesion?

- a. Spasticity
- b. Flaccidity
- c. No sensation
- d. Hyperactive reflexes

ANS: B

Because the cell bodies of lower motor neurons are located in the spinal cord, damage to the neuron will decrease motor activity of the affected muscles. Spasticity and hyperactive reflexes are caused by upper motor neuron damage. Sensation is not impacted by motor neuron lesions.

3. The nurse performing a focused assessment of left posterior temporal lobe functions will assess the patient for

- a. sensation on the left side of the body.
- b. voluntary movements on the right side.
- c. reasoning and problem-solving abilities.
- d. understanding written and oral language.

ANS: D

The posterior temporal lobe integrates the visual and auditory input for language comprehension. Reasoning and problem solving are functions of the anterior frontal lobe. Sensation on the left side of the body is located in the right postcentral gyrus. Voluntary movement on the right side is controlled in the left precentral gyrus.

4. Propranolol (Inderal), a β -adrenergic blocker that inhibits sympathetic nervous system activity, is prescribed for a patient who has extreme anxiety about public speaking. The nurse monitors the patient for

- a. dry mouth.
- b. bradycardia.
- c. constipation.
- d. urinary retention.

ANS: B

Inhibition of the fight or flight response leads to a decreased heart rate. Dry mouth, constipation, and urinary retention are associated with peripheral nervous system blockade.

5. To assess the functioning of the trigeminal and facial nerves (CNs V and VII), the nurse should

- a. shine a light into the patient's pupil.
- b. check for unilateral eyelid drooping.
- c. touch a cotton wisp strand to the cornea.
- d. have the patient read a magazine or book.

ANS: A

The trigeminal and facial nerves are responsible for the corneal reflex. The optic nerve is tested by having the patient read a Snellen chart or a newspaper. Assessment of pupil response to light and ptosis are used to check function of the oculomotor nerve.

6. Which action will the nurse include in the plan of care for a patient with impaired functioning of the left glossopharyngeal nerve (CN IX) and the vagus nerve (CN X)?

- a. Withhold oral fluid or foods.
- b. Provide highly seasoned foods.
- c. Insert an oropharyngeal airway.
- d. Apply artificial tears every hour.

ANS: A

The glossopharyngeal and vagus nerves innervate the pharynx and control the gag reflex. A patient with impaired function of these nerves is at risk for aspiration. An oral airway may be needed when a patient is unconscious and unable to maintain the airway, but it will not decrease aspiration risk. Taste and eye blink are controlled by the facial nerve.

7. An unconscious male patient has just arrived in the emergency department after a head injury caused by a motorcycle crash. Which order should the nurse question?

- a. Obtain x-rays of the skull and spine.
- b. Prepare the patient for lumbar puncture.
- c. Send for computed tomography (CT) scan.
- d. Perform neurologic checks every 15 minutes.

ANS: B

After a head injury, the patient may be experiencing intracranial bleeding and increased intracranial pressure, which could lead to herniation of the brain if a lumbar puncture is performed. The other orders are appropriate.

8. A patient with suspected meningitis is scheduled for a lumbar puncture. Before the procedure, the nurse will plan to

- a. enforce NPO status for 4 hours.
- b. transfer the patient to radiology.
- c. administer a sedative medication.
- d. help the patient to a lateral position.

ANS: D

For a lumbar puncture, the patient lies in the lateral recumbent position. The procedure does not usually require a sedative, is done in the patient room, and has no risk for aspiration.

9. During the neurologic assessment, the patient is unable to respond verbally to the nurse but cooperates with the nurses directions to move his hands and feet. The nurse will suspect

- a. cerebellar injury.

- b. a brainstem lesion.
- c. frontal lobe damage.
- d. a temporal lobe lesion.

ANS: C

Expressive speech is controlled by Brocas area in the frontal lobe. The temporal lobe contains Wernickes area, which is responsible for receptive speech. The cerebellum and brainstem do not affect higher cognitive functions such as speech.

10. A 45-year-old patient has a dysfunction of the cerebellum. The nurse will plan interventions to

- a. prevent falls.
- b. stabilize mood.
- c. avoid aspiration.
- d. improve memory.

ANS: A

Because functions of the cerebellum include coordination and balance, the patient with dysfunction is at risk for falls. The cerebellum does not affect memory, mood, or swallowing ability.

11. Which nursing diagnosis is expected to be appropriate for a patient who has a positive Romberg test?

- a. Acute pain
- b. Risk for falls
- c. Acute confusion
- d. Ineffective thermoregulation

ANS: B

A positive Romberg test indicates that the patient has difficulty maintaining balance with the eyes closed. The Romberg does not test for orientation, thermoregulation, or discomfort.

12. The nurse will anticipate teaching a patient with a possible seizure disorder about which test?

- a. Cerebral angiography
- b. Evoked potential studies
- c. Electromyography (EMG)
- d. Electroencephalography (EEG)

ANS: D

Seizure disorders are usually assessed using EEG testing. Evoked potential is used for diagnosing problems with the visual or auditory systems. Cerebral angiography is used to diagnose vascular problems. EMG is used to evaluate electrical innervation to skeletal muscle.

13. Which nursing action will be included in the care for a patient who has had cerebral angiography?

- a. Monitor for headache and photophobia.
- b. Keep patient NPO until gag reflex returns.
- c. Check pulse and blood pressure frequently.
- d. Assess orientation to person, place, and time.

ANS: C

Because a catheter is inserted into an artery (such as the femoral artery) during cerebral angiography, the nurse should assess for bleeding after this procedure. The other nursing assessments are not necessary after angiography.

14. Which equipment will the nurse obtain to assess vibration sense in a diabetic patient who has peripheral nerve dysfunction?

- a. Sharp pin
- b. Tuning fork
- c. Reflex hammer
- d. Calibrated compass

ANS: B

Vibration sense is testing by touching the patient with a vibrating tuning fork. The other equipment is needed for testing of pain sensation, reflexes, and two-point discrimination.

15. Which information about a 76-year-old patient is **most** important for the admitting nurse to report to the patients health care provider?

- a. Triceps reflex response graded at 1/5
- b. Unintended weight loss of 20 pounds
- c. 10 mm Hg orthostatic drop in systolic blood pressure
- d. Patient complaint of chronic difficulty in falling asleep

ANS: B

Although changes in appetite are normal with aging, a 20-pound weight loss requires further investigation. Orthostatic drops in blood pressure, changes in sleep patterns, and slowing of reflexes are normal changes in aging.

16. The charge nurse is observing a new staff nurse who is assessing a patient with a traumatic spinal cord injury for sensation. Which action indicates a need for further teaching of the new nurse about neurologic assessment?

- a. The new nurse tests for light touch before testing for pain.

- b. The new nurse has the patient close the eyes during testing.
- c. The new nurse asks the patient if the instrument feels sharp.
- d. The new nurse uses an irregular pattern to test for intact touch.

ANS: C

When performing a sensory assessment, the nurse should not provide verbal clues. The other actions by the new nurse are appropriate.

17. Which cerebrospinal fluid analysis result will be **most** important for the nurse to communicate to the health care provider?

- a. Specific gravity 1.007
- b. Protein 65 mg/dL (0.65 g/L)
- c. Glucose 45 mg/dL (1.7 mmol/L)
- d. White blood cell (WBC) count 4 cells/ μ L

ANS: B

The protein level is high. The specific gravity, WBCs, and glucose values are normal.

18. A 39-year-old patient with a suspected herniated intervertebral disc is scheduled for a myelogram. Which information is **most** important for the nurse to communicate to the health care provider before the procedure?

- a. The patient is anxious about the test.
- b. The patient has an allergy to shellfish.
- c. The patient has back pain when lying flat.
- d. The patient drank apple juice 4 hours earlier.

ANS: B

Iodine-containing contrast medium is injected into the subarachnoid space during a myelogram. The health care provider may need to modify the postmyelogram orders to prevent back pain, but this can be done after the procedure. Clear liquids are usually considered safe up to 4 hours before a diagnostic or surgical procedure. The patient's anxiety should be addressed, but this is not as important as the iodine allergy.

19. The **priority** nursing assessment for a 72-year-old patient being admitted with a brainstem infarction is

- a. reflex reaction time.
- b. pupil reaction to light.
- c. level of consciousness.
- d. respiratory rate and rhythm.

ANS: D

Vital centers that control respiration are located in the medulla, and these are the priority assessments because changes in respiratory function may be life threatening. The other information will also be collected by the nurse, but it is not as urgent.

20. Several patients have been hospitalized for diagnosis of neurologic problems. Which patient will the nurse assess **first**?

- a. Patient with a transient ischemic attack (TIA) returning from carotid duplex studies
- b. Patient with a brain tumor who has just arrived on the unit after a cerebral angiogram
- c. Patient with a seizure disorder who has just completed an electroencephalogram (EEG)
- d. Patient prepared for a lumbar puncture whose health care provider is waiting for assistance

ANS: B

Because cerebral angiograms require insertion of a catheter into the femoral artery, bleeding is a possible complication. The nurse will need to check the pulse, blood pressure, and the catheter insertion site in the groin as soon as the patient arrives. Carotid duplex studies and EEG are noninvasive. The nurse will need to assist with the lumbar puncture as soon as possible, but monitoring for hemorrhage after cerebral angiogram has a higher priority.

Chapter 56. Management: Acute Intracranial Problems

MULTIPLE CHOICE

1. Family members of a patient who has a traumatic brain injury ask the nurse about the purpose of the ventriculostomy system being used for intracranial pressure monitoring. Which response by the nurse is **best**?

- a. This type of monitoring system is complex and it is managed by skilled staff.
- b. The monitoring system helps show whether blood flow to the brain is adequate.
- c. The ventriculostomy monitoring system helps check for alterations in cerebral perfusion pressure.
- d. This monitoring system has multiple benefits including facilitation of cerebrospinal fluid drainage.

ANS: B

Short and simple explanations should be given initially to patients and family members. The other explanations are either too complicated to be easily understood or may increase the family members anxiety.

2. Admission vital signs for a brain-injured patient are blood pressure 128/68, pulse 110, and respirations 26. Which set of vital signs, if taken 1 hour after admission, will be of most concern to the nurse?

- a. Blood pressure 154/68, pulse 56, respirations 12
- b. Blood pressure 134/72, pulse 90, respirations 32
- c. Blood pressure 148/78, pulse 112, respirations 28
- d. Blood pressure 110/70, pulse 120, respirations 30

ANS: A

Systolic hypertension with widening pulse pressure, bradycardia, and respiratory changes represent Cushings triad. These findings indicate that the intracranial pressure (ICP) has increased, and brain herniation may be imminent unless immediate action is taken to reduce ICP. The other vital signs may indicate the need for changes in treatment, but they are not indicative of an immediately life-threatening process.

3. When a brain-injured patient responds to nail bed pressure with internal rotation, adduction, and flexion of the arms, the nurse reports the response as

- a. flexion withdrawal.
- b. localization of pain.
- c. decorticate posturing.
- d. decerebrate posturing.

ANS: C

Internal rotation, adduction, and flexion of the arms in an unconscious patient is documented as decorticate posturing. Extension of the arms and legs is decerebrate posturing. Because the flexion is generalized, it does not indicate localization of pain or flexion withdrawal.

4. The nurse has administered prescribed IV mannitol (Osmitrol) to an unconscious patient. Which parameter should the nurse monitor to determine the medications effectiveness?

- a. Blood pressure

- b. Oxygen saturation
- c. Intracranial pressure
- d. Hemoglobin and hematocrit

ANS: C

Mannitol is an osmotic diuretic and will reduce cerebral edema and intracranial pressure. It may initially reduce hematocrit and increase blood pressure, but these are not the best parameters for evaluation of the effectiveness of the drug. Oxygen saturation will not directly improve as a result of mannitol administration.

5. A 46-year-old patient with a head injury opens the eyes to verbal stimulation, curses when stimulated, and does not respond to a verbal command to move but attempts to push away a painful stimulus. The nurse records the patients Glasgow Coma Scale score as

- a. 9.
- b. 11.
- c. 13.
- d. 15.

ANS: B

The patient has a score of 3 for eye opening, 3 for best verbal response, and 5 for best motor response.

6. An unconscious 39-year-old male patient is admitted to the emergency department (ED) with a head injury. The patients spouse and teenage children stay at the patients side and ask many questions about the treatment being given. What action is **best** for the nurse to take?

- a. Ask the family to stay in the waiting room until the initial assessment is completed.

- b. Allow the family to stay with the patient and briefly explain all procedures to them.
- c. Refer the family members to the hospital counseling service to deal with their anxiety.
- d. Call the family's pastor or spiritual advisor to take them to the chapel while care is given.

ANS: B

The need for information about the diagnosis and care is very high in family members of acutely ill patients. The nurse should allow the family to observe care and explain the procedures unless they interfere with emergent care needs. A pastor or counseling service can offer some support, but research supports information as being more effective. Asking the family to stay in the waiting room will increase their anxiety.

7. A 41-year-old patient who is unconscious has a nursing diagnosis of ineffective cerebral tissue perfusion related to cerebral tissue swelling. Which nursing intervention will be included in the plan of care?

- a. Encourage coughing and deep breathing.
- b. Position the patient with knees and hips flexed.
- c. Keep the head of the bed elevated to 30 degrees.
- d. Cluster nursing interventions to provide rest periods.

ANS: C

The patient with increased intracranial pressure (ICP) should be maintained in the head-up position to help reduce ICP. Extreme flexion of the hips and knees increases abdominal pressure, which increases ICP. Because the stimulation associated with nursing interventions increases ICP, clustering interventions will progressively elevate ICP. Coughing increases intrathoracic pressure and ICP.

8. A 20-year-old male patient is admitted with a head injury after a collision while playing football. After noting that the patient has developed clear nasal drainage, which action should the nurse take?

- a. Have the patient gently blow the nose.
- b. Check the drainage for glucose content.
- c. Teach the patient that rhinorrhea is expected after a head injury.
- d. Obtain a specimen of the fluid to send for culture and sensitivity.

ANS: B

Clear nasal drainage in a patient with a head injury suggests a dural tear and cerebrospinal fluid (CSF) leakage. If the drainage is CSF, it will test positive for glucose. Fluid leaking from the nose will have normal nasal flora, so culture and sensitivity will not be useful. Blowing the nose is avoided to prevent CSF leakage.

9. Which action will the emergency department nurse anticipate for a patient diagnosed with a concussion who did not lose consciousness?

- a. Coordinate the transfer of the patient to the operating room.
- b. Provide discharge instructions about monitoring neurologic status.
- c. Transport the patient to radiology for magnetic resonance imaging (MRI).
- d. Arrange to admit the patient to the neurologic unit for 24 hours of observation.

ANS: B

A patient with a minor head trauma is usually discharged with instructions about neurologic monitoring and the need to return if neurologic status deteriorates. MRI, hospital admission, or surgery are not usually indicated in a patient with a concussion.

10. A 23-year-old patient who is suspected of having an epidural hematoma is admitted to the emergency department. Which action will the nurse plan to take?

- a. Administer IV furosemide (Lasix).
- b. Prepare the patient for craniotomy.
- c. Initiate high-dose barbiturate therapy.
- d. Type and crossmatch for blood transfusion.

ANS: B

The principal treatment for epidural hematoma is rapid surgery to remove the hematoma and prevent herniation. If intracranial pressure (ICP) is elevated after surgery, furosemide or high-dose barbiturate therapy may be needed, but these will not be of benefit unless the hematoma is removed. Minimal blood loss occurs with head injuries, and transfusion is usually not necessary.

11. The nurse is admitting a patient with a basal skull fracture. The nurse notes ecchymoses around both eyes and clear drainage from the patient's nose. Which admission order should the nurse question?

- a. Keep the head of bed elevated.
- b. Insert nasogastric tube to low suction.
- c. Turn patient side to side every 2 hours
- d. Apply cold packs intermittently to face.

ANS: B

Rhinorrhea may indicate a dural tear with cerebrospinal fluid (CSF) leakage. Insertion of a nasogastric tube will increase the risk for infections such as meningitis. Turning the patient, elevating the head, and applying cold packs are appropriate orders.

12. A college athlete is seen in the clinic 6 weeks after a concussion. Which assessment information will the nurse collect to determine whether a patient is developing postconcussion syndrome?

- a. Short-term memory

- b. Muscle coordination
- c. Glasgow Coma Scale
- d. Pupil reaction to light

ANS: A

Decreased short-term memory is one indication of postconcussion syndrome. The other data may be assessed but are not indications of postconcussion syndrome.

13. The nurse admitting a patient who has a right frontal lobe tumor would expect the patient may have

- a. expressive aphasia.
- b. impaired judgment.
- c. right-sided weakness.
- d. difficulty swallowing.

ANS: B

The frontal lobe controls intellectual activities such as judgment. Speech is controlled in the parietal lobe. Weakness and hemiplegia occur on the contralateral side from the tumor. Swallowing is controlled by the brainstem.

14. Which statement by a 40-year-old patient who is being discharged from the emergency department (ED) after a concussion indicates a need for intervention by the nurse?

- a. I will return if I feel dizzy or nauseated.
- b. I am going to drive home and go to bed.
- c. I do not even remember being in an accident.
- d. I can take acetaminophen (Tylenol) for my headache.

ANS: B

Following a head injury, the patient should avoid driving and operating heavy machinery. Retrograde amnesia is common after a concussion. The patient can take acetaminophen for headache and should return if symptoms of increased intracranial pressure such as dizziness or nausea occur.

15. After having a craniectomy and left anterior fossae incision, a 64-year-old patient has a nursing diagnosis of impaired physical mobility related to decreased level of consciousness and weakness. An appropriate nursing intervention is to

- a. cluster nursing activities to allow longer rest periods.
- b. turn and reposition the patient side to side every 2 hours.
- c. position the bed flat and log roll to reposition the patient.
- d. perform range-of-motion (ROM) exercises every 4 hours.

ANS: D

ROM exercises will help prevent the complications of immobility. Patients with anterior craniotomies are positioned with the head elevated. The patient with a craniectomy should not be turned to the operative side. When the patient is weak, clustering nursing activities may lead to more fatigue and weakness.

16. A 42-year-old patient who has bacterial meningitis is disoriented and anxious. Which nursing action will be included in the plan of care?

- a. Encourage family members to remain at the bedside.
- b. Apply soft restraints to protect the patient from injury.
- c. Keep the room well-lighted to improve patient orientation.
- d. Minimize contact with the patient to decrease sensory input.

ANS: A

Patients with meningitis and disorientation will be calmed by the presence of someone familiar at the bedside. Restraints should be avoided because they increase agitation

and anxiety. The patient requires frequent assessment for complications. The use of touch and a soothing voice will decrease anxiety for most patients. The patient will have photophobia, so the light should be dim.

17. The public health nurse is planning a program to decrease the incidence of meningitis in adolescents and young adults. Which action is **most** important?

- a. Encourage adolescents and young adults to avoid crowds in the winter.
- b. Vaccinate 11- and 12-year-old children against *Haemophilus influenzae*.
- c. Immunize adolescents and college freshman against *Neisseria meningitides*.
- d. Emphasize the importance of hand washing to prevent the spread of infection.

ANS: C

The *Neisseria meningitides* vaccination is recommended for children ages 11 and 12, unvaccinated teens entering high school, and college freshmen. Hand washing may help decrease the spread of bacteria, but it is not as effective as immunization. Vaccination with *Haemophilus influenzae* is for infants and toddlers. Because adolescents and young adults are in school or the workplace, avoiding crowds is not realistic.

18. A patient has been admitted with meningococcal meningitis. Which observation by the nurse requires action?

- a. The bedrails at the head and foot of the bed are both elevated.
- b. The patient receives a regular diet from the dietary department.
- c. The lights in the patients room are turned off and the blinds are shut.
- d. Unlicensed assistive personnel enter the patients room without a mask.

ANS: D

Meningococcal meningitis is spread by respiratory secretions, so it is important to maintain respiratory isolation as well as standard precautions. Because the patient may be confused and weak, bedrails should be elevated at both the foot and head of the bed. Low light levels in the room decrease pain caused by photophobia. Nutrition is an important aspect of care in a patient with meningitis.

19. When assessing a 53-year-old patient with bacterial meningitis, the nurse obtains the following data. Which finding should be reported **immediately** to the health care provider?

- a. The patient exhibits nuchal rigidity.
- b. The patient has a positive Kernigs sign.
- c. The patients temperature is 101 F (38.3 C).
- d. The patients blood pressure is 88/42 mm Hg.

ANS: D

Shock is a serious complication of meningitis, and the patients low blood pressure indicates the need for interventions such as fluids or vasopressors. Nuchal rigidity and a positive Kernigs sign are expected with bacterial meningitis. The nurse should intervene to lower the temperature, but this is not as life threatening as the hypotension.

20. A patient admitted with a diffuse axonal injury has a systemic blood pressure (BP) of 106/52 mm Hg and an intracranial pressure (ICP) of 14 mm Hg. Which action should the nurse take **first**?

- a. Document the BP and ICP in the patients record.
- b. Report the BP and ICP to the health care provider.
- c. Elevate the head of the patients bed to 60 degrees.
- d. Continue to monitor the patients vital signs and ICP.

ANS: B

Calculate the cerebral perfusion pressure (CPP): (CPP = mean arterial pressure [MAP] ICP). $MAP = DBP + \frac{1}{3} (\text{systolic blood pressure [SBP]} - \text{diastolic blood pressure [DBP]})$. Therefore the (MAP) is 70 and the CPP is 56 mm Hg, which is below the normal of 60 to 100 mm Hg and approaching the level of ischemia and neuronal death. Immediate changes in the patients therapy such as fluid infusion or vasopressor administration are needed to improve the cerebral perfusion pressure. Adjustments in the head elevation should only be done after consulting with the health care provider. Continued monitoring and documentation will also be done, but they are not the first actions that the nurse should take.

21. After endotracheal suctioning, the nurse notes that the intracranial pressure for a patient with a traumatic head injury has increased from 14 to 17 mm Hg. Which action should the nurse take **first**?

- a. Document the increase in intracranial pressure.
- b. Ensure that the patients neck is in neutral position.
- c. Notify the health care provider about the change in pressure.
- d. Increase the rate of the prescribed propofol (Diprivan) infusion.

ANS: B

Because suctioning will cause a transient increase in intracranial pressure, the nurse should initially check for other factors that might be contributing to the increase and observe the patient for a few minutes. Documentation is needed, but this is not the first action. There is no need to notify the health care provider about this expected reaction to suctioning. Propofol is used to control patient anxiety or agitation. There is no indication that anxiety has contributed to the increase in intracranial pressure.

22. Which patient is **most** appropriate for the intensive care unit (ICU) charge nurse to assign to a registered nurse (RN) who has floated from the medical unit?

- a. A 45-year-old receiving IV antibiotics for meningococcal meningitis
- b. A 25-year-old admitted with a skull fracture and craniotomy the previous day

- c. A 55-year-old who has increased intracranial pressure (ICP) and is receiving hyperventilation therapy
- d. A 35-year-old with ICP monitoring after a head injury last week

ANS: A

An RN who works on a medical unit will be familiar with administration of IV antibiotics and with meningitis. The postcraniotomy patient, patient with an ICP monitor, and the patient on a ventilator should be assigned to an RN familiar with the care of critically ill patients.

23. A male patient who has possible cerebral edema has a serum sodium level of 116 mEq/L (116 mmol/L) and a decreasing level of consciousness (LOC). He is now complaining of a headache. Which prescribed interventions should the nurse implement **first**?

- a. Administer IV 5% hypertonic saline.
- b. Draw blood for arterial blood gases (ABGs).
- c. Send patient for computed tomography (CT).
- d. Administer acetaminophen (Tylenol) 650 mg orally.

ANS: A

The patient's low sodium indicates that hyponatremia may be causing the cerebral edema. The nurse's first action should be to correct the low sodium level.

Acetaminophen (Tylenol) will have minimal effect on the headache because it is caused by cerebral edema and increased intracranial pressure (ICP). Drawing ABGs and obtaining a CT scan may provide some useful information, but the low sodium level may lead to seizures unless it is addressed quickly.

24. After the emergency department nurse has received a status report on the following patients who have been admitted with head injuries, which patient should the nurse assess first?

- a. A 20-year-old patient whose cranial x-ray shows a linear skull fracture
- b. A 30-year-old patient who has an initial Glasgow Coma Scale score of 13
- c. A 40-year-old patient who lost consciousness for a few seconds after a fall
- d. A 50-year-old patient whose right pupil is 10 mm and unresponsive to light

ANS: D

The dilated and nonresponsive pupil may indicate an intracerebral hemorrhage and increased intracranial pressure. The other patients are not at immediate risk for complications such as herniation.

25. The nurse is caring for a patient who was admitted the previous day with a basilar skull fracture after a motor vehicle crash. Which assessment finding is **most** important to report to the health care provider?

- a. Complaint of severe headache
- b. Large contusion behind left ear
- c. Bilateral periorbital ecchymosis
- d. Temperature of 101.4 F (38.6 C)

ANS: D

Patients who have basilar skull fractures are at risk for meningitis, so the elevated temperature should be reported to the health care provider. The other findings are typical of a patient with a basilar skull fracture.

26. After evacuation of an epidural hematoma, a patient's intracranial pressure (ICP) is being monitored with an intraventricular catheter. Which information obtained by the nurse is **most** important to communicate to the health care provider?

- a. Pulse 102 beats/min

- b. Temperature 101.6 F
- c. Intracranial pressure 15 mm Hg
- d. Mean arterial pressure 90 mm Hg

ANS: B

Infection is a serious consideration with ICP monitoring, especially with intraventricular catheters. The temperature indicates the need for antibiotics or removal of the monitor. The ICP, arterial pressure, and apical pulse are all borderline high but require only ongoing monitoring at this time.

Chapter 57. Management: Stroke

MULTIPLE CHOICE

1. After a patient experienced a brief episode of tinnitus, diplopia, and dysarthria with no residual effects, the nurse anticipates teaching the patient about
 - a. cerebral aneurysm clipping.
 - b. heparin intravenous infusion.
 - c. oral low-dose aspirin therapy.
 - d. tissue plasminogen activator (tPA).

ANS: C

The patient's symptoms are consistent with transient ischemic attack (TIA), and drugs that inhibit platelet aggregation are prescribed after a TIA to prevent stroke.

Continuous heparin infusion is not routinely used after TIA or with acute ischemic stroke. The patient's symptoms are not consistent with a cerebral aneurysm. tPA is used only for acute ischemic stroke, not for TIA.

2. A 68-year-old patient is being admitted with a possible stroke. Which information from the assessment indicates that the nurse should consult with the health care provider before giving the prescribed aspirin?

- a. The patient has dysphasia.
- b. The patient has atrial fibrillation.
- c. The patient reports that symptoms began with a severe headache.
- d. The patient has a history of brief episodes of right-sided hemiplegia.

ANS: C

A sudden onset headache is typical of a subarachnoid hemorrhage, and aspirin is contraindicated. Atrial fibrillation, dysphasia, and transient ischemic attack (TIA) are not contraindications to aspirin use, so the nurse can administer the aspirin.

3. A 73-year-old patient with a stroke experiences facial drooping on the right side and right-sided arm and leg paralysis. When admitting the patient, which clinical manifestation will the nurse expect to find?

- a. Impulsive behavior
- b. Right-sided neglect
- c. Hyperactive left-sided tendon reflexes
- d. Difficulty comprehending instructions

ANS: D

Right-sided paralysis indicates a left-brain stroke, which will lead to difficulty with comprehension and use of language. The left-side reflexes are likely to be intact. Impulsive behavior and neglect are more likely with a right-side stroke.

4. During the change of shift report a nurse is told that a patient has an occluded left posterior cerebral artery. The nurse will anticipate that the patient may have

- a. dysphasia.
- b. confusion.
- c. visual deficits.
- d. poor judgment.

ANS: C

Visual disturbances are expected with posterior cerebral artery occlusion. Aphasia occurs with middle cerebral artery involvement. Cognitive deficits and changes in judgment are more typical of anterior cerebral artery occlusion.

5. When teaching about clopidogrel (Plavix), the nurse will tell the patient with cerebral atherosclerosis

- a. to monitor and record the blood pressure daily.
- b. that Plavix will dissolve clots in the cerebral arteries.
- c. that Plavix will reduce cerebral artery plaque formation.
- d. to call the health care provider if stools are bloody or tarry.

ANS: D

Clopidogrel (Plavix) inhibits platelet function and increases the risk for gastrointestinal bleeding, so patients should be advised to notify the health care provider about any signs of bleeding. The medication does not lower blood pressure, decrease plaque formation, or dissolve clots.

6. A patient with carotid atherosclerosis asks the nurse to describe a carotid endarterectomy. Which response by the nurse is accurate?

- a. The obstructing plaque is surgically removed from an artery in the neck.
- b. The diseased portion of the artery in the brain is replaced with a synthetic graft.

- c. A wire is threaded through an artery in the leg to the clots in the carotid artery and the clots are removed.
- d. A catheter with a deflated balloon is positioned at the narrow area, and the balloon is inflated to flatten the plaque.

ANS: A

In a carotid endarterectomy, the carotid artery is incised and the plaque is removed. The response beginning, The diseased portion of the artery in the brain is replaced describes an arterial graft procedure. The answer beginning, A catheter with a deflated balloon is positioned at the narrow area describes an angioplasty. The final response beginning, A wire is threaded through the artery describes the mechanical embolus removal in cerebral ischemia (MERCİ) procedure.

7. A patient admitted with possible stroke has been aphasic for 3 hours and his current blood pressure (BP) is 174/94 mm Hg. Which order by the health care provider should the nurse question?

- a. Keep head of bed elevated at least 30 degrees.
- b. Infuse normal saline intravenously at 75 mL/hr.
- c. Administer tissue plasminogen activator (tPA) per protocol.
- d. Administer a labetalol (Normodyne) drip to keep BP less than 140/90 mm Hg.

ANS: D

Because elevated BP may be a protective response to maintain cerebral perfusion, antihypertensive therapy is recommended only if mean arterial pressure (MAP) is >130 mm Hg or systolic pressure is >220 mm Hg. Fluid intake should be 1500 to 2000 mL daily to maintain cerebral blood flow. The head of the bed should be elevated to at least 30 degrees, unless the patient has symptoms of poor tissue perfusion. tPA may be administered if the patient meets the other criteria for tPA use.

8. A 56-year-old patient arrives in the emergency department with hemiparesis and dysarthria that started 2 hours previously, and health records show a history of several transient ischemic attacks (TIAs). The nurse anticipates preparing the patient for

- a. surgical endarterectomy.
- b. transluminal angioplasty.
- c. intravenous heparin administration.
- d. tissue plasminogen activator (tPA) infusion.

ANS: D

The patient's history and clinical manifestations suggest an acute ischemic stroke and a patient who is seen within 4.5 hours of stroke onset is likely to receive tPA (after screening with a CT scan). Heparin administration in the emergency phase is not indicated. Emergent carotid transluminal angioplasty or endarterectomy is not indicated for the patient who is having an acute ischemic stroke.

9. A female patient who had a stroke 24 hours ago has expressive aphasia. The nurse identifies the nursing diagnosis of impaired verbal communication. An appropriate nursing intervention to help the patient communicate is to

- a. ask questions that the patient can answer with yes or no.
- b. develop a list of words that the patient can read and practice reciting.
- c. have the patient practice her facial and tongue exercises with a mirror.
- d. prevent embarrassing the patient by answering for her if she does not respond.

ANS: A

Communication will be facilitated and less frustrating to the patient when questions that require a yes or no response are used. When the language areas of the brain are injured, the patient might not be able to read or recite words, which will frustrate the patient without improving communication. Expressive aphasia is caused by damage to

the language areas of the brain, not by the areas that control the motor aspects of speech. The nurse should allow time for the patient to respond.

10. For a patient who had a right hemisphere stroke the nurse establishes a nursing diagnosis of

- a. risk for injury related to denial of deficits and impulsiveness.
- b. impaired physical mobility related to right-sided hemiplegia.
- c. impaired verbal communication related to speech-language deficits.
- d. ineffective coping related to depression and distress about disability.

ANS: A

The patient with right-sided brain damage typically denies any deficits and has poor impulse control, leading to risk for injury when the patient attempts activities such as transferring from a bed to a chair. Right-sided brain damage causes left hemiplegia. Left-sided brain damage typically causes language deficits. Left-sided brain damage is associated with depression and distress about the disability.

11. When caring for a patient with a new right-sided homonymous hemianopsia resulting from a stroke, which intervention should the nurse include in the plan of care?

- a. Apply an eye patch to the right eye.
- b. Approach the patient from the right side.
- c. Place objects needed on the patients left side.
- d. Teach the patient that the left visual deficit will resolve.

ANS: C

During the acute period, the nurse should place objects on the patients unaffected side. Because there is a visual defect in the right half of each eye, an eye patch is not

appropriate. The patient should be approached from the left side. The visual deficit may not resolve, although the patient can learn to compensate for the defect.

12. The nurse identifies the nursing diagnosis of imbalanced nutrition: less than body requirements related to impaired self-feeding ability for a left-handed patient with left-sided hemiplegia. Which intervention should be included in the plan of care?

- a. Provide a wide variety of food choices.
- b. Provide oral care before and after meals.
- c. Assist the patient to eat with the right hand.
- d. Teach the patient the chin-tuck technique.

ANS: C

Because the nursing diagnosis indicates that the patient's imbalanced nutrition is related to the left-sided hemiplegia, the appropriate interventions will focus on teaching the patient to use the right hand for self-feeding. The other interventions are appropriate for patients with other etiologies for the imbalanced nutrition.

13. A 40-year-old patient has a ruptured cerebral aneurysm and subarachnoid hemorrhage. Which intervention will be included in the care plan?

- a. Apply intermittent pneumatic compression stockings.
- b. Assist to dangle on edge of bed and assess for dizziness.
- c. Encourage patient to cough and deep breathe every 4 hours.
- d. Insert an oropharyngeal airway to prevent airway obstruction.

ANS: A

The patient with a subarachnoid hemorrhage usually has minimal activity to prevent cerebral vasospasm or further bleeding and is at risk for venous thromboembolism (VTE). Activities such as coughing and sitting up that might increase intracranial

pressure (ICP) or decrease cerebral blood flow are avoided. Because there is no indication that the patient is unconscious, an oropharyngeal airway is inappropriate.

14. A 47-year-old patient will attempt oral feedings for the first time since having a stroke. The nurse should assess the gag reflex and then

- a. order a varied pureed diet.
- b. assess the patients appetite.
- c. assist the patient into a chair.
- d. offer the patient a sip of juice.

ANS: C

The patient should be as upright as possible before attempting feeding to make swallowing easier and decrease aspiration risk. To assess swallowing ability, the nurse should initially offer water or ice to the patient. Pureed diets are not recommended because the texture is too smooth. The patient may have a poor appetite, but the oral feeding should be attempted regardless.

15. A male patient who has right-sided weakness after a stroke is making progress in learning to use the left hand for feeding and other activities. The nurse observes that when the patients wife is visiting, she feeds and dresses him. Which nursing diagnosis is most appropriate for the patient?

- a. Interrupted family processes related to effects of illness of a family member
- b. Situational low self-esteem related to increasing dependence on spouse for care
- c. Disabled family coping related to inadequate understanding by patients spouse
- d. Impaired nutrition: less than body requirements related to hemiplegia and aphasia

ANS: C

The information supports the diagnosis of disabled family coping because the wife does not understand the rehabilitation program. There are no data supporting low self-esteem, and the patient is attempting independence. The data do not support an interruption in family processes because this may be a typical pattern for the couple. There is no indication that the patient has impaired nutrition.

16. Several weeks after a stroke, a 50-year-old male patient has impaired awareness of bladder fullness, resulting in urinary incontinence. Which nursing intervention will be **best** to include in the initial plan for an effective bladder training program?

- a. Limit fluid intake to 1200 mL daily to reduce urine volume.
- b. Assist the patient onto the bedside commode every 2 hours.
- c. Perform intermittent catheterization after each voiding to check for residual urine.
- d. Use an external condom catheter to protect the skin and prevent embarrassment.

ANS: B

Developing a regular voiding schedule will prevent incontinence and may increase patient awareness of a full bladder. A 1200 mL fluid restriction may lead to dehydration. Intermittent catheterization and use of a condom catheter are appropriate in the acute phase of stroke, but should not be considered solutions for long-term management because of the risks for urinary tract infection (UTI) and skin breakdown.

17. A 72-year-old patient who has a history of a transient ischemic attack (TIA) has an order for aspirin 160 mg daily. When the nurse is administering medications, the patient says, I dont need the aspirin today. I dont have a fever. Which action should the nurse take?

- a. Document that the aspirin was refused by the patient.
- b. Tell the patient that the aspirin is used to prevent a fever.
- c. Explain that the aspirin is ordered to decrease stroke risk.

- d. Call the health care provider to clarify the medication order.

ANS: C

Aspirin is ordered to prevent stroke in patients who have experienced TIAs. Documentation of the patient's refusal to take the medication is an inadequate response by the nurse. There is no need to clarify the order with the health care provider. The aspirin is not ordered to prevent aches and pains.

18. A patient in the clinic reports a recent episode of dysphasia and left-sided weakness at home that resolved after 2 hours. The nurse will anticipate teaching the patient about

- a. alteplase (tPA).
- b. aspirin (Ecotrin).
- c. warfarin (Coumadin).
- d. nimodipine (Nimotop).

ANS: B

Following a transient ischemic attack (TIA), patients typically are started on medications such as aspirin to inhibit platelet function and decrease stroke risk. tPA is used for acute ischemic stroke. Coumadin is usually used for patients with atrial fibrillation. Nimodipine is used to prevent cerebral vasospasm after a subarachnoid hemorrhage.

19. A 58-year-old patient with a left-brain stroke suddenly bursts into tears when family members visit. The nurse should

- a. use a calm voice to ask the patient to stop the crying behavior.
- b. explain to the family that depression is normal following a stroke.
- c. have the family members leave the patient alone for a few minutes.
- d. teach the family that emotional outbursts are common after strokes.

ANS: D

Patients who have left-sided brain stroke are prone to emotional outbursts that are not necessarily related to the emotional state of the patient. Depression after a stroke is common, but the suddenness of the patients outburst suggests that depression is not the major cause of the behavior. The family should stay with the patient. The crying is not within the patients control and asking the patient to stop will lead to embarrassment.

20. Which stroke risk factor for a 48-year-old male patient in the clinic is **most** important for the nurse to address?

- a. The patient is 25 pounds above the ideal weight.
- b. The patient drinks a glass of red wine with dinner daily.
- c. The patients usual blood pressure (BP) is 170/94 mm Hg.
- d. The patient works at a desk and relaxes by watching television.

ANS: C

Hypertension is the single most important modifiable risk factor. People who drink more than 1 (for women) or 2 (for men) alcoholic beverages a day may increase risk for hypertension. Physical inactivity and obesity contribute to stroke risk but not as much as hypertension.

21. A patient in the emergency department with sudden-onset right-sided weakness is diagnosed with an intracerebral hemorrhage. Which information about the patient is **most** important to communicate to the health care provider?

- a. The patients speech is difficult to understand.
- b. The patients blood pressure is 144/90 mm Hg.
- c. The patient takes a diuretic because of a history of hypertension.
- d. The patient has atrial fibrillation and takes warfarin (Coumadin).

ANS: D

The use of warfarin probably contributed to the intracerebral bleeding and remains a risk factor for further bleeding. Administration of vitamin K is needed to reverse the effects of the warfarin, especially if the patient is to have surgery to correct the bleeding. The history of hypertension is a risk factor for the patient but has no immediate effect on the patient's care. The BP of 144/90 indicates the need for ongoing monitoring but not for any immediate change in therapy. Slurred speech is consistent with a left-sided stroke, and no change in therapy is indicated.

22. A patient with left-sided weakness that started 60 minutes earlier is admitted to the emergency department and diagnostic tests are ordered. Which test should be done **first**?

- a. Complete blood count (CBC)
- b. Chest radiograph (Chest x-ray)
- c. 12-Lead electrocardiogram (ECG)
- d. Noncontrast computed tomography (CT) scan

ANS: D

Rapid screening with a noncontrast CT scan is needed before administration of tissue plasminogen activator (tPA), which must be given within 4.5 hours of the onset of clinical manifestations of the stroke. The sooner the tPA is given, the less brain injury. The other diagnostic tests give information about possible causes of the stroke and do not need to be completed as urgently as the CT scan.

23. Nurses in change-of-shift report are discussing the care of a patient with a stroke who has progressively increasing weakness and decreasing level of consciousness (LOC). Which nursing diagnosis do they determine has the **highest** priority for the patient?

- a. Impaired physical mobility related to weakness
- b. Disturbed sensory perception related to brain injury

- c. Risk for impaired skin integrity related to immobility
- d. Risk for aspiration related to inability to protect airway

ANS: D

Protection of the airway is the priority of nursing care for a patient having an acute stroke. The other diagnoses are also appropriate, but interventions to prevent aspiration are the priority at this time.

24. Which information about the patient who has had a subarachnoid hemorrhage is **most** important to communicate to the health care provider?

- a. The patient complains of having a stiff neck.
- b. The patient's blood pressure (BP) is 90/50 mm Hg.
- c. The patient reports a severe and unrelenting headache.
- d. The cerebrospinal fluid (CSF) report shows red blood cells (RBCs).

ANS: B

To prevent cerebral vasospasm and maintain cerebral perfusion, blood pressure needs to be maintained at a level higher than 90 mm Hg systolic after a subarachnoid hemorrhage. A low BP or drop in BP indicates a need to administer fluids and/or vasopressors to increase the BP. An ongoing headache, RBCs in the CSF, and a stiff neck are all typical clinical manifestations of a subarachnoid hemorrhage and do not need to be rapidly communicated to the health care provider.

25. The nurse is caring for a patient who has been experiencing stroke symptoms for 60 minutes. Which action can the nurse delegate to a licensed practical/vocational nurse (LPN/LVN)?

- a. Assess the patient's gag and cough reflexes.
- b. Determine when the stroke symptoms began.
- c. Administer the prescribed short-acting insulin.

- d. Infuse the prescribed IV metoprolol (Lopressor).

ANS: C

Administration of subcutaneous medications is included in LPN/LVN education and scope of practice. The other actions require more education and scope of practice and should be done by the registered nurse (RN).

26. After receiving change-of-shift report on the following four patients, which patient should the nurse see **first**?

- a. A 60-year-old patient with right-sided weakness who has an infusion of tPA prescribed
- b. A 50-year-old patient who has atrial fibrillation and a new order for warfarin (Coumadin)
- c. A 40-year-old patient who experienced a transient ischemic attack yesterday who has a dose of aspirin due
- d. A 30-year-old patient with a subarachnoid hemorrhage 2 days ago who has nimodipine (Nimotop) scheduled

ANS: A

tPA needs to be infused within the first few hours after stroke symptoms start in order to be effective in minimizing brain injury. The other medications should also be given as quickly as possible, but timing of the medications is not as critical.

27. The nurse is caring for a patient who has just returned after having left carotid artery angioplasty and stenting. Which assessment information is of **most** concern to the nurse?

- a. The pulse rate is 102 beats/min.
- b. The patient has difficulty speaking.
- c. The blood pressure is 144/86 mm Hg.
- d. There are fine crackles at the lung bases.

ANS: B

Small emboli can occur during carotid artery angioplasty and stenting, and the aphasia indicates a possible stroke during the procedure. Slightly elevated pulse rate and blood pressure are not unusual because of anxiety associated with the procedure. Fine crackles at the lung bases may indicate atelectasis caused by immobility during the procedure. The nurse should have the patient take some deep breaths.

28. A 70-year-old female patient with left-sided hemiparesis arrives by ambulance to the emergency department. Which action should the nurse take **first**?

- a. Monitor the blood pressure.
- b. Send the patient for a computed tomography (CT) scan.
- c. Check the respiratory rate and effort.
- d. Assess the Glasgow Coma Scale score.

ANS: C

The initial nursing action should be to assess the airway and take any needed actions to ensure a patent airway. The other activities should take place quickly after the ABCs (airway, breathing, and circulation) are completed.

29. The home health nurse is caring for an 81-year-old who had a stroke 2 months ago. Based on information shown in the accompanying figure from the history, physical assessment, and physical therapy/occupational therapy, which nursing diagnosis is the **highest** priority for this patient?

- a. Impaired transfer ability
- b. Risk for caregiver role strain
- c. Ineffective health maintenance
- d. Risk for unstable blood glucose level

ANS: B

The spouses household and patient care responsibilities, in combination with chronic illnesses, indicate a high risk for caregiver role strain. The nurse should further assess the situation and take appropriate actions. The data about the control of the patients diabetes indicates that ineffective health maintenance and risk for unstable blood glucose are not priority concerns at this time. Because the patient is able to ambulate with a cane, the nursing diagnosis of impaired transfer ability is not supported.

OTHER

1. A 63-year-old patient who began experiencing right arm and leg weakness is admitted to the emergency department. In which order will the nurse implement these actions included in the stroke protocol? (*Put a comma and a space between each answer choice [A, B, C, D].*)

- a. Obtain computed tomography (CT) scan without contrast.
- b. Infuse tissue plasminogen activator (tPA).
- c. Administer oxygen to keep O₂ saturation >95%.
- d. Use National Institute of Health Stroke Scale to assess patient.

ANS:

C, D, A, B

The initial actions should be those that help with airway, breathing, and circulation. Baseline neurologic assessments should be done next. A CT scan will be needed to rule out hemorrhagic stroke before tPA can be administered.

Chapter 58. Management: Chronic Neurologic Problems

MULTIPLE CHOICE

1. The nurse determines that teaching about management of migraine headaches has been effective when the patient says which of the following?

- a. I can take the (Topamax) as soon as a headache starts.
- b. A glass of wine might help me relax and prevent a headache.
- c. I will lie down someplace dark and quiet when the headaches begin.
- d. I should avoid taking aspirin and sumatriptan (Imitrex) at the same time.

ANS: C

It is recommended that the patient with a migraine rest in a dark, quiet area. Topiramate (Topamax) is used to prevent migraines and must be taken for several months to determine effectiveness. Aspirin or other nonsteroidal antiinflammatory medications can be taken with the triptans. Alcohol may precipitate migraine headaches.

2. The nurse will assess a 67-year-old patient who is experiencing a cluster headache for

- a. nuchal rigidity.
- b. unilateral ptosis.
- c. projectile vomiting.
- d. throbbing, bilateral facial pain.

ANS: B

Unilateral eye edema, tearing, and ptosis are characteristic of cluster headaches. Nuchal rigidity suggests meningeal irritation, such as occurs with meningitis. Although nausea and vomiting may occur with migraine headaches, projectile vomiting is more consistent with increased intracranial pressure (ICP). Unilateral sharp, stabbing pain, rather than throbbing pain, is characteristic of cluster headaches.

3. While the nurse is transporting a patient on a stretcher to the radiology department, the patient begins having a tonic-clonic seizure. Which action should the nurse take?

- a. Insert an oral airway during the seizure to maintain a patent airway.

- b. Restrain the patients arms and legs to prevent injury during the seizure.
- c. Time and observe and record the details of the seizure and postictal state.
- d. Avoid touching the patient to prevent further nervous system stimulation.

ANS: C

Because the diagnosis and treatment of seizures frequently are based on the description of the seizure, recording the length and details of the seizure is important. Insertion of an oral airway and restraining the patient during the seizure are contraindicated. The nurse may need to move the patient to decrease the risk of injury during the seizure.

4. A high school teacher who has just been diagnosed with epilepsy after having a generalized tonic-clonic seizure tells the nurse, I cannot teach anymore, it will be too upsetting if I have a seizure at work. Which response by the nurse is **best**?

- a. You might benefit from some psychologic counseling.
- b. Epilepsy usually can be well controlled with medications.
- c. You will want to contact the Epilepsy Foundation for assistance.
- d. The Department of Vocational Rehabilitation can help with work retraining.

ANS: B

The nurse should inform the patient that most patients with seizure disorders are controlled with medication. The other information may be necessary if the seizures persist after treatment with antiseizure medications is implemented.

5. A patient has been taking phenytoin (Dilantin) for 2 years. Which action will the nurse take when evaluating for adverse effects of the medication?

- a. Inspect the oral mucosa.

- b. Listen to the lung sounds.
- c. Auscultate the bowel tones.
- d. Check pupil reaction to light.

ANS: A

Phenytoin can cause gingival hyperplasia, but does not affect bowel tones, lung sounds, or pupil reaction to light.

6. A patient reports feeling numbness and tingling of the left arm before experiencing a tonic-clonic seizure. The nurse determines that this history is consistent with what type of seizure?

- a. Focal
- b. Atonic
- c. Absence
- d. Myoclonic

ANS: A

The initial symptoms of a focal seizure involve clinical manifestations that are localized to a particular part of the body or brain. Symptoms of an absence seizure are staring and a brief loss of consciousness. In an atonic seizure, the patient loses muscle tone and (typically) falls to the ground. Myoclonic seizures are characterized by a sudden jerk of the body or extremities.

7. When obtaining a health history and physical assessment for a 36-year-old female patient with possible multiple sclerosis (MS), the nurse should

- a. assess for the presence of chest pain.
- b. inquire about urinary tract problems.
- c. inspect the skin for rashes or discoloration.
- d. ask the patient about any increase in libido.

ANS: B

Urinary tract problems with incontinence or retention are common symptoms of MS. Chest pain and skin rashes are not symptoms of MS. A decrease in libido is common with MS.

8. A 31-year-old woman who has multiple sclerosis (MS) asks the nurse about risks associated with pregnancy. Which response by the nurse is accurate?

- a. MS symptoms may be worse after the pregnancy.
- b. Women with MS frequently have premature labor.
- c. MS is associated with an increased risk for congenital defects.
- d. Symptoms of MS are likely to become worse during pregnancy.

ANS: A

During the postpartum period, women with MS are at greater risk for exacerbation of symptoms. There is no increased risk for congenital defects in infants born of mothers with MS. Symptoms of MS may improve during pregnancy. Onset of labor is not affected by MS.

9. A 49-year-old patient with multiple sclerosis (MS) is to begin treatment with glatiramer acetate (Copaxone). Which information will the nurse include in patient teaching?

- a. Recommendation to drink at least 4 L of fluid daily
- b. Need to avoid driving or operating heavy machinery
- c. How to draw up and administer injections of the medication
- d. Use of contraceptive methods other than oral contraceptives

ANS: C

Copaxone is administered by self-injection. Oral contraceptives are an appropriate choice for birth control. There is no need to avoid driving or drink large fluid volumes when taking glatiramer.

10. Which information about a 60-year-old patient with MS indicates that the nurse should consult with the health care provider before giving the prescribed dose of dalfampridine (Ampyra)?

- a. The patient has relapsing-remitting MS.
- b. The patient walks a mile a day for exercise.
- c. The patient complains of pain with neck flexion.
- d. The patient has an increased serum creatinine level.

ANS: D

Dalfampridine should not be given to patients with impaired renal function. The other information will not impact whether the dalfampridine should be administered.

11. Which action will the nurse plan to take for a 40-year-old patient with multiple sclerosis (MS) who has urinary retention caused by a flaccid bladder?

- a. Decrease the patient's evening fluid intake.
- b. Teach the patient how to use the Cred method.
- c. Suggest the use of adult incontinence briefs for nighttime only.
- d. Assist the patient to the commode every 2 hours during the day.

ANS: B

The Cred method can be used to improve bladder emptying. Decreasing fluid intake will not improve bladder emptying and may increase risk for urinary tract infection (UTI) and dehydration. The use of incontinence briefs and frequent toileting will not improve bladder emptying.

12. A 73-year-old patient with Parkinsons disease has a nursing diagnosis of impaired physical mobility related to bradykinesia. Which action will the nurse include in the plan of care?

- a. Instruct the patient in activities that can be done while lying or sitting.
- b. Suggest that the patient rock from side to side to initiate leg movement.
- c. Have the patient take small steps in a straight line directly in front of the feet.
- d. Teach the patient to keep the feet in contact with the floor and slide them forward.

ANS: B

Rocking the body from side to side stimulates balance and improves mobility. The patient will be encouraged to continue exercising because this will maintain functional abilities. Maintaining a wide base of support will help with balance. The patient should lift the feet and avoid a shuffling gait.

13. A 62-year-old patient who has Parkinsons disease is taking bromocriptine (Parlodel). Which information obtained by the nurse may indicate a need for a decrease in the dose?

- a. The patient has a chronic dry cough.
- b. The patient has four loose stools in a day.
- c. The patient develops a deep vein thrombosis.
- d. The patients blood pressure is 92/52 mm Hg.

ANS: D

Hypotension is an adverse effect of bromocriptine, and the nurse should check with the health care provider before giving the medication. Diarrhea, cough, and deep vein thrombosis are not associated with bromocriptine use.

14. The nurse advises a patient with myasthenia gravis (MG) to

- a. perform physically demanding activities early in the day.
- b. anticipate the need for weekly plasmapheresis treatments.
- c. do frequent weight-bearing exercise to prevent muscle atrophy.
- d. protect the extremities from injury due to poor sensory perception.

ANS: A

Muscles are generally strongest in the morning, and activities involving muscle activity should be scheduled then. Plasmapheresis is not routinely scheduled, but is used for myasthenia crisis or for situations in which corticosteroid therapy must be avoided. There is no decrease in sensation with MG, and muscle atrophy does not occur because although there is muscle weakness, they are still used.

15. Which medication taken by a patient with restless legs syndrome should the nurse discuss with the patient?

- a. Multivitamin (Stresstabs)
- b. Acetaminophen (Tylenol)
- c. Ibuprofen (Motrin, Advil)
- d. Diphenhydramine (Benadryl)

ANS: D

Antihistamines can aggravate restless legs syndrome. The other medications will not contribute to restless legs syndrome.

16. A 64-year-old patient who has amyotrophic lateral sclerosis (ALS) is hospitalized with pneumonia. Which nursing action will be included in the plan of care?

- a. Assist with active range of motion (ROM).
- b. Observe for agitation and paranoia.
- c. Give muscle relaxants as needed to reduce spasms.

- d. Use simple words and phrases to explain procedures.

ANS: A

ALS causes progressive muscle weakness, but assisting the patient to perform active ROM will help maintain strength as long as possible. Psychotic manifestations such as agitation and paranoia are not associated with ALS. Cognitive function is not affected by ALS, and the patient's ability to understand procedures will not be impaired. Muscle relaxants will further increase muscle weakness and depress respirations.

17. A 40-year-old patient is diagnosed with early Huntingtons disease (HD). When teaching the patient, spouse, and children about this disorder, the nurse will provide information about the

- a. use of levodopa-carbidopa (Sinemet) to help reduce HD symptoms.
- b. prophylactic antibiotics to decrease the risk for aspiration pneumonia.
- c. option of genetic testing for the patient's children to determine their own HD risks.
- d. lifestyle changes of improved nutrition and exercise that delay disease progression.

ANS: C

Genetic testing is available to determine whether an asymptomatic individual has the HD gene. The patient and family should be informed of the benefits and problems associated with genetic testing. Sinemet will increase symptoms of HD because HD involves an increase in dopamine. Antibiotic therapy will not reduce the risk for aspiration. There are no effective treatments or lifestyle changes that delay the progression of symptoms in HD.

18. When a 74-year-old patient is seen in the health clinic with new development of a stooped posture, shuffling gait, and pill rolling type tremor, the nurse will anticipate teaching the patient about

- a. oral corticosteroids.
- b. antiparkinsonian drugs.
- c. magnetic resonance imaging (MRI).
- d. electroencephalogram (EEG) testing.

ANS: B

The diagnosis of Parkinsons is made when two of the three characteristic manifestations of tremor, rigidity, and bradykinesia are present. The confirmation of the diagnosis is made on the basis of improvement when antiparkinsonian drugs are administered. This patient has symptoms of tremor and bradykinesia. The next anticipated step will be treatment with medications. MRI and EEG are not useful in diagnosing Parkinsons disease, and corticosteroid therapy is not used to treat it.

19. A 22-year-old patient seen at the health clinic with a severe migraine headache tells the nurse about having other similar headaches recently. Which **initial** action should the nurse take?

- a. Teach about the use of triptan drugs.
- b. Refer the patient for stress counseling.
- c. Ask the patient to keep a headache diary.
- d. Suggest the use of muscle-relaxation techniques.

ANS: C

The initial nursing action should be further assessment of the precipitating causes of the headaches, quality, and location of pain, etc. Stress reduction, muscle relaxation, and the triptan drugs may be helpful, but more assessment is needed first.

20. A hospitalized patient complains of a bilateral headache, 4/10 on the pain scale, that radiates from the base of the skull. Which prescribed PRN medications should the nurse administer **initially**?

- a. Lorazepam (Ativan)
- b. Acetaminophen (Tylenol)
- c. Morphine sulfate (Roxanol)
- d. Butalbital and aspirin (Fiorinal)

ANS: B

The patient's symptoms are consistent with a tension headache, and initial therapy usually involves a nonopioid analgesic such as acetaminophen, which is sometimes combined with a sedative or muscle relaxant. Lorazepam may be used in conjunction with acetaminophen but would not be appropriate as the initial monotherapy. Morphine sulfate and butalbital and aspirin would be more appropriate for a headache that did not respond to a nonopioid analgesic.

21. A 46-year-old patient tells the nurse about using acetaminophen (Tylenol) several times every day for recurrent bilateral headaches. Which action will the nurse plan to take **first**?

- a. Discuss the need to stop taking the acetaminophen.
- b. Suggest the use of biofeedback for headache control.
- c. Describe the use of botulism toxin (Botox) for headaches.
- d. Teach the patient about magnetic resonance imaging (MRI).

ANS: A

The headache description suggests that the patient is experiencing medication overuse headache. The initial action will be withdrawal of the medication. The other actions may be needed if the headaches persist.

22. The health care provider is considering the use of sumatriptan (Imitrex) for a 54-year-old male patient with migraine headaches. Which information obtained by the nurse is **most** important to report to the health care provider?

- a. The patient drinks 1 to 2 cups of coffee daily.
- b. The patient had a recent acute myocardial infarction.
- c. The patient has had migraine headaches for 30 years.
- d. The patient has taken topiramate (Topamax) for 2 months.

ANS: B

The triptans cause coronary artery vasoconstriction and should be avoided in patients with coronary artery disease. The other information will be reported to the health care provider, but none of it indicates that sumatriptan would be an inappropriate treatment.

23. The nurse observes a patient ambulating in the hospital hall when the patient's arms and legs suddenly jerk and the patient falls to the floor. The nurse will **first**

- a. assess the patient for a possible head injury.
- b. give the scheduled dose of divalproex (Depakote).
- c. document the timing and description of the seizure.
- d. notify the patient's health care provider about the seizure.

ANS: A

The patient who has had a myoclonic seizure and fall is at risk for head injury and should first be evaluated and treated for this possible complication. Documentation of the seizure, notification of the seizure, and administration of antiseizure medications are also appropriate actions, but the initial action should be assessment for injury.

24. Which prescribed intervention will the nurse implement **first** for a patient in the emergency department who is experiencing continuous tonic-clonic seizures?

- a. Give phenytoin (Dilantin) 100 mg IV.
- b. Monitor level of consciousness (LOC).
- c. Obtain computed tomography (CT) scan.

- d. Administer lorazepam (Ativan) 4 mg IV.

ANS: D

To prevent ongoing seizures, the nurse should administer rapidly acting antiseizure medications such as the benzodiazepines. A CT scan is appropriate, but prevention of any seizure activity during the CT scan is necessary. Phenytoin will also be administered, but it is not rapidly acting. Patients who are experiencing tonic-clonic seizures are nonresponsive, although the nurse should assess LOC after the seizure.

25. The home health registered nurse (RN) is planning care for a patient with a seizure disorder related to a recent head injury. Which nursing action can be delegated to a licensed practical/vocational nurse (LPN/LVN)?

- a. Make referrals to appropriate community agencies.
- b. Place medications in the home medication organizer.
- c. Teach the patient and family how to manage seizures.
- d. Assess for use of medications that may precipitate seizures.

ANS: B

LPN/LVN education includes administration of medications. The other activities require RN education and scope of practice.

26. A 76-year-old patient is being treated with carbidopa/levodopa (Sinemet) for Parkinsons disease. Which information is **most** important for the nurse to report to the health care provider?

- a. Shuffling gait
- b. Tremor at rest
- c. Cogwheel rigidity of limbs

- d. Uncontrolled head movement

ANS: D

Dyskinesia is an adverse effect of the Sinemet, indicating a need for a change in medication or decrease in dose. The other findings are typical with Parkinsons disease.

27. Which nursing diagnosis is of **highest** priority for a patient with Parkinsons disease who is unable to move the facial muscles?

- a. Activity intolerance
- b. Self-care deficit: toileting
- c. Ineffective self-health management
- d. Imbalanced nutrition: less than body requirements

ANS: D

The data about the patient indicate that poor nutrition will be a concern because of decreased swallowing. The other diagnoses may also be appropriate for a patient with Parkinsons disease, but the data do not indicate that they are current problems for this patient.

28. Which assessment is **most** important for the nurse to make regarding a patient with myasthenia gravis?

- a. Pupil size
- b. Grip strength
- c. Respiratory effort
- d. Level of consciousness

ANS: C

Because respiratory insufficiency may be life threatening, it will be most important to monitor respiratory function. The other data also will be assessed but are not as critical.

29. Following a thymectomy, a 62-year-old male patient with myasthenia gravis receives the usual dose of pyridostigmine (Mestinon). An hour later, the patient complains of nausea and severe abdominal cramps. Which action should the nurse take **first**?

- a. Auscultate the patient's bowel sounds.
- b. Notify the patient's health care provider.
- c. Administer the prescribed PRN antiemetic drug.
- d. Give the scheduled dose of prednisone (Deltasone).

ANS: B

The patient's history and symptoms indicate a possible cholinergic crisis. The health care provider should be notified immediately, and it is likely that atropine will be prescribed. The other actions will be appropriate if the patient is not experiencing a cholinergic crisis.

30. A hospitalized 31-year-old patient with a history of cluster headache awakens during the night with a severe stabbing headache. Which action should the nurse take **first**?

- a. Start the ordered PRN oxygen at 6 L/min.
- b. Put a moist hot pack on the patient's neck.
- c. Give the ordered PRN acetaminophen (Tylenol).
- d. Notify the patient's health care provider immediately.

ANS: A

Acute treatment for cluster headache is administration of 100% oxygen at 6 to 8 L/min. If the patient obtains relief with the oxygen, there is no immediate need to notify the health care provider. Cluster headaches last only 60 to 90 minutes, so oral pain medications have minimal effect. Hot packs are helpful for tension headaches but are not as likely to reduce pain associated with a cluster headache.

31. Which intervention will the nurse include in the plan of care for a patient with primary restless legs syndrome (RLS) who is having difficulty sleeping?

- a. Teach about the use of antihistamines to improve sleep.
- b. Suggest that the patient exercise regularly during the day.
- c. Make a referral to a massage therapist for deep massage of the legs.
- d. Assure the patient that the problem is transient and likely to resolve.

ANS: B

Nondrug interventions such as getting regular exercise are initially suggested to improve sleep quality in patients with RLS. Antihistamines may aggravate RLS. Massage does not alleviate RLS symptoms and RLS is likely to progress in most patients.

32. Which information about a 72-year-old patient who has a new prescription for phenytoin (Dilantin) indicates that the nurse should consult with the health care provider before administration of the medication?

- a. Patient has generalized tonic-clonic seizures.
- b. Patient experiences an aura before seizures.
- c. Patient's most recent blood pressure is 156/92 mm Hg.
- d. Patient has minor elevations in the liver function tests.

ANS: D

Many older patients (especially with compromised liver function) may not be able to metabolize phenytoin. The health care provider may need to choose another antiseizure medication. Phenytoin is an appropriate medication for patients with tonic-clonic seizures, with or without an aura. Hypertension is not a contraindication for phenytoin therapy.

33. After change-of-shift report, which patient should the nurse assess **first**?

- a. Patient with myasthenia gravis who is reporting increased muscle weakness
- b. Patient with a bilateral headache described as like a band around my head
- c. Patient with seizures who is scheduled to receive a dose of phenytoin (Dilantin)
- d. Patient with Parkinsons disease who has developed cogwheel rigidity of the arms

ANS: A

Because increased muscle weakness may indicate the onset of a myasthenic crisis, the nurse should assess this patient first. The other patients should also be assessed, but do not appear to need immediate nursing assessments or actions to prevent life-threatening complications.

MULTIPLE RESPONSE

1. A 27-year-old patient who has been treated for status epilepticus in the emergency department will be transferred to the medical nursing unit. Which equipment should the nurse have available in the patients assigned room (*select all that apply*)?

- a. Side-rail pads
- b. Tongue blade
- c. Oxygen mask
- d. Suction tubing

- e. Urinary catheter
- f. Nasogastric tube

ANS: A, C, D

The patient is at risk for further seizures, and oxygen and suctioning may be needed after any seizures to clear the airway and maximize oxygenation. The bed side rails should be padded to minimize the risk for patient injury during a seizure. Use of tongue blades during a seizure is contraindicated. Insertion of a nasogastric (NG) tube is not indicated because the airway problem is not caused by vomiting or abdominal distention. A urinary catheter is not required unless there is urinary retention.

Chapter 59. Management: Alzheimer's Disease and Dementia

MULTIPLE CHOICE

1. A 68-year-old patient who is hospitalized with pneumonia is disoriented and confused 3 days after admission. Which information indicates that the patient is experiencing delirium rather than dementia?

- a. The patient was oriented and alert when admitted.
- b. The patient's speech is fragmented and incoherent.
- c. The patient is oriented to person but disoriented to place and time.
- d. The patient has a history of increasing confusion over several years.

ANS: A

The onset of delirium occurs acutely. The degree of disorientation does not differentiate between delirium and dementia. Increasing confusion for several years is consistent with dementia. Fragmented and incoherent speech may occur with either delirium or dementia.

2. Which intervention will the nurse include in the plan of care for a patient with moderate dementia who had an appendectomy 2 days ago?

- a. Provide complete personal hygiene care for the patient.
- b. Remind the patient frequently about being in the hospital.
- c. Reposition the patient frequently to avoid skin breakdown.
- d. Place suction at the bedside to decrease the risk for aspiration.

ANS: B

The patient with moderate dementia will have problems with short- and long-term memory and will need reminding about the hospitalization. The other interventions would be used for a patient with severe dementia, who would have difficulty with swallowing, self-care, and immobility.

3. When administering a mental status examination to a patient with delirium, the nurse should

- a. wait until the patient is well-rested.
- b. administer an anxiolytic medication.
- c. choose a place without distracting stimuli.
- d. reorient the patient during the examination.

ANS: C

Because overstimulation by environmental factors can distract the patient from the task of answering the nurses questions, these stimuli should be avoided. The nurse will not wait to give the examination because action to correct the delirium should occur as soon as possible. Reorienting the patient is not appropriate during the examination. Antianxiety medications may increase the patients delirium.

4. The nurse is concerned about a postoperative patients risk for injury during an episode of delirium. The **most** appropriate action by the nurse is to

- a. secure the patient in bed using a soft chest restraint.
- b. ask the health care provider to order an antipsychotic drug.
- c. instruct family members to remain with the patient and prevent injury.
- d. assign unlicensed assistive personnel (UAP) to stay with the patient and offer reorientation.

ANS: D

The priority goal is to protect the patient from harm. Having a UAP stay with the patient will ensure the patient's safety. Visits by family members are helpful in reorienting the patient, but families should not be responsible for protecting patients from injury. Antipsychotic medications may be ordered, but only if other measures are not effective because these medications have many side effects. Restraints are not recommended because they can increase the patient's agitation and disorientation.

5. A 56-year-old patient in the outpatient clinic is diagnosed with mild cognitive impairment (MCI). Which action will the nurse include in the plan of care?

- a. Suggest a move into an assisted living facility.
- b. Schedule the patient for more frequent appointments.
- c. Ask family members to supervise the patient's daily activities.
- d. Discuss the preventive use of acetylcholinesterase medications.

ANS: B

Ongoing monitoring is recommended for patients with MCI. MCI does not interfere with activities of daily living, acetylcholinesterase drugs are not used for MCI, and an assisted living facility is not indicated for MCI.

6. The nurse is administering a mental status examination to a 48-year-old patient who has hypertension. The nurse suspects depression when the patient responds to the nurse's questions with

- a. Is that right?
- b. I dont know.
- c. Wait, let me think about that.
- d. Who are those people over there?

ANS: B

Answers such as I dont know are more typical of depression than dementia. The response Who are those people over there? is more typical of the distraction seen in a patient with delirium. The remaining two answers are more typical of a patient with mild to moderate dementia.

7. A 68-year-old patient is diagnosed with moderate dementia after multiple strokes. During assessment of the patient, the nurse would expect to find

- a. excessive nighttime sleepiness.
- b. difficulty eating and swallowing.
- c. loss of recent and long-term memory.
- d. fluctuating ability to perform simple tasks.

ANS: C

Loss of both recent and long-term memory is characteristic of moderate dementia. Patients with dementia have frequent nighttime awakening. Dementia is progressive, and the patients ability to perform tasks would not have periods of improvement. Difficulty eating and swallowing is characteristic of severe dementia.

8. Which action will help the nurse determine whether a new patients confusion is caused by dementia or delirium?

- a. Administer the Mini-Mental Status Exam.
- b. Use the Confusion Assessment Method tool.
- c. Determine whether there is a family history of dementia.

- d. Obtain a list of the medications that the patient usually takes.

ANS: B

The Confusion Assessment Method tool has been extensively tested in assessing delirium. The other actions will be helpful in determining cognitive function or risk factors for dementia or delirium, but they will not be useful in differentiating between dementia and delirium.

9. A 72-year-old female patient is brought to the clinic by the patients spouse, who reports that she is unable to solve common problems around the house. To obtain information about the patients current mental status, which question should the nurse ask the patient?

- a. Are you sad?
- b. How is your self-image?
- c. Where were you were born?
- d. What did you eat for breakfast?

ANS: D

This question tests the patients short-term memory, which is decreased in the mild stage of Alzheimers disease or dementia. Asking the patient about her birthplace tests for remote memory, which is intact in the early stages. Questions about the patients emotions and self-image are helpful in assessing emotional status, but they are not as helpful in assessing mental state.

10. A patient is being evaluated for Alzheimers disease (AD). The nurse explains to the patients adult children that

- a. the most important risk factor for AD is a family history of the disorder.
- b. new drugs have been shown to reverse AD dramatically in some patients.

- c. a diagnosis of AD is made only after other causes of dementia are ruled out.
- d. the presence of brain atrophy detected by magnetic resonance imaging (MRI) will confirm the diagnosis of AD.

ANS: C

The diagnosis of AD is usually one of exclusion. Age is the most important risk factor for development of AD. Drugs may slow the deterioration but do not reverse the effects of AD. Brain atrophy is a common finding in AD, but it can occur in other diseases as well and does not confirm a diagnosis of AD.

11. Which nursing action will be **most** effective in ensuring daily medication compliance for a patient with mild dementia?

- a. Setting the medications up monthly in a medication box
- b. Having the patients family member administer the medication
- c. Posting reminders to take the medications in the patients house
- d. Calling the patient weekly with a reminder to take the medication

ANS: B

Because the patient with mild dementia will have difficulty with learning new skills and forgetfulness, the most appropriate nursing action is to have someone else administer the drug. The other nursing actions will not be as effective in ensuring that the patient takes the medications.

12. A patient who has severe Alzheimers disease (AD) is being admitted to the hospital for surgery. Which intervention will the nurse include in the plan of care?

- a. Encourage the patient to discuss events from the past.
- b. Maintain a consistent daily routine for the patients care.
- c. Reorient the patient to the date and time every 2 to 3 hours.

- d. Provide the patient with current newspapers and magazines.

ANS: B

Providing a consistent routine will decrease anxiety and confusion for the patient. Reorientation to time and place will not be helpful to the patient with severe AD, and the patient will not be able to read. The patient with severe AD will probably not be able to remember events from the past.

13. A 71-year-old patient with Alzheimers disease (AD) who is being admitted to a long-term care facility has had several episodes of wandering away from home. Which action will the nurse include in the plan of care?

- a. Reorient the patient several times daily.
- b. Have the family bring in familiar items.
- c. Place the patient in a room close to the nurses station.
- d. Ask the patient why the wandering episodes have occurred.

ANS: C

Patients at risk for problems with safety require close supervision. Placing the patient near the nurses station will allow nursing staff to observe the patient more closely. The use of why questions can be frustrating for patients with AD because they are unable to understand clearly or verbalize the reason for wandering behaviors. Because of the patients short-term memory loss, reorientation will not help prevent wandering behavior. Because the patient had wandering behavior at home, familiar objects will not prevent wandering.

14. The day shift nurse at the long-term care facility learns that a patient with dementia experienced sundowning late in the afternoon on the previous two days. Which action should the nurse take?

- a. Keep blinds open during the daytime hours.
- b. Provide hourly orientation to time and place.

- c. Have the patient take a brief mid-morning nap.
- d. Move the patient to a quieter room late in the afternoon.

ANS: A

A likely cause of sundowning is a disruption in circadian rhythms and keeping the patient active and in daylight will help reestablish a more normal circadian pattern. Moving the patient to a different room might increase confusion. Taking a nap will interfere with nighttime sleep. Hourly orientation will not be helpful in a patient with dementia.

15. The nurses **initial** action for a patient with moderate dementia who develops increased restlessness and agitation should be to

- a. reorient the patient to time, place, and person.
- b. administer a PRN dose of lorazepam (Ativan).
- c. assess for factors that might be causing discomfort.
- d. assign unlicensed assistive personnel (UAP) to stay in the patients room.

ANS: C

Increased motor activity in a patient with dementia is frequently the patients only way of responding to factors like pain, so the nurses initial action should be to assess the patient for any precipitating factors. Administration of sedative drugs may be indicated, but this should not be done until assessment for precipitating factors has been completed and any of these factors have been addressed. Reorientation is unlikely to be helpful for the patient with moderate dementia. Assigning UAP to stay with the patient may also be necessary, but any physical changes that may be causing the agitation should be addressed first.

16. When administering the Mini-Cog exam to a patient with possible Alzheimers disease, which action will the nurse take?

- a. Check the patients orientation to time and date.

- b. Obtain a list of the patients prescribed medications.
- c. Ask the person to use a clock drawing to indicate a specific time.
- d. Determine the patients ability to recognize a common object such as a pen.

ANS: C

In the Mini-Cog, patients illustrate a specific time stated by the examiner by drawing the time on a clock face. The other actions may be included in assessment for Alzheimers disease, but are not part of the Mini-Cog exam.

17. Which hospitalized patient will the nurse assign to the room closest to the nurses station?

- a. Patient with Alzheimers disease who has long-term memory deficit
- b. Patient with vascular dementia who takes medications for depression
- c. Patient with new-onset confusion, restlessness, and irritability after surgery
- d. Patient with dementia who has an abnormal Mini-Mental State Examination

ANS: C

This patients history and clinical manifestations are consistent with delirium. The patient is at risk for safety problems and should be placed near the nurses station for ongoing observation. The other patients have chronic symptoms that are consistent with their diagnoses but are not at immediate risk for safety issues.

18. After change-of-shift report on the Alzheimers disease/dementia unit, which patient will the nurse assess **first**?

- a. Patient who has not had a bowel movement for 5 days
- b. Patient who has a stage II pressure ulcer on the coccyx
- c. Patient who is refusing to take the prescribed medications

- d. Patient who developed a new cough after eating breakfast

ANS: D

A new cough after a meal in a patient with dementia suggests possible aspiration and the patient should be assessed immediately. The other patients also require assessment and intervention, but not as urgently as a patient with possible aspiration or pneumonia.

19. After reviewing the health record shown in the accompanying figure for a patient who has multiple risk factors for Alzheimers disease, which topic will be **most** important for the nurse to discuss with the patient?

- a. Tobacco use
- b. Family history
- c. Head injury history
- d. Total cholesterol level

ANS: A

Tobacco use is a modifiable risk factor for Alzheimers disease. The patient will not be able to modify the increased risk associated with family history of Alzheimers disease and past head injury. While the total cholesterol is borderline high, the high HDL indicates that no change is needed in cholesterol management.

MULTIPLE RESPONSE

1. The spouse of a 67-year-old male patient with early stage Alzheimers disease (AD) tells the nurse, I am exhausted from worrying all the time. I dont know what to do. Which actions are best for the nurse to take **next** (*select all that apply*)?

- a. Suggest that a long-term care facility be considered.
- b. Offer ideas for ways to distract or redirect the patient.
- c. Teach the spouse about adult day care as a possible respite.

- d. Suggest that the spouse consult with the physician for antianxiety drugs.
- e. Ask the spouse what she knows and has considered about dementia care options.

ANS: B, C, E

The stress of being a caregiver can be managed with a multicomponent approach. This includes respite care, learning ways to manage challenging behaviors, and further assessment of what the spouse may already have considered for care options. The patient is in the early stages and does not need long-term placement. Antianxiety medications may be appropriate, but other measures should be tried first.

2. Which nursing actions could the nurse delegate to a licensed practical/vocational nurse (LPN/LVN) who is part of the team caring for a patient with Alzheimer's disease (select all that apply)?

- a. Develop a plan to minimize difficult behavior.
- b. Administer the prescribed memantine (Namenda).
- c. Remove potential safety hazards from the patient's environment.
- d. Refer the patient and caregivers to appropriate community resources.
- e. Help the patient and caregivers choose memory enhancement methods.
- f. Evaluate the effectiveness of the prescribed enteral feedings on patient nutrition.

ANS: B, C

LPN/LVN education and scope of practice includes medication administration and monitoring for environmental safety in stable patients. Planning of interventions such as ways to manage behavior or improve memory, referrals, and evaluation of the effectiveness of interventions require registered nurse (RN) level education and scope of practice.

MULTIPLE CHOICE

1. A 42-year-old male patient complains of shoulder pain when the nurse moves his arm behind the back. Which question should the nurse ask?

- a. Are you able to feed yourself without difficulty?
- b. Do you have difficulty when you are putting on a shirt?
- c. Are you able to sleep through the night without waking?
- d. Do you ever have trouble lowering yourself to the toilet?

ANS: B

The patient's pain will make it more difficult to accomplish tasks like putting on a shirt or jacket. This pain should not affect the patient's ability to feed himself or use the toilet because these tasks do not involve moving the arm behind the patient. The arm will not usually be positioned behind the patient during sleeping.

2. A patient with left knee pain is diagnosed with bursitis. The nurse will explain that bursitis is an inflammation of

- a. the synovial membrane that lines the joint.
- b. a small, fluid-filled sac found at some joints.
- c. the fibrocartilage that acts as a shock absorber in the knee joint.
- d. any connective tissue that is found supporting the joints of the body.

ANS: B

Bursae are fluid-filled sacs that cushion joints and bony prominences. Fibrocartilage is a solid tissue that cushions some joints. Bursae are a specific type of connective tissue. The synovial membrane lines many joints but is not a bursa.

3. The nurse who notes that a 59-year-old female patient has lost 1 inch in height over the past 2 years will plan to teach the patient about

- a. discography studies.
- b. myelographic testing.
- c. magnetic resonance imaging (MRI).
- d. dual-energy x-ray absorptiometry (DXA).

ANS: D

The decreased height and the patients age suggest that the patient may have osteoporosis and that bone density testing is needed. Discography, MRI, and myelography are typically done for patients with current symptoms caused by musculoskeletal dysfunction and are not the initial diagnostic tests for osteoporosis.

4. Which information in a 67-year-old womans health history will alert the nurse to the need for a more focused assessment of the musculoskeletal system?

- a. The patient sprained her ankle at age 13.
- b. The patients mother became shorter with aging.
- c. The patient takes ibuprofen (Advil) for occasional headaches.
- d. The patients father died of complications of miliary tuberculosis.

ANS: B

A family history of height loss with aging may indicate osteoporosis, and the nurse should perform a more thorough assessment of the patients current height and other risk factors for osteoporosis. A sprained ankle during adolescence does not place the patient at increased current risk for musculoskeletal problems. A family history of tuberculosis is not a risk factor. Occasional nonsteroidal antiinflammatory drug (NSAID) use does not indicate any increased musculoskeletal risk.

5. Which information obtained during the nurses assessment of a 30-year-old patients nutritional-metabolic pattern may indicate the risk for musculoskeletal problems?

- a. The patient takes a multivitamin daily.

- b. The patient dislikes fruits and vegetables.
- c. The patient is 5 ft 2 in and weighs 180 lb.
- d. The patient prefers whole milk to nonfat milk.

ANS: C

The patient's height and weight indicate obesity, which places stress on weight-bearing joints. The use of whole milk, avoiding fruits and vegetables, and use of a daily multivitamin are not risk factors for musculoskeletal problems.

6. Which medication information will the nurse identify as a concern for a patient's musculoskeletal status?

- a. The patient takes a daily multivitamin and calcium supplement.
- b. The patient takes hormone therapy (HT) to prevent hot flashes.
- c. The patient has severe asthma and requires frequent therapy with oral corticosteroids.
- d. The patient has migraine headaches treated with nonsteroidal antiinflammatory drugs (NSAIDs).

ANS: C

Frequent or chronic corticosteroid use may lead to skeletal problems such as avascular necrosis and osteoporosis. The use of HT and calcium supplements will help prevent osteoporosis. NSAID use does not increase the risk for musculoskeletal problems.

7. The nurse finds that a patient can flex the arms when no resistance is applied but is unable to flex when the nurse applies light resistance. The nurse should document the patient's muscle strength as level

- a. 0.
- b. 1.
- c. 2.

d. 3.

ANS: D

A level 3 indicates that the patient is unable to move against resistance but can move against gravity. Level 1 indicates minimal muscle contraction, level 2 indicates that the arm can move when gravity is eliminated, and level 4 indicates active movement with some resistance.

8. After completing the health history, the nurse assessing the musculoskeletal system will begin by

- a. having the patient move the extremities against resistance.
- b. feeling for the presence of crepitus during joint movement.
- c. observing the patient's body build and muscle configuration.
- d. checking active and passive range of motion for the extremities.

ANS: C

The usual technique in the physical assessment is to begin with inspection.

Abnormalities in muscle mass or configuration will allow the nurse to perform a more focused assessment of abnormal areas. The other assessments are also included in the assessment but are usually done after inspection.

9. Which nursing action is correct when performing the straight-leg raising test for an ambulatory patient with back pain?

- a. Raise the patient's legs to a 60-degree angle from the bed.
- b. Place the patient initially in the prone position on the exam table.
- c. Have the patient dangle both legs over the edge of the exam table.
- d. Instruct the patient to elevate the legs and tense the abdominal muscles.

ANS: A

When performing the straight leg-raising test, the patient is in the supine position and the nurse passively lifts the patients legs to a 60-degree angle. The other actions would not be correct for this test.

10. A 72-year-old patient with kyphosis is scheduled for dual-energy x-ray absorptiometry (DXA) testing. The nurse will plan to

- a. explain the procedure.
- b. start an IV line for contrast medium injection.
- c. give an oral sedative 60 to 90 minutes before the procedure.
- d. screen the patient for allergies to shellfish or iodine products.

ANS: A

DXA testing is painless and noninvasive. No IV access is necessary. Contrast medium is not used. Because the procedure is painless, no antianxiety medications are required.

11. A patient has a new order for magnetic resonance imaging (MRI) to evaluate for left femur osteomyelitis after a hip replacement surgery. Which information indicates that the nurse should consult with the health care provider before scheduling the MRI?

- a. The patient has a pacemaker.
- b. The patient is claustrophobic.
- c. The patient wears a hearing aid.
- d. The patient is allergic to shellfish.

ANS: A

Patients with permanent pacemakers cannot have MRI because of the force exerted by the magnetic field on metal objects. An open MRI will not cause claustrophobia. The patient will need to be instructed to remove the hearing aid before the MRI, but this

does not require consultation with the health care provider. Because contrast medium will not be used, shellfish allergy is not a contraindication to MRI.

12. The nurse notes crackling sounds and a grating sensation with palpation of an older patient's elbow. How will this finding be documented?

- a. Torticollis
- b. Crepitation
- c. Subluxation
- d. Epicondylitis

ANS: B

Crackling sounds and a grating sensation that accompany movement are described as crepitus or crepitation. Torticollis is a twisting of the neck to one side, subluxation is a partial dislocation of the joint, and epicondylitis is an inflammation of the elbow that causes a dull ache that increases with movement.

13. Which finding is of **highest** priority when the nurse is planning care for a 77-year-old patient seen in the outpatient clinic?

- a. Symmetric joint swelling of fingers
- b. Decreased right knee range of motion
- c. Report of left hip aching when jogging
- d. History of recent loss of balance and fall

ANS: D

A history of falls requires further assessment and development of fall prevention strategies. The other changes are more typical of bone and joint changes associated with normal aging.

14. Which finding from a patient's right knee arthrocentesis will be of concern to the nurse?

- a. Cloudy fluid
- b. Scant thin fluid
- c. Pale yellow fluid
- d. Straw-colored fluid

ANS: A

The presence of purulent fluid suggests a possible joint infection. Normal synovial fluid is scant in amount and pale yellow/straw-colored.

15. Which action can the nurse delegate to unlicensed assistive personnel (UAP) who are working in the orthopedic clinic?

- a. Grade leg muscle strength for a patient with back pain.
- b. Obtain blood sample for uric acid from a patient with gout.
- c. Perform straight-leg-raise testing for a patient with sciatica.
- d. Check for knee joint crepitation before arthroscopic surgery.

ANS: B

Drawing blood specimens is a common skill performed by UAP in clinic settings. The other actions are assessments and require registered nurse (RN) level judgment and critical thinking.

Chapter 62, Management: Musculoskeletal Trauma and Orthopedic Surgery

MULTIPLE CHOICE

1. When teaching seniors at a community recreation center, which information will the nurse include about ways to prevent fractures?

- a. Tack down scatter rugs in the home.
- b. Most falls happen outside the home.
- c. Buy shoes that provide good support and are comfortable to wear.
- d. Range-of-motion exercises should be taught by a physical therapist.

ANS: C

Comfortable shoes with good support will help decrease the risk for falls. Scatter rugs should be eliminated, not just tacked down. Activities of daily living provide range of motion exercise; these do not need to be taught by a physical therapist. Falls inside the home are responsible for many injuries.

2. A factory line worker has repetitive strain syndrome in the left elbow. The nurse will plan to teach the patient about

- a. surgical options.
- b. elbow injections.
- c. wearing a left wrist splint.
- d. modifying arm movements.

ANS: D

Treatment for repetitive strain syndrome includes changing the ergonomics of the activity. Elbow injections and surgery are not initial options for this type of injury. A wrist splint might be used for hand or wrist pain.

3. The occupational health nurse will teach the patient whose job involves many hours of typing about the need to

- a. obtain a keyboard pad to support the wrist.
- b. do stretching exercises before starting work.
- c. wrap the wrists with compression bandages every morning.

- d. avoid using nonsteroidal antiinflammatory drugs (NSAIDs) for pain.

ANS: A

Repetitive strain injuries caused by prolonged times working at a keyboard can be prevented by the use of a pad that will keep the wrists in a straight position. Stretching exercises during the day may be helpful, but these would not be needed before starting. Use of a compression bandage is not needed, although a splint may be used for carpal tunnel syndrome. NSAIDs are appropriate to use to decrease swelling.

4. Which discharge instruction will the emergency department nurse include for a patient with a sprained ankle?

- a. Keep the ankle loosely wrapped with gauze.
- b. Apply a heating pad to reduce muscle spasms.
- c. Use pillows to elevate the ankle above the heart.
- d. Gently move the ankle through the range of motion.

ANS: C

Elevation of the leg will reduce the amount of swelling and pain. Compression bandages are used to decrease swelling. For the first 24 to 48 hours, cold packs are used to reduce swelling. The ankle should be rested and kept immobile to prevent further swelling or injury.

5. A 22-year-old tennis player has an arthroscopic repair of a rotator cuff injury performed in same-day surgery. When the nurse plans postoperative teaching for the patient, which information will be included?

- a. You will not be able to serve a tennis ball again.
- b. You will work with a physical therapist tomorrow.
- c. The doctor will use the drop-arm test to determine the success of surgery.

- d. Leave the shoulder immobilizer on for the first 4 days to minimize pain.

ANS: B

Physical therapy after a rotator cuff repair begins on the first postoperative day to prevent frozen shoulder. A shoulder immobilizer is used immediately after the surgery, but leaving the arm immobilized for several days would lead to loss of range of motion (ROM). The drop-arm test is used to test for rotator cuff injury, but not after surgery. The patient may be able to return to pitching after rehabilitation.

6. The nurse will instruct the patient with a fractured left radius that the cast will need to remain in place

- a. for several months.
- b. for at least 3 weeks.
- c. until swelling of the wrist has resolved.
- d. until x-rays show complete bony union.

ANS: B

Bone healing starts immediately after the injury, but since ossification does not begin until 3 weeks postinjury, the cast will need to be worn for at least 3 weeks. Complete union may take up to a year. Resolution of swelling does not indicate bone healing.

7. A 48-year-old patient with a comminuted fracture of the left femur has Bucks traction in place while waiting for surgery. To assess for pressure areas on the patients back and sacral area and to provide skin care, the nurse should

- a. loosen the traction and help the patient turn onto the unaffected side.
- b. place a pillow between the patients legs and turn gently to each side.
- c. turn the patient partially to each side with the assistance of another nurse.
- d. have the patient lift the buttocks by bending and pushing with the right leg.

ANS: D

The patient can lift the buttocks off the bed by using the left leg without changing the right-leg alignment. Turning the patient will tend to move the leg out of alignment. Disconnecting the traction will interrupt the weight needed to immobilize and align the fracture.

8. Which nursing intervention will be included in the plan of care after a patient with a right femur fracture has a hip spica cast applied?

- a. Avoid placing the patient in prone position.
- b. Ask the patient about abdominal discomfort.
- c. Discuss remaining on bed rest for several weeks.
- d. Use the cast support bar to reposition the patient.

ANS: B

Assessment of bowel sounds, abdominal pain, and nausea and vomiting will detect the development of cast syndrome. To avoid breakage, the support bar should not be used for repositioning. After the cast dries, the patient can begin ambulating with the assistance of physical therapy personnel and may be turned to the prone position.

9. A patient has a long-arm plaster cast applied for immobilization of a fractured left radius. Until the cast has completely dried, the nurse should

- a. keep the left arm in dependent position.
- b. avoid handling the cast using fingertips.
- c. place gauze around the cast edge to pad any roughness.
- d. cover the cast with a small blanket to absorb the dampness.

ANS: B

Until a plaster cast has dried, using the palms rather than the fingertips to handle the cast helps prevent creating protrusions inside the cast that could place pressure on the

skin. The left arm should be elevated to prevent swelling. The edges of the cast may be petaled once the cast is dry, but padding the edges before that may cause the cast to be misshapen. The cast should not be covered until it is dry because heat builds up during drying.

10. Which statement by the patient indicates a good understanding of the nurses teaching about a new short-arm plaster cast?

- a. I can get the cast wet as long as I dry it right away with a hair dryer.
- b. I should avoid moving my fingers and elbow until the cast is removed.
- c. I will apply an ice pack to the cast over the fracture site off and on for 24 hours.
- d. I can use a cotton-tipped applicator to rub lotion on any dry areas under the cast.

ANS: C

Ice application for the first 24 hours after a fracture will help reduce swelling and can be placed over the cast. Plaster casts should not get wet. The patient should be encouraged to move the joints above and below the cast. Patients should not insert objects inside the cast.

11. A patient who is to have no weight bearing on the left leg is learning to walk using crutches. Which observation by the nurse indicates that the patient can safely ambulate independently?

- a. The patient moves the right crutch with the right leg and then the left crutch with the left leg.
- b. The patient advances the left leg and both crutches together and then advances the right leg.
- c. The patient uses the bedside chair to assist in balance as needed when ambulating in the room.
- d. The patient keeps the padded area of the crutch firmly in the axillary area when ambulating.

ANS: B

Patients are usually taught to move the crutches and the injured leg forward at the same time and then to move the unaffected leg. Patients are discouraged from using furniture to assist with ambulation. The patient is taught to place weight on the hands, not in the axilla, to avoid nerve damage. If the 2- or 4-point gaits are to be used, the crutch and leg on opposite sides move forward, not the crutch and same-side leg.

12. A 32-year-old patient who has had an open reduction and internal fixation (ORIF) of left lower leg fractures continues to complain of severe pain in the leg 15 minutes after receiving the prescribed IV morphine. Pulses are faintly palpable and the foot is cool. Which action should the nurse take **next**?

- a. Notify the health care provider.
- b. Assess the incision for redness.
- c. Reposition the left leg on pillows.
- d. Check the patient's blood pressure.

ANS: A

The patient's clinical manifestations suggest compartment syndrome and delay in diagnosis and treatment may lead to severe functional impairment. The data do not suggest problems with blood pressure or infection. Elevation of the leg will decrease arterial flow and further reduce perfusion.

13. A patient with a complex pelvic fracture from a motor vehicle crash is on bed rest. Which nursing assessment finding is **important** to report to the health care provider?

- a. The patient states that the pelvis feels unstable.
- b. Abdomen is distended and bowel sounds are absent.
- c. There are ecchymoses across the abdomen and hips.
- d. The patient complains of pelvic pain with palpation.

ANS: B

The abdominal distention and absent bowel sounds may be due to complications of pelvic fractures such as paralytic ileus or hemorrhage or trauma to the bladder, urethra, or colon. Pelvic instability, abdominal pain with palpation, and abdominal bruising would be expected with this type of injury.

14. Which action will the nurse take in order to evaluate the effectiveness of Bucks traction for a 62-year-old patient who has an intracapsular fracture of the right femur?

- a. Check peripheral pulses.
- b. Ask about hip pain level.
- c. Assess for hip contractures.
- d. Monitor for hip dislocation.

ANS: B

Bucks traction keeps the leg immobilized and reduces painful muscle spasm. Hip contractures and dislocation are unlikely to occur in this situation. The peripheral pulses will be assessed, but this does not help in evaluating the effectiveness of Bucks traction.

15. A patient with a right lower leg fracture will be discharged home with an external fixation device in place. Which information will the nurse teach?

- a. You will need to check and clean the pin insertion sites daily.
- b. The external fixator can be removed for your bath or shower.
- c. You will need to remain on bed rest until bone healing is complete.
- d. Prophylactic antibiotics are used until the external fixator is removed.

ANS: A

Pin insertion sites should be cleaned daily to decrease the risk for infection at the site. An external fixator allows the patient to be out of bed and avoid the risks of prolonged

immobility. The device is surgically placed and is not removed until the bone is stable. Prophylactic antibiotics are not routinely given when an external fixator is used.

16. A patient who has had an open reduction and internal fixation (ORIF) of a hip fracture tells the nurse that he is ready to get out of bed for the first time. Which action should the nurse take?

- a. Use a mechanical lift to transfer the patient from the bed to the chair.
- b. Check the postoperative orders for the patient's weight-bearing status.
- c. Avoid administration of pain medications before getting the patient up.
- d. Delegate the transfer of the patient to nursing assistive personnel (NAP).

ANS: B

The nurse should be familiar with the weight-bearing orders for the patient before attempting the transfer. Mechanical lifts are not typically needed after this surgery. Pain medications should be given because the movement is likely to be painful for the patient. The registered nurse (RN) should supervise the patient during the initial transfer to evaluate how well the patient is able to accomplish this skill.

17. When doing discharge teaching for a 19-year-old patient who has had a repair of a fractured mandible, the nurse will include information about

- a. administration of nasogastric tube feedings.
- b. how and when to cut the immobilizing wires.
- c. the importance of high-fiber foods in the diet.
- d. the use of sterile technique for dressing changes.

ANS: B

The jaw will be wired for stabilization, and the patient should know what emergency situations require that the wires be cut to protect the airway. There are no dressing

changes for this procedure. The diet is liquid, and patients are not able to chew high-fiber foods. Initially, the patient may receive nasogastric tube feedings, but by discharge, the patient will swallow liquid through a straw.

18. After the health care provider has recommended amputation for a patient who has nonhealing ischemic foot ulcers, the patient tells the nurse that he would rather die than have an amputation. Which response by the nurse is **best**?

- a. You are upset, but you may lose the foot anyway.
- b. Many people are able to function with a foot prosthesis.
- c. Tell me what you know about your options for treatment.
- d. If you do not want an amputation, you do not have to have it.

ANS: C

The initial nursing action should be to assess the patient's knowledge level and feelings about the options available. Discussion about the patient's option to not have the procedure, the seriousness of the condition, or rehabilitation after the procedure may be appropriate after the nurse knows more about the patient's current level of knowledge and emotional state.

19. The day after a having a right below-the-knee amputation, a patient complains of pain in the right foot. Which action is **best** for the nurse to take?

- a. Explain the reasons for the phantom limb pain.
- b. Administer prescribed analgesics to relieve the pain.
- c. Loosen the compression bandage to decrease incisional pressure.
- d. Inform the patient that this phantom pain will diminish over time.

ANS: B

Phantom limb sensation is treated like any other type of postoperative pain would be treated. Explanations of the reason for the pain may be given, but the nurse should

still medicate the patient. The compression bandage is left in place except during physical therapy or bathing. Although the pain may decrease over time, it still requires treatment now.

20. Which statement by a 62-year-old patient who has had an above-the-knee amputation indicates that the nurses discharge teaching has been effective?

- a. I should elevate my residual limb on a pillow 2 or 3 times a day.
- b. I should lay flat on my abdomen for 30 minutes 3 or 4 times a day.
- c. I should change the limb sock when it becomes soiled or each week.
- d. I should use lotion on the stump to prevent skin drying and cracking.

ANS: B

The patient lies in the prone position several times daily to prevent flexion contractures of the hip. The limb sock should be changed daily. Lotion should not be used on the stump. The residual limb should not be elevated because this would encourage flexion contracture.

21. The nurse is caring for a patient who is to be discharged from the hospital 5 days after insertion of a femoral head prosthesis using a posterior approach. Which statement by the patient indicates a need for additional instruction?

- a. I should not cross my legs while sitting.
- b. I will use a toilet elevator on the toilet seat.
- c. I will have someone else put on my shoes and socks.
- d. I can sleep in any position that is comfortable for me.

ANS: D

The patient needs to sleep in a position that prevents excessive internal rotation or flexion of the hip. The other patient statements indicate that the patient has understood the teaching.

22. Which action will the nurse include in the plan of care for a patient who has had a total right knee arthroplasty?

- a. Avoid extension of the right knee beyond 120 degrees.
- b. Use a compression bandage to keep the right knee flexed.
- c. Teach about the need to avoid weight bearing for 4 weeks.
- d. Start progressive knee exercises to obtain 90-degree flexion.

ANS: D

After knee arthroplasty, active or passive flexion exercises are used to obtain a 90-degree flexion of the knee. The goal for extension of the knee will be 180 degrees. A compression bandage is used to hold the knee in an extended position after surgery. Full weight bearing is expected before discharge.

23. A high school teacher with ulnar drift caused by rheumatoid arthritis (RA) is scheduled for a left hand arthroplasty. Which patient statement to the nurse indicates a realistic expectation for the surgery?

- a. This procedure will correct the deformities in my fingers.
- b. I will not have to do as many hand exercises after the surgery.
- c. I will be able to use my fingers with more flexibility to grasp things.
- d. My fingers will appear more normal in size and shape after this surgery.

ANS: C

The goal of hand surgery in RA is to restore function, not to correct for cosmetic deformity or treat the underlying process. Hand exercises will be prescribed after the surgery.

24. When giving home care instructions to a patient who has comminuted forearm fractures and a long-arm cast on the left arm, which information should the nurse include?

- a. Keep the left shoulder elevated on a pillow or cushion.
- b. Keep the hand immobile to prevent soft tissue swelling.
- c. Call the health care provider for increased swelling or numbness of the hand.
- d. Avoid nonsteroidal antiinflammatory drugs (NSAIDs) for 24 hours after the injury.

ANS: C

Increased swelling or numbness may indicate increased pressure at the injury, and the health care provider should be notified immediately to avoid damage to nerves and other tissues. The patient should be encouraged to move the joints above and below the cast to avoid stiffness. There is no need to elevate the shoulder, although the forearm should be elevated to reduce swelling. NSAIDs are appropriate to treat pain after a fracture.

25. A patient who slipped and fell in the shower at home has a proximal humerus fracture immobilized with a left-sided long-arm cast and a sling. Which nursing intervention will be included in the plan of care?

- a. Use surgical net dressing to hang the arm from an IV pole.
- b. Immobilize the fingers of the left hand with gauze dressings.
- c. Assess the left axilla and change absorbent dressings as needed.
- d. Assist the patient in passive range of motion (ROM) for the right arm.

ANS: C

The axilla can become excoriated when a sling is used to support the arm, and the nurse should check the axilla and apply absorbent dressings to prevent this. A patient with a sling would not have traction applied by hanging. The patient will be encouraged to move the fingers on the injured arm to maintain function and to help decrease swelling. The patient will do active ROM on the uninjured side.

26. A patient is being discharged 4 days after hip replacement surgery using the posterior approach. Which patient action requires **immediate** intervention by the nurse?

- a. The patient uses crutches with a swing-to gait.
- b. The patient leans over to pull shoes and socks on.
- c. The patient sits straight up on the edge of the bed.
- d. The patient bends over the sink while brushing teeth.

ANS: B

Leaning over would flex the hip at greater than 90 degrees and predispose the patient to hip dislocation. The other patient actions are appropriate and do not require any immediate action by the nurse to protect the patient.

27. After being hospitalized for 3 days with a right femur fracture, a 32-year-old patient suddenly develops shortness of breath and tachypnea. The patient tells the nurse, I feel like I am going to die! Which action should the nurse take **first**?

- a. Stay with the patient and offer reassurance.
- b. Administer the prescribed PRN oxygen at 4 L/min.
- c. Check the patients legs for swelling or tenderness.
- d. Notify the health care provider about the symptoms.

ANS: B

The patients clinical manifestations and history are consistent with a pulmonary embolus, and the nurses first action should be to ensure adequate oxygenation. The nurse should offer reassurance to the patient, but meeting the physiologic need for oxygen is a higher priority. The health care provider should be notified after the oxygen is started and pulse oximetry and assessment for fat embolus or venous thromboembolism (VTE) are obtained.

28. A patient arrived at the emergency department after tripping over a rug and falling at home. Which finding is **most** important for the nurse to communicate to the health care provider?

- a. There is bruising at the shoulder area.
- b. The patient reports arm and shoulder pain.
- c. The right arm appears shorter than the left.
- d. There is decreased shoulder range of motion.

ANS: C

A shorter limb after a fall indicates a possible dislocation, which is an orthopedic emergency. Bruising, pain, and decreased range of motion also should be reported, but these do not indicate that emergent treatment is needed to preserve function.

29. A young man arrives in the emergency department with ankle swelling and severe pain after twisting his ankle playing basketball. Which of these prescribed collaborative interventions will the nurse implement **first**?

- a. Take the patient to have x-rays.
- b. Wrap the ankle and apply an ice pack.
- c. Administer naproxen (Naprosyn) 500 mg PO.
- d. Give acetaminophen with codeine (Tylenol #3).

ANS: B

Immediate care after a sprain or strain injury includes the application of cold and compression to the injury to minimize swelling. The other actions should be taken after the ankle is wrapped with a compression bandage and ice is applied.

30. Which nursing action for a patient who has had right hip replacement surgery can the nurse delegate to experienced unlicensed assistive personnel (UAP)?

- a. Reposition the patient every 1 to 2 hours.
- b. Assess for skin irritation on the patients back.
- c. Teach the patient quadriceps-setting exercises.
- d. Determine the patients pain level and tolerance.

ANS: A

Repositioning of orthopedic patients is within the scope of practice of UAP (after they have been trained and evaluated in this skill). The other actions should be done by licensed nursing staff members.

31. A patient who arrives at the emergency department experiencing severe left knee pain is diagnosed with a patellar dislocation. The **initial** patient teaching by the nurse will focus on the need for

- a. a knee immobilizer.
- b. gentle knee flexion.
- c. monitored anesthesia care.
- d. physical activity restrictions.

ANS: C

The first goal of collaborative management is realignment of the knee to its original anatomic position, which will require anesthesia or monitored anesthesia care (MAC), formerly called conscious sedation. Immobilization, gentle range-of-motion (ROM) exercises, and discussion about activity restrictions will be implemented after the knee is realigned.

32. Following a motorcycle accident, a 58-year-old patient arrives in the emergency department with massive left lower leg swelling. Which action will the nurse take **first**?

- a. Elevate the leg on 2 pillows.

- b. Apply a compression bandage.
- c. Check leg pulses and sensation.
- d. Place ice packs on the lower leg.

ANS: C

The initial action by the nurse will be to assess the circulation to the leg and to observe for any evidence of injury such as fractures or dislocations. After the initial assessment, the other actions may be appropriate, based on what is observed during the assessment.

33. A pedestrian who was hit by a car is admitted to the emergency department with possible right lower leg fractures. The **initial** action by the nurse should be to

- a. elevate the right leg.
- b. splint the lower leg.
- c. check the pedal pulses.
- d. verify tetanus immunizations.

ANS: C

The initial nursing action should be assessment of the neurovascular status of the injured leg. After assessment, the nurse may need to splint and elevate the leg, based on the assessment data. Information about tetanus immunizations should be done if there is an open wound.

34. The day after a 60-year-old patient has an open reduction and internal fixation (ORIF) for an open, displaced tibial fracture, the **priority** nursing diagnosis is

- a. activity intolerance related to deconditioning.
- b. risk for constipation related to prolonged bed rest.
- c. risk for impaired skin integrity related to immobility.
- d. risk for infection related to disruption of skin integrity.

ANS: D

A patient having an ORIF is at risk for problems such as wound infection and osteomyelitis. After an ORIF, patients typically are mobilized starting the first postoperative day, so problems caused by immobility are not as likely.

35. The second day after admission with a fractured pelvis, a 64-year-old patient suddenly develops confusion. Which action should the nurse take **first**?

- a. Take the blood pressure.
- b. Assess patient orientation.
- c. Check the oxygen saturation.
- d. Observe for facial asymmetry.

ANS: C

The patient's history and clinical manifestations suggest a fat embolus. The most important assessment is oxygenation. The other actions are also appropriate but will be done after the nurse assesses gas exchange.

36. A 42-year-old patient is admitted to the emergency department with a left femur fracture. Which information obtained by the nurse is **most** important to report to the health care provider?

- a. Ecchymosis of the left thigh
- b. Complaints of severe thigh pain
- c. Slow capillary refill of the left foot
- d. Outward pointing toes on the left foot

ANS: C

Prolonged capillary refill may indicate complications such as arterial damage or compartment syndrome. The other findings are typical with a left femur fracture.

37. A patient undergoes a left above-the-knee amputation with an immediate prosthetic fitting. When the patient arrives on the orthopedic unit after surgery, the nurse should

- a. place the patient in a prone position.
- b. check the surgical site for hemorrhage.
- c. remove the prosthesis and wrap the site.
- d. keep the residual leg elevated on a pillow.

ANS: B

The nurse should monitor for hemorrhage after the surgery. The prosthesis will not be removed. To avoid flexion contracture of the hip, the leg will not be elevated on a pillow. The patient is placed in a prone position after amputation to prevent hip flexion, but this would not be done during the immediate postoperative period.

38. Before assisting a patient with ambulation 2 days after a total hip replacement, which action is **most** important for the nurse to take?

- a. Observe the status of the incisional drain device.
- b. Administer the ordered oral opioid pain medication.
- c. Instruct the patient about the benefits of ambulation.
- d. Change the hip dressing and document the wound appearance.

ANS: B

The patient should be adequately medicated for pain before any attempt to ambulate. Instructions about the benefits of ambulation may increase the patients willingness to ambulate, but decreasing pain with ambulation is more important. The presence of an incisional drain or timing of dressing change will not affect ambulation.

MULTIPLE CHOICE

1. A patient with acute osteomyelitis of the left femur is hospitalized for regional antibiotic irrigation. Which intervention will be included in the initial plan of care?

- a. Immobilization of the left leg
- b. Positioning the left leg in flexion
- c. Assisted weight-bearing ambulation
- d. Quadriceps-setting exercise repetitions

ANS: A

Immobilization of the affected leg helps decrease pain and reduce the risk for pathologic fractures. Weight-bearing exercise increases the risk for pathologic fractures. Flexion of the affected limb is avoided to prevent contractures.

2. A 50-year-old patient is being discharged after a week of IV antibiotic therapy for acute osteomyelitis in the right leg. Which information will be included in the discharge teaching?

- a. How to apply warm packs to the leg to reduce pain
- b. How to monitor and care for the long-term IV catheter
- c. The need for daily aerobic exercise to help maintain muscle strength
- d. The reason for taking oral antibiotics for 7 to 10 days after discharge

ANS: B

The patient will be on IV antibiotics for several months, and the patient will need to recognize signs of infection at the IV site and how to care for the catheter during daily activities such as bathing. IV antibiotics rather than oral antibiotics are used for acute osteomyelitis. Patients are instructed to avoid exercise and heat application because these will increase swelling and the risk for spreading infection.

3. A 67-year-old patient is receiving IV antibiotics at home to treat chronic osteomyelitis of the left femur. The nurse chooses a nursing diagnosis of ineffective health maintenance when the nurse finds that the patient

- a. is frustrated with the length of treatment required.
- b. takes and records the oral temperature twice a day.
- c. is unable to plantar flex the foot on the affected side.
- d. uses crutches to avoid weight bearing on the affected leg.

ANS: C

Foot drop is an indication that the foot is not being supported in a neutral position by a splint. Using crutches and monitoring the oral temperature are appropriate self-care activities. Frustration with the length of treatment is not an indicator of ineffective health maintenance of the osteomyelitis.

4. The nurse instructs a patient who has osteosarcoma of the tibia about a scheduled above-the-knee amputation. Which statement by a patient indicates that additional patient teaching is needed?

- a. I will need to participate in physical therapy after surgery.
- b. I did not have this bone cancer until my leg broke a week ago.
- c. I wish that I did not have to have chemotherapy after this surgery.
- d. I can use the patient-controlled analgesia (PCA) to control postoperative pain.

ANS: B

Osteogenic sarcoma may be diagnosed following a fracture, but it is not caused by the injury. The other patient statements indicate that patient teaching has been effective.

5. A 23-year-old patient with a history of muscular dystrophy is hospitalized with pneumonia. Which nursing action will be included in the plan of care?

- a. Logroll the patient every 2 hours.
- b. Assist the patient with ambulation.
- c. Discuss the need for genetic testing with the patient.
- d. Teach the patient about the muscle biopsy procedure.

ANS: B

Because the goal for the patient with muscular dystrophy is to keep the patient active for as long as possible, assisting the patient to ambulate will be part of the care plan. The patient will not require logrolling. Muscle biopsies are necessary to confirm the diagnosis but are not necessary for a patient who already has a diagnosis. There is no need for genetic testing because the patient already knows the diagnosis.

6. An appropriate nursing intervention for a patient who has acute low back pain and muscle spasms is to teach the patient to

- a. keep both feet flat on the floor when prolonged standing is required.
- b. twist gently from side to side to maintain range of motion in the spine.
- c. keep the head elevated slightly and flex the knees when resting in bed.
- d. avoid the use of cold packs because they will exacerbate the muscle spasms.

ANS: C

Resting with the head elevated and knees flexed will reduce the strain on the back and decrease muscle spasms. Twisting from side to side will increase tension on the lumbar area. A pillow placed under the upper back will cause strain on the lumbar spine. Alternate application of cold and heat should be used to decrease pain.

7. A 39-year-old patient whose work involves frequent lifting has a history of chronic back pain. After the nurse has taught the patient about correct body mechanics, which patient statement indicates that the teaching has been effective?

- a. I will keep my back straight to lift anything higher than my waist.
- b. I will begin doing exercises to strengthen the muscles of my back.
- c. I can try to sleep with my hips and knees extended to prevent back strain.
- d. I can tell my boss that I need to change to a job where I can work at a desk.

ANS: B

Exercises can help strengthen the muscles that support the back. Flexion of the hips and knees places less strain on the back. Modifications in the way the patient lifts boxes are needed, but sitting for prolonged periods can aggravate back pain. The patient should not lift above the level of the elbows.

8. The nurse should reposition the patient who has just had a laminectomy and diskectomy by

- a. instructing the patient to move the legs before turning the rest of the body.
- b. having the patient turn by grasping the side rails and pulling the shoulders over.
- c. placing a pillow between the patients legs and turning the entire body as a unit.
- d. turning the patients head and shoulders first, followed by the hips, legs, and feet.

ANS: C

The spine should be kept in correct alignment after laminectomy. The other positions will create misalignment of the spine.

9. The nurse will determine that more teaching is needed if a patient with discomfort from a bunion says, I will

- a. give away my high-heeled shoes.
- b. take ibuprofen (Motrin) if I need it.
- c. use the bunion pad to cushion the area.
- d. only wear sandals, no closed-toe shoes.

ANS: D

The patient can wear shoes that have a wide forefoot. The other patient statements indicate that the teaching has been effective.

10. An assessment finding for a 55-year-old patient that alerts the nurse to the presence of osteoporosis is

- a. a measurable loss of height.
- b. the presence of bowed legs.
- c. the aversion to dairy products.
- d. a statement about frequent falls.

ANS: A

Osteoporosis occurring in the vertebrae produces a gradual loss of height. Bowed legs are associated with osteomalacia. Low intake of dairy products is a risk factor for osteoporosis, but it does not indicate that osteoporosis is present. Frequent falls increase the risk for fractures but are not an indicator of osteoporosis.

11. A 54-year-old woman who recently reached menopause and has a family history of osteoporosis is diagnosed with osteopenia following densitometry testing. In teaching the woman about her osteoporosis, the nurse explains that

- a. estrogen replacement therapy must be started to prevent rapid progression to osteoporosis.
- b. continuous, low-dose corticosteroid treatment is effective in stopping the course of osteoporosis.

- c. with a family history of osteoporosis, there is no way to prevent or slow gradual bone resorption.
- d. calcium loss from bones can be slowed by increasing calcium intake and weight-bearing exercise.

ANS: D

Progression of osteoporosis can be slowed by increasing calcium intake and weight-bearing exercise. Estrogen replacement therapy does help prevent osteoporosis, but it is not the only treatment and is not appropriate for some patients. Corticosteroid therapy increases the risk for osteoporosis.

12. Which menu choice by a patient with osteoporosis indicates that the nurses teaching about appropriate diet has been effective?

- a. Pancakes with syrup and bacon
- b. Whole wheat toast and fresh fruit
- c. Egg-white omelet and a half grapefruit
- d. Oatmeal with skim milk and fruit yogurt

ANS: D

Skim milk and yogurt are high in calcium. The other choices do not contain any high-calcium foods.

13. The nurse evaluating effectiveness of prescribed calcitonin (Cibacalcin) and ibandronate (Boniva) for a patient with Pagets disease will consider the patients

- a. pain level.
- b. oral intake.
- c. daily weight.
- d. grip strength.

ANS: A

Bone pain is one of the common early manifestations of Paget's disease, and the nurse should assess the pain level to determine whether the treatment is effective. The other information will also be collected by the nurse, but will not be used in evaluating the effectiveness of the therapy.

14. Which action should the nurse take before administering gentamicin (Garamycin) to a patient who has acute osteomyelitis?

- a. Ask the patient about any nausea.
- b. Review the patient's creatinine level.
- c. Obtain the patient's oral temperature.
- d. Change the prescribed wet-to-dry dressing.

ANS: B

Gentamicin is nephrotoxic and can cause renal failure. Monitoring the patient's temperature before gentamicin administration is not necessary. Nausea is not a common side effect of IV gentamicin. There is no need to change the dressing before gentamicin administration.

15. Which assessment finding for a patient who has had a surgical reduction of an open fracture of the right radius is **most** important to report to the health care provider?

- a. Serous wound drainage
- b. Right arm muscle spasms
- c. Right arm pain with movement
- d. Temperature 101.4 F (38.6 C)

ANS: D

An elevated temperature is suggestive of possible osteomyelitis. The other clinical manifestations are typical after a repair of an open fracture.

16. Following laminectomy with a spinal fusion to treat a herniated disc, a patient reports numbness and tingling of the right lower leg. The **first** action that the nurse should take is to

- a. report the patients complaint to the surgeon.
- b. check the chart for preoperative assessment data.
- c. check the vital signs for indications of hemorrhage.
- d. turn the patient to the side to relieve pressure on the right leg.

ANS: B

The postoperative movement and sensation of the extremities should be unchanged (or improved) from the preoperative assessment. If the numbness and tingling are new, this information should be immediately reported to the surgeon. Numbness and tingling are not symptoms associated with hemorrhage at the site. Turning the patient will not relieve the numbness.

17. When administering alendronate (Fosamax) to a patient with osteoporosis, the nurse will

- a. ask about any leg cramps or hot flashes.
- b. assist the patient to sit up at the bedside.
- c. be sure that the patient has recently eaten.
- d. administer the ordered calcium carbonate.

ANS: B

To avoid esophageal erosions, the patient taking bisphosphonates should be upright for at least 30 minutes after taking the medication. Fosamax should be taken on an empty stomach, not after taking other medications or eating. Leg cramps and hot flashes are not side effects of bisphosphonates.

18. Which nursing action included in the care of a patient after laminectomy can the nurse delegate to experienced unlicensed assistive personnel (UAP)?

- a. Check ability to plantar and dorsiflex the foot.
- b. Determine the patients readiness to ambulate.
- c. Log roll the patient from side to side every 2 hours.
- d. Ask about pain control with the patient-controlled analgesia (PCA).

ANS: C

Repositioning a patient is included in the education and scope of practice of UAP, and experienced UAP will be familiar with how to maintain alignment in the postoperative patient. Evaluation of the effectiveness of pain medications, assessment of neurologic function, and evaluation of a patients readiness to ambulate after surgery require higher level nursing education and scope of practice.

19. Which action will the nurse take when caring for a patient with osteomalacia?

- a. Teach about the use of vitamin D supplements.
- b. Educate about the need for weight-bearing exercise.
- c. Discuss the use of medications such as bisphosphonates.
- d. Emphasize the importance of sunscreen use when outside.

ANS: A

Osteomalacia is caused by inadequate intake or absorption of vitamin D. Weight-bearing exercise and bisphosphonate administration may be used for osteoporosis but will not be beneficial for osteomalacia. Because ultraviolet light is needed for the body to synthesize vitamin D, the patient might be taught that 20 minutes/day of sun exposure is beneficial.

20. Which action will the nurse take **first** when a patient is seen in the outpatient clinic with neck pain?

- a. Provide information about therapeutic neck exercises.
- b. Ask about numbness or tingling of the hands and arms.
- c. Suggest that the patient alternate the use of heat and cold to the neck to treat the pain.
- d. Teach about the use of nonsteroidal antiinflammatory drugs such as ibuprofen (Advil).

ANS: B

The nurse's initial action should be further assessment of the pain because cervical nerve root compression will require different treatment than musculoskeletal neck pain. The other actions may also be appropriate, depending on the assessment findings.

21. A nurse who works on the orthopedic unit has just received the change-of-shift report. Which patient should the nurse assess **first**?

- a. Patient who reports foot pain after hammertoe surgery
- b. Patient with low back pain and a positive straight-leg-raise test
- c. Patient who has not voided 10 hours after having a laminectomy
- d. Patient with osteomyelitis who has a temperature of 100.5 F (38.1 C)

ANS: C

Difficulty in voiding may indicate damage to the spinal nerves and should be assessed and reported to the surgeon immediately. The information about the other patients is consistent with their diagnoses. The nurse will need to assess them as quickly as possible, but the information about them does not indicate a need for immediate intervention.

MSC: NCLEX: Safe and Effective Care Environment

MULTIPLE RESPONSE

1. Which actions will the nurse include in the plan of care when caring for a patient with metastatic bone cancer of the left femur (*select all that apply*)?

- a. Monitor serum calcium level.
- b. Teach about the need for strict bed rest.
- c. Avoid use of sustained-release opioids for pain.
- d. Support the left leg when repositioning the patient.
- e. Support family as they discuss the prognosis of patient

ANS: A, D, E

The nurse will monitor for hypercalcemia caused by bone decalcification. Support of the leg helps reduce the risk for pathologic fractures. Although the patient may be reluctant to exercise, activity is important to maintain function and avoid the complications associated with immobility. Adequate pain medication, including sustained-release and rapidly acting opioids, is needed for the severe pain that is frequently associated with bone cancer. The prognosis for metastatic bone cancer is poor so the patient and family need to be supported as they deal with the reality of the situation.

2. Which information will the nurse include when teaching a patient with acute low back pain (*select all that apply*)?

- a. Sleep in a prone position with the legs extended.
- b. Keep the knees straight when leaning forward to pick something up.
- c. Avoid activities that require twisting of the back or prolonged sitting.
- d. Symptoms of acute low back pain frequently improve in a few weeks.
- e. Ibuprofen (Motrin, Advil) or acetaminophen (Tylenol) can be used to relieve pain.

ANS: C, D, E

Acute back pain usually starts to improve within 2 weeks. In the meantime, the patient should use medications such as nonsteroidal antiinflammatory drugs (NSAIDs) or acetaminophen to manage pain and avoid activities that stress the back. Sleeping in a prone position and keeping the knees straight when leaning forward will place stress on the back, and should be avoided.

SHORT ANSWER

1. A patient with osteomyelitis is to receive vancomycin (Vancocin) 500 mg IV every 6 hours. The vancomycin is diluted in 100 mL of normal saline and needs to be administered over 1 hour. The nurse will set the IV pump for how many mL/minute? *(Round to the nearest hundredth.)*

ANS:

1.67

To administer 100 mL in 60 minutes, the IV pump will need to provide 1.67 mL/minute.

OTHER

1. In which order will the nurse implement these collaborative interventions prescribed for a patient being admitted who has acute osteomyelitis with a temperature of 101.2 F? *(Put a comma and a space between each answer choice [A, B, C, D].)*

- a. Obtain blood cultures from two sites.
- b. Send to radiology for computed tomography (CT) scan of right leg.
- c. Administer gentamicin (Garamycin) 60 mg IV.
- d. Administer acetaminophen (Tylenol) now and every 4 hours PRN for fever.

ANS:

A, C, D, B

The highest priority for possible osteomyelitis is initiation of antibiotic therapy, but cultures should be obtained before administration of antibiotics. Addressing the discomfort of the fever is the next highest priority. Because the purpose of the CT scan is to determine the extent of the infection, it can be done last.

Chapter 64. Management: Arthritis and Connective Tissue Diseases

MULTIPLE CHOICE

1. Which finding will the nurse expect when assessing a 58-year-old patient who has osteoarthritis (OA) of the knee?

- a. Discomfort with joint movement
- b. Heberdens and Bouchards nodes
- c. Redness and swelling of the knee joint
- d. Stiffness that increases with movement

ANS: A

Initial symptoms of OA include pain with joint movement. Heberdens nodules occur on the fingers. Redness of the joint is more strongly associated with rheumatoid arthritis (RA). Stiffness in OA is worse right after the patient rests and decreases with joint movement.

2. Which assessment finding about a patient who has been using naproxen (Naprosyn) for 6 weeks to treat osteoarthritis is **most** important for the nurse to report to the health care provider?

- a. The patient has gained 3 pounds.
- b. The patient has dark-colored stools.
- c. The patients pain has become more severe.
- d. The patient is using capsaicin cream (Zostrix).

ANS: B

Dark-colored stools may indicate that the patient is experiencing gastrointestinal bleeding caused by the naproxen. The information about the patient's ongoing pain and weight gain also will be reported and may indicate a need for a different treatment and/or counseling about avoiding weight gain, but these are not as large a concern as the possibility of gastrointestinal bleeding. Use of capsaicin cream with oral medications is appropriate.

3. After the nurse has finished teaching a 68-year-old patient with osteoarthritis (OA) of the right hip about how to manage the OA, which patient statement indicates a need for more teaching?

- a. I can take glucosamine to help decrease my knee pain.
- b. I will take 1 g of acetaminophen (Tylenol) every 4 hours.
- c. I will take a shower in the morning to help relieve stiffness.
- d. I can use a cane to decrease the pressure and pain in my hip.

ANS: B

No more than 4 g of acetaminophen should be taken daily to avoid liver damage. The other patient statements are correct and indicate good understanding of OA management.

4. The nurse will anticipate the need to teach a 57-year-old patient who has osteoarthritis (OA) about which medication?

- a. Adalimumab (Humira)
- b. Prednisone (Deltasone)
- c. Capsaicin cream (Zostrix)
- d. Sulfasalazine (Azulfidine)

ANS: C

Capsaicin cream blocks the transmission of pain impulses and is helpful for some patients in treating OA. The other medications would be used for patients with RA.

5. A patient with rheumatoid arthritis being seen in the clinic has rheumatoid nodules on the elbows. Which action will the nurse take?

- a. Draw blood for rheumatoid factor analysis.
- b. Teach the patient about injections for the nodules.
- c. Assess the nodules for skin breakdown or infection.
- d. Discuss the need for surgical removal of the nodules.

ANS: C

Rheumatoid nodules can break down or become infected. They are not associated with changes in rheumatoid factor, and injection is not needed. Rheumatoid nodules are usually not removed surgically because of a high probability of recurrence.

6. Which action will the nurse include in the plan of care for a 33-year-old patient with a new diagnosis of rheumatoid arthritis?

- a. Instruct the patient to purchase a soft mattress.
- b. Suggest that the patient take a nap in the afternoon.
- c. Teach the patient to use lukewarm water when bathing.
- d. Suggest exercise with light weights several times daily.

ANS: B

Adequate rest helps decrease the fatigue and pain that are associated with rheumatoid arthritis. Patients are taught to avoid stressing joints, to use warm baths to relieve stiffness, and to use a firm mattress. When stabilized, a therapeutic exercise program is usually developed by a physical therapist to include exercises that improve the flexibility and strength of the affected joints, and the patients overall endurance.

7. A patient with rheumatoid arthritis (RA) complains to the clinic nurse about having chronically dry eyes. Which action by the nurse is **most** appropriate?

- a. Teach the patient about adverse effects of the RA medications.
- b. Suggest that the patient use over-the-counter (OTC) artificial tears.
- c. Reassure the patient that dry eyes are a common problem with RA.
- d. Ask the health care provider about discontinuing methotrexate (Rheumatrex) .

ANS: B

The patients dry eyes are consistent with Sjgrens syndrome, a common extraarticular manifestation of RA. Symptomatic therapy such as OTC eye drops is recommended. Dry eyes are not a side effect of methotrexate. Although dry eyes are common in RA, it is more helpful to offer a suggestion to relieve these symptoms than to offer reassurance. The dry eyes are not caused by RA treatment, but by the disease itself.

8. Which information will the nurse include when preparing teaching materials for patients with exacerbations of rheumatoid arthritis?

- a. Affected joints should not be exercised when pain is present.
- b. Application of cold packs before exercise may decrease joint pain.
- c. Exercises should be performed passively by someone other than the patient.
- d. Walking may substitute for range-of-motion (ROM) exercises on some days.

ANS: B

Cold application is helpful in reducing pain during periods of exacerbation of RA. Because the joint pain is chronic, patients are instructed to exercise even when joints are painful. ROM exercises are intended to strengthen joints and improve flexibility, so passive ROM alone is not sufficient. Recreational exercise is encouraged but is not a replacement for ROM exercises.

9. Which laboratory result will the nurse monitor to determine whether prednisone (Deltasone) has been effective for a 30-year-old patient with an acute exacerbation of rheumatoid arthritis?

- a. Blood glucose test
- b. Liver function tests
- c. C-reactive protein level
- d. Serum electrolyte levels

ANS: C

C-reactive protein is a marker for inflammation, and a decrease would indicate that the corticosteroid therapy was effective. Blood glucose and serum electrolyte levels will also be monitored to check for side effects of prednisone. Liver function is not routinely monitored in patients receiving corticosteroids.

10. The nurse teaching a support group of women with rheumatoid arthritis (RA) about how to manage activities of daily living suggests that they

- a. stand rather than sit when performing household and yard chores.
- b. strengthen small hand muscles by wringing sponges or washcloths.
- c. protect the knee joints by sleeping with a small pillow under the knees.
- d. avoid activities that require repetitive use of the same muscles and joints.

ANS: D

Patients are advised to avoid repetitious movements. Sitting during household chores is recommended to decrease stress on joints. Wringing water out of sponges would increase the joint stress. Patients are encouraged to position joints in the extended position, and sleeping with a pillow behind the knees would decrease the ability of the knee to extend and also decrease knee range of motion (ROM).

11. The nurse suggests that a patient recently diagnosed with rheumatoid arthritis (RA) plan to start each day with

- a. a warm bath followed by a short rest.
- b. a short routine of isometric exercises.
- c. active range-of-motion (ROM) exercises.
- d. stretching exercises to relieve joint stiffness.

ANS: A

Taking a warm shower or bath is recommended to relieve joint stiffness, which is worse in the morning. Isometric exercises would place stress on joints and would not be recommended. Stretching and ROM should be done later in the day, when joint stiffness is decreased.

12. Anakinra (Kineret) is prescribed for a 49-year-old patient who has rheumatoid arthritis (RA). When teaching the patient about this drug, the nurse will include information about

- a. avoiding concurrently taking aspirin.
- b. symptoms of gastrointestinal (GI) bleeding.
- c. self-administration of subcutaneous injections.
- d. taking the medication with at least 8 oz of fluid.

ANS: C

Anakinra is administered by subcutaneous injection. GI bleeding is not a side effect of this medication. Because the medication is injected, instructions to take it with 8 oz of fluid would not be appropriate. The patient is likely to be concurrently taking aspirin or nonsteroidal antiinflammatory drugs (NSAIDs), and these should not be discontinued.

13. A 37-year-old patient with 2 school-age children who has recently been diagnosed with rheumatoid arthritis (RA) tells the nurse that home life is very stressful. Which response by the nurse is **most** appropriate?

- a. Tell me more about situations that are causing you stress.
- b. You need to see a family therapist for some help with stress.
- c. Your family should understand the impact of your rheumatoid arthritis.
- d. Perhaps it would be helpful for your family to be involved in a support group.

ANS: A

The initial action by the nurse should be further assessment. The other three responses might be appropriate based on the information the nurse obtains with further assessment.

14. Which information will the nurse include when teaching a 38-year-old male patient with newly diagnosed ankylosing spondylitis (AS) about the management of the condition?

- a. Exercise by taking long walks.
- b. Do daily deep-breathing exercises.
- c. Sleep on the side with hips flexed.
- d. Take frequent naps during the day.

ANS: B

Deep-breathing exercises are used to decrease the risk for pulmonary complications that may occur with the reduced chest expansion that can occur with ankylosing spondylitis (AS). Patients should sleep on the back and avoid flexed positions. Prolonged standing and walking should be avoided. There is no need for frequent naps.

15. A 19-year-old patient hospitalized with a fever and red, hot, and painful knees is suspected of having septic arthritis. Information obtained during the nursing history that indicates a risk factor for septic arthritis is that the patient

- a. had several knee injuries as a teenager.
- b. recently returned from South America.
- c. is sexually active with multiple partners.
- d. has a parent who has rheumatoid arthritis.

ANS: C

Neisseria gonorrhoeae is the most common cause for septic arthritis in sexually active young adults. The other information does not point to any risk for septic arthritis.

16. The nurse notices a circular lesion with a red border and clear center on the arm of an 18-year-old summer camp counselor who is in the camp clinic complaining of chills and muscle aches. Which action should the nurse take **next**?

- a. Palpate the abdomen.
- b. Auscultate the heart sounds.
- c. Ask the patient about recent outdoor activities.
- d. Question the patient about immunization history.

ANS: C

The patient's clinical manifestations suggest possible Lyme disease. A history of recent outdoor activities such as hikes will help confirm the diagnosis. The patient's symptoms do not suggest cardiac or abdominal problems or lack of immunization.

17. A 29-year-old patient reporting painful urination and knee pain is diagnosed with reactive arthritis. The nurse will plan to teach the patient about the need for several months of therapy with

- a. anakinra (Kineret).
- b. etanercept (Enbrel).
- c. doxycycline (Vibramycin).
- d. methotrexate (Rheumatrex).

ANS: C

Reactive arthritis associated with urethritis is usually caused by infection with *Chlamydia trachomatis* and requires 3 months of treatment with doxycycline. The other medications are used for chronic inflammatory problems such as rheumatoid arthritis.

18. The nurse determines that colchicine has been effective for a patient with an acute attack of gout upon finding

- a. relief of joint pain.
- b. increased urine output.
- c. elevated serum uric acid.
- d. increased white blood cells (WBC).

ANS: A

Colchicine produces pain relief in 24 to 48 hours by decreasing inflammation. The recommended increase in fluid intake of 2 to 3 L/day would increase urine output but would not indicate the effectiveness of colchicine. Elevated uric acid levels would result in increased symptoms. The WBC count might decrease with decreased inflammation, but would not increase.

19. A patient with gout has a new prescription for losartan (Cozaar) to control the condition. The nurse will plan to monitor

- a. blood glucose.
- b. blood pressure.

- c. erythrocyte count.
- d. lymphocyte count.

ANS: B

Losartan, an angiotensin II receptor antagonist, will lower blood pressure. It does not affect blood glucose, red blood cell (RBC) count, or lymphocytes.

20. A 71-year-old patient who takes multiple medications develops acute gouty arthritis. The nurse will consult with the health care provider before giving the prescribed dose of

- a. sertraline (Zoloft).
- b. famotidine (Pepcid).
- c. oxycodone (Roxicodone).
- d. hydrochlorothiazide (HydroDIURIL).

ANS: D

Diuretic use increases uric acid levels and can precipitate gout attacks. The other medications are safe to administer.

21. Which statement by a patient with systemic lupus erythematosus (SLE) indicates that the patient has understood the nurses teaching about the condition?

- a. I will exercise even if I am tired.
- b. I will use sunscreen when I am outside.
- c. I should take birth control pills to keep from getting pregnant.
- d. I should avoid aspirin or nonsteroidal antiinflammatory drugs.

ANS: B

Severe skin reactions can occur in patients with SLE who are exposed to the sun. Patients should avoid fatigue by balancing exercise with rest periods as needed. Oral contraceptives can exacerbate lupus. Aspirin and nonsteroidal antiinflammatory drugs are used to treat the musculoskeletal manifestations of SLE.

22. A 25-year-old female patient with systemic lupus erythematosus (SLE) who has a facial rash and alopecia tells the nurse, I never leave my house because I hate the way I look. An appropriate nursing diagnosis for the patient is

- a. activity intolerance related to fatigue and inactivity.
- b. impaired social interaction related to lack of social skills.
- c. impaired skin integrity related to itching and skin sloughing.
- d. social isolation related to embarrassment about the effects of SLE.

ANS: D

The patient's statement about not going anywhere because of hating the way he or she looks supports the diagnosis of social isolation because of embarrassment about the effects of the SLE. Activity intolerance is a possible problem for patients with SLE, but the information about this patient does not support this as a diagnosis. The rash with SLE is nonpruritic. There is no evidence of lack of social skills for this patient.

23. A new clinic patient with joint swelling and pain is being tested for systemic lupus erythematosus. Which test will provide the most specific findings for the nurse to review?

- a. Rheumatoid factor (RF)
- b. Antinuclear antibody (ANA)
- c. Anti-Smith antibody (Anti-Sm)
- d. Lupus erythematosus (LE) cell prep

ANS: C

The anti-Sm is antibody found almost exclusively in SLE. The other blood tests are also used in screening but are not as specific to SLE.

24. The nurse is planning care for a patient with hypertension and gout who has a red and painful right great toe. Which nursing action will be included in the plan of care?

- a. Gently palpate the toe to assess swelling.
- b. Use pillows to keep the right foot elevated.
- c. Use a footboard to hold bedding away from the toe.
- d. Teach patient to avoid use of acetaminophen (Tylenol).

ANS: C

Because any touch on the area of inflammation may increase pain, bedding should be held away from the toe and touching the toe will be avoided. Elevation of the foot will not reduce the pain, which is caused by urate crystals. Acetaminophen can be used for pain relief.

25. The health care provider has prescribed the following collaborative interventions for a patient who is taking azathioprine (Imuran) for systemic lupus erythematosus. Which order will the nurse question?

- a. Draw anti-DNA blood titer.
- b. Administer varicella vaccine.
- c. Naproxen (Aleve) 200 mg BID.
- d. Famotidine (Pepcid) 20 mg daily.

ANS: B

Live virus vaccines, such as varicella, are contraindicated in a patient taking immunosuppressive drugs. The other orders are appropriate for the patient.

26. A 40-year-old African American patient has scleroderma manifested by CREST (calcinosis, Raynauds phenomenon, esophageal dysfunction, sclerodactyly, and telangiectasia) syndrome. Which action will the nurse include in the plan of care?

- a. Avoid use of capsaicin cream on hands.
- b. Keep environment warm and draft free.
- c. Obtain capillary blood glucose before meals.
- d. Assist to bathroom every 2 hours while awake.

ANS: B

Keeping the room warm will decrease the incidence of Raynauds phenomenon, one aspect of the CREST syndrome. Capsaicin cream may be used to improve circulation and decrease pain. There is no need to obtain blood glucose levels or to assist the patient to the bathroom every 2 hours.

27. The nurse determines that additional instruction is needed when a patient diagnosed with scleroderma says which of the following?

- a. Paraffin baths can be used to help my hands.
- b. I should lie down for an hour after each meal.
- c. Lotions will help if I rub them in for a long time.
- d. I should perform range-of-motion exercises daily.

ANS: B

Because of the esophageal scarring, patients should sit up for 2 hours after eating. The other patient statements are correct and indicate that the teaching has been effective.

28. When the nurse brings medications to a patient with rheumatoid arthritis, the patient refuses the prescribed methotrexate (Rheumatrex). The patient tells the nurse, My arthritis isnt that bad yet. The side effects of methotrexate are worse than the arthritis. The **most** appropriate response by the nurse is

- a. You have the right to refuse to take the methotrexate.
- b. Methotrexate is less expensive than some of the newer drugs.
- c. It is important to start methotrexate early to decrease the extent of joint damage.
- d. Methotrexate is effective and has fewer side effects than some of the other drugs.

ANS: C

Disease-modifying antirheumatic drugs (DMARDs) are prescribed early to prevent the joint degeneration that occurs as soon as the first year with RA. The other statements are accurate, but the most important point for the patient to understand is that it is important to start DMARDs as quickly as possible.

29. Which assessment information obtained by the nurse indicates that a patient with an exacerbation of rheumatoid arthritis (RA) is experiencing a side effect of prednisone (Deltasone)?

- a. The patient has joint pain and stiffness.
- b. The patient's blood glucose is 165 mg/dL.
- c. The patient has experienced a recent 5-pound weight loss.
- d. The patient's erythrocyte sedimentation rate (ESR) has increased.

ANS: B

Corticosteroids have the potential to cause diabetes mellitus. The finding of an elevated blood glucose reflects this side effect of prednisone. Corticosteroids increase appetite and lead to weight gain. An elevated ESR and no improvement in symptoms would indicate that the prednisone was not effective but would not be side effects of the medication.

30. The home health nurse is doing a follow-up visit to a 41-year-old patient with recently diagnosed rheumatoid arthritis (RA). Which assessment made by the nurse indicates that more patient teaching is needed?

- a. The patient takes a 2-hour nap each day.
- b. The patient has been taking 16 aspirins daily.
- c. The patient sits on a stool while preparing meals.
- d. The patient sleeps with two pillows under the head.

ANS: D

The joints should be maintained in an extended position to avoid contractures, so patients should use a small, flat pillow for sleeping. The other information is appropriate for a patient with RA and indicates that teaching has been effective.

Chapter 65. Management: Critical Care

MULTIPLE CHOICE

1. A 68-year-old patient has been in the intensive care unit for 4 days and has a nursing diagnosis of disturbed sensory perception related to sleep deprivation. Which action should the nurse include in the plan of care?

- a. Administer prescribed sedatives or opioids at bedtime to promote sleep.
- b. Cluster nursing activities so that the patient has uninterrupted rest periods.
- c. Silence the alarms on the cardiac monitors to allow 30- to 40-minute naps.
- d. Eliminate assessments between 0100 and 0600 to allow uninterrupted sleep.

ANS: B

Clustering nursing activities and providing uninterrupted rest periods will minimize sleep-cycle disruption. Sedative and opioid medications tend to decrease the amount of rapid eye movement (REM) sleep and can contribute to sleep disturbance and

disturbed sensory perception. Silencing the alarms on the cardiac monitors would be unsafe in a critically ill patient, as would discontinuing assessments during the night.

2. Which hemodynamic parameter is **most** appropriate for the nurse to monitor to determine the effectiveness of medications given to a patient to reduce left ventricular afterload?

- a. Mean arterial pressure (MAP)
- b. Systemic vascular resistance (SVR)
- c. Pulmonary vascular resistance (PVR)
- d. Pulmonary artery wedge pressure (PAWP)

ANS: B

Systemic vascular resistance reflects the resistance to ventricular ejection, or afterload. The other parameters will be monitored, but do not reflect afterload as directly.

3. While family members are visiting, a patient has a respiratory arrest and is being resuscitated. Which action by the nurse is **best**?

- a. Tell the family members that watching the resuscitation will be very stressful.
- b. Ask family members if they wish to remain in the room during the resuscitation.
- c. Take the family members quickly out of the patient room and remain with them.
- d. Assign a staff member to wait with family members just outside the patient room.

ANS: B

Research indicates that family members want the option of remaining in the room during procedures such as cardiopulmonary resuscitation (CPR) and that this

decreases anxiety and facilitates grieving. The other options may be appropriate if the family decides not to remain with the patient.

4. Following surgery for an abdominal aortic aneurysm, a patient's central venous pressure (CVP) monitor indicates low pressures. Which action is a **priority** for the nurse to take?

- a. Administer IV diuretic medications.
- b. Increase the IV fluid infusion per protocol.
- c. Document the CVP and continue to monitor.
- d. Elevate the head of the patient's bed to 45 degrees.

ANS: B

A low CVP indicates hypovolemia and a need for an increase in the infusion rate. Diuretic administration will contribute to hypovolemia and elevation of the head may decrease cerebral perfusion. Documentation and continued monitoring is an inadequate response to the low CVP.

5. When caring for a patient with pulmonary hypertension, which parameter is **most** appropriate for the nurse to monitor to evaluate the effectiveness of the treatment?

- a. Central venous pressure (CVP)
- b. Systemic vascular resistance (SVR)
- c. Pulmonary vascular resistance (PVR)
- d. Pulmonary artery wedge pressure (PAWP)

ANS: C

PVR is a major contributor to pulmonary hypertension, and a decrease would indicate that pulmonary hypertension was improving. The other parameters also may be monitored but do not directly assess for pulmonary hypertension.

6. The intensive care unit (ICU) nurse educator will determine that teaching about arterial pressure monitoring for a new staff nurse has been effective when the nurse

- a. balances and calibrates the monitoring equipment every 2 hours.
- b. positions the zero-reference stopcock line level with the phlebostatic axis.
- c. ensures that the patient is supine with the head of the bed flat for all readings.
- d. rechecks the location of the phlebostatic axis when changing the patients position.

ANS: B

For accurate measurement of pressures, the zero-reference level should be at the phlebostatic axis. There is no need to rebalance and recalibrate monitoring equipment hourly. Accurate hemodynamic readings are possible with the patients head raised to 45 degrees or in the prone position. The anatomic position of the phlebostatic axis does not change when patients are repositioned.

7. When monitoring for the effectiveness of treatment for a patient with a large anterior wall myocardial infarction, the **most** important information for the nurse to obtain is

- a. central venous pressure (CVP).
- b. systemic vascular resistance (SVR).
- c. pulmonary vascular resistance (PVR).
- d. pulmonary artery wedge pressure (PAWP).

ANS: D

PAWP reflects left ventricular end diastolic pressure (or left ventricular preload) and is a sensitive indicator of cardiac function. Because the patient is high risk for left ventricular failure, the PAWP must be monitored. An increase will indicate left

ventricular failure. The other values would also provide useful information, but the most definitive measurement of changes in cardiac function is the PAWP.

8. Which action is a **priority** for the nurse to take when the low pressure alarm sounds for a patient who has an arterial line in the left radial artery?

- a. Fast flush the arterial line.
- b. Check the left hand for pallor.
- c. Assess for cardiac dysrhythmias.
- d. Rezero the monitoring equipment.

ANS: C

The low pressure alarm indicates a drop in the patient's blood pressure, which may be caused by cardiac dysrhythmias. There is no indication to rezero the equipment. Pallor of the left hand would be caused by occlusion of the radial artery by the arterial catheter, not by low pressure. There is no indication of a need for flushing the line.

9. Which action will the nurse need to do when preparing to assist with the insertion of a pulmonary artery catheter?

- a. Determine if the cardiac troponin level is elevated.
- b. Auscultate heart and breath sounds during insertion.
- c. Place the patient on NPO status before the procedure.
- d. Attach cardiac monitoring leads before the procedure.

ANS: D

Dysrhythmias can occur as the catheter is floated through the right atrium and ventricle, and it is important for the nurse to monitor for these during insertion.

Pulmonary artery catheter insertion does not require anesthesia, and the patient will not need to be NPO. Changes in cardiac troponin or heart and breath sounds are not expected during pulmonary artery catheter insertion.

10. When assisting with the placement of a pulmonary artery (PA) catheter, the nurse notes that the catheter is correctly placed when the monitor shows a

- a. typical PA pressure waveform.
- b. tracing of the systemic arterial pressure.
- c. tracing of the systemic vascular resistance.
- d. typical PA wedge pressure (PAWP) tracing.

ANS: D

The purpose of a PA line is to measure PAWP, so the catheter is floated through the pulmonary artery until the dilated balloon wedges in a distal branch of the pulmonary artery, and the PAWP readings are available. After insertion, the balloon is deflated and the PA waveform will be observed. Systemic arterial pressures are obtained using an arterial line and the systemic vascular resistance is a calculated value, not a waveform.

11. Which assessment finding obtained by the nurse when caring for a patient with a right radial arterial line indicates a need for the nurse to take **immediate** action?

- a. The right hand is cooler than the left hand.
- b. The mean arterial pressure (MAP) is 77 mm Hg.
- c. The system is delivering 3 mL of flush solution per hour.
- d. The flush bag and tubing were last changed 3 days previously.

ANS: A

The change in temperature of the left hand suggests that blood flow to the left hand is impaired. The flush system needs to be changed every 96 hours. A mean arterial pressure (MAP) of 75 mm Hg is normal. Flush systems for hemodynamic monitoring are set up to deliver 3 to 6 mL/hour of flush solution.

12. The central venous oxygen saturation (ScvO₂) is decreasing in a patient who has severe pancreatitis. To determine the possible cause of the decreased ScvO₂, the nurse assesses the patients

- a. lipase.
- b. temperature.
- c. urinary output.
- d. body mass index.

ANS: B

Elevated temperature increases metabolic demands and oxygen use by tissues, resulting in a drop in oxygen saturation of central venous blood. Information about the patients body mass index, urinary output, and lipase will not help in determining the cause of the patients drop in ScvO₂.

13. An intraaortic balloon pump (IABP) is being used for a patient who is in cardiogenic shock. Which assessment data indicate to the nurse that the goals of treatment with the IABP are being met?

- a. Urine output of 25 mL/hr
- b. Heart rate of 110 beats/minute
- c. Cardiac output (CO) of 5 L/min
- d. Stroke volume (SV) of 40 mL/beat

ANS: C

A CO of 5 L/min is normal and indicates that the IABP has been successful in treating the shock. The low SV signifies continued cardiogenic shock. The tachycardia and low urine output also suggest continued cardiogenic shock.

14. The nurse is caring for a patient who has an intraaortic balloon pump in place. Which action should be included in the plan of care?

- a. Position the patient supine at all times.
- b. Avoid the use of anticoagulant medications.
- c. Measure the patients urinary output every hour.
- d. Provide passive range of motion for all extremities.

ANS: C

Monitoring urine output will help determine whether the patients cardiac output has improved and also help monitor for balloon displacement. The head of the bed can be elevated up to 30 degrees. Heparin is used to prevent thrombus formation. Limited movement is allowed for the extremity with the balloon insertion site to prevent displacement of the balloon.

15. While waiting for cardiac transplantation, a patient with severe cardiomyopathy has a ventricular assist device (VAD) implanted. When planning care for this patient, the nurse should anticipate

- a. giving immunosuppressive medications.
- b. preparing the patient for a permanent VAD.
- c. teaching the patient the reason for complete bed rest.
- d. monitoring the surgical incision for signs of infection.

ANS: D

The insertion site for the VAD provides a source for transmission of infection to the circulatory system and requires frequent monitoring. Patients with VADs are able to have some mobility and may not be on bed rest. The VAD is a bridge to transplantation, not a permanent device. Immunosuppression is not necessary for nonbiologic devices like the VAD.

16. To verify the correct placement of an oral endotracheal tube (ET) after insertion, the **best** initial action by the nurse is to

- a. auscultate for the presence of bilateral breath sounds.
- b. obtain a portable chest x-ray to check tube placement.
- c. observe the chest for symmetric chest movement with ventilation.
- d. use an end-tidal CO₂ monitor to check for placement in the trachea.

ANS: D

End-tidal CO₂ monitors are currently recommended for rapid verification of ET placement. Auscultation for bilateral breath sounds and checking chest expansion are also used, but they are not as accurate as end-tidal CO₂ monitoring. A chest x-ray confirms the placement but is done after the tube is secured.

17. To maintain proper cuff pressure of an endotracheal tube (ET) when the patient is on mechanical ventilation, the nurse should

- a. inflate the cuff with a minimum of 10 mL of air.
- b. inflate the cuff until the pilot balloon is firm on palpation.
- c. inject air into the cuff until a manometer shows 15 mm Hg pressure.
- d. inject air into the cuff until a slight leak is heard only at peak inflation.

ANS: D

The minimal occluding volume technique involves injecting air into the cuff until an air leak is present only at peak inflation. The volume to inflate the cuff varies with the ET and the patient's size. Cuff pressure should be maintained at 20 to 25 mm Hg. An accurate assessment of cuff pressure cannot be obtained by palpating the pilot balloon.

18. The nurse notes premature ventricular contractions (PVCs) while suctioning a patient's endotracheal tube. Which action by the nurse is a **priority**?

- a. Decrease the suction pressure to 80 mm Hg.
- b. Document the dysrhythmia in the patient's chart.
- c. Stop and ventilate the patient with 100% oxygen.

- d. Give antidysrhythmic medications per protocol.

ANS: C

Dysrhythmias during suctioning may indicate hypoxemia or sympathetic nervous system stimulation. The nurse should stop suctioning and ventilate the patient with 100% oxygen. Lowering the suction pressure will decrease the effectiveness of suctioning without improving the hypoxemia. Because the PVCs occurred during suctioning, there is no need for antidysrhythmic medications (which may have adverse effects) unless they recur when the suctioning is stopped and patient is well oxygenated.

19. Which assessment finding obtained by the nurse when caring for a patient receiving mechanical ventilation indicates the need for suctioning?

- a. The patient's oxygen saturation is 93%.
- b. The patient was last suctioned 6 hours ago.
- c. The patient's respiratory rate is 32 breaths/minute.
- d. The patient has occasional audible expiratory wheezes.

ANS: C

The increase in respiratory rate indicates that the patient may have decreased airway clearance and requires suctioning. Suctioning is done when patient assessment data indicate that it is needed, not on a scheduled basis. Occasional expiratory wheezes do not indicate poor airway clearance, and suctioning the patient may induce bronchospasm and increase wheezing. An oxygen saturation of 93% is acceptable and does not suggest that immediate suctioning is needed.

20. The nurse notes thick, white secretions in the endotracheal tube (ET) of a patient who is receiving mechanical ventilation. Which intervention will be **most** effective in addressing this problem?

- a. Increase suctioning to every hour.

- b. Reposition the patient every 1 to 2 hours.
- c. Add additional water to the patients enteral feedings.
- d. Instill 5 mL of sterile saline into the ET before suctioning.

ANS: C

Because the patients secretions are thick, better hydration is indicated. Suctioning every hour without any specific evidence for the need will increase the incidence of mucosal trauma and would not address the etiology of the ineffective airway clearance. Instillation of saline does not liquefy secretions and may decrease the SpO₂. Repositioning the patient is appropriate but will not decrease the thickness of secretions.

21. Four hours after mechanical ventilation is initiated for a patient with chronic obstructive pulmonary disease (COPD), the patients arterial blood gas (ABG) results include a pH of 7.51, PaO₂ of 82 mm Hg, PaCO₂ of 26 mm Hg, and HCO₃ of 23 mEq/L (23 mmol/L). The nurse will anticipate the need to

- a. increase the FIO₂.
- b. increase the tidal volume.
- c. increase the respiratory rate.
- d. decrease the respiratory rate.

ANS: D

The patients PaCO₂ and pH indicate respiratory alkalosis caused by too high a respiratory rate. The PaO₂ is appropriate for a patient with COPD and increasing the respiratory rate and tidal volume would further lower the PaCO₂.

22. A patient with respiratory failure has arterial pressure-based cardiac output (APCO) monitoring and is receiving mechanical ventilation with peak end-expiratory pressure (PEEP) of 12 cm H₂O. Which information indicates that a change in the ventilator settings may be required?

- a. The arterial pressure is 90/46.
- b. The heart rate is 58 beats/minute.
- c. The stroke volume is increased.
- d. The stroke volume variation is 12%.

ANS: A

The hypotension suggests that the high intrathoracic pressure caused by the PEEP may be decreasing venous return and (potentially) cardiac output. The other assessment data would not be a direct result of PEEP and mechanical ventilation.

23. A nurse is weaning a 68-kg male patient who has chronic obstructive pulmonary disease (COPD) from mechanical ventilation. Which patient assessment finding indicates that the weaning protocol should be stopped?

- a. The patients heart rate is 97 beats/min.
- b. The patients oxygen saturation is 93%.
- c. The patient respiratory rate is 32 breaths/min.
- d. The patients spontaneous tidal volume is 450 mL.

ANS: C

Tachypnea is a sign that the patients work of breathing is too high to allow weaning to proceed. The patients heart rate is within normal limits, although the nurse should continue to monitor it. An oxygen saturation of 93% is acceptable for a patient with COPD. A spontaneous tidal volume of 450 mL is within the acceptable range.

24. The nurse is caring for a patient receiving a continuous norepinephrine (Levophed) IV infusion. Which patient assessment finding indicates that the infusion rate may need to be adjusted?

- a. Heart rate is 58 beats/minute.
- b. Mean arterial pressure (MAP) is 56 mm Hg.

- c. Systemic vascular resistance (SVR) is elevated.
- d. Pulmonary artery wedge pressure (PAWP) is low.

ANS: C

Vasoconstrictors such as norepinephrine (Levophed) will increase SVR, and this will increase the work of the heart and decrease peripheral perfusion. The infusion rate may need to be decreased. Bradycardia, hypotension (MAP of 56 mm Hg), and low PAWP are not associated with norepinephrine infusion.

25. When caring for the patient with a pulmonary artery (PA) pressure catheter, the nurse observes that the PA waveform indicates that the catheter is in the wedged position. Which action should the nurse take **next**?

- a. Zero balance the transducer.
- b. Activate the fast flush system.
- c. Notify the health care provider.
- d. Deflate and reinflate the PA balloon.

ANS: D

When the catheter is in the wedge position, blood flow past the catheter is obstructed, placing the patient at risk for pulmonary infarction. A health care provider or advanced practice nurse should be called to reposition the catheter. The other actions will not correct the wedging of the PA catheter.

26. When evaluating a patient with a central venous catheter, the nurse observes that the insertion site is red and tender to touch and the patient's temperature is 101.8 F. What should the nurse plan to do **next**?

- a. Give analgesics and antibiotics as ordered.
- b. Discontinue the catheter and culture the tip.
- c. Change the flush system and monitor the site.

- d. Check the site more frequently for any swelling.

ANS: B

The information indicates that the patient has a local and systemic infection caused by the catheter, and the catheter should be discontinued. Changing the flush system, giving analgesics, and continued monitoring will not help prevent or treat the infection. Administration of antibiotics is appropriate, but the line should still be discontinued to avoid further complications such as endocarditis.

27. An 81-year-old patient who has been in the intensive care unit (ICU) for a week is now stable and transfer to the progressive care unit is planned. On rounds, the nurse notices that the patient has new onset confusion. The nurse will plan to

- a. give PRN lorazepam (Ativan) and cancel the transfer.
- b. inform the receiving nurse and then transfer the patient.
- c. notify the health care provider and postpone the transfer.
- d. obtain an order for restraints as needed and transfer the patient.

ANS: B

The patient's history and symptoms most likely indicate delirium associated with the sleep deprivation and sensory overload in the ICU environment. Informing the receiving nurse and transferring the patient is appropriate. Postponing the transfer is likely to prolong the delirium. Benzodiazepines and restraints contribute to delirium and agitation.

28. The family members of a patient who has just been admitted to the intensive care unit (ICU) with multiple traumatic injuries have just arrived in the ICU waiting room. Which action should the nurse take **next**?

- a. Explain ICU visitation policies and encourage family visits.
- b. Immediately take the family members to the patient's bedside.

- c. Describe the patients injuries and the care that is being provided.
- d. Invite the family to participate in a multidisciplinary care conference.

ANS: C

Lack of information is a major source of anxiety for family members and should be addressed first. Family members should be prepared for the patients appearance and the ICU environment before visiting the patient for the first time. ICU visiting should be individualized to each patient and family rather than being dictated by rigid visitation policies. Inviting the family to participate in a multidisciplinary conference is appropriate but should not be the initial action by the nurse.

29. When caring for a patient who has an arterial catheter in the left radial artery for arterial pressurebased cardiac output (APCO) monitoring, which information obtained by the nurse is **most** important to report to the health care provider?

- a. The patient has a positive Allen test.
- b. There is redness at the catheter insertion site.
- c. The mean arterial pressure (MAP) is 86 mm Hg.
- d. The dicrotic notch is visible in the arterial waveform.

ANS: B

Redness at the catheter insertion site indicates possible infection. The Allen test is performed before arterial line insertion, and a positive test indicates normal ulnar artery perfusion. A MAP of 86 is normal and the dicrotic notch is normally present on the arterial waveform.

Chapter 66. Management: Shock, Systemic Inflammatory Response Syndrome, and Multiple Organ Dysfunction Syndrome

MULTIPLE CHOICE

1. A 78-kg patient with septic shock has a urine output of 30 mL/hr for the past 3 hours. The pulse rate is 120/minute and the central venous pressure and pulmonary artery wedge pressure are low. Which order by the health care provider will the nurse question?

- a. Give PRN furosemide (Lasix) 40 mg IV.
- b. Increase normal saline infusion to 250 mL/hr.
- c. Administer hydrocortisone (Solu-Cortef) 100 mg IV.
- d. Titrate norepinephrine (Levophed) to keep systolic BP >90 mm Hg.

ANS: A

Furosemide will lower the filling pressures and renal perfusion further for the patient with septic shock. The other orders are appropriate.

2. A nurse is caring for a patient with shock of unknown etiology whose hemodynamic monitoring indicates BP 92/54, pulse 64, and an elevated pulmonary artery wedge pressure. Which collaborative intervention ordered by the health care provider should the nurse question?

- a. Infuse normal saline at 250 mL/hr.
- b. Keep head of bed elevated to 30 degrees.
- c. Hold nitroprusside (Nipride) if systolic BP <90 mm Hg.
- d. Titrate dobutamine (Dobutrex) to keep systolic BP >90 mm Hg.

ANS: A

The patient's elevated pulmonary artery wedge pressure indicates volume excess. A saline infusion at 250 mL/hr will exacerbate the volume excess. The other actions are appropriate for the patient.

3. A 19-year-old patient with massive trauma and possible spinal cord injury is admitted to the emergency department (ED). Which assessment finding by the nurse will help confirm a diagnosis of neurogenic shock?

- a. Inspiratory crackles.
- b. Cool, clammy extremities.
- c. Apical heart rate 45 beats/min.
- d. Temperature 101.2 F (38.4 C).

ANS: C

Neurogenic shock is characterized by hypotension and bradycardia. The other findings would be more consistent with other types of shock.

4. An older patient with cardiogenic shock is cool and clammy and hemodynamic monitoring indicates a high systemic vascular resistance (SVR). Which intervention should the nurse anticipate doing **next**?

- a. Increase the rate for the dopamine (Intropin) infusion.
- b. Decrease the rate for the nitroglycerin (Tridil) infusion.
- c. Increase the rate for the sodium nitroprusside (Nipride) infusion.
- d. Decrease the rate for the 5% dextrose in normal saline (D₅/.9 NS) infusion.

ANS: C

Nitroprusside is an arterial vasodilator and will decrease the SVR and afterload, which will improve cardiac output. Changes in the D₅/.9 NS and nitroglycerin infusions will not directly decrease SVR. Increasing the dopamine will tend to increase SVR.

5. After receiving 2 L of normal saline, the central venous pressure for a patient who has septic shock is 10 mm Hg, but the blood pressure is still 82/40 mm Hg. The nurse will anticipate an order for

- a. nitroglycerine (Tridil).
- b. norepinephrine (Levophed).
- c. sodium nitroprusside (Nipride).
- d. methylprednisolone (Solu-Medrol).

ANS: B

When fluid resuscitation is unsuccessful, vasopressor drugs are administered to increase the systemic vascular resistance (SVR) and blood pressure, and improve tissue perfusion. Nitroglycerin would decrease the preload and further drop cardiac output and BP. Methylprednisolone (Solu-Medrol) is considered if blood pressure does not respond first to fluids and vasopressors. Nitroprusside is an arterial vasodilator and would further decrease SVR.

6. To evaluate the effectiveness of the pantoprazole (Protonix) ordered for a patient with systemic inflammatory response syndrome (SIRS), which assessment will the nurse perform?

- a. Auscultate bowel sounds.
- b. Palpate for abdominal pain.
- c. Ask the patient about nausea.
- d. Check stools for occult blood.

ANS: D

Proton pump inhibitors are given to decrease the risk for stress ulcers in critically ill patients. The other assessments also will be done, but these will not help in determining the effectiveness of the pantoprazole administration.

7. A patient with cardiogenic shock has the following vital signs: BP 102/50, pulse 128, respirations 28. The pulmonary artery wedge pressure (PAWP) is increased and cardiac output is low. The nurse will anticipate an order for which medication?

- a. 5% human albumin
- b. Furosemide (Lasix) IV
- c. Epinephrine (Adrenalin) drip
- d. Hydrocortisone (Solu-Cortef)

ANS: B

The PAWP indicates that the patient's preload is elevated, and furosemide is indicated to reduce the preload and improve cardiac output. Epinephrine would further increase heart rate and myocardial oxygen demand. 5% human albumin would also increase the PAWP. Hydrocortisone might be considered for septic or anaphylactic shock.

8. The emergency department (ED) nurse receives report that a patient involved in a motor vehicle crash is being transported to the facility with an estimated arrival in 1 minute. In preparation for the patient's arrival, the nurse will obtain

- a. hypothermia blanket.
- b. lactated Ringers solution.
- c. two 14-gauge IV catheters.
- d. dopamine (Intropin) infusion.

ANS: C

A patient with multiple trauma may require fluid resuscitation to prevent or treat hypovolemic shock, so the nurse will anticipate the need for 2 large bore IV lines to administer normal saline. Lactated Ringers solution should be used cautiously and will not be ordered until the patient has been assessed for possible liver abnormalities. Vasopressor infusion is not used as the initial therapy for hypovolemic shock. Patients in shock need to be kept warm not cool.

9. Which finding is the **best** indicator that the fluid resuscitation for a patient with hypovolemic shock has been effective?

- a. Hemoglobin is within normal limits.
- b. Urine output is 60 mL over the last hour.
- c. Central venous pressure (CVP) is normal.
- d. Mean arterial pressure (MAP) is 72 mm Hg.

ANS: B

Assessment of end organ perfusion, such as an adequate urine output, is the best indicator that fluid resuscitation has been successful. The hemoglobin level, CVP, and MAP are useful in determining the effects of fluid administration, but they are not as useful as data indicating good organ perfusion.

10. Which intervention will the nurse include in the plan of care for a patient who has cardiogenic shock?

- a. Check temperature every 2 hours.
- b. Monitor breath sounds frequently.
- c. Maintain patient in supine position.
- d. Assess skin for flushing and itching.

ANS: B

Since pulmonary congestion and dyspnea are characteristics of cardiogenic shock, the nurse should assess the breath sounds frequently. The head of the bed is usually elevated to decrease dyspnea in patients with cardiogenic shock. Elevated temperature and flushing or itching of the skin are not typical of cardiogenic shock.

11. Norepinephrine (Levophed) has been prescribed for a patient who was admitted with dehydration and hypotension. Which patient data indicate that the nurse should consult with the health care provider before starting the norepinephrine?

- a. The patient's central venous pressure is 3 mm Hg.
- b. The patient is in sinus tachycardia at 120 beats/min.

- c. The patient is receiving low dose dopamine (Intropin).
- d. The patient has had no urine output since being admitted.

ANS: A

Adequate fluid administration is essential before administration of vasopressors to patients with hypovolemic shock. The patient's low central venous pressure indicates a need for more volume replacement. The other patient data are not contraindications to norepinephrine administration.

12. A nurse is assessing a patient who is receiving a nitroprusside (Nipride) infusion to treat cardiogenic shock. Which finding indicates that the medication is effective?

- a. No new heart murmurs
- b. Decreased troponin level
- c. Warm, pink, and dry skin
- d. Blood pressure 92/40 mm Hg

ANS: C

Warm, pink, and dry skin indicates that perfusion to tissues is improved. Since nitroprusside is a vasodilator, the blood pressure may be low even if the medication is effective. Absence of a heart murmur and a decrease in troponin level are not indicators of improvement in shock.

13. Which assessment information is **most** important for the nurse to obtain to evaluate whether treatment of a patient with anaphylactic shock has been effective?

- a. Heart rate
- b. Orientation
- c. Blood pressure
- d. Oxygen saturation

ANS: D

Because the airway edema that is associated with anaphylaxis can affect airway and breathing, the oxygen saturation is the most critical assessment. Improvements in the other assessments will also be expected with effective treatment of anaphylactic shock.

14. Which data collected by the nurse caring for a patient who has cardiogenic shock indicate that the patient may be developing multiple organ dysfunction syndrome (MODS)?

- a. The patient's serum creatinine level is elevated.
- b. The patient complains of intermittent chest pressure.
- c. The patient's extremities are cool and pulses are weak.
- d. The patient has bilateral crackles throughout lung fields.

ANS: A

The elevated serum creatinine level indicates that the patient has renal failure as well as heart failure. The crackles, chest pressure, and cool extremities are all consistent with the patient's diagnosis of cardiogenic shock.

15. A patient with septic shock has a BP of 70/46 mm Hg, pulse 136, respirations 32, temperature 104 F, and blood glucose 246 mg/dL. Which intervention ordered by the health care provider should the nurse implement **first**?

- a. Give normal saline IV at 500 mL/hr.
- b. Give acetaminophen (Tylenol) 650 mg rectally.
- c. Start insulin drip to maintain blood glucose at 110 to 150 mg/dL.
- d. Start norepinephrine (Levophed) to keep systolic blood pressure >90 mm Hg.

ANS: A

Because of the low systemic vascular resistance (SVR) associated with septic shock, fluid resuscitation is the initial therapy. The other actions also are appropriate, and should be initiated quickly as well.

16. When the nurse educator is evaluating the skills of a new registered nurse (RN) caring for patients experiencing shock, which action by the new RN indicates a need for more education?

- a. Placing the pulse oximeter on the ear for a patient with septic shock
- b. Keeping the head of the bed flat for a patient with hypovolemic shock
- c. Increasing the nitroprusside (Nipride) infusion rate for a patient with a high SVR
- d. Maintaining the room temperature at 66 to 68 F for a patient with neurogenic shock

ANS: D

Patients with neurogenic shock may have poikilothermia. The room temperature should be kept warm to avoid hypothermia. The other actions by the new RN are appropriate.

17. The nurse is caring for a patient who has septic shock. Which assessment finding is **most** important for the nurse to report to the health care provider?

- a. Blood pressure (BP) 92/56 mm Hg
- b. Skin cool and clammy
- c. Oxygen saturation 92%
- d. Heart rate 118 beats/minute

ANS: B

Because patients in the early stage of septic shock have warm and dry skin, the patients cool and clammy skin indicates that shock is progressing. The other

information will also be reported, but does not indicate deterioration of the patients status.

18. A patient is admitted to the emergency department (ED) for shock of unknown etiology. The **first** action by the nurse should be to

- a. administer oxygen.
- b. obtain a 12-lead electrocardiogram (ECG).
- c. obtain the blood pressure.
- d. check the level of consciousness.

ANS: A

The initial actions of the nurse are focused on the ABCs airway, breathing, and circulation and administration of oxygen should be done first. The other actions should be accomplished as rapidly as possible after oxygen administration.

19. During change-of-shift report, the nurse is told that a patient has been admitted with dehydration and hypotension after having vomiting and diarrhea for 4 days. Which finding is **most** important for the nurse to report to the health care provider?

- a. New onset of confusion
- b. Heart rate 112 beats/minute
- c. Decreased bowel sounds
- d. Pale, cool, and dry extremities

ANS: A

The changes in mental status are indicative that the patient is in the progressive stage of shock and that rapid intervention is needed to prevent further deterioration. The other information is consistent with compensatory shock.

20. A patient who has been involved in a motor vehicle crash arrives in the emergency department (ED) with cool, clammy skin; tachycardia; and hypotension. Which intervention ordered by the health care provider should the nurse implement **first**?

- a. Insert two large-bore IV catheters.
- b. Initiate continuous electrocardiogram (ECG) monitoring.
- c. Provide oxygen at 100% per non-rebreather mask.
- d. Draw blood to type and crossmatch for transfusions.

ANS: C

The first priority in the initial management of shock is maintenance of the airway and ventilation. ECG monitoring, insertion of IV catheters, and obtaining blood for transfusions should also be rapidly accomplished but only after actions to maximize oxygen delivery have been implemented.

21. The patient with neurogenic shock is receiving a phenylephrine (Neo-Synephrine) infusion through a right forearm IV. Which assessment finding obtained by the nurse indicates a need for **immediate** action?

- a. The patient's heart rate is 58 beats/minute.
- b. The patient's extremities are warm and dry.
- c. The patient's IV infusion site is cool and pale.
- d. The patient's urine output is 28 mL over the last hour.

ANS: C

The coldness and pallor at the infusion site suggest extravasation of the phenylephrine. The nurse should discontinue the IV and, if possible, infuse the medication into a central line. An apical pulse of 58 is typical for neurogenic shock but does not indicate an immediate need for nursing intervention. A 28-mL urinary output over 1 hour would require the nurse to monitor the output over the next hour, but an immediate change in therapy is not indicated. Warm, dry skin is consistent with

early neurogenic shock, but it does not indicate a need for a change in therapy or immediate action.

22. The following interventions are ordered by the health care provider for a patient who has respiratory distress and syncope after eating strawberries. Which will the nurse complete **first**?

- a. Start a normal saline infusion.
- b. Give epinephrine (Adrenalin).
- c. Start continuous ECG monitoring.
- d. Give diphenhydramine (Benadryl).

ANS: B

Epinephrine rapidly causes peripheral vasoconstriction, dilates the bronchi, and blocks the effects of histamine and reverses the vasodilation, bronchoconstriction, and histamine release that cause the symptoms of anaphylaxis. The other interventions are also appropriate but would not be the first ones completed.

23. Which finding about a patient who is receiving vasopressin (Pitressin) to treat septic shock is **most** important for the nurse to communicate to the health care provider?

- a. The patients urine output is 18 mL/hr.
- b. The patients heart rate is 110 beats/minute.
- c. The patient is complaining of chest pain.
- d. The patients peripheral pulses are weak.

ANS: C

Because vasopressin is a potent vasoconstrictor, it may decrease coronary artery perfusion. The other information is consistent with the patients diagnosis and should

be reported to the health care provider but does not indicate a need for a change in therapy.

24. After change-of-shift report in the progressive care unit, who should the nurse care for first?

- a. Patient who had an inferior myocardial infarction 2 days ago and has crackles in the lung bases
- b. Patient with suspected urosepsis who has new orders for urine and blood cultures and antibiotics
- c. Patient who had a T5 spinal cord injury 1 week ago and currently has a heart rate of 54 beats/minute
- d. Patient admitted with anaphylaxis 3 hours ago who now has clear lung sounds and a blood pressure of 108/58 mm Hg

ANS: B

Antibiotics should be administered within the first hour for patients who have sepsis or suspected sepsis in order to prevent progression to systemic inflammatory response syndrome (SIRS) and septic shock. The data on the other patients indicate that they are more stable. Crackles heard only at the lung bases do not require immediate intervention in a patient who has had a myocardial infarction. Mild bradycardia does not usually require atropine in patients who have a spinal cord injury. The findings for the patient admitted with anaphylaxis indicate resolution of bronchospasm and hypotension.

25. After reviewing the information shown in the accompanying figure for a patient with pneumonia and sepsis, which information is **most** important to report to the health care provider?

- a. Temperature and IV site appearance
- b. Oxygen saturation and breath sounds
- c. Platelet count and presence of petechiae
- d. Blood pressure, pulse rate, respiratory rate.

ANS: C

The low platelet count and presence of petechiae suggest that the patient may have disseminated intravascular coagulation and that multiple organ dysfunction syndrome (MODS) is developing. The other information will also be discussed with the health care provider but does not indicate that the patient's condition is deteriorating or that a change in therapy is needed immediately.

MULTIPLE RESPONSE

1. A patient with suspected neurogenic shock after a diving accident has arrived in the emergency department. A cervical collar is in place. Which actions should the nurse take (*select all that apply*)?

- a. Prepare to administer atropine IV.
- b. Obtain baseline body temperature.
- c. Infuse large volumes of lactated Ringers solution.
- d. Provide high-flow oxygen (100%) by non-rebreather mask.
- e. Prepare for emergent intubation and mechanical ventilation.

ANS: A, B, D, E

All of the actions are appropriate except to give large volumes of lactated Ringers solution. The patient with neurogenic shock usually has a normal blood volume, and it is important not to volume overload the patient. In addition, lactated Ringers solution is used cautiously in all shock situations because the failing liver cannot convert lactate to bicarbonate.

2. Which preventive actions by the nurse will help limit the development of systemic inflammatory response syndrome (SIRS) in patients admitted to the hospital (*select all that apply*)?

- a. Use aseptic technique when caring for invasive lines or devices.
- b. Ambulate postoperative patients as soon as possible after surgery.

- c. Remove indwelling urinary catheters as soon as possible after surgery.
- d. Advocate for parenteral nutrition for patients who cannot take oral feedings.
- e. Administer prescribed antibiotics within 1 hour for patients with possible sepsis.

ANS: A, B, C, E

Because sepsis is the most frequent etiology for SIRS, measures to avoid infection such as removing indwelling urinary catheters as soon as possible, use of aseptic technique, and early ambulation should be included in the plan of care. Adequate nutrition is important in preventing SIRS. Enteral, rather than parenteral, nutrition is preferred when patients are unable to take oral feedings because enteral nutrition helps maintain the integrity of the intestine, thus decreasing infection risk. Antibiotics should be administered within 1 hour after being prescribed to decrease the risk of sepsis progressing to SIRS.

SHORT ANSWER

1. A 198-lb patient is to receive a dobutamine infusion at 5 mcg/kg/minute. The label on the infusion bag states: dobutamine 250 mg in 250 mL normal saline. When setting the infusion pump, the nurse will set the infusion rate at how many mL per hour?

ANS:

27 In order to administer the dobutamine at the prescribed rate of 5 mcg/kg/minute from a concentration of 250 mg in 250 mL, the nurse will need to infuse 27 mL/hour.

OTHER

1. The health care provider orders the following interventions for a 67-kg patient who has septic shock with a BP of 70/42 mm Hg and oxygen saturation of 90% on room air. In which order will the nurse implement the actions?(*Put a comma and a space between each answer choice [A, B, C, D, E].*)

- a. Obtain blood and urine cultures.
- b. Give vancomycin (Vancocin) 1 g IV.
- c. Start norepinephrine (Levophed) 0.5 mcg/min.
- d. Infuse normal saline 2000 mL over 30 minutes.
- e. Titrate oxygen administration to keep O₂ saturation >95%.

ANS:

E, D, C, A, B

The initial action for this hypotensive and hypoxemic patient should be to improve the oxygen saturation, followed by infusion of IV fluids and vasopressors to improve perfusion. Cultures should be obtained before administration of antibiotics.

Chapter 67. Management: Respiratory Failure and Acute Respiratory Distress Syndrome

MULTIPLE CHOICE

1. To evaluate the effectiveness of ordered interventions for a patient with ventilatory failure, which diagnostic test will be **most** useful to the nurse?

- a. Chest x-ray
- b. Oxygen saturation
- c. Arterial blood gas analysis
- d. Central venous pressure monitoring

ANS: C

Arterial blood gas (ABG) analysis is most useful in this setting because ventilatory failure causes problems with CO₂ retention, and ABGs provide information about the

PaCO₂ and pH. The other tests may also be done to help in assessing oxygenation or determining the cause of the patients ventilatory failure.

2. While caring for a patient who has been admitted with a pulmonary embolism, the nurse notes a change in the patients oxygen saturation (SpO₂) from 94% to 88%.

Which action should the nurse take **next**?

- a. Increase the oxygen flow rate.
- b. Suction the patients oropharynx.
- c. Instruct the patient to cough and deep breathe.
- d. Help the patient to sit in a more upright position.

ANS: A

Increasing oxygen flow rate will usually improve oxygen saturation in patients with ventilation-perfusion mismatch, as occurs with pulmonary embolism. Because the problem is with perfusion, actions that improve ventilation, such as deep breathing and coughing, sitting upright, and suctioning, are not likely to improve oxygenation.

3. A patient with respiratory failure has a respiratory rate of 6 breaths/minute and an oxygen saturation (SpO₂) of 88%. The patient is increasingly lethargic. Which intervention will the nurse anticipate?

- a. Administration of 100% oxygen by non-rebreather mask
- b. Endotracheal intubation and positive pressure ventilation
- c. Insertion of a mini-tracheostomy with frequent suctioning
- d. Initiation of continuous positive pressure ventilation (CPAP)

ANS: B

The patients lethargy, low respiratory rate, and SpO₂ indicate the need for mechanical ventilation with ventilator-controlled respiratory rate. Administration of high flow oxygen will not be helpful because the patients respiratory rate is so low. Insertion of

a mini-tracheostomy will facilitate removal of secretions, but it will not improve the patients respiratory rate or oxygenation. CPAP requires that the patient initiate an adequate respiratory rate to allow adequate gas exchange.

4. The oxygen saturation (SpO_2) for a patient with left lower lobe pneumonia is 90%. The patient has rhonchi, a weak cough effort, and complains of fatigue. Which action is a **priority** for the nurse to take?

- a. Position the patient on the left side.
- b. Assist the patient with staged coughing.
- c. Place a humidifier in the patients room.
- d. Schedule a 2-hour rest period for the patient.

ANS: B

The patients assessment indicates that assisted coughing is needed to help remove secretions, which will improve oxygenation. A 2-hour rest period at this time may allow the oxygen saturation to drop further. Humidification will not be helpful unless the secretions can be mobilized. Positioning on the left side may cause a further decrease in oxygen saturation because perfusion will be directed more toward the more poorly ventilated lung.

5. A nurse is caring for an obese patient with right lower lobe pneumonia. Which position will be **best** to improve gas exchange?

- a. On the left side
- b. On the right side
- c. In the tripod position
- d. In the high-Fowlers position

ANS: A

The patient should be positioned with the good lung in the dependent position to improve the match between ventilation and perfusion. The obese patients abdomen will limit respiratory excursion when sitting in the high-Fowlers or tripod positions.

6. When admitting a patient with possible respiratory failure with a high PaCO₂, which assessment information should be **immediately** reported to the health care provider?

- a. The patient is somnolent.
- b. The patient complains of weakness.
- c. The patients blood pressure is 164/98.
- d. The patients oxygen saturation is 90%.

ANS: A

Increasing somnolence will decrease the patients respiratory rate and further increase the PaCO₂ and respiratory failure. Rapid action is needed to prevent respiratory arrest. An SpO₂ of 90%, weakness, and elevated blood pressure all require ongoing monitoring but are not indicators of possible impending respiratory arrest.

7. A patient with acute respiratory distress syndrome (ARDS) and acute kidney injury has the following medications ordered. Which medication should the nurse discuss with the health care provider before giving?

- a. Pantoprazole (Protonix) 40 mg IV
- b. Gentamicin (Garamycin) 60 mg IV
- c. Sucralfate (Carafate) 1 g per nasogastric tube
- d. Methylprednisolone (Solu-Medrol) 60 mg IV

ANS: B

Gentamicin, which is one of the aminoglycoside antibiotics, is potentially nephrotoxic, and the nurse should clarify the drug and dosage with the health care

provider before administration. The other medications are appropriate for the patient with ARDS.

8. A patient develops increasing dyspnea and hypoxemia 2 days after heart surgery. To determine whether the patient has acute respiratory distress syndrome (ARDS) or pulmonary edema caused by heart failure, the nurse will plan to assist with

- a. obtaining a ventilation-perfusion scan.
- b. drawing blood for arterial blood gases.
- c. insertion of a pulmonary artery catheter.
- d. positioning the patient for a chest x-ray.

ANS: C

Pulmonary artery wedge pressures are normal in the patient with ARDS because the fluid in the alveoli is caused by increased permeability of the alveolar-capillary membrane rather than by the backup of fluid from the lungs (as occurs in cardiogenic pulmonary edema). The other tests will not help in differentiating cardiogenic from noncardiogenic pulmonary edema.

9. A nurse is caring for a patient with ARDS who is being treated with mechanical ventilation and high levels of positive end-expiratory pressure (PEEP). Which assessment finding by the nurse indicates that the PEEP may need to be reduced?

- a. The patient's PaO_2 is 50 mm Hg and the SaO_2 is 88%.
- b. The patient has subcutaneous emphysema on the upper thorax.
- c. The patient has bronchial breath sounds in both the lung fields.
- d. The patient has a first-degree atrioventricular heart block with a rate of 58.

ANS: B

The subcutaneous emphysema indicates barotrauma caused by positive pressure ventilation and PEEP. Bradycardia, hypoxemia, and bronchial breath sounds are all

concerns and will need to be addressed, but they are not specific indications that PEEP should be reduced.

10. Which statement by the nurse when explaining the purpose of positive end-expiratory pressure (PEEP) to the family members of a patient with ARDS is accurate?

- a. PEEP will push more air into the lungs during inhalation.
- b. PEEP prevents the lung air sacs from collapsing during exhalation.
- c. PEEP will prevent lung damage while the patient is on the ventilator.
- d. PEEP allows the breathing machine to deliver 100% oxygen to the lungs.

ANS: B

By preventing alveolar collapse during expiration, PEEP improves gas exchange and oxygenation. PEEP will not prevent lung damage (e.g., fibrotic changes that occur with ARDS), push more air into the lungs, or change the fraction of inspired oxygen (FIO₂) delivered to the patient.

11. A patient with acute respiratory distress syndrome (ARDS) is placed in the prone position. When prone positioning is used, which information obtained by the nurse indicates that the positioning is effective?

- a. The patient's PaO₂ is 89 mm Hg, and the SaO₂ is 91%.
- b. Endotracheal suctioning results in clear mucous return.
- c. Sputum and blood cultures show no growth after 48 hours.
- d. The skin on the patient's back is intact and without redness.

ANS: A

The purpose of prone positioning is to improve the patient's oxygenation as indicated by the PaO₂ and SaO₂. The other information will be collected but does not indicate whether prone positioning has been effective.

12. The nurse documents the vital signs for a patient admitted 2 days ago with gram-negative sepsis: temperature 101.2 F, blood pressure 90/56 mm Hg, pulse 92, respirations 34. Which action should the nurse take **next**?

- a. Give the scheduled IV antibiotic.
- b. Give the PRN acetaminophen (Tylenol).
- c. Obtain oxygen saturation using pulse oximetry.
- d. Notify the health care provider of the patient's vital signs.

ANS: C

The patient's increased respiratory rate in combination with the admission diagnosis of gram-negative sepsis indicates that acute respiratory distress syndrome (ARDS) may be developing. The nurse should check for hypoxemia, a hallmark of ARDS. The health care provider should be notified after further assessment of the patient. Giving the scheduled antibiotic and the PRN acetaminophen will also be done, but they are not the highest priority for a patient who may be developing ARDS.

13. A nurse is caring for a patient who is orally intubated and receiving mechanical ventilation. To decrease the risk for ventilator-associated pneumonia, which action will the nurse include in the plan of care?

- a. Elevate head of bed to 30 to 45 degrees.
- b. Suction the endotracheal tube every 2 to 4 hours.
- c. Limit the use of positive end-expiratory pressure.
- d. Give enteral feedings at no more than 10 mL/hr.

ANS: A

Elevation of the head decreases the risk for aspiration. Positive end-expiratory pressure is frequently needed to improve oxygenation in patients receiving mechanical ventilation. Suctioning should be done only when the patient assessment indicates that

it is necessary. Enteral feedings should provide adequate calories for the patients high energy needs.

14. A patient admitted with acute respiratory failure has a nursing diagnosis of ineffective airway clearance related to thick, secretions. Which action is a **priority** for the nurse to include in the plan of care?

- a. Encourage use of the incentive spirometer.
- b. Offer the patient fluids at frequent intervals.
- c. Teach the patient the importance of ambulation.
- d. Titrate oxygen level to keep O₂ saturation >93%.

ANS: B

Because the reason for the poor airway clearance is the thick secretions, the best action will be to encourage the patient to improve oral fluid intake. Patients should be instructed to use the incentive spirometer on a regular basis (e.g., every hour) in order to facilitate the clearance of the secretions. The other actions may also be helpful in improving the patients gas exchange, but they do not address the thick secretions that are causing the poor airway clearance.

15. A patient with acute respiratory distress syndrome (ARDS) who is intubated and receiving mechanical ventilation develops a right pneumothorax. Which action will the nurse anticipate taking **next**?

- a. Increase the tidal volume and respiratory rate.
- b. Increase the fraction of inspired oxygen (FIO₂).
- c. Perform endotracheal suctioning more frequently.
- d. Lower the positive end-expiratory pressure (PEEP).

ANS: D

Because barotrauma is associated with high airway pressures, the level of PEEP should be decreased. The other actions will not decrease the risk for pneumothorax.

16. After receiving change-of-shift report on a medical unit, which patient should the nurse assess **first**?

- a. A patient with cystic fibrosis who has thick, green-colored sputum
- b. A patient with pneumonia who has crackles bilaterally in the lung bases
- c. A patient with emphysema who has an oxygen saturation of 90% to 92%
- d. A patient with septicemia who has intercostal and suprasternal retractions

ANS: D

This patient's history of septicemia and labored breathing suggest the onset of ARDS, which will require rapid interventions such as administration of oxygen and use of positive pressure ventilation. The other patients should also be assessed as quickly as possible, but their assessment data are typical of their disease processes and do not suggest deterioration in their status.

17. A patient with chronic obstructive pulmonary disease (COPD) arrives in the emergency department complaining of shortness of breath and dyspnea on minimal exertion. Which assessment finding by the nurse is **most** important to report to the health care provider?

- a. The patient has bibasilar lung crackles.
- b. The patient is sitting in the tripod position.
- c. The patient's respirations have decreased from 30 to 10 breaths/minute.
- d. The patient's pulse oximetry indicates an O₂ saturation of 91%.

ANS: D

A decrease in respiratory rate in a patient with respiratory distress suggests the onset of fatigue and a high risk for respiratory arrest. Therefore immediate action such as

positive pressure ventilation is needed. Patients who are experiencing respiratory distress frequently sit in the tripod position because it decreases the work of breathing. Crackles in the lung bases may be the baseline for a patient with COPD. An oxygen saturation of 91% is common in patients with COPD and will provide adequate gas exchange and tissue oxygenation.

18. When assessing a patient with chronic obstructive pulmonary disease (COPD), the nurse finds a new onset of agitation and confusion. Which action should the nurse take **first**?

- a. Notify the health care provider.
- b. Check pupils for reaction to light.
- c. Attempt to calm and reorient the patient.
- d. Assess oxygenation using pulse oximetry.

ANS: D

Because agitation and confusion are frequently the initial indicators of hypoxemia, the nurses initial action should be to assess oxygen saturation. The other actions are also appropriate, but assessment of oxygenation takes priority over other assessments and notification of the health care provider.

19. The nurse is caring for a 33-year-old patient who arrived in the emergency department with acute respiratory distress. Which assessment finding by the nurse requires the **most** rapid action?

- a. The patients PaO_2 is 45 mm Hg.
- b. The patients PaCO_2 is 33 mm Hg.
- c. The patients respirations are shallow.
- d. The patients respiratory rate is 32 breaths/minute.

ANS: A

The PaO₂ indicates severe hypoxemia and respiratory failure. Rapid action is needed to prevent further deterioration of the patient. Although the shallow breathing, rapid respiratory rate, and low PaCO₂ also need to be addressed, the most urgent problem is the patient's poor oxygenation.

20. The nurse is caring for a 78-year-old patient who was hospitalized 2 days earlier with community-acquired pneumonia. Which assessment information is **most** important to communicate to the health care provider?

- a. Scattered crackles bilaterally in the posterior lung bases.
- b. Persistent cough that is productive of blood-tinged sputum.
- c. Temperature of 101.5 F (38.6 C) after 2 days of IV antibiotic therapy.
- d. Decreased oxygen saturation to 90% with 100% O₂ by non-rebreather mask.

ANS: D

The patient's low SpO₂ despite receiving a high fraction of inspired oxygen (FIO₂) indicates the possibility of acute respiratory distress syndrome (ARDS). The patient's blood-tinged sputum and scattered crackles are not unusual in a patient with pneumonia, although they do require continued monitoring. The continued temperature elevation indicates a possible need to change antibiotics, but this is not as urgent a concern as the progression toward hypoxemia despite an increase in O₂ flow rate.

21. Which nursing interventions included in the care of a mechanically ventilated patient with acute respiratory failure can the registered nurse (RN) delegate to an experienced licensed practical/vocational nurse (LPN/LVN) working in the intensive care unit?

- a. Assess breath sounds every hour.
- b. Monitor central venous pressures.
- c. Place patient in the prone position.

- d. Insert an indwelling urinary catheter.

ANS: D

Insertion of indwelling urinary catheters is included in LPN/LVN education and scope of practice and can be safely delegated to an LPN/LVN who is experienced in caring for critically ill patients. Placing a patient who is on a ventilator in the prone position requires multiple staff, and should be supervised by an RN. Assessment of breath sounds and obtaining central venous pressures require advanced assessment skills and should be done by the RN caring for a critically ill patient.

22. A nurse is caring for a patient with acute respiratory distress syndrome (ARDS) who is receiving mechanical ventilation using synchronized intermittent mandatory ventilation (SIMV). The settings include fraction of inspired oxygen (FIO₂) 80%, tidal volume 450, rate 16/minute, and positive end-expiratory pressure (PEEP) 5 cm. Which assessment finding is **most** important for the nurse to report to the health care provider?

- a. Oxygen saturation 99%
- b. Respiratory rate 22 breaths/minute
- c. Crackles audible at lung bases
- d. Heart rate 106 beats/minute

ANS: A

The FIO₂ of 80% increases the risk for oxygen toxicity. Because the patient's O₂ saturation is 99%, a decrease in FIO₂ is indicated to avoid toxicity. The other patient data would be typical for a patient with ARDS and would not need to be urgently reported to the health care provider.

23. Which information about a patient who is receiving cisatracurium (Nimbex) to prevent asynchronous breathing with the positive pressure ventilator requires **immediate** action by the nurse?

- a. Only continuous IV opioids have been ordered.
- b. The patient does not respond to verbal stimulation.
- c. There is no cough or gag when the patient is suctioned.
- d. The patients oxygen saturation fluctuates between 90% to 93%.

ANS: A

Because neuromuscular blockade is extremely anxiety provoking, it is essential that patients who are receiving neuromuscular blockade receive concurrent sedation and analgesia. Absence of response to stimuli is expected in patients receiving neuromuscular blockade. The oxygen saturation is adequate.

24. The nurse is caring for a patient who is intubated and receiving positive pressure ventilation to treat acute respiratory distress syndrome (ARDS). Which finding is **most** important to report to the health care provider?

- a. Blood urea nitrogen (BUN) level 32 mg/dL
- b. Red-brown drainage from orogastric tube
- c. Scattered coarse crackles heard throughout lungs
- d. Arterial blood gases: pH 7.31, PaCO₂ 50, PaO₂ 68

ANS: B

The nasogastric drainage indicates possible gastrointestinal bleeding and/or stress ulcer, and should be reported. The pH and PaCO₂ are slightly abnormal, but current guidelines advocating for permissive hypercapnia indicate that these would not indicate an immediate need for a change in therapy. The BUN is slightly elevated but does not indicate an immediate need for action. Adventitious breath sounds are commonly heard in patients with ARDS.

25. During change-of-shift report on a medical unit, the nurse learns that a patient with aspiration pneumonia who was admitted with respiratory distress has become increasingly agitated. Which action should the nurse take **first**?

- a. Give the prescribed PRN sedative drug.
- b. Offer reassurance and reorient the patient.
- c. Use pulse oximetry to check the oxygen saturation.
- d. Notify the health care provider about the patients status.

ANS: C

Agitation may be an early indicator of hypoxemia. The other actions may also be appropriate, depending on the findings about oxygen saturation.

26. The nurse reviews the electronic medical record for a patient scheduled for a total hip replacement. Which assessment data shown in the accompanying figure increase the patients risk for respiratory complications after surgery?

- a. Albumin level and recent weight loss
- b. Mild confusion and recent weight loss
- c. Age and recent arthroscopic procedure.
- d. Anemia and recent arthroscopic procedure

ANS: A

The patients recent weight loss and low protein stores indicate possible muscle weakness, which make it more difficult for an older patient to recover from the effects of general anesthesia and immobility associated with the hip surgery. The other information will also be noted by the nurse but does not place the patient at higher risk for respiratory failure.

MULTIPLE RESPONSE

1. Which actions should the nurse initiate to reduce the risk for ventilator-associated pneumonia (VAP) (*select all that apply*)?

- a. Obtain arterial blood gases daily.

- b. Provide a sedation holiday daily.
- c. Elevate the head of the bed to at least 30.
- d. Give prescribed pantoprazole (Protonix).
- e. Provide oral care with chlorhexidine (0.12%) solution daily.

ANS: B, C, D, E

All of these interventions are part of the ventilator bundle that is recommended to prevent VAP. Arterial blood gases may be done daily but are not always necessary and do not help prevent VAP.

Chapter 68. Management: Emergency Care Situations

MULTIPLE CHOICE

1. During the primary assessment of a victim of a motor vehicle collision, the nurse determines that the patient is breathing and has an unobstructed airway. Which action should the nurse take **next**?

- a. Palpate extremities for bilateral pulses.
- b. Observe the patient's respiratory effort.
- c. Check the patient's level of consciousness.
- d. Examine the patient for any external bleeding.

ANS: B

Even with a patent airway, patients can have other problems that compromise ventilation, so the next action is to assess the patient's breathing. The other actions are also part of the initial survey but assessment of breathing should be done immediately after assessing for airway patency.

2. During the primary survey of a patient with severe leg trauma, the nurse observes that the patient's left pedal pulse is absent and the leg is swollen. Which action will the nurse take **next**?

- a. Send blood to the lab for a complete blood count.
- b. Assess further for a cause of the decreased circulation.
- c. Finish the airway, breathing, circulation, disability survey.
- d. Start normal saline fluid infusion with a large-bore IV line.

ANS: D

The assessment data indicate that the patient may have arterial trauma and hemorrhage. When a possibly life-threatening injury is found during the primary survey, the nurse should immediately start interventions before proceeding with the survey. Although a complete blood count is indicated, administration of IV fluids should be started first. Completion of the primary survey and further assessment should be completed after the IV fluids are initiated.

3. After the return of spontaneous circulation following the resuscitation of a patient who had a cardiac arrest, therapeutic hypothermia is ordered. Which action will the nurse include in the plan of care?

- a. Apply external cooling device.
- b. Check mental status every 15 minutes.
- c. Avoid the use of sedative medications.
- d. Rewarm if temperature is <91 F (32.8 C).

ANS: A

When therapeutic hypothermia is used postresuscitation, external cooling devices or cold normal saline infusions are used to rapidly lower body temperature to 89.6 F to 93.2 F (32 C to 34 C). Because hypothermia will decrease brain activity, assessing

mental status every 15 minutes is not needed at this stage. Sedative medications are administered during therapeutic hypothermia.

4. A patient who is unconscious after a fall from a ladder is transported to the emergency department by emergency medical personnel. During the primary survey of the patient, the nurse should

- a. obtain a complete set of vital signs.
- b. obtain a Glasgow Coma Scale score.
- c. ask about chronic medical conditions.
- d. attach a cardiac electrocardiogram monitor.

ANS: B

The Glasgow Coma Scale is included when assessing for disability during the primary survey. The other information is part of the secondary survey.

5. A 19-year-old is brought to the emergency department (ED) with multiple lacerations and tissue avulsion of the left hand. When asked about tetanus immunization, the patient denies having any previous vaccinations. The nurse will anticipate giving

- a. tetanus immunoglobulin (TIG) only.
- b. TIG and tetanus-diphtheria toxoid (Td).
- c. tetanus-diphtheria toxoid and pertussis vaccine (Tdap) only.
- d. TIG and tetanus-diphtheria toxoid and pertussis vaccine (Tdap).

ANS: D

For an adult with no previous tetanus immunizations, TIG and Tdap are recommended. The other immunizations are not sufficient for this patient.

6. A patient who has experienced blunt abdominal trauma during a motor vehicle collision is complaining of increasing abdominal pain. The nurse will plan to teach the patient about the purpose of

- a. peritoneal lavage.
- b. abdominal ultrasonography.
- c. nasogastric (NG) tube placement.
- d. magnetic resonance imaging (MRI).

ANS: B

For patients who are at risk for intraabdominal bleeding, focused abdominal ultrasonography is the preferred method to assess for intraperitoneal bleeding. An MRI would not be used. Peritoneal lavage is an alternative, but it is more invasive. An NG tube would not be helpful in diagnosis of intraabdominal bleeding.

7. A patient with hypotension and an elevated temperature after working outside on a hot day is treated in the emergency department (ED). The nurse determines that discharge teaching has been effective when the patient makes which statement?

- a. I will take salt tablets when I work outdoors in the summer.
- b. I should take acetaminophen (Tylenol) if I start to feel too warm.
- c. I should drink sports drinks when working outside in hot weather.
- d. I will move to a cool environment if I notice that I am feeling confused.

ANS: C

Electrolyte solutions such as sports drinks help replace fluid and electrolytes lost when exercising in hot weather. Salt tablets are not recommended because of the risks of gastric irritation and hypernatremia. Antipyretic medications are not effective in lowering body temperature elevations caused by excessive exposure to heat. A patient who is confused is likely to have more severe hyperthermia and will be unable to remember to take appropriate action.

8. A 22-year-old patient who experienced a near drowning accident in a local pool, but now is awake and breathing spontaneously, is admitted for observation. Which assessment will be **most** important for the nurse to take during the observation period?

- a. Auscultate heart sounds.
- b. Palpate peripheral pulses.
- c. Auscultate breath sounds.
- d. Check pupil reaction to light.

ANS: C

Because pulmonary edema is a common complication after near drowning, the nurse should assess the breath sounds frequently. The other information also will be obtained by the nurse, but it is not as pertinent to the patient's admission diagnosis.

9. When planning the response to the potential use of smallpox as an agent of terrorism, the emergency department (ED) nurse manager will plan to obtain adequate quantities of

- a. vaccine.
- b. atropine.
- c. antibiotics.
- d. whole blood.

ANS: A

Smallpox infection can be prevented or ameliorated by the administration of vaccine given rapidly after exposure. The other interventions would be helpful for other agents of terrorism but not for smallpox.

10. When rewarming a patient who arrived in the emergency department (ED) with a temperature of 87 F (30.6 C), which assessment indicates that the nurse should discontinue active rewarming?

- a. The patient begins to shiver.
- b. The BP decreases to 86/42 mm Hg.
- c. The patient develops atrial fibrillation.
- d. The core temperature is 94 F (34.4 C).

ANS: D

A core temperature of 89.6 F to 93.2 F (32 C to 34 C) indicates that sufficient rewarming has occurred. Dysrhythmias, hypotension, and shivering may occur during rewarming and should be treated but are not an indication to stop rewarming the patient.

11. When assessing an older patient admitted to the emergency department (ED) with a broken arm and facial bruises, the nurse observes several additional bruises in various stages of healing. Which statement or question by the nurse is **most** appropriate?

- a. Do you feel safe in your home?
- b. You should not return to your home.
- c. Would you like to see a social worker?
- d. I need to report my concerns to the police.

ANS: A

The nurses initial response should be to further assess the patients situation. Telling the patient not to return home may be an option once further assessment is done. A social worker may be appropriate once further assessment is completed.

12. A 20-year-old patient arrives in the emergency department (ED) several hours after taking 25 to 30 acetaminophen (Tylenol) tablets. Which action will the nurse plan to take?

- a. Give N-acetylcysteine (Mucomyst).

- b. Discuss the use of chelation therapy.
- c. Start oxygen using a non-rebreather mask.
- d. Have the patient drink large amounts of water.

ANS: A

N-acetylcysteine is the recommended treatment to prevent liver damage after acetaminophen overdose. The other actions might be used for other types of poisoning, but they will not be appropriate for a patient with acetaminophen poisoning.

13. A triage nurse in a busy emergency department (ED) assesses a patient who complains of 7/10 abdominal pain and states, I had a temperature of 103.9 F (39.9 C) at home. The nurses **first** action should be to

- a. assess the patients current vital signs.
- b. give acetaminophen (Tylenol) per agency protocol.
- c. ask the patient to provide a clean-catch urine for urinalysis.
- d. tell the patient that it will 1 to 2 hours before being seen by the doctor.

ANS: A

The patients pain and statement about an elevated temperature indicate that the nurse should obtain vital signs before deciding how rapidly the patient should be seen by the health care provider. A urinalysis may be appropriate, but this would be done after the vital signs are taken. The nurse will not give acetaminophen before confirming a current temperature elevation.

14. The emergency department (ED) triage nurse is assessing four victims involved in a motor vehicle collision. Which patient has the **highest** priority for treatment?

- a. A patient with no pedal pulses.
- b. A patient with an open femur fracture.

- c. A patient with bleeding facial lacerations.
- d. A patient with paradoxical chest movements.

ANS: D

Most immediate deaths from trauma occur because of problems with ventilation, so the patient with paradoxical chest movements should be treated first. Face and head fractures can obstruct the airway, but the patient with facial injuries only has lacerations. The other two patients also need rapid intervention but do not have airway or breathing problems.

15. The following interventions are part of the emergency department (ED) protocol for a patient who has been admitted with multiple bee stings to the hands. Which action should the nurse take **first**?

- a. Remove the patients rings.
- b. Apply ice packs to both hands.
- c. Apply calamine lotion to any itching areas.
- d. Give diphenhydramine (Benadryl) 50 mg PO.

ANS: A

The patients rings should be removed first because it might not be possible to remove them if swelling develops. The other orders should also be implemented as rapidly as possible after the nurse has removed the jewelry.

16. Gastric lavage and administration of activated charcoal are ordered for an unconscious patient who has been admitted to the emergency department (ED) after ingesting 30 lorazepam (Ativan) tablets. Which action should the nurse plan to do **first**?

- a. Insert a large-bore orogastric tube.
- b. Assist with intubation of the patient.

- c. Prepare a 60-mL syringe with saline.
- d. Give first dose of activated charcoal.

ANS: B

In an unresponsive patient, intubation is done before gastric lavage and activated charcoal administration to prevent aspiration. The other actions will be implemented after intubation.

17. A 54-year-old patient arrives in the emergency department (ED) after exposure to powdered lime at work. Which action should the nurse take **first**?

- a. Obtain the patients vital signs.
- b. Obtain a baseline complete blood count.
- c. Decontaminate the patient by showering with water.
- d. Brush off any visible powder on the skin and clothing.

ANS: D

The initial action should be to protect staff members and decrease the patients exposure to the toxin by decontamination. Patients exposed to powdered lime should not be showered; instead any/all visible powder should be brushed off. The other actions can be done after the decontamination is completed.

18. An unresponsive 79-year-old is admitted to the emergency department (ED) during a summer heat wave. The patients core temperature is 105.4 F (40.8 C), blood pressure (BP) 88/50, and pulse 112. The nurse **initially** will plan to

- a. apply wet sheets and a fan to the patient.
- b. provide O₂ at 6 L/min with a nasal cannula.
- c. start lactated Ringers solution at 1000 mL/hr.
- d. give acetaminophen (Tylenol) rectal suppository.

ANS: A

The priority intervention is to cool the patient. Antipyretics are not effective in decreasing temperature in heat stroke, and 100% oxygen should be given, which requires a high flow rate through a non-rebreather mask. An older patient would be at risk for developing complications such as pulmonary edema if given fluids at 1000 mL/hr.

19. A patient is admitted to the emergency department (ED) after falling through the ice while ice skating. Which assessment will the nurse obtain **first**?

- a. Heart rate
- b. Breath sounds
- c. Body temperature
- d. Level of consciousness

ANS: B

The priority assessment relates to ABCs (airway, breathing, circulation) and how well the patient is oxygenating, so breath sounds should be assessed first. The other data will also be collected rapidly but are not as essential as the breath sounds.

20. Following an earthquake, patients are triaged by emergency medical personnel and are transported to the emergency department (ED). Which patient will the nurse need to assess **first**?

- a. A patient with a red tag
- b. A patient with a blue tag
- c. A patient with a black tag
- d. A patient with a yellow tag

ANS: A

The red tag indicates a patient with a life-threatening injury requiring rapid treatment. The other tags indicate patients with less urgent injuries or those who are likely to die.

21. Family members are in the patients room when the patient has a cardiac arrest and the staff start resuscitation measures. Which action should the nurse take **next**?

- a. Keep the family in the room and assign a staff member to explain the care given and answer questions.
- b. Ask the family to wait outside the patients room with a designated staff member to provide emotional support.
- c. Ask the family members about whether they would prefer to remain in the patients room or wait outside the room.
- d. Tell the family members that patients are comforted by having family members present during resuscitation efforts.

ANS: C

Although many family members and patients report benefits from family presence during resuscitation efforts, the nurses initial action should be to determine the preference of these family members. The other actions may be appropriate, but this will depend on what is learned when assessing family preferences.

22. A 28-year-old patient who has deep human bite wounds on the left hand is being treated in the urgent care center. Which action will the nurse plan to take?

- a. Prepare to administer rabies immune globulin (BayRab).
- b. Assist the health care provider with suturing of the bite wounds.
- c. Teach the patient the reason for the use of prophylactic antibiotics.
- d. Keep the wounds dry until the health care provider can assess them.

ANS: C

Because human bites of the hand frequently become infected, prophylactic antibiotics are usually prescribed to prevent infection. To minimize infection, deep bite wounds

on the extremities are left open. Rabies immune globulin might be used after an animal bite. Initial treatment of bite wounds includes copious irrigation to help clean out contaminants and microorganisms.

23. The urgent care center protocol for tick bites includes the following actions. Which action will the nurse take **first** when caring for a patient with a tick bite?

- a. Use tweezers to remove any remaining ticks.
- b. Check the vital signs, including temperature.
- c. Give doxycycline (Vibramycin) 100 mg orally.
- d. Obtain information about recent outdoor activities.

ANS: A

Because neurotoxic venom is released as long as the tick is attached to the patient, the initial action should be to remove any ticks using tweezers or forceps. The other actions are also appropriate, but the priority is to minimize venom release.

MULTIPLE RESPONSE

1. When preparing to cool a patient who is to begin therapeutic hypothermia, which intervention will the nurse plan to do (*select all that apply*)?

- a. Assist with endotracheal intubation.
- b. Insert an indwelling urinary catheter.
- c. Begin continuous cardiac monitoring.
- d. Obtain an order to restrain the patient.
- e. Prepare to give sympathomimetic drugs.

ANS: A, B, C

Cooling can produce dysrhythmias, so the patient's heart rhythm should be continuously monitored and dysrhythmias treated if necessary. Bladder catheterization

and endotracheal intubation are needed during cooling. Sympathomimetic drugs tend to stimulate the heart and increase the risk for fatal dysrhythmias such as ventricular fibrillation. Patients receiving therapeutic hypothermia are comatose or do not follow commands so restraints are not indicated.

2. The emergency department (ED) nurse is initiating therapeutic hypothermia in a patient who has been resuscitated after a cardiac arrest. Which actions in the hypothermia protocol can be delegated to an experienced licensed practical/vocational nurse (LPN/LVN) (*select all that apply*)?

- a. Continuously monitor heart rhythm.
- b. Check neurologic status every 2 hours.
- c. Place cooling blankets above and below patient.
- d. Give acetaminophen (Tylenol) 650 mg per nasogastric tube.
- e. Insert rectal temperature probe and attach to cooling blanket control panel.

ANS: C, D, E

Experienced LPN/LVNs have the education and scope of practice to implement hypothermia measures (e.g., cooling blanket, temperature probe) and administer medications under the supervision of a registered nurse (RN). Assessment of neurologic status and monitoring the heart rhythm require RN-level education and scope of practice and should be done by the RN.

OTHER

1. The following four patients arrive in the emergency department (ED) after a motor vehicle collision. In which order should the nurse assess them? (*Put a comma and a space between each answer choice [A, B, C, D, E].*)

- a. A 74-year-old with palpitations and chest pain
- b. A 43-year-old complaining of 7/10 abdominal pain

- c. A 21-year-old with multiple fractures of the face and jaw
- d. A 37-year-old with a misaligned left leg with intact pulses

ANS:

C, A, B, D

The highest priority is to assess the 21-year-old patient for airway obstruction, which is the most life-threatening injury. The 74-year-old patient may have chest pain from cardiac ischemia and should be assessed and have diagnostic testing for this pain. The 43-year-old patient may have abdominal trauma or bleeding and should be seen next to assess circulatory status. The 37-year-old appears to have a possible fracture of the left leg and should be seen soon, but this patient has the least life-threatening injury.